Effective Health Care Program

Comparative Effectiveness Review
Number 60

Treatment for Glaucoma: Comparative Effectiveness

Agency for Healthcare Research and Quality
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Prepared for:
Agency for Healthcare Research and Quality
U.S. Department of Health and Human Services
540 Gaither Road
Rockville, MD 20850
www.ahrq.gov

Contract No. HHSA 290-2007-10061-I

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AHRQ Publication No. 12-EHC038-EF
April 2012

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The information in this report is intended to help health care decisionmakers—patients and clinicians, health system leaders, and policymakers, among others—make well-informed decisions and thereby improve the quality of health care services. This report is not intended to be a substitute for the application of clinical judgment. Anyone who makes decisions concerning the provision of clinical care should consider this report in the same way as any medical reference and in conjunction with all other pertinent information, i.e., in the context of available resources and circumstances presented by individual patients.
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None of the investigators has any affiliations or financial involvement that conflicts with the material presented in this report.

Suggested citation: Boland MV, Ervin AM, Friedman D, Jampel H, Hawkins B, Volenweider D, Chelladurai Y, Ward D, Suarez-Cuervo C, Robinson KA. Treatment for Glaucoma: Comparative Effectiveness. Comparative Effectiveness Review No. 60. (Prepared by the Johns Hopkins University Evidence-based Practice Center under Contract No. HHSA 290-2007-10061-I.) AHRQ Publication No. 12-EHC038-EF. Rockville, MD: Agency for Healthcare Research and Quality. April 2012. www.effectivehealthcare.ahrq.gov/reports/final.cfm.

Preface

The Agency for Healthcare Research and Quality (AHRQ) conducts the Effective Health Care Program as part of its mission to organize knowledge and make it available to inform decisions about health care. As part of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, Congress directed AHRQ to conduct and support research on the comparative outcomes, clinical effectiveness, and appropriateness of pharmaceuticals, devices, and health care services to meet the needs of Medicare, Medicaid, and the Children's Health Insurance Program (CHIP).

AHRQ has an established network of Evidence-based Practice Centers (EPCs) that produce Evidence Reports/Technology Assessments to assist public- and private-sector organizations in their efforts to improve the quality of health care. The EPCs now lend their expertise to the Effective Health Care Program by conducting Comparative Effectiveness Reviews (CERs) of medications, devices, and other relevant interventions, including strategies for how these items and services can best be organized, managed, and delivered.

Systematic reviews are the building blocks underlying evidence-based practice; they focus attention on the strength and limits of evidence from research studies about the effectiveness and safety of a clinical intervention. In the context of developing recommendations for practice, systematic reviews are useful because they define the strengths and limits of the evidence, clarifying whether assertions about the value of the intervention are based on strong evidence from clinical studies. For more information about systematic reviews, see www.effectivehealthcare.ahrq.gov/reference/purpose.cfm.

AHRQ expects that CERs will be helpful to health plans, providers, purchasers, government programs, and the health care system as a whole. In addition, AHRQ is committed to presenting information in different formats so that consumers who make decisions about their own and their family's health can benefit from the evidence.

Transparency and stakeholder input are essential to the Effective Health Care Program. Please visit the Web site (www.effectivehealthcare.ahrq.gov) to see draft research questions and reports or to join an email list to learn about new program products and opportunities for input. Comparative Effectiveness Reviews will be updated regularly.

We welcome comments on this CER. They may be sent by mail to the Task Order Officer named below at: Agency for Healthcare Research and Quality, 540 Gaither Road, Rockville, MD 20850, or by email to epc@ahrq.hhs.gov.

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Acknowledgments

The Evidence-based Practice Center thanks Adefemi Taiwo, Allison McFall, and Elie Donath for their assistance with reviewing articles.

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Treatment for Glaucoma: Comparative Effectiveness

Structured Abstract

Objectives. Glaucoma is a leading cause of visual impairment and blindness worldwide. Treatment focuses on the reduction of intraocular pressure (IOP), which secondarily prevents worsening of visual field loss; in this way, available treatments may prevent visual impairment and blindness. The objective of this Comparative Effectiveness Review is to summarize the evidence regarding the safety and effectiveness of medical, laser, and other surgical treatments for open-angle glaucoma in adults.

Data Sources. We searched MEDLINE®, Embase, LILACS, and CENTRAL through October 6, 2011 to identify clinical trials. We searched MEDLINE and CENTRAL (from 2009 to March 2, 2011) and screened an existing database to identify relevant systematic reviews.

Review Methods. Two reviewers independently assessed citations for eligibility. One reviewer assessed the risk of bias and extracted descriptions of the study. A second reviewer verified the data. Two reviewers also screened the results for systematic reviews. Details about the eligible systematic reviews were abstracted, including elements related to the methodological rigor.

Results. We identified 23 systematic reviews. Twelve reviews addressed medical treatments, 9 addressed surgical treatment, and 1 compared medical versus surgical treatments. One review addressed different surgical treatments as well as medical versus surgical treatments. We identified 73 RCTs and 13 observational studies addressing adverse effects. We identified no studies that evaluated treatments with regard to their impact on visual impairment. We also found insufficient evidence comparing treatment versus no treatment on patient-reported outcomes. No studies addressed the possible link between intermediate outcomes (IOP, optic nerve structure, or visual field) and visual impairment or patient-reported outcomes. There is moderate evidence that medical and surgical treatments can lower IOP and reduce the risk of progression by both visual field and optic nerve criteria. Among medical treatments, the prostaglandin agents are superior to other classes with regard to lowering IOP. While laser trabeculoplasty decreases IOP, the technology used does not make a difference in pressure lowering. With regard to incisional surgeries, trabeculectomy provides more pressure lowering than the class of nonpenetrating procedures. As expected, incisional surgeries produce more significant side effects than do medical treatments.

Conclusions. We did not find evidence addressing direct or indirect links between glaucoma treatment and visual impairment or patient-reported outcomes. This should be an area of focus in future trials of adequate size and duration to detect differences between treatment groups. However, we did find that a number of medical and surgical treatments clearly lower IOP and can prevent visual field loss and optic nerve damage. While we found direct comparisons between some treatments, there are significant gaps in our knowledge of comparative effectiveness.

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Executive Summary

Background

Glaucoma is a leading cause of visual impairment and blindness both in the United States and worldwide. It is estimated to affect 60.5 million people worldwide.[1] Glaucoma is defined as an acquired disease of the optic nerve (neuropathy) characterized by specific changes of the optic nerve and by visual field defects that correspond to the areas of optic nerve structural damage. Depending on whether the optic nerve damage is associated with an open or closed appearance to the drainage channels for aqueous humor in the front of the eye, the glaucoma is referred to as open-angle (the subject of this report) or closed angle.

Mild glaucoma damage to the optic nerve may be asymptomatic, but as the damage worsens, the patient begins to have difficulty with peripheral vision, contrast sensitivity, glare, and moving from light to dark and dark to light. These symptoms of visual impairment may affect activities of daily living and quality of life. In its most severe form, glaucoma results in total irreversible blindness.

Although deficient blood supply to the optic nerve, inadequate structural support for the neurons that make up the optic nerve, and insufficient supplies of neurotrophins needed to maintain the health of the optic nerve have been hypothesized as risk factors for glaucoma, experimental models and other evidence from human participants have shown that elevated intraocular pressure (IOP) results in damage to the optic nerve in a pattern characteristic of glaucoma.[2] Furthermore, studies have demonstrated correlations between the level of IOP and the risk of having glaucoma, as well as the worsening of glaucoma once present. Other studies have demonstrated that lowering IOP, even from "normal levels," reduces both the incidence of glaucoma in individuals who do not have glaucoma damage but are at high risk for its development and the rate of progression of glaucoma in individuals with established glaucoma.[3-5] For these reasons, as well as the fact that IOP is the only known modifiable risk factor for glaucoma, the treatments for glaucoma today all center on the reduction of IOP, which secondarily prevents the worsening of visual field loss. Treatments that lower IOP may therefore prevent visual impairment and blindness.

Definitions

The following terms related to glaucoma are used throughout this report:

Glaucoma: An optic neuropathy associated with progressive death of retinal ganglion cells and their axons, and associated visual field loss. The characteristic changes of the optic nerve head that distinguish glaucoma from other optic neuropathies include excavation and undermining of the neural and connective tissues.

Primary open-angle glaucoma (also chronic open-angle glaucoma): Glaucoma in the setting of an eye with a visibly open anterior chamber angle (between the iris and anterior sclera/peripheral cornea) and no other ocular or systemic disorder that might result in glaucoma.

Secondary open-angle glaucoma: Glaucoma in the setting of an eye with a visibly open anterior chamber angle (between the iris and anterior sclera/peripheral cornea) and some other ocular or systemic disorder that can result in glaucoma. Examples of secondary open-angle glaucomas include pigment dispersion syndrome, pseudoexfoliation syndrome, and steroid-induced glaucoma.

Glaucoma suspect: A nonspecific term describing someone at higher than average risk of having or developing glaucoma. In the case of open-angle glaucoma, this risk may be increased due to elevated intraocular pressure (ocular hypertension), an optic nerve with an appearance consistent with the structural changes caused by glaucoma, a significant family history of the disease, or a racial background known to confer higher rates of glaucoma. It is currently possible to estimate the risk of future glaucoma only in some patients in the ocular hypertensive group.

Treatments for Open-Angle Glaucoma

Medical, laser, and incisional surgical treatments are used to treat glaucoma. The most common currently used medical treatment includes several classes of eye drops, including prostaglandin analogs, beta-adrenergic antagonists, oral and topical carbonic anhydrase inhibitors, and alpha-adrenergic agonists. Laser trabeculoplasty is an office-based procedure that lowers the IOP by increasing the outflow of aqueous humor from the eye. Incisional surgery to lower the IOP comprises procedures that have been performed for decades, such as trabeculectomy and aqueous drainage device surgery, as well as a host of newer procedures, such as nonpenetrating deep sclerectomy, canaloplasty, endoscopic cyclophotocoagulation, and alternative methods of trabecular bypass.

Definitions of laser and incisional treatments follow.

Laser trabeculoplasty: A procedure in which laser energy (argon, YAG, diode) is applied to the trabecular meshwork in an effort to reduce the resistance to outflow for aqueous humor. The procedure is performed as part of an office visit and requires topical anesthesia and a mirrored contact lens.

Trabeculectomy: The most commonly performed incisional surgery for lowering intraocular pressure in glaucoma patients. Under local anesthesia, a passageway is created at the limbus (junction between the cornea and sclera) that allows the aqueous humor to flow from the anterior chamber to the space between the sclera and the conjunctiva, thereby lowering the intraocular pressure. The hallmark of a trabeculectomy is the fluid-filled bleb (blister) present on the surface of the eye underneath the upper eyelid.

Trabeculotomy: An incisional surgery procedure generally used to lower intraocular pressure in glaucoma affecting infants and children. A metal probe or a suture is passed into Schlemm's canal, a structure into which aqueous humor passes as it exits the eye. The probe is used to disrupt tissue that is typically impeding outflow of aqueous humor from the eye, thereby increasing outflow and decreasing the intraocular pressure. Some surgeons also use trabeculotomy in the treatment of glaucoma in adults.

Aqueous drainage devices: Any of a number of plastic implants used in the surgical management of glaucoma with the aim of lowering the intraocular pressure. All devices consist of a tube that is inserted into the eye and a plate connected to the tube that is sewn to the sclera and covered by conjunctiva. Aqueous humor moves through the tube and out of the eye to drain on top of the plate into the space between the plate and the conjunctiva.

Cyclophotocoagulation: A procedure in which laser energy is used to damage the ciliary processes, reducing the amount of aqueous humor that they produce and thereby lowering the intraocular pressure. The procedure can be performed through the sclera (external cyclophotocoagulation) or from the inside of the eye (endocyclophotocoagulation).

Deep sclerectomy: A procedure in which the surgeon makes an opening in the conjunctiva to expose the sclera. The surgeon dissects a partial-thickness flap about 5 mm in width to about one-third depth in the sclera at the limbus. A second flap is dissected below this flap in order to

leave a very thin layer of tissue and to expose Schlemm's canal. This underlying flap of scleral tissue is removed, and the surgeon grasps the roof of Schlemm's canal and removes a strip that is about 3 mm in length. Aqueous humor is able to permeate the remaining tissue without a full-thickness hole being necessary. The external flap is then sutured in its original position and the conjunctiva is sewn back in place.

Viscocanalostomy: A surgical procedure that is the same as for deep sclerectomy (see above) but also includes viscoelastic injected into Schlemm's canal in a circumferential fashion in an effort to dilate Schlemm's canal. The external flap is then sutured in its original position and the conjunctiva is sewn back in place.

Canaloplasty: A procedure that begins with a combined deep sclerectomy and viscocanalostomy procedure (see above), after which a microcatheter with an illuminated tip is passed through Schlemm's canal for 360 degrees. A 10-0 Prolene suture is tied to the catheter and threaded around Schlemm's canal for 360 degrees. The two ends of this suture are tied under tension in an effort to expand Schlemm's canal. The external flap is then sutured in its original position and the conjunctiva is put back in place.

Trabectome™: A procedure in which the surgeon makes a 1.7 mm incision through the peripheral cornea and injects viscoelastic into the anterior chamber. The Trabectome device is then introduced into the anterior chamber and, under visualization using direct gonioscopy with an operating microscope, the Trabectome is used to ablate about one quadrant of trabecular tissue. The Trabectome uses low-energy electrical pulses to vaporize the trabecular tissue, and aspiration is used to remove it. The viscoelastic is removed and the corneal wound is sutured closed.

iStent™: A device placed into Schlemm’s canal. The Glaukos Trabecular Micro-Bypass Stent (iStent) is made of nonferromagnetic titanium. One end sits in the anterior chamber and the posterior end sits in Schlemm’s canal, allowing fluid to bypass the trabecular meshwork. The device is inserted under direct visualization (using direct gonioscopy) through a 3 mm temporal clear corneal incision. After viscoelastic is placed in the anterior chamber, the applicator is passed through the incision and the device is anchored into Schlemm’s canal in the nasal angle. Viscoelastic is removed with irrigation and aspiration.

Gold shunt: A device that connects the anterior chamber to the suprachoroidal space. The SOLX™ Gold Shunt is a 24-karat gold rectangle (3.2 x 5.2 mm). There are two plates with grooves in them to allow flow from the higher pressure anterior chamber to the lower pressure suprachoroidal space. The conjunctiva is disinserted at the limbus, and a full-thickness scleral incision is created 2 mm posterior to the limbus. A crescent blade is used at 90 percent scleral depth to direct the anterior portion of the shunt to the anterior chamber and to cut posteriorly 2 to 3 mm to direct the posterior segment into the suprachoroidal space. The scleral incision is closed with 10-0 nylon sutures and the conjunctiva is closed.

Methods

Topic Development

The Agency for Healthcare Research and Quality (AHRQ) requested the formulation and refinement of the Comparative Effectiveness Review topic Effectiveness of Screening and Treatment for Glaucoma.

In consultation with AHRQ, we identified a small group of stakeholders to serve as members of a Key Informant group. The Key Informant group helped shape Key Questions (KQs) relevant

to the topic by providing input regarding the populations and clinical subgroups, interventions, and outcomes of interest to clinicians, policymakers, payers, and consumers.

We incorporated the Key Informants' feedback into a draft of the KQs, analytic framework, and inclusion criteria, which was posted to the AHRQ Web site for public comment from April 22 to May 20, 2010. KQs and inclusion criteria were finalized after consideration of the public comments received.

A Technical Expert Panel (TEP) was selected to provide broad expertise and perspectives specific to the topic under development. The TEP reviewed a protocol outlining a proposed methodological approach for the completion of the Comparative Effectiveness Review, provided information to the investigators to aid in the refinement of the inclusion criteria and literature search strategies, and recommended approaches to specific issues, as requested. The final protocol, titled Comparative Effectiveness of Treatment for Open-Angle Glaucoma, was posted to the AHRQ Web site on November 16, 2010.

Analytic Framework

The analytic framework derived from the topic development phase (Figure A) is a modified version of a larger framework depicting the impact of both screening and treatment for open-angle glaucoma. The following KQs are represented in the framework.

KQ 1: Do medical, laser, and other surgical treatments for open-angle glaucoma reduce visual impairment?

KQ 2: Does treatment of open-angle glaucoma improve patient-reported outcomes?

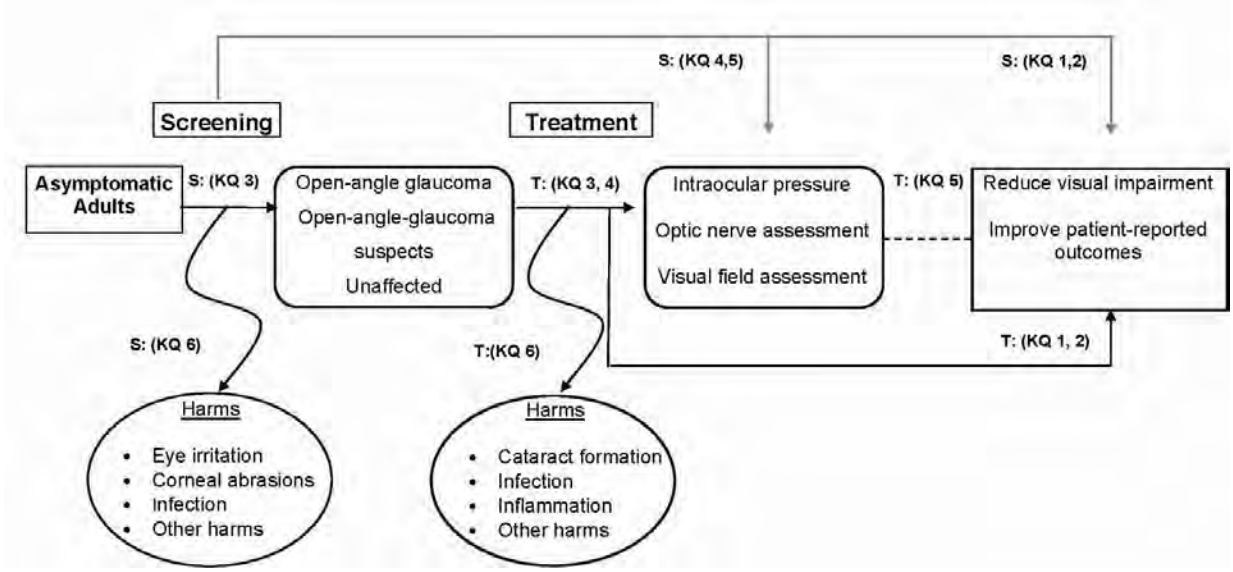
KQ 3: Do medical, laser, and other surgical treatments for open-angle glaucoma lower intraocular pressure?

KQ 4: Do medical, laser, and other surgical treatments for open-angle glaucoma prevent or slow the progression of optic nerve damage and visual field loss?

KQ 5: Does lowering intraocular pressure or preventing or slowing the progression of optic nerve damage and visual field loss reduce visual impairment and change vision-related quality of life?

KQ 6: What are the harms associated with medical, laser, and other surgical treatments for open-angle glaucoma?

Figure A. Analytic framework for screening and treatment of open-angle glaucoma



KQ = Key Question; T = Key questions for the Comparative Effectiveness of Treatment for Glaucoma; S = Key questions for the Comparative Effectiveness of Screening for Glaucoma

Search Strategy

To identify evidence relevant to the KQs in the analytic framework, we searched the following databases for primary studies: MEDLINE®, Embase, LILACS (Latin American and Caribbean Literature on Health Sciences), and CENTRAL (the Cochrane Central Register of Controlled Trials). We developed a search strategy for MEDLINE, accessed via PubMed, based on an analysis of the medical subject heading (MeSH) terms and text words of key articles identified a priori and adapted this search strategy for searches of Embase (using EMTREE terms) and CENTRAL. We searched the literature without imposed language, sample size, or date restrictions, but excluded non-English-language studies at the time of full-text review. We searched relevant systematic reviews to identify any additional eligible articles. The search was last completed October 6, 2011.

We also conducted a search in MEDLINE and CENTRAL for systematic reviews that addressed the KQs of interest. For MEDLINE, the search included the topic strategy as noted above combined with the term "AND systematic[sb]" and was limited to systematic reviews published from 2009 to 2011. The search for systematic reviews was conducted on March 2, 2011. We screened an existing database of eye and vision systematic reviews to identify relevant open-angle glaucoma systematic reviews published prior to 2009.[6]

Study Inclusion Criteria

We included randomized controlled trials and quasi-randomized controlled trials of medical, laser, and incisional surgical treatments for open-angle glaucoma for inclusion as primary studies for KQs 1, 2, 3, and 4. For KQs 5 and 6, we included observational study designs, cohort studies, and case-control studies, in addition to randomized and quasi-randomized controlled trials.

We included studies of participants with primary open-angle glaucoma or open-angle glaucoma suspects. The definition of "glaucoma suspect" is not standardized, so any group in a study with this label was included. Other specific conditions that were considered to be open-

angle glaucoma were low/normal tension glaucoma, pseudoexfoliation, pigmentary glaucoma, and steroid-responsive glaucoma. In keeping with the usual clinical distinction between adult and juvenile glaucomas, only studies with participants aged 40 years and older were considered. We specifically excluded the following conditions: juvenile/congenital glaucoma, traumatic glaucoma, neovascular glaucoma, refractory glaucoma, and inflammatory glaucoma.

We excluded studies that enrolled participants with conditions other than open-angle glaucoma if they did not also analyze the open-angle glaucoma subgroup separately. We also excluded case series of less than 100 subjects, as such small sample sizes are unable to capture rates of harms of less than a few percent.

There were no limitations based on stage or severity of disease, disease etiology, comorbid ocular or other medical conditions, geographic location, or demographic characteristics (e.g., gender, race/ethnicity).

Interventions

We first identified treatments currently used for open-angle glaucoma and then included studies of medical (eye drops and systemic treatment), laser, and incisional surgery. The most commonly used topical medical interventions include prostaglandin analogs, beta-adrenergic blockers, alpha-adrenergic agonists, and carbonic anhydrase inhibitors. We also included the currently available combination drops (timolol-brimonidine and timolol-dorzolamide). Drugs no longer in use or not approved by the U.S. Food and Drug Administration were specifically excluded.

Studies of the impact of medical intervention on circadian intraocular pressure were included if outcomes were assessed over a 24-hour period and participants were admitted to a hospital, sleep laboratory, or other facility overnight.

In terms of office-based laser treatments for open-angle glaucoma, we included studies of laser trabeculoplasty without regard to the technology used (argon, diode, YAG).

We also searched for studies evaluating the currently used incisional surgeries: trabeculectomy, aqueous drainage devices, deep sclerectomy, and viscocanalostomy. Because of surgeons' desire to find a more predictable procedure for lowering intraocular pressure, there has been a proliferation of new specialized devices intended to treat open-angle glaucoma. To assess the evidence for or against their use, studies of the iScience microcatheter, the Trabectome, the ExPRESS shunt, the Glaukos iStent, and the SOLX Gold Shunt were included.

Because glaucoma frequently is managed simultaneously with cataract, we included studies of combined cataract and glaucoma surgical procedures published after April 2000. Studies published prior to this period are summarized in the AHRQ report titled Surgical Treatment of Coexisting Cataract and Glaucoma.[7]

Article Screening and Abstraction

We screened potentially relevant citations (primary studies and systematic reviews) using the Web-based systematic review software DistillerSR (http://systematic-review.net/). Citations identified by the search strategies were uploaded to DistillerSR before two reviewers independently assessed titles and abstracts according to the inclusion criteria. We classified the titles and abstracts as "include," "exclude," or "unsure." Disagreements about eligibility were resolved through discussion among reviewers.

Citations tagged as "unsure" by both reviewers, "unsure" by one reviewer and "include" by the other, or "include" by both reviewers were carried forward to full-text screening. Two

reviewers independently applied the same inclusion criteria as used during abstract screening. Non-English-language articles were removed from further consideration at this stage. We resolved any disagreements regarding inclusion through discussion or, as needed, adjudicated unresolved conflicts during a team meeting.

Data abstraction forms were designed and pilot tested. For studies included at the full-text stage, one reviewer extracted descriptions of the study, including details about the population, intervention(s), and outcomes of interest, using the systematic review software DistillerSR. A second reviewer verified the data. We again resolved disagreements through discussion.

Comparators

KQs 1, 2, 3, 4, and 6 explored comparisons of medical, laser, and incisional surgical treatments for open-angle glaucoma with each other (e.g., medical vs. laser, medical vs. medical) or with no treatment (placebo). For KQs 1, 2, 3, 4, and 6, we also included studies in which the intervention was a laser or incisional surgical treatment for glaucoma but the comparator was a combined or staged procedure for cataract and glaucoma (glaucoma surgical treatments combined or staged with phacoemulsification or extracapsular cataract extraction).

Outcomes

For KQ 1, the outcome is the proportion of participants with moderate, severe, and profound visual impairment as defined in the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM).[8] The ICD-9 criteria define moderate visual impairment as best corrected visual acuity of between 20/70 and 20/160, severe visual impairment as acuity between 20/200 and 20/400 or a visual field of 20 degrees or less, and profound visual impairment as an acuity of 20/500 to 20/1000 or no more than 10 degrees of visual field. We also planned to consider any other nonstandard measurements of visual impairment as defined by included studies. We included visual acuity outcomes among the treatment groups of interest (Early Treatment of Diabetic Retinopathy Study or Snellen) as reported in included studies (e.g., mean visual acuity or proportion of participants in prespecified visual acuity categories).

KQ 2 deals with patient-reported outcomes, so we considered participants' mean total or relevant item/subscale scores as measured by any validated questionnaire (e.g., National Eye Institute Visual Function Questionnaire [NEI-VFQ]). To be considered, an instrument had to address the primary outcome of vision-related quality of life (primary outcome) or the secondary outcomes of treatment convenience, patient satisfaction, patient preference or utility, or adherence with medication.

KQ 3 addresses the ability of treatment to lower intraocular pressure. As standard outcomes, we included the proportion of participants with intraocular pressure measurements at the prespecified levels of ≤18 mmHg or ≥20-percent decrease in intraocular pressure from baseline levels. Since the analysis of intraocular pressure may vary appreciably by trial, we planned to consider other intraocular pressure outcomes as reported in included studies.

To assess the ability of treatments to reduce either visual field loss or optic nerve structural damage (KQ 4), we used two standard outcomes: the proportion of participants with progressive optic nerve damage as defined by included studies and as observed via fundus photography or other imaging of the posterior pole, and the proportion of participants with progression of visual field loss as defined by the Early Manifest Glaucoma Trial and as measured via automated threshold perimetry.[9] We also planned to consider other assessments of visual field loss as defined by included studies.

KQ 5 explores the association between (1) lowering intraocular pressure or (2) preventing or slowing the progression of optic nerve damage and visual field loss (intermediate outcomes of treatment) and final health outcomes (reduced visual impairment and improved vision-related quality of life) among the populations of interest. The outcomes for KQ 5 were therefore the same as those described above for KQs 1, 2, 3, and 4.

Finally, we compared the proportion of participants experiencing the following adverse events among the treatment groups of interest:

Potentially serious:

- Cataract formation (visually significant cataract requiring surgery or report of cataract surgery)
- Low intraocular pressure (hypotony)
- Decreased visual acuity
- Infection (e.g., blebitis, endophthalmitis)
- Inflammation
- Strabismus
- Peripheral anterior synechiae
- Retinal tear and detachment
- Systemic allergic reaction
- Loss of an eye
- Need for additional surgery
- Hyphema
- Transient decrease in central vision
- Systemic side effects
- Choroidal detachment, effusion, hemorrhage
- Cardiac arrhythmia
- Death

Less likely to be serious:

- Eye irritation
- Eye watering
- Eye redness
- Patient discomfort
- Ocular surface disease
- Other patient complaint
- Skin discoloration
- Conjunctival injection
- Iris color change
- Punctal stenosis
- Conjunctival foreshortening

We assessed medical treatment outcomes at a minimum of 1 month postintervention. We included outcomes reported at 6 months (2–9 months) and 1 year (10–18 months) as reported in included studies. The exception was circadian medical treatment studies in which the investigators reported outcomes assessed over a 24-hour period. For studies of surgical

interventions, we assessed outcomes at a minimum of 1 year (10–18 months) and at annual intervals thereafter as reported in included studies.

Risk-of-Bias Assessment

We used the Cochrane Collaboration's tool for assessing the risk of bias of randomized and quasi-randomized trials.[10] Two reviewers assessed the included studies for sources of systematic bias according to the guidelines in Chapter 8 of the Cochrane Handbook for Systematic Reviews of Interventions and evaluated the studies for the following criteria: sequence generation and allocation concealment (selection bias); masking of participants, study investigators, and outcome assessors (detection bias); incomplete outcome data (attrition bias); selective outcome reporting (reporting bias); and other sources of bias. Masking of investigators and participants was not possible with some of the interventions examined but was noted when mentioned. We reported judgments for each criterion as "low risk of bias," "high risk of bias," or "unclear risk of bias (information is insufficient to assess)." The two reviewers resolved disagreements through discussion.

Two reviewers assessed the methodological rigor of observational studies using a modified version of the Newcastle Ottawa Scale.[11] The Newcastle Ottawa Scale includes domains to assess the quality of study group selection (representativeness, selection, case definitions); comparability of cohorts/cases and controls on the basis of the design or analysis; and ascertainment of exposures or outcomes, adequacy of followup, nonresponse rate, and financial or other conflicts of interest. Each item query required a "yes," "no," or "unable to determine/not reported" response. In addition, reviewers provided an overall assessment of the quality of each study as "good," "fair," or "poor" using the reporting bias, selection bias, and confounding domains as a basis for the assessment.

We used a tool adapted by Li (2010) from the Critical Appraisal Skills Program, Assessment of Multiple Systematic Reviews (AMSTAR), and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement to assess the methodological quality of systematic reviews.[6] We used the following criteria, adapted from Li, to determine which systematic reviews were of sufficient quality to be considered for inclusion in this review: comprehensive search for primary studies (searches of more than one bibliographic database), risk-of-bias assessment, appropriate methods of analysis.

Rating the Evidence

We assessed the quantity, quality, and consistency of the body of available primary study evidence addressing KQs 1 through 6. We used an evidence grading scheme recommended by the GRADE (Grading of Recommendations Assessment, Development and Evaluation) Working Group, adapted by AHRQ in the Methods Guide for Effectiveness and Comparative Effectiveness Reviews (www.effectivehealthcare.ahrq.gov/index.cfm/search-for-guides-reviews-and-reports/?pageaction=displayproduct&productid=328) and published in the Journal of Clinical Epidemiology.[12,13]

Although we included systematic reviews that addressed our KQs and considered systematic reviews as the highest level of evidence for addressing questions of therapy, we were unable to adapt the evidence grading scheme to incorporate evidence from systematic reviews. We assessed the quality and consistency of the best available primary study evidence, including assessment of the risk of bias in relevant studies, as well as aspects of consistency, directness, and precision as described in the Methods Guide for Effectiveness and Comparative

Effectiveness Reviews and by Owens et al. (2010).[12,13] For each outcome of interest, two reviewers graded the major outcomes for each KQ and then the entire team discussed their recommendations and reached consensus.

Data Synthesis

When we identified existing systematic reviews of sufficient quality (based on the criteria outlined in Rating the Evidence) that addressed the KQs, we cited these reviews as evidence and did not abstract and synthesize data from the studies incorporated in those reviews. We abstracted evidence from additional primary studies for interventions, comparisons, and outcomes that were not addressed by existing systematic reviews, and we searched for and summarized evidence from additional primary studies that were published or identified after the date of the last search conducted for the systematic review. We adapted the recommendations of Whitlock et al. (2008) for incorporating systematic reviews in complex reviews. They recommend providing a narrative summary of the review methods (i.e., inclusion/exclusion criteria, search strategy, statistical methodology) and findings (i.e., number of studies included, quantitative and qualitative results), and, in the instance of multiple reviews, providing an evaluation of the consistency across reviews that addressed the same KQ.[14]

Due to appreciable variability in interventions, followup intervals, or assessments of outcomes, we did not combine the results of primary studies in a meta-analysis and instead present a narrative summary. The plan for the analysis of primary studies, including the assessments of heterogeneity, reporting bias, measures of treatment effect, data synthesis, and subgroup analysis, was included in the protocol for this review.

Results

Our major findings are summarized by KQ. Table A provides a summary of the key points.

Medical Treatment of Open-Angle Glaucoma

KQ1a: Comparative Effectiveness of Medical Treatments for Reducing Visual Impairment

- No studies of medical therapy were identified that directly addressed outcomes related to visual impairment.
- The available studies addressing the secondary outcomes of change in visual acuity and change in visual field loss are of too short a duration to answer this question, given that glaucoma is typically a slowly progressive disease that may take many years to cause clinically or statistically significant changes.

KQ3a: Comparative Effectiveness of Medical Treatments for Lowering Intraocular Pressure

- Prostaglandins lower IOP more than dorzolamide (carbonic anhydrase inhibitor, 2.64 mmHg, three trials), brimonidine (alpha-adrenergic agonist, 1.64 mmHg, four trials), and timolol (beta-adrenergic blocker, 5 percent lower at 6 months, four trials) (systematic review).

- The prostaglandins appear similar in the extent to which they lower IOP, but some studies have reported a greater drop in IOP with bimatoprost (prostaglandin) (systematic review).
- The combination dorzolamide/timolol appears to lower IOP the same amount as prostaglandins (systematic review).

Circadian Intraocular Pressure

- Our conclusions regarding the effect of topical therapies in lowering IOP over the 24-hour time period were limited due to the fact that one study provided almost all of the data.
- All topical medications reviewed appear to lower IOP throughout the 24-hour cycle.
- Prostaglandins appear to lower IOP more over the 24-hour cycle than beta-blockers, topical carbonic anhydrase inhibitors, and alpha agonists, but the evidence for this is weak.
- While the IOP-lowering effects of different prostaglandins appear to vary appreciably over the 24-hour time period, the results were inconsistent and the reported difference in the amount of IOP lowering was on the order of 1 mmHg.
- Results from systematic reviews comparing one prostaglandin with another were inconsistent.

KQ4a: Comparative Effectiveness of Medical Treatments for Preventing or Slowing the Progression of Optic Nerve Damage and Visual Field Loss

- A systematic review of medical treatment for glaucoma determined treatment to be protective against progressive visual field loss. This review included the results of both the Early Manifest Glaucoma Trial and the Ocular Hypertension Treatment Study.
- Other included primary studies were of insufficient size or duration to detect differences in the rates of optic nerve damage or visual field loss. Given the slowly progressive nature of glaucoma, the large trials of glaucoma therapy have demonstrated the need to follow hundreds of participants for 5 or more years to detect change.
- A single study addressed the comparative effectiveness of glaucoma medications with respect to their ability to prevent optic nerve damage or visual field loss and found brimonidine superior to timolol.

KQ6a: Harms Associated With Medical Treatments for Open-Angle Glaucoma

- The prostaglandin agents produce more ocular redness than does timolol (beta-adrenergic blocker) (systematic review).
- Within the prostaglandins, latanoprost is least likely to cause redness (systematic review).
- Subjects on timolol (beta-blocker) were less likely to drop out of studies due to side effects than those on brimonidine (alpha-adrenergic agonist), latanoprost (prostaglandin analog), travoprost (prostaglandin analog), or betaxolol (beta-blocker) (systematic review).

Surgical Treatment of Open-Angle Glaucoma

KQ1b: Comparative Effectiveness of Laser and Other Surgical Treatments for Reducing Visual Impairment

- No studies reported on the outcome of visual impairment after laser or other surgical treatments.
- Visual acuity was not assessed as a primary outcome in any identified study comparing laser with other surgical treatments for glaucoma. Visual acuity was only irregularly reported, if at all.
- Given the limitations above, no treatment appeared to have a greater effect on visual acuity than any other treatment.

KQ3b: Comparative Effectiveness of Laser and Other Surgical Treatments for Lowering Intraocular Pressure

- Trabeculectomy lowers IOP more than nonpenetrating surgeries (systematic review).
- The use of mitomycin-C intraoperatively with trabeculectomy results in lower IOP than when it is not used (systematic review).
- Other alterations in surgical technique, location of surgery on the eye, and adjuvants other than mitomycin-C have not been shown to result in an added pressure decrease (primary studies).
- The IOP-lowering effect of combined cataract surgery and trabeculectomy is not affected by the location of the conjunctival incision or the presence or absence of a peripheral iridectomy but may be more in two-site (cataract and trabeculectomy performed using different incisions) than one-site (cataract and trabeculectomy performed using the same incision) surgery (systematic review).
- Laser trabeculoplasty effectively lowers IOP in glaucoma patients, and effectiveness does not vary with the type of laser used (primary studies).
- The data available on the role of aqueous drainage devices in open-angle glaucoma are inadequate to draw conclusions (primary studies, systematic review).

KQ4b: Comparative Effectiveness of Laser and Other Surgical Treatments for Preventing or Slowing the Progression of Optic Nerve Damage and Visual Field Loss

- No studies comparing laser and surgical treatments were found that reported data on whether these procedures slow the progression of optic nerve damage and visual field loss.

KQ6b: Harms Associated With Laser and Other Surgical Treatments for Open-Angle Glaucoma

- Trabeculectomy results in more complications than nonpenetrating surgeries (systematic review).
- The profile of harms does not differ between one- and two-site combined cataract and glaucoma surgery (systematic review).

Medical Versus Surgical Treatment of Open-Angle Glaucoma

KQ1c: Comparative Effectiveness of Medical Versus Surgical Treatment for Reducing Visual Impairment

- Although trabeculectomy may reduce the risk of vision loss compared to medical treatment after adjusting for demographic and comorbid factors, the body of evidence is limited and inconclusive (systematic review).

KQ3c: Comparative Effectiveness of Medical Versus Surgical Treatment for Lowering Intraocular Pressure

- Incisional surgery lowers IOP more than lasers or medications (systematic review).
- Initial treatment with lasers tends to reduce the need for medications to achieve a given IOP (systematic review).

KQ4c: Comparative Effectiveness of Medical Versus Surgical Treatment for Preventing or Slowing the Progression of Optic Nerve Damage and Visual Field Loss

- Trabeculectomy may prevent more visual field loss than medicines when used as initial therapy in advanced glaucoma (systematic review).
- The Collaborative Initial Glaucoma Treatment Study (CIGTS) included current surgical techniques and medications, and found no difference in change in visual field (but did not report on change in the optic nerve).
- Treatment of ocular hypertension with medicines preserves visual fields better than no treatment (systematic review).

KQ6c: Harms Reported in Studies of Medical Versus Surgical Treatments for Open-Angle Glaucoma

- Trabeculectomy is associated with cataract worsening and an increased need for cataract surgery over time when compared to medical treatments for glaucoma (systematic review).
- Intraocular surgery rarely results in severe vision loss due to infection and/or bleeding. These risks are not associated with medical or laser treatments.
- Laser trabeculoplasty can produce peripheral anterior synechiae, whereas medical treatment does not (systematic review).

Additional KQs

KQ2: Improvement in Patient-Reported Outcomes With Treatment of Open-Angle Glaucoma

- There is no direct evidence regarding the impact of glaucoma treatment on patient-reported outcomes.
- Medical and surgical treatments reduce the patient's fear of blindness.
- Several studies suggest that the type of glaucoma treatment does not have an influence on quality of life.

- There is some evidence that, among medical treatments, patients prefer those that are less frequently applied.
- Since there are unlikely to be any future trials with a placebo arm, it will not be possible to determine definitively if treatments improve patient-reported outcomes relative to no treatment. It will still be possible to compare the effectiveness of different treatments on patient-reported outcomes, however.

KQ5: Effect of Lowering IOP or Preventing or Slowing the Progression of Optic Nerve Damage and Visual Field Loss on Visual Impairment and Vision-Related Quality of Life

- We found no good-quality studies addressing the relationship between the intermediate outcomes of IOP reduction, prevention of optic nerve damage, or prevention of visual field loss and the outcomes of visual impairment and vision-related quality of life.

Future Research

The available evidence demonstrates definitively that intraocular pressure can be lowered by medications, laser treatments, and surgery. High-quality randomized controlled trials have also shown that reduction of intraocular pressure slows the development and progression of damage to the optic nerve and slows visual field loss. Although it is logical to presume that slowing glaucoma damage would lead to preservation of vision-related quality of life and reduction in visual impairment, this link has not been demonstrated in the research literature.

One specific area that would benefit from research is the association between treatment and visual impairment and/or patient-reported outcomes. One important reason such work has not yet been done is that the time from diagnosis to visual impairment in a treated glaucoma patient may be many years to decades. Nevertheless, such a link is important to establish.

Another general area that requires additional evidence is the relative risks and benefits of medical and surgical treatments for glaucoma. The number of studies that adequately compare two or more treatments over time is too small to draw any significant conclusions about the comparative effectiveness of most currently used therapies.

As a general comment on the available literature on glaucoma treatments, the field would benefit from more rigorous study design and more standardized reporting of outcomes. The World Glaucoma Association publication Guidelines on Design and Reporting of Glaucoma Surgical Trials should serve as a basis for all trials of new and existing treatments.[15]

Table A. Summary of outcomes, comparators, and main results by KQ

KQ	Outcomes	Studies Included	Comparators	Main Results	Strength of Evidence
KQ1	Visual impairment Visual acuity	<u>Systematic Reviews</u> Medical: 0 Surgical: 2 Medical-surgical: 1	<u>Surgical Systematic Reviews</u> 1- vs. 2-site phacotrabeculectomy Endocyclophotocoagulation vs. Ahmed valve Molteno implant vs. no implant	• No statistically significant differences between surgical treatments.	Medical studies: Insufficient Surgical studies: Low
			<u>Medical-Surgical Systematic Reviews</u> Medical treatment vs.surgical treatment	• Although it appears that trabeculectomy may reduce the risk of vision loss, after adjusting for demographic and comorbid factors, the body of evidence is limited and inconclusive.	
		<u>Primary Studies</u> Medical: 11 Surgical: 4 Medical-surgical: 0	<u>Medical RCTs</u> Timolol vs. brimonidine vs.travoprost Timolol vs. carteolol Timolol vs. levobunolol Levobunolol vs. betaxolol Levobunolol vs. untreated Crossover: Dorzolamide + timolol, travoprost vs. latanoprost Laser vs. medical	• No studies reported on visual impairment as main outcome. • Studies addressing secondary outcomes are too short to answer this question. • None of the studies identified were of sufficient duration or size to identify outcomes that could be related to visual impairment due to glaucoma, which is most often a slowly progressing disease.	
			<u>Surgical RCTs</u> Trabeculectomy vs. Ex-press shunt Trabeculectomy vs. NPDS with hyaluronic acid implant NPDS +/- MMC NPDS +/- collagen implant	• No studies reported on visual impairment after laser or other surgical treatments. • We could not determine whether individual patients sustained a clinically important decrease in visual acuity, because in all our identified studies comparing laser and other surgical treatments for glaucoma, visual acuity outcomes were reported as a mean value and not assessed as a primary outcome. • No single treatment appeared to have a greater effect on visual acuity than any other treatment.	

Table A. Summary of outcomes, comparators, and main results by KQ (continued)

KQ	Outcomes	Studies Included	Comparators	Main Results	Strength of Evidence
KQ2	Patient-reported outcomes: Quality of life Fear of blindness Patient preference Patient satisfaction	<u>Systematic Reviews</u> Medical: 0 Surgical: 0 Medical-surgical: 2	<u>Medical-Surgical Systematic Reviews</u> Laser vs. medical	• Not analyzed separately from primary reviews.	For all outcomes: Insufficient
		<u>Primary Studies</u> Medical: 4 Surgical: 0 Medical-surgical: 2	<u>Medical RCTs</u> Brimonidine vs. timolol Timolol + dorzolamide vs. timolol + brimonidine Timolol + dorzolamide vs. latanoprost Timolol gel vs. timolol solution <u>Medical-Surgical RCTs</u> Trabeculectomy +/- 5FU vs. beta-blockers Betaxolol + ALT vs. no treatment	• There is no evidence that treatment of glaucoma improves patient-reported outcomes. • There is little evidence that the treatments themselves influence patient QOL. • The type of treatment does not have an influence on QOL. • Among medical treatments, patients prefer the treatment that is less frequently applied. • One high-quality RCT shows that glaucoma treatment reduces fear of blindness regardless of the type of treatment.	

Table A. Summary of outcomes, comparators, and main results by KQ (continued)

KQ	Outcomes	Studies Included	Comparators	Main Results	Strength of Evidence
KQ3	Reduction of intraocular pressure	Systematic Reviews Medical: 9 Circadian IOP: 3 Surgical: 9 Medical-surgical: 2	Medical Systematic Reviews Latanoprost vs. bimatoprost Timolol vs. travoprost Latanoprost vs. dorzolamide + timolol Latanoprost vs. brimonidine Latanoprost vs. dorzolamide Latanoprost vs. bimatoprost vs. travoprost Comparison of prostaglandin analogs Timolol vs. brimonidine Timolol vs. latanoprost	• Prostaglandins lower IOP better than dorzolamide, brimonodine, and timolol. • The prostaglandins appear similar in the extent at which they lower IOP, but some studies have reported a greater drop in IOP with bimataprost. • The combination dorzolamide/timolol has similar effect as prostaglandins.	Circadian IOP: Low Surgical studies: Moderate
			Medical-Surgical Systematic Reviews Medical treatment vs. surgical treatment	• IOP of participants randomized to trabeculectomy is lower than participants receiving medical treatment at 1 year. • The risk of failure was lower with argon laser trabeculoplasty compared to medical treatment.	
			Circadian IOP Systematic Reviews Comparison of prostaglandin analogs Latanoprost vs. dorzolamide + timolol Latanoprost vs. bimatoprost	• Results from systematic reviews comparing one prostaglandin to another were inconsistent.	
			Surgical Systematic Reviews Trabeculectomy vs. NPDS Trabeculectomy + antimetabolites Beta radiation Laser trabeculoplasty Aqueous shunts Trabeculectomy vs. medical treatment Efficacy and safety profile of viscocanalostomy	• Trabeculectomy lowers IOP more effectively than nonpenetrating filtering surgeries. • Fewer deep sclerectomy patients and argon laser trabeculoplasty patients than trabeculectomy patients achieved complete success. • The addition of antimetabolites to trabeculectomy significantly reduced IOP among participants, as did receiving postoperative 5-FU. • The addition of beta radiation to trabeculectomy does not appear to reduce IOP more than trabeculectomy alone.	

Table A. Summary of outcomes, comparators, and main results by KQ (continued)

KQ	Outcomes	Studies Included	Comparators	Main Results	Strength of Evidence
KQ3	Reduction of intraocular pressure	Primary Studies Medical: 46 retrieved, 0 included for analysis Circadian IOP: 5 Surgical: 20 Medical-surgical: 2	Circadian IOP RCTs Latanoprost vs. bimatoprost Latanoprost vs. timolol vs. brimonidine Latanoprost vs. dorzolamide vs. timolol Latanoprost vs. bimatoprost vs. travoprost	• Conclusions were limited due to the fact that 1 study contained the majority of the data. • All topical medications reviewed lowered IOP throughout 24-hour cycle. • Prostaglandins appear to lower IOP more over the 24-hour cycle than beta blockers, topical carbonic anhydrase inhibitors, and alpha agonists, but the evidence for this is weak. • While the IOP-lowering effects of prostaglandins appear to vary appreciably over the 24-hour time period, the results were inconsistent and the reported difference was small.	Circadian IOP: Low Surgical studies: Moderate
			Surgical RCTs Trabeculectomy with adjuvants (MMC--5FU-ologen implant-amniotic graft-polytetrafluoroethylene membrane) Trabeculectomy techniques and variations (NPDS-Ex-Press shunt-Minitrab) Trabeculectomy with combined techniques (viscocanalostomy-iridectomy-fornix vs. limbus) Combined cataract-glaucoma surgery Laser trabeculoplasty	• Trabeculectomy lowers IOP. • The use of MMC intraoperatively with trabeculectomy results in lower IOP than when it is not used. • Other alterations in surgical technique, location of surgery, and adjuvants other than MMC have not been shown to result in an added pressure decrease. • Trabeculectomy lowers IOP more than nonpenetrating surgeries. • The location of the conjunctival incision or the presence or absence of a peripheral iridectomy has no effect on how much combined cataract surgery and trabeculectomy lowers IOP. • 2-site surgery might produce an added pressure drop over 1-site surgery. • Laser trabeculoplasty effectively lowers IOP in glaucoma subjects; effectiveness does not seem to vary with the type of laser used. • The data available for the role of aqueous drainage devices in OAG are inadequate to draw conclusions.	
			Medical-Surgical RCTs Medical treatment v.s trabeculectomy	• Incisional surgery lowers IOP more than lasers or medications. • Initial treatment with lasers tends to reduce the need for medications to achieve the same IOP.	

Table A. Summary of outcomes, comparators, and main results by KQ (continued)

KQ	Outcomes	Studies Included	Comparators	Main Results	Strength of Evidence
KQ4	Visual fields loss Optic nerve damage	<u>Systematic Reviews</u> Medical: 1 Surgical: 0 Medical-surgical: 3	<u>Medical Systematic Reviews</u> Medical treatment vs. surgical treatment	• Medical treatment for glaucoma is protective against visual field loss. (It included the results of both the Early Manifest Glaucoma Trial and the Ocular Hypertension Treatment Study.)	Medical: Low Surgical: Insufficient Medical-surgical: Insufficient
			<u>Medical Vs. Surgical Systematic Reviews</u> Trabeculectomy vs. medical treatment Medical or surgical vs. no treatment	• Medically and/or surgically treated patients were less likely to experience progression of field loss and optic disc damage when compared with participants receiving no treatment. • Some trials showed that progression was more likely in medically treated participants than in participants randomized to laser trabeculoplasty or trabeculectomy.	
		<u>Primary Studies</u> Medical: 19 Surgical: 0 Medical-surgical: 1	<u>Medical RCTs</u> Timolol vs. brimonidine vs. travoprost Timolol vs. metipranolol vs. carteolol Timolol vs. carteolol Timolol vs. latanoprost Timolol vs. betaxolol Latanoprost vs. bimatoprost Latanoprost vs. travoprost vs. dorzolamide + timolol	• Most other included medical studies are too small or too short to be conclusive. • No surgical studies presented conclusive data. • Treatment of ocular hypertension with medicines preserves visual fields better than no treatment.	
			<u>Medical-Surgical RCTS</u> Topical hypotensives vs. observation after surgery	• Trabeculectomy first may lead to better preservation of visual field than medicines first in more advanced glaucoma. • The Collaborative Initial Glaucoma Treatment Study included surgical techniques and medications that are current and found no difference in change in visual field (and did not report on change in the optic nerve). • Treatment of ocular hypertension with medicines preserves visual fields better than no treatment.	

Table A. Summary of outcomes, comparators, and main results by KQ (continued)

KQ	Outcomes	Studies Included	Comparators	Main Results	Strength of Evidence
KQ5	Quality of life	Systematic Reviews Medical: 0 Surgical: 0 Medical-Surgical: 0	N/A	• We did not identify any systematic reviews that address the relationship between the intermediate outcomes of IOP reduction, prevention of optic nerve damage, or prevention of visual field loss and the outcomes of visual impairment and vision-related QOL.	Insufficient
		Primary RCTs Medical: 1 Surgical: 0 Medical-surgical: 0 Primary Observational Studies Medical: 1 Surgical: 0 Medical-surgical: 0	Medical treatment in general	• There are no well-executed studies addressing the relationship between the intermediate outcomes of IOP reduction, prevention of optic nerve damage, or prevention of visual field loss and the outcomes of visual impairment and vision-related QOL.	

Table A. Summary of outcomes, comparators, and main results by KQ (continued)

KQ	Outcomes	Studies Included	Comparators	Main Results	Strength of Evidence
KQ6	Harms	Systematic Reviews Medical: 11 Surgical: 8 Medical-surgical: 2	Medical Systematic Reviews Latanoprost vs. bimatoprost Latanoprost vs. bimatoprost vs. travoprost Latanoprost vs. dorzolamide + timolol Latanoprost vs. brimonidine Travoprost vs. latanoprost, bimatoprost, timolol Timolol vs.brimonidine Timolol vs. latanoprost	• A systematic review found that subjects on timolol were less likely to drop out of studies due to side effects than those on brimonidine, latanoprost, travoprost, or betaxolol.	Grading not completed due to heterogeneity in outcomes and comparisons across studies
			Surgical Systematic Reviews Compare the efficacy and safety profile of viscocanalostomy Nonpenetrating filtering surgery Beta radiation during trabeculectomy 1-site phacotrabulectomy vs. 2-site phacotrabulectomy Intraoperative MMC during trabeculectomy—placebo during trabeculectomy Postoperative injections of 5FU	• Adverse effects were experienced more often by participants randomized to trabeculectomy than by participants randomized to other nonpenetrating filtering surgeries. • Harms were reported for the addition of antimetabolites to primary trabeculectomy. • The addition of beta radiation to trabeculectomy resulted in significantly higher risk of cataract when compared with trabeculectomy alone. • The harms associated with glaucoma drainage devices have not been adequately compared with the harms of other procedures in the treatment of OAG.	
			Medical-Surgical Systematic Reviews Medical treatment-surgical treatment	• Trabeculectomy is associated with cataract worsening and an increased need for cataract surgery over time when compared to medical treatments for glaucoma. • Intraocular surgery rarely results in severe vision loss due to infection and/or bleeding. These risks are not associated with medical or laser treatments. • Laser trabeculoplasty can produce peripheral anterior synechiae, whereas medical treatment does not.	

Table A. Summary of outcomes, comparators, and main results by KQ (continued)

KQ	Outcomes	Studies Included	Comparators	Main Results	Strength of Evidence
KQ6	Harms	Primary RCTs Medical: 17 Surgical: 22 Medical-surgical: 2 Primary Observational Studies Medical: 10 Surgical: 3 Medical-surgical: 0	Medical Timolol vs. brimonidine vs. travoprost Timolol vs. metipranolol vs. carteolol Timolol vs. carteolol Timolol vs. latanoprost Timolol vs. betaxolol Latanoprost vs. bimatoprost Latanoprost vs. travoprost vs. dorzolamide + timolol Topical hypotensives vs. observation Latanoprost vs. bimatoprost Latanoprost vs. timolol vs. brimonidine Latanoprost vs. dorzolamide vs. timolol	• The prostaglandin agents produce more ocular redness than timolol does. • Within the prostaglandins, latanoprost is less likely to cause redness.	Grading not completed due to heterogeneity in outcomes and comparisons across studies
			Surgical Trabeculectomy with adjuvants (MMC, 5FU, ologen implant, polytetrafluoroethylene membrane-amniotic graft) Trabeculectomy techniques and variations (NPDS, Ex-Press shunt) Trabeculectomy with combined techniques (viscocanalostomy, iridectomy, fornix vs. limbus) Combined cataract + glaucoma surgery Laser trabeculoplasty NPDS +/- MMC NPDS +/- collagen implant	• The profile of harms does not differ between 1- and 2-site combined cataract and glaucoma surgery. • Reports of adverse effects across studies that addressed questions related to combined surgery for coexisting cataract and glaucoma varied by intervention under consideration.	
			Medical vs. Surgical Trabeculectomy vs. medical treatment Medical or surgical vs. no treatment	• Harms were not covered in a systematic fashion in the primary studies.	

5FU =5-Fluorouracil; ALT = argon laser trabeculoplasty; IOP = intraocular pressure: KQ = Key Question; MMC = mytomicin; NPDS = nonpenetrating deep sclerectomy; OAG = open-angle glaucoma; QOL = quality of life; RCT = randomized controlled trial

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Introduction

The Agency for Healthcare Research and Quality Effective Health Care Program requested a comparative effectiveness review of various treatment options for glaucoma. The topic was selected through the Effective Health Care Program nomination process and from a review of the scientific medical literature.

Background

Glaucoma is a leading cause of visual impairment and blindness both in the United States and worldwide. It is estimated to affect 60.5 million people worldwide.[1] Glaucoma is defined as an acquired disease of the optic nerve (neuropathy), characterized by a particular appearance of the optic nerve and by visual field defects that are usually midperipheral and in the nasal visual field. Depending upon whether the optic nerve damage is associated with an open or closed appearance to the drainage channels for aqueous humor in the front of the eye, the glaucoma is referred to as open angle (the subject of this report) or closed-angle.

Mild glaucoma damage to the optic nerve may be asymptomatic, but as the damage worsens, the patient begins to have difficulty with peripheral vision, contrast sensitivity, glare, and adjusting from light to dark and dark to light – symptoms that eventually affect day to day function and quality of life. In its most severe form, glaucoma results in total, irreversible blindness.

Although deficient blood supply to the optic nerve, inadequate structural support for the neurons that make up the optic nerve, and insufficient supplies of neurotrophins needed to maintain the health of the optic nerve have been hypothesized as risk factors for glaucoma, experimental models and other evidence from human participants have shown that elevated intraocular pressure (IOP) results in damage to the optic nerve in a pattern characteristic of glaucoma.[2] Furthermore, studies have demonstrated correlations between the level of IOP and the risk of having glaucoma as well as the worsening of glaucoma once present. Other studies have demonstrated that lowering IOP reduces both the incidence of glaucoma in individuals who do not have glaucoma damage but are at high risk for its development, and the rate of progression of glaucoma in individuals with established glaucoma.[3-5] Therefore, the treatments for glaucoma today all focus on the reduction of IOP, which secondarily prevents the worsening of visual field loss and may therefore prevent visual impairment and blindness.

Treatments for Open-Angle Glaucoma

Medical, laser, and incisional surgical treatments are all used to treat glaucoma. The most commonly used medical treatment includes several classes of eye drops, such as prostaglandin analogs, beta-adrenergic antagonists, carbonic anhydrase inhibitors, and alpha-adrenergic agonists, as well as systemic carbonic anhydrase inhibitors. Laser trabeculoplasty is an office procedure that lowers IOP by increasing the outflow of aqueous humor from the eye. Incisional surgery to lower IOP includes procedures that have been performed for decades, such as trabeculectomy and aqueous drainage device surgery, as well as a host of newer procedures, such as non-penetrating deep sclerectomy, canaloplasty, endoscopic cyclophotocoagulation, and alternative methods of trabecular bypass.

Rationale for a Comparative Effectiveness Review

Although there is high-level evidence from randomized controlled trials (RCTs) of medical and laser therapy versus observation in patients with early glaucoma, initial medical therapy compared to initial surgical therapy in patients with established glaucoma, and laser therapy versus surgical therapy in participants not controlled with medical therapy, are addressed only by single RCTs that also do not, in most cases, include novel medical and surgical treatments.[5,16,17]

Given developments in the treatment of glaucoma, including the realization of the importance of adherence to medical therapy, and the introduction of new surgical modalities, it is appropriate to update the evidence on the safety and effectiveness of glaucoma treatments.

Purpose of Evidence Report

The objective of this comparative effectiveness review is to summarize the evidence regarding the safety and effectiveness of medical, laser, and other surgical treatments for open-angle glaucoma (OAG) in adults.

Key Questions

Key Question 1. Do medical, laser, and other surgical treatments for OAG reduce visual impairment?

- Key Question 1a: What is the comparative effectiveness of medical treatments for reducing visual impairment?
- Key Question 1b: What is the comparative effectiveness of laser and other surgical treatments for reducing visual impairment?
- Key Question 1c: What is the comparative effectiveness of medical versus surgical treatment for reducing visual impairment?

Key Question 2. Does treatment of OAG improve patient-reported outcomes?

Key Question 3. Do medical, laser, and other surgical treatments for OAG lower intraocular pressure?

- Key Question 3a: What is the comparative effectiveness of medical treatments for lowering intraocular pressure?
- Key Question 3b: What is the comparative effectiveness of laser and other surgical treatments for lowering intraocular pressure?
- Key Question 3c: What is the comparative effectiveness of medical versus surgical treatment for lowering intraocular pressure?

Key Question 4. Do medical, laser, and other surgical treatments for OAG prevent or slow the progression of optic nerve damage and visual field loss?

- Key Question 4a: What is the comparative effectiveness of medical treatments for preventing or slowing the progression of optic nerve damage and visual field loss?
- Key Question 4b: What is the comparative effectiveness of laser and other surgical treatments for preventing or slowing the progression of optic nerve damage and visual field loss?
- Key Question 4c: What is the comparative effectiveness of medical versus surgical treatment for preventing or slowing the progression of optic nerve damage and visual field loss?

Key Question 5. Does lowering intraocular pressure or preventing or slowing the progression of optic nerve damage and visual field loss reduce visual impairment and change vision-related quality of life?

Key Question 6. What are the harms associated with medical, laser, and other surgical treatments for OAG?

- Key Question 6a: What are the harms associated with medical treatments for OAG?
- Key Question 6b: What are the harms associated with laser and other surgical treatments for OAG?
- Key Question 6c: What harms are reported in studies of medical versus surgical treatments for OAG?

Methods

Topic Development

The Agency for Healthcare Quality and Research (AHRQ) requested that the Johns Hopkins University Evidence-based Practice Center (JHU EPC) assist with the formulation and refinement of the Comparative Effectiveness Review topic "Effectiveness of screening and treatment for glaucoma."

In consultation with AHRQ, the JHU EPC identified a small group of stakeholders to serve as members of a Key Informant Group. The Key Informant Group helped shape the Key Questions (KQs) relevant to the topic by providing input regarding the populations and clinical subgroups, interventions, and outcomes of interest to clinicians, policy makers, payers, and consumers.

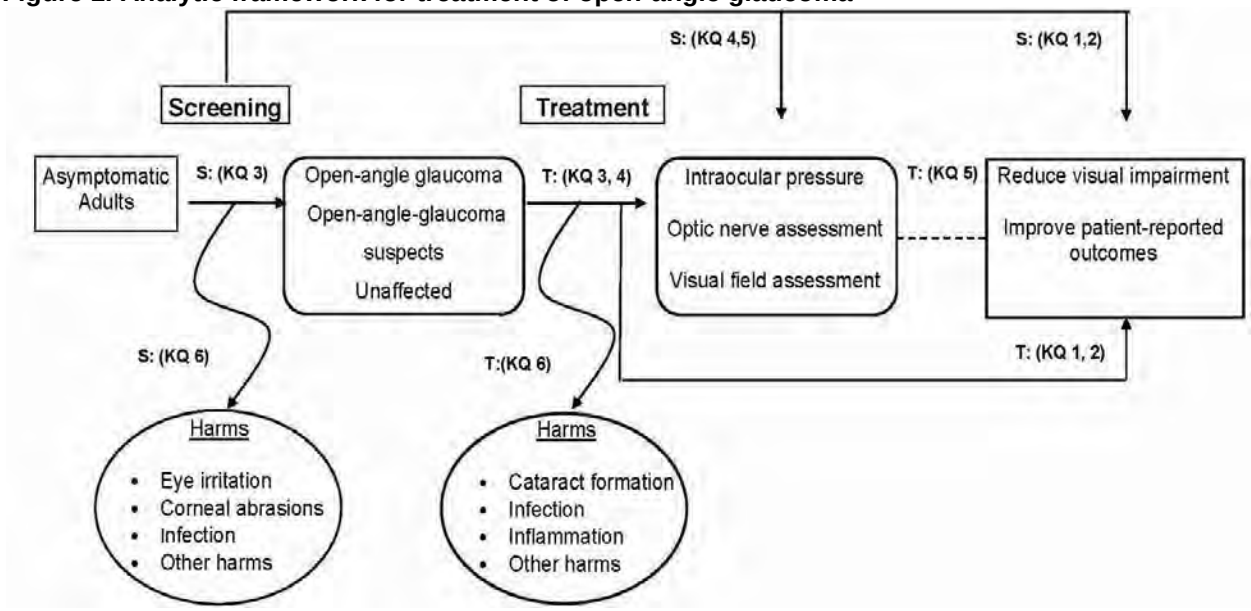
The JHU EPC investigators incorporated the feedback of the Key Informants into a draft of the KQs, analytic framework, and inclusion criteria which was posted to the AHRQ Web site for public comment from April 22 to May 20, 2010. KQs and Inclusion criteria were finalized after consideration of the public comments received.

A Technical Expert Panel was selected to provide broad expertise and perspectives specific to the topic under development. The Technical Expert Panel reviewed a protocol outlining a proposed methodological approach for the completion of the comparative effectiveness review, provided information to the JHU EPC to aid in the refinement of the inclusion criteria and literature search strategies and recommended approaches to specific issues as requested by the JHU EPC. The final protocol entitled Comparative Effectiveness of Treatment for Open-Angle Glaucoma was posted to the AHRQ Web site on November 16, 2010.

Analytic Framework

The analytic framework (Figure 1) is a modified version of a larger framework depicting the impact of both screening and treatment for open-angle glaucoma (OAG). The figure focuses on the treatment portion of the framework and depicts the KQs within the context of the inclusion criteria. In general, the figure illustrates how treatment of open- angle glaucoma may reduce visual impairment (KQ 1) and/or improve patient-reported outcomes (KQ 2). It shows how treatment of open- angle glaucoma may reduce intraocular pressure (KQ 3) and/or prevent or slow the progression of optic nerve damage and visual field loss (KQ4). The framework also depicts a potential relationship between the intermediate outcomes of visual field loss and optic nerve damage and the final health outcomes of visual disability and quality of life (KQ 5). Finally, the potential harms of treatment (KQ 6) are included in the framework.

Figure 1. Analytic framework for treatment of open-angle glaucoma



KQ = Key Question; T = Key questions for the Comparative Effectiveness of Treatment for Glaucoma; S = Key questions for the Comparative Effectiveness of Screening for Glaucoma

Study Selection

Types of Studies

We included randomized controlled trials (RCTs) and "quasi-randomized" controlled trials of medical, laser, and incisional surgical treatments for OAG for inclusion as primary studies for KQs 1, 2, 3, and 4. We included observational study designs, cohort and case control studies, in addition to randomized and "quasi-randomized" controlled trials for KQs 5 and 6.

We also included systematic reviews that address the KQs as described in Data Synthesis.

Types of Participants

We included studies of participants with primary or secondary chronic OAG or OAG suspects aged 40 years and older (specific exclusions are listed below). These types of glaucoma may also be described in the literature as the following conditions:

- Ocular hypertension
- Low tension or normal tension glaucoma
- Pseudoexfoliative glaucoma/pseudoexfoliation syndrome
- Pigmentary glaucoma
- Steroid-responsive glaucoma

We specifically excluded the following conditions: juvenile/congenital glaucoma, traumatic glaucoma, neovascular glaucoma, refractory glaucoma, and inflammatory glaucoma as well as all types of angle closure.

We considered studies that enrolled participants diagnosed with included and excluded glaucoma types (as described above) if the investigators conducted analyses of included subgroups and if we were able to abstract data for the included glaucoma types only.

We included studies in which at least 95 percent of the participants are aged 40 and older or those in which the mean age is greater than 50 years. If the age was not specified, the study was excluded.

There were no limitations based on stage or severity of disease, disease etiology, comorbid ocular or other medical conditions, geographic location, or demographic characteristics, (e.g., gender, race/ethnicity).

Types of Interventions

We included studies of medical (eye drops and systemic treatment), laser, and incisional surgery treatments for OAG.

Medical Treatments

We considered studies of the following agents for this review:

- Prostaglandin analogs
    - Bimatoprost
    - Latanoprost
    - Travoprost
- Beta adrenergic antagonists
    - Timolol
    - Levobunolol
    - Betaxolol
    - Carteolol
- Topical and oral carbonic anhydrase inhibitors
    - Acetazolamide
    - Brinzolamide
    - Dorzolamide
- Alpha2 adrenergic agonists
    - Brimonidine
- Combination medical treatments
    - Dorzolamide plus timolol
    - Brimonidone plus timolol

We included preparations of the above-mentioned agents by trade, or generic/chemical name. The complete list is in Appendix E.

We included studies of the impact of medical intervention on diurnal intraocular pressure if outcomes were assessed over a 24-hour period and participants were admitted to a hospital, sleep laboratory, or other facility overnight.

We excluded from this review studies of the following medical interventions that are no longer commonly used to treat glaucoma:

- Pilocarpine
- Apraclonidine
- Epinephrine
- Unoprostone
- Dipivaphrin
- Ocusert
- Iopidine

- Metipranolol
- Systemic β-blockers

We also excluded treatments that were not approved by the Food and Drug Administration (i.e., experimental treatments).

Laser and Incisional Surgical Treatments

We considered for this review studies of the following laser and incisional surgical treatments as well as use of devices that are designed to increase aqueous outflow.

Office-Based Laser Treatments

- Argon and selective laser trabeculoplasty (SLT)

Surgical Procedures

- Trabeculectomy
- Aqueous drainage devices
    - Baerveldt implant
    - Ahmed implant
    - Krupin implant
    - Molteno implant
- Cyclophotocoagulation – trans-scleral and endoscopic
- Deep sclerectomy
- Viscocanalostomy

Specialized Surgical Devices

- iScience microcatheter (canaloplasty)
- Trabectome (modified trabeculotomy)
- ExPRESS shunt (modified trabeculectomy)
- Glaukos iStent (trabecular bypass)
- SOLX™ gold shunt (trabecular bypass)

Definitions of Surgical Treatments

Laser trabeculoplasty: Laser energy (argon, YAG, diode) is applied to the trabecular meshwork in an effort to reduce the resistance to outflow for aqueous humor. The procedure is performed as part of an office visit and requires topical anesthesia and a mirrored contact lens.

Trabeculectomy: The most commonly performed incisional surgery for lowering intraocular pressure in glaucoma patients. Under local anesthesia, a passageway is created at the limbus (junction between the cornea and sclera) that allows the aqueous humor to flow from the anterior chamber to the space between the sclera and the conjunctiva, thereby lowering the intraocular pressure. The hallmark of a trabeculectomy is the fluid-filled bleb (blister) present on the surface of the eye underneath the upper eyelid.

Trabeculotomy: An incisional surgery procedure generally used to lower intraocular pressure in glaucoma affecting infants and children. A metal probe or a suture is passed into Schlemm's canal, a structure into which aqueous humor passes as it exits the eye. The probe is used to disrupt tissue that is typically impeding outflow of aqueous from the eye, thereby

increasing outflow and decreasing the intraocular pressure. Some surgeons also use trabeculotomy in the treatment of glaucoma in adults.

Aqueous drainage devices: Any of a number of plastic implants used in the surgical management of glaucoma, with the aim of lowering the intraocular pressure. All devices consist of a tube that is inserted into the eye, and a plate connected to the tube that is sewn to the sclera and covered by conjunctiva. Aqueous humor moves through the tube and out of the eye to drain on top of the plate into the space between the plate and the conjunctiva.

Cyclophotocoagulation: A procedure in which laser energy is used to damage the ciliary processes, reducing the amount of aqueous humor that they produce, and thereby lowering the intraocular pressure. The procedure can be performed through the sclera (external cyclophotocoagulation) or from the inside of the eye (endocyclophotocoagulation).

Deep sclerectomy: In this procedure the surgeon makes an opening in the conjunctiva to expose the sclera. The surgeon dissects a partial thickness flap of about 5 mm in width to about one third depth in the sclera at the limbus. A second flap is dissected below this flap in order to leave a very thin layer of tissue and to expose Schlemm's canal. This underlying flap of scleral tissue is removed and the surgeon grasps the roof of Schlemm's canal and removes a strip that is about 3 mm in length. Aqueous humor is able to permeate the remaining tissue without a full thickness hole being necessary. The external flap is then sutured down in its original position and the conjunctiva is sewn back in place.

Viscocanalostomy: The surgical procedure is the same as for deep sclerectomy (see above). In addition, viscoelastic is injected into Schlemm's canal in a circumferential fashion in an effort to dilate Schlemm's canal. The external flap is then sutured down in its original position and the conjunctiva is sewn back in place.

Canaloplasty: First a combined deep sclerectomy and visocanalostomy procedure is performed (see above). Following this a microcathater with an illuminated tip is passed through Schlemm's canal for 360 degrees. A 10-0 Prolene suture is tied to the catheter and threaded around Schlemm's canal for 360 degrees. The two ends of this suture are tied under tension in an effort to expand Schlemm's canal. The external flap is then sutured down in its original position and the conjunctiva is put back in place.

Trabectome: The surgeon makes a 1.7 mm incision through the peripheral cornea and injects viscoelastic into the anterior chamber. The Trabectome device is then introduced into the anterior chamber and under visualization using direct gonioscopy with an operating microscope the Trabectome is used to ablate about one quadrant of trabecular tissue. The Trabectome uses low energy electrical pulses to vaporize the trabecular tissue and aspiration is used to remove it. The viscoelastic is removed and the corneal wound is sutured closed.

iStent: The Glaukos Trabecular Micro-Bypass Stent (iStent) is placed into Schlemm’s canal. It is made of nonferromagnetic titanium. One end sits in the anterior chamber and the posterior end sits in Schlemm’s canal allowing fluid to bypass the trabecular meshwork. The device is inserted under direct visualization (using direct gonioscopy) through a 3 mm temporal clear corneal incision. After placing viscoelastic in the anterior chamber, the applicator is passed through the incision and the device is anchored into Schlemm’s canal in the nasal angle. Viscoelastic is removed with irrigation and aspiration.

Gold shunt: The SOLX™ Gold Shunt is a 24-karat gold rectangle (3.2 x 5.2 mm) that connects the anterior chamber to the suprachoroidal space. There are two plates with grooves in them to allow flow from the higher-pressure anterior chamber to the lower pressure suprachoroidal space. The conjunctiva is disinserted at the limbus and a full thickness scleral

incision is created 2 mm posterior to the limbus. A crescent blade is used at 90% scleral depth to direct the anterior portion of the shunt to the anterior chamber and to cut posteriorly 2 to 3 mm to direct the posterior segment into the suprachoroidal space. The scleral incision is closed with 10-0 nylon sutures, and the conjunctiva is closed.

Surgical Treatment of Coexisting Cataract and Glaucoma

We included studies of combined cataract and glaucoma surgical procedures published after April 2000. Studies published prior to this period are summarized in the AHRQ report titled Surgical Treatment of Coexisting Cataract and Glaucoma.[7] We excluded from this review studies of the following surgical interventions or surgery-related conditions or complications:

- Cataract surgery alone among participants with glaucoma
- Treatment of surgical complications
- Intraocular pressure variations after surgery and treatment of IOP after surgery
- Intraocular pressure fluctuation after surgery
- Variations in anesthesia
- Assessment or treatment of filtering blebs alone (bleb survival, revision of blebs, comparisons of blebs, bleb failure)

Comparators

KQs 1, 2, 3, 4, and 6 explored comparisons of medical, laser, and incisional surgical treatments for OAG to each other (e.g., medical versus laser, medical versus medical) or to no treatment. For KQs 1, 2, 3, 4, and 6, we also included studies in which the intervention is a laser or incisional surgical treatment for glaucoma but the comparator is a combined or staged procedure for cataract and glaucoma (glaucoma surgical treatments combined or staged with phacoemulsification or extra capsular cataract extraction).

Outcomes

Key Question 1

Primary Outcome

The proportion of participants with moderate, severe, and profound visual impairment as defined in the International Classification of Diseases, Clinical Modification, 9th Revision (ICD-9). [8] The ICD-9 criteria define moderate visual impairment as best corrected visual acuity of between 20/70 and 20/160, severe visual impairment as acuity between 20/200 and 20/400 or a visual field of 20 degrees or less, and profound visual impairment as an acuity of 20/500 to 20/1000 or no more than 10 degrees of visual field. We also considered other measurements of visual impairment as defined by included studies.

Secondary Outcome

We included visual acuity outcomes among the treatment groups of interest (Early Treatment of Diabetic Retinopathy Study or Snellen) as reported in included studies (e.g., mean visual acuity or proportion of participants in pre-specified visual acuity categories).

Key Question 2

We considered participants' mean total or relevant item/subscale scores as measured by any validated questionnaire, e.g., National Eye Institute Visual Function Questionnaire (NEI-VFQ), for the following patient-reported outcomes among the treatment groups of interest:

Primary Outcome

Vision-related quality of life (vision-related functional loss as well as the impact of functional loss on activities of daily living)

Secondary Outcomes

- Treatment convenience
- Patient satisfaction
- Patient preference values or utility values
- Adherence to medical treatment

Key Question 3

Primary Outcome

We included the proportion of participants with intraocular pressure measurements at pre-specified levels as outlined below among the treatment groups of interest. Since the analysis of intraocular pressure varies appreciably by trial, we considered other intraocular pressure outcomes as reported in included studies.

- Intraocular pressure $\leq$ 18 mmHg
- $\geq$ 20% decrease in intraocular pressure from baseline levels

Key Question 4

Primary Outcomes

- The proportion of participants with progressive optic nerve damage as defined by included studies and as observed via fundus photography or other imaging of the posterior pole.
- The proportion of participants with progression of visual field loss as defined by the Early Manifest Glaucoma Trial and as measured via automated threshold perimetry.[5] We also considered other assessments of visual field loss as defined by included studies.

Key Question 5

Key Question 5 explores the association of (1) lowering intraocular pressure or (2) preventing or slowing the progression of (a) optic nerve damage and (b) visual field loss (intermediate outcomes of treatment) and final health outcomes (reduced visual impairment and improved vision-related quality of life) among the populations of interest. The outcomes were as described above in Outcomes for Key Questions 1, 2, 3, and 4.

Key Question 6

We compared the proportion of participants experiencing the following adverse events among the treatment groups of interest:

Potentially serious:

- Cataract formation (visually significant cataract requiring surgery or report of cataract surgery)
- Low intraocular pressure (hypotony)
- Decreased visual acuity
- Infection (e.g., blebitis, endophthalmitis)
- Inflammation
- Strabismus
- Peripheral anterior synechiae
- Retinal tear and detachment
- Systemic allergic reaction
- Loss of an eye
- Need for additional surgery
- Hyphema
- Transient decrease in central vision
- Systemic side effects
- Choroidal (detachment, effusion, hemorrhage)
- Cardiac arrhythmia
- Death

Less likely to be serious:

- Eye irritation
- Eye watering
- Eye redness
- Patient discomfort
- Ocular surface disease
- Other patient complaint
- Skin discoloration
- Conjunctival injection
- Iris color change
- Punctal stenosis
- Conjunctival foreshortening

We also included other harms as reported in included studies.

Timing of Outcomes

Medical Treatments

We assessed medical treatment outcomes at a minimum of one month post intervention. We included outcomes reported at 6 months (2–9 months) and one year (10–18 months) as reported in included studies. The exception was circadian medical treatment studies in which the investigators report outcomes assessed over a twenty-four hour period.

Surgical Treatments

We assessed outcomes at a minimum of one year (10–18 months) and at annual intervals thereafter as reported in included studies.

Setting

Eye care provider clinical settings only (ophthalmologists and optometrists)

Search Strategy

We searched the following databases for primary studies: MEDLINE, Embase, LILACS (Latin American and Caribbean Literature on Health Sciences) and CENTRAL (the Cochrane Central Register of Controlled Trials). We developed a search strategy for MEDLINE, accessed via PubMed, based on an analysis of the medical subject heading (MeSH) terms and text words of key articles identified a priori and adapted this search strategy for searches of Embase (using EMTREE terms) and CENTRAL (Appendix A). We searched the literature without imposed language, sample size or date restrictions, but excluded non-English language studies at the time of full text review. We searched relevant systematic reviews to identify any additional eligible articles. The databases were last searched on October 6, 2011.

We also conducted a search in MEDLINE and CENTRAL for systematic reviews that address the KQs of interest. For MEDLINE, the search included the topic strategy, as noted above, combined with the term "AND systematic[sb]" and was limited to systematic reviews published from 2009 to 2011. The search for systematic reviews was conducted on March 2, 2011. We screened an existing database of eye and vision systematic reviews to identify relevant OAG systematic reviews published prior to 2009.[6]

Abstract Screening

We screened potentially relevant citations (primary studies and systematic reviews) using the Web-based systematic review software, DistillerSR (http://systematic-review.net/). Citations identified by the search strategies were uploaded to DistillerSR and managed in the following manner: Two reviewers independently assessed titles and abstracts resulting from the literature searches according to the inclusion criteria. We classified the titles and abstracts as "include," "exclude" or "unsure." Disagreements about eligibility were resolved through discussion among reviewers. A copy of the abstract review form is included in Appendix B.

Full-Text Screening

Citations tagged as "unsure" by both reviewers, "unsure" by one reviewer and "include" by the other, or "include" by both reviewers, were promoted to full-text screening. Two reviewers independently applied the same inclusion criteria as used during abstract screening. Non-English language articles were also removed from further consideration at this stage. We resolved any disagreements regarding inclusion through discussion or, as needed, during a team meeting.

Data Abstraction

Data abstraction forms were designed and pilot tested. One reviewer extracted descriptions of the study, including details about the population, intervention(s) and outcomes of interest, using

the systematic review software, DistillerSR. A second reviewer verified the data. We resolved disagreements through discussion.

Risk-of-Bias Assessment

We used the Cochrane Collaboration's tool for assessing the risk of bias of randomized and quasi RCTs.[10] Two reviewers assessed the included studies for sources of systematic bias according to the guidelines in Chapter 8 of the Cochrane Handbook for Systematic Reviews of Interventions using the following criteria: sequence generation and allocation concealment (selection bias), masking of participants, study investigators, and outcome assessors (detection bias), incomplete outcome data (attrition bias), selective outcome reporting (reporting bias), and other sources of bias. Masking of investigators and participants might not have be possible with some of the interventions being examined, but was noted when mentioned. We reported judgments for each criterion as "Low risk of bias," "High risk of bias" or "Unclear risk of bias (information is insufficient to assess)." The two reviewers resolved disagreements through discussion.

Two reviewers assessed the methodological rigor of observational studies using a modified version of the Newcastle Ottawa Scale.[11] The Newcastle Ottawa Scale includes domains to assess the quality of study group selection (representativeness, selection, case definitions), comparability of cohorts/cases, and controls. On the basis of the design or analysis, and ascertainment of exposure(s) or outcome(s) adequacy of follow-up, non-response rate and financial or other conflicts of interest. Each item query required a yes, no, or unable to determine/not reported response. In addition, reviewers provided an overall assessment of the quality of each study as "good" "fair" or "poor" using the reporting bias, selection bias, and confounding domains as a basis for the assessment.

We used a tool adapted by Li (2010) from the Critical Appraisal Skills Program, Assessment of Multiple Systematic Reviews; and the Preferred Reporting Items for Systematic Reviews and Meta-analyses statement, to assess the methodological quality of systematic reviews.[6] We used the following criteria, adapted from Li, to determine which systematic reviews were of sufficient quality to be considered for inclusion in this review: comprehensive search for primary studies (searches of more than one bibliographic database); risk of bias assessment; and appropriate analysis methods (no pooled arm analysis).

Rating Body of Evidence

We assessed the quantity, quality and consistency of the body of available primary study evidence addressing KQs 1 through 6. We used an evidence grading scheme recommended by the GRADE Working Group, adapted by AHRQ in the Methods Guide for Effectiveness and Comparative Effectiveness Reviews (http://www.effectivehealthcare.ahrq.gov/index.cfm/search-for-guides-reviews-and-reports/?pageaction=displayproduct&productid=328) and recently published in the Journal of Clinical Epidemiology.[12 13]

Although we included systematic reviews that addressed our KQs and consider systematic reviews as the highest level of evidence for addressing questions of therapy, we were unable to adapt the grading scheme to include systematic reviews as the evidence grading scheme is designed to assess the body of evidence derived from individual studies and is less amenable assessment of the evidence from one or more systematic reviews incorporated into a more complex review.

We assessed the quality and consistency of the best available primary study evidence, including assessment of the risk of bias in relevant studies, as well as aspects of consistency, directness, and precision as described in the Methods Guide for Effectiveness and Comparative Effectiveness Reviews and by Owens (2010).[12 13] For each outcome of interest, two reviewers graded the major outcomes for each of the KQs and, if needed, discussed their recommendations and reached consensus.

Data Synthesis

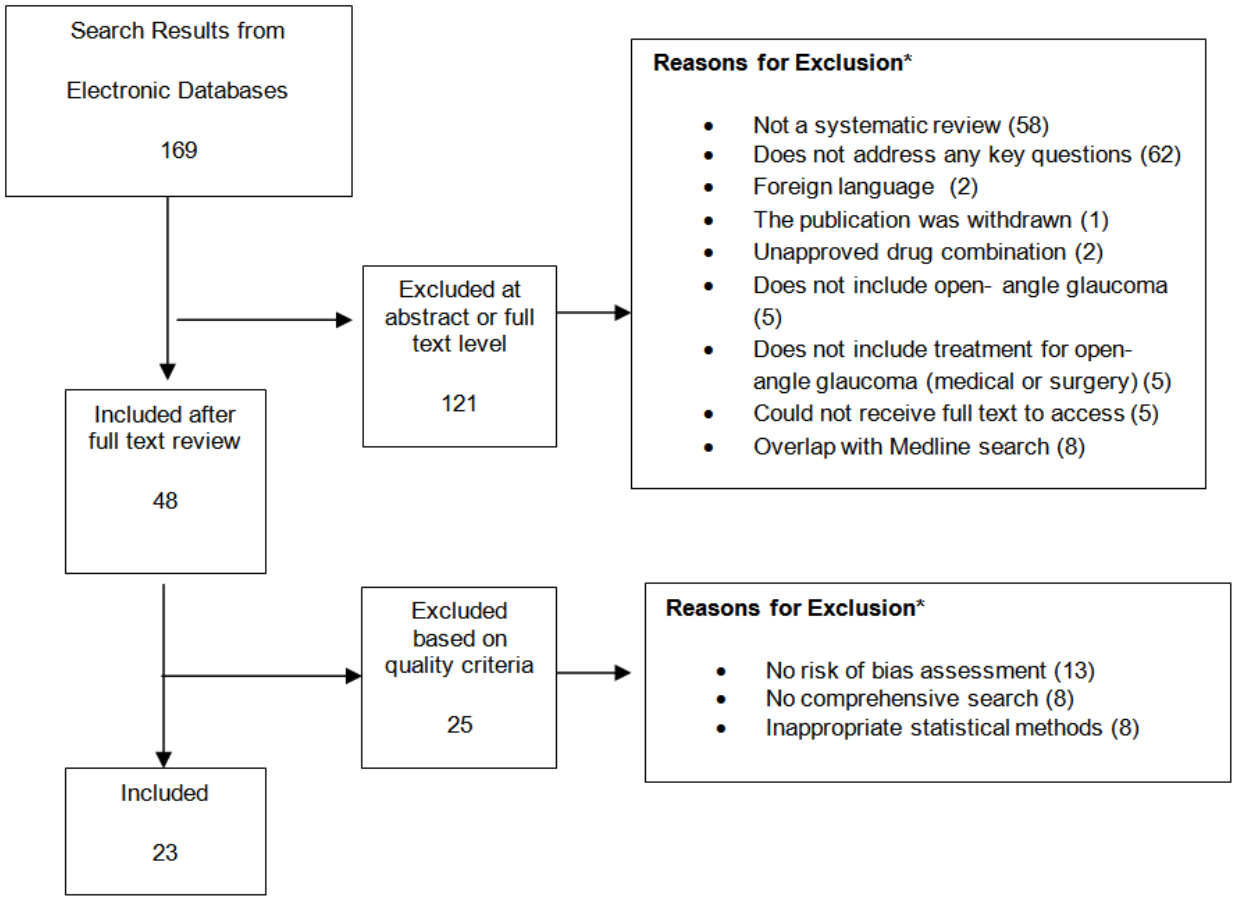
When we identified existing high-quality systematic reviews that addressed the KQs, we cited these reviews as evidence and did not abstract and synthesize data from primary studies. We abstracted and synthesized data from primary studies that addressed interventions, comparisons, and outcomes that were not identified in systematic reviews, and those studies that had been published or identified after the date of last search conducted for the systematic review. We adapted the recommendations of Whitlock (2008) for incorporating systematic reviews in complex reviews and provided a narrative summary of the review methods (i.e., inclusion/exclusion criteria, search strategy, statistical methodology) and findings (i.e., number of studies included, quantitative and qualitative results). Similarly, in the instance of multiple reviews, we evaluated the consistency across reviews addressing the same key question.[14]

The plan for the analysis of primary studies, including the assessments of heterogeneity, reporting bias, measures of treatment effect, data synthesis, and subgroup analysis was included in the protocol for this review.

Results

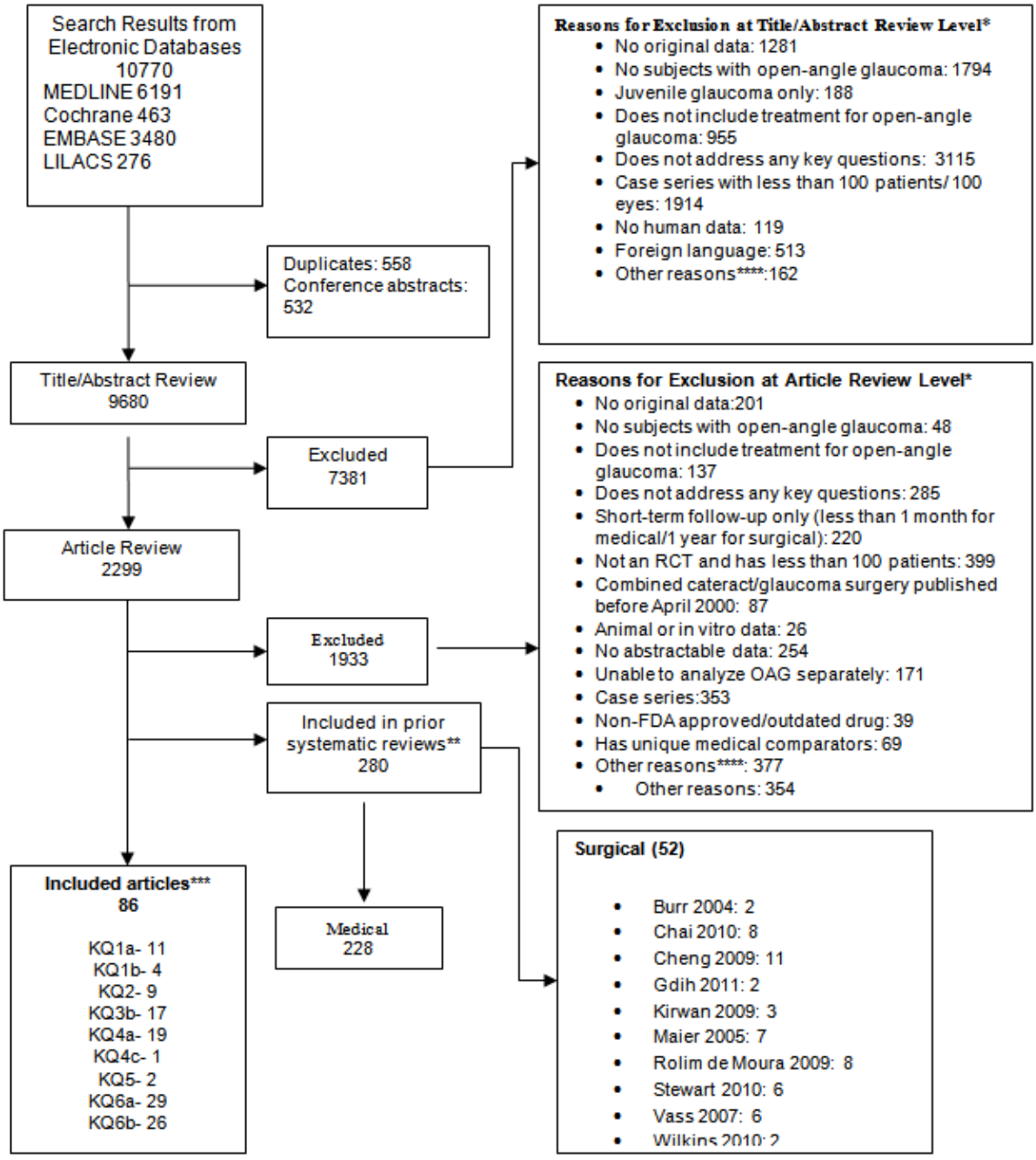
We identified 73 RCTs, 13 observational studies and 23 systematic reviews. The flow search for the literature search for the systematic reviews is described in Figure 2 and the flow search for the literature search for primary studies is described in Figure 3. Details of all studies and systematic reviews are included in Evidence Tables in Appendix C. A listing of included articles, with reason(s) for exclusion is provided in Appendix D.

Figure 2. Systematic review literature search for treatment of open-angle glaucoma



*Total may exceed number in corresponding box, as articles excluded by two reviewers at this level.

Figure 3. Primary study literature search for treatment of open-angle glaucoma



*Total may exceed number in corresponding box, as articles were excluded by two reviewers at this level.
**Total may exceed number in corresponding box, as some articles were covered by more than one systematic review.
***Total may exceed number in corresponding box, as articles may apply to more than one key question
****Other reasons: e.g. comparisons of case series, patient education reports, type of study does not correspond to the KQ, laboratory or autopsy data, letter or commentaries, drugs out of the list.

A summary of the number of articles included by Key Question (KQ), type of study, and type of intervention is presented in Table 1.

Table 1. Summary of literature for treatment of open-angle glaucoma

Question and Comparison	Systematic Reviews	Randomized Controlled Trials	Observational Studies
Medical Treatments			
KQ 1a	0	11	NA
KQ 3a	9	0	NA
KQ 3 – circadian	3	5	NA
KQ 4a	1	19	NA
KQ 6a	11	17	10
Surgical Treatments			
KQ 1b	2	4	NA
KQ 3b	9	20	NA
KQ 4b	0	0	NA
KQ 6b	8	22	3
Medical-Surgical Treatments			
KQ 1c	1	0	NA
KQ 3c	2	2	NA
KQ 4c	3	1	NA
KQ 6c	2	2	0
Additional Questions			
KQ 2	2	9	NA
KQ 5	0	1	1

KQ = Key Question; NA = not applicable

Narrative summaries of the evidence identified for KQs 1, 3, 4, and 6 are presented within each of the following treatment comparison groups: Medical treatment, surgical treatment, and medical versus surgical treatment. KQs 2 and 5 are discussed under subheadings identified by KQ. For each question and comparison, evidence from systematic reviews is discussed first, followed by evidence from primary studies.

Medical Treatment of Open-Angle Glaucoma

Systematic Reviews of Medical Interventions for Open-Angle Glaucoma

We included 12 systematic reviews that address the comparative effectiveness of medical interventions for open- angle glaucoma (OAG) (Appendix C). The most common comparisons included head-to-head comparisons of prostaglandin analogs,[18-23] prostaglandin analogs compared to timolol,[24 25] latanoprost compared to brimonidine,[21 22] timolol compared to brimonidine,[26] and concomitant compared to fixed combination medications.[27 28] Vass (2007) provided an overview of various topical medical treatments compared to placebo, no treatment, or another medical treatment.[29] While all systematic reviews included participants with OAG, some reviews also included studies that enrolled participants with mixed or "other" glaucoma (approximately 2% of participants), and chronic-angle closure glaucoma (included in population in a minimum of one trial in a single systematic review).

KQ 1a: What is the comparative effectiveness of medical treatments for reducing visual impairment?

Key Points

- No studies of medical therapy were identified that directly addressed outcomes related to visual impairment.
- The available studies addressing secondary outcomes of change in visual acuity and visual field loss are of too short a duration to answer this question given that glaucoma is typically a slowly progressive disease that may take many years to cause clinically or statistically significant changes.

Evidence From Systematic Reviews

We did not identify any systematic reviews of medical interventions for OAG that included outcomes related to visual impairment.

Detailed Analysis of Primary Studies

We identified eleven studies comparing medical therapies for glaucoma that also reported something about vision-related outcomes. Unfortunately, none of these reported any outcomes related to actual impairment but rather were limited to the secondary outcomes of visual acuity and visual field mean defect. Of the 11 studies, eight reported on the visual field and six on visual acuity.

Two studies demonstrated some improvement in visual field performance. The study by Prata (2009) comparing timolol, brimonidine, and travoprost, showed an overall decrease in mean deviation (-6.56 to -5.72, p=0.045) in treated subjects.[30] A study comparing betaxolol to levobunolol by Marcon (1990) demonstrated some improvement in visual field performance in 1 of 20 subjects.[31]

Two additional studies reported no change in visual field over the course of the studies. A cross-over study of dorzolamide-timolol, travoprost, and latanoprost showed no significant change in visual field mean deviation or pattern standard deviation over 9 months of treatment,[32] and a study of timolol and carteolol showed no change in the visual field over 16 weeks.[33] The 9-month study used non-standard definitions of progression (2dB loss in mean deviation or one point with a decrease in threshold of 10dB) that would not be expected to be seen over the short duration of the study.

Four studies produced results suggestive of a decline in visual field but none were able to demonstrate any statistical significance. A study of carteolol vs. timolol presented the distribution of changes in visual field mean defect, which suggests that there was a net decline in both groups. But again, no statistics were provided.[34] Tuulonen (1989) compared laser trabeculoplasty to topical medications and demonstrated visual field decline in both groups (-7.4 to -8.6 with laser, -9.1 to -9.4 with medications), though neither decline was statistically significant.[35]

Reports of visual acuity outcomes were similarly variable. The study comparing betaxolol to levobunolol by Marcon (1990) included two subjects (10%) with improved visual acuity.[31] The comparison of dorzolamide-timolol, travoprost, and latanoprost by Chiselita (2005) showed no change in visual acuity over 9 months of treatment.[32] Yamamoto (1996) found no subjects lost two or more lines of vision over 16 weeks in their trial of timolol and carteolol.[33] Ravalico

(1994) compared levobunolol to no treatment in ocular hypertensives and reported "no variation" in visual acuity, though no criteria were provided.[36]

Two studies reported worsening of visual acuity at some point during the study but neither outcome was believed to be due to treatment. Berson (1985) compared levobunolol to timolol and found that 57 subjects had a decline of two or more lines of visual acuity at some point, but that these were transient.[37] Similarly, Schuman (1997) found a decrease of two or more lines of acuity in 5.9 percent of their brimonidine treated group and 9.5 percent of their timolol treated group, at 12 months.[38]We present a summary of the studies included in the review of KQ 1a with comparators, outcomes and results (Table 2, summary table for KQ 1a).

Table 2. Summary table for KQ 1a

Study	Patients/eyes	Comparators	Outcome	Results
Berry 1984[41]	20 pat/35 eyes 26 pat/43 eyes	Betaxolol 0.5% Timolol 0.5%	Visual acuity	Data not reported
Berson 1985[37]	48 pat 51 pat 42 pat	Levobunolol 0.5% Levobunolol 1% Timolol 0.5%	Visual acuity	Transitory changes, considered unrelated to treatment
Chiselita 2005[32]	38 pat/38 eyes	Latanoprost Travoprost Dorzolamide/Timolol	Visual acuity	No significant change over 9 months
Flammer 1992[34]	35 pat 37 pat	Carteolol Timolol 0.5%	Visual acuity and visual fields	Suggested decline in visual fields defect in both arms
Liu 2002[40]	27 pat 27 pat	Latanoprost 0.005% Brimonidine 0.15%	Visual acuity	Data not reported
Marco 1990[31]	20 pat	Betaxolol 0.5% Levobunolol	Visual acuity and visual fields	No significant improvement in visual fields
Prata 2009[30]	17 pat 14 pat 19 pat	Timolol 0.5% Brimonidine Travoprost	Visual acuity and visual fields	No correlation between IOP reduction and changes in visual function between the 3 medications
Ravalico 1994[36]	12 pat/23 eyes 14 pat/26 eyes	Levobunolol 0.5% Untreated	Visual acuity	Data not reported
Sharpe 2004[39]	33 pat 33 pat	Brimonidine Dorzolamide	Visual acuity	Data not reported
Schuman 1997[38]	186 pat 188 pat	Brimonidine Timolol 0.5%	Visual acuity	Changes, considered unrelated to treatment
Yamamoto 1996[33]	12 pat 9 pat 12 pat	Timolol 0.5% Carteolol 1% Carteolol 2%	Visual acuity	No significant change over 16 weeks

The grading of evidence for KQ 1a with all the domains is summarized in Table 3.

Table 3. Grading of evidence for KQ 1a

Number of Studies; Participants	Risk of Bias	Consistency	Directness	Precision	Strength of Evidence
Visual Impairment/Visual Acuity					
11; 918	RCT/Medium	Inconsistent	Direct	Imprecise	Insufficient

Conclusions

None of the studies identified were of sufficient duration or size to identify outcomes that could plausibly be related to visual impairment due to glaucoma, which is most often a slowly progressive disease. Given the relatively slow loss of vision, even in those not being treated for glaucoma, studies attempting to assess visual impairment would need to extend to perhaps 10 or more years to be able to assess differences in visual impairment. Suggesting studies of this length is supported by the relatively low rates of progression seen in the large trials of glaucoma therapy (Ocular Hypertension Treatment Study, Collaborative Initial Glaucoma Treatment Study, Advanced Glaucoma Intervention Study) but the actual duration would need to be determined based on the initial severity of disease and anticipated risk of progression in the study population.

KQ 3a: What is the comparative effectiveness of medical treatments for lowering intraocular pressure?

Evidence from systematic reviews and primary studies addressing diurnal intraocular pressure (IOP) measurements are discussed separately.

Key Points

- Prostaglandins lower IOP more than dorzolamide (carbonic anhydrase inhibitor, 2.64 mmHg, 3 trials), brimonidine (alpha-adrenergic agonist, 1.64 mmHg, 4 trials), and timolol (beta-adrenergic blocker, 5% greater at 6 months, 4 trials). (Systematic Review)
- The prostaglandins appear similar in the extent to which they lower IOP, but some studies have reported a greater drop in IOP with bimatoprost (prostaglandin).
- The combination dorzolamide/timolol appears to lower IOP the same amount as prostaglandins.

Summary of Evidence From Systematic Reviews

Prostaglandin Analogs Versus Timolol

Studies comparing Timolol with travoprost[24] and latanoprost,[25] showed prostaglandin analogs more effective at lowering IOP. The percent IOP reduction from baseline to 1 month was 4 percent greater for participants randomized to latanoprost compared to travoprost at 1 month (95% CI, 1.2 to 6.3, three trials) and 5 percent greater at 6 months (WMD 5.0; 95% CI, 2.8 to 7.3, four trials). The mean reduction in IOP after 3 or more months was 0.81 mmHg lower for participants receiving travoprost (95% CI, -1.16 to -0.45, four trials).

Prostaglandin Analogs (Head-to-Head Comparisons)

Two systematic reviews included comparisons of bimatoprost and latanoprost. In both reviews the investigators concluded that bimatoprost lowered IOP more effectively than latanoprost.[19 20] The difference in the proportion of participants achieving an IOP less-than or equal-to 17 mm Hg was greater with bimatoprost at 3 months, (Risk difference [RD], 12; 95% confidence interval [CI], 4 to 21, two trials), but no difference was found at 1 and 6 months.[19] Cheng (2008) also noted a significant mean percent reduction in morning IOP with bimatoprost versus latanoprost (2.6% at 1 month, 2.4% at 3 months, and 5.6% at 6 months)[19] and Eyawo (2009) reported significant mean IOP reduction with bimatoprost at 3 or more months of follow-up (weighted mean difference [WMD], 0.73; 95% CI, 0.10 to 1.37, eight trials).[20]

Both Eyawo (2009) and Li (2006) compared travoprost to latanoprost and to bimatoprost.[20 24] Both reviews concluded that mean IOP reduction was similar when comparing travoprost to latanoprost. Li (2006) and Eyawo (2009) differed in their conclusions regarding bimatoprost versus travoprost, as Eyawo reported a significant difference in favor of bimatoprost at 3 or more months of followup (WMD, 0.88; 95% CI, 0.13 to 1.63, eight trials),[20] while Li concluded that bimatoprost and travoprost were similarly effective (WMD 0.08; 95% CI, -0.62 to 0.79, five trials).[24]

Concomitant Versus Fixed Combination Medical Treatments

Cheng (2009) reported no difference in the mean percent reduction in IOP at 10 a.m., when they compared latanoprost to dorzolamide/timolol combination treatment.[25] Cox (2009) undertook a more general analysis of concomitant versus fixed combinations including travoprost, brimonidine, dorzolamide, bimatoprost, or latanoprost combined with a beta blocker.[28] Overall concomitant administration resulted in a larger mean difference in IOP from baseline to 3 months, although the difference was significant only when IOP was measured at 2 hours (WMD, 0.39; 95% CI 0.04 to 0.75, six trials) and 8 hours (WMD, 0.50; 95% CI, 0.16 to 0.85, four trials) after a dose of medication.

Other Comparisons

Loon (2008) concluded that timolol and brimonidine were similarly effective after comparisons of the two medications in eight trials of varying follow-up periods, and after conducting subgroup analyses of trials of less than and more than 6 months of followup (three and five trials, respectively).[26]

Fung (2007) and Hodge (2008) compared latanoprost and brimonidine. Fung (2007) concluded that use of latanoprost resulted in a greater mean reduction of IOP in a group of heterogeneous trials of varying duration (WMD 1.10 mmHg; 95% CI, 0.57 to 1.63, 14 trials).[21] Subgroup analyses of trials of less than 6 months duration and those with 8 or more months of follow-up supported the trend of lower mean IOP among those using latanoprost, with a mean difference in IOP lowering of 1.64 mm Hg in trials of greater than or equal to 8 months (95% CI, 0.92 to 2.36, four trials). Hodge (2008) reported no difference in mean IOP at 3 months (WMD, -1.04l 95% CI, -3.01 to 0.93, three trials). [22]

Hodge (2008) compared latanoprost and dorzolamide. Participants receiving latanoprost had lower IOP on average at 3 months (WMD, -2.64; 95% CI, -3.25 to -2.04, three trials).[22]

Detailed Analysis of Primary Studies

The primary studies identified as part of our search were all subsumed by the available systematic reviews.

Grading of Evidence

The assessment of the quality of evidence reported by the included systematic reviews were determined to be adequate so the included studies were not re-evaluated using the additional criteria used for the primary studies included elsewhere in this report.

Conclusions

As single agents, prostaglandins are currently the most effective at lowering IOP. Some studies have found greater IOP lowering with bimatoprost, but this has not been a consistent

finding. The combination of dorzolamide and timolol appears to lower IOP about the same amount as prostaglandins.

Effect of Medical Treatments on Circadian Intraocular Pressure

There is some evidence from clinical trials that fluctuation of IOP throughout the day (diurnal variation) may be important in terms of predicting future progression. We therefore explicitly included studies that evaluated this aspect of glaucoma medications.

Key Points

- Our conclusions regarding the effect of topical therapies in lowering IOP over the 24-hour time period were limited due to the fact that one study provided almost all of the data.
- All topical medications reviewed appear to lower IOP throughout the 24-hour cycle.
- Prostaglandins appear to lower IOP more over the 24-hour cycle than beta-blockers, topical carbonic anhydrase inhibitors and alpha agonists, but the evidence for this is weak.
- While the IOP lowering effects of different prostaglandins appear to vary appreciably over the 24-hour time period, the results were inconsistent and the reported difference in the amount of IOP lowering was on the order of 1 mmHg.
- Results from systematic reviews comparing one prostaglandin to another were inconsistent.

Summary of Evidence From Systematic Reviews

Aptel (2008) performed a meta-analysis of mean IOP reduction for head-to-head comparisons of prostaglandin analogs based on IOP measurements taken at 8 a.m., 12 p.m., 4 p.m., and 8 p.m.[18] IOP reduction was significantly greater with use of bimatoprost, when compared to latanoprost, at all time periods. Mean IOP reduction of bimatoprost was greater than travoprost at 8 a.m. and 12 p.m., but not different at the 4 p.m. and 8 p.m. time periods.[18] In addition, travoprost had roughly the same effectiveness as latanoprost at lowering IOP across all time periods under investigation.

Cheng (2008) looked at the percent reduction in circadian IOP from baseline in three trials comparing bimatoprost and latanoprost and found that mean reduction was not different at follow-up (2.5% at 1 month and 2.1% at 3 months).[19]

Cheng (2009) compared latanoprost to dorzolamide/timolol combination treatment (including studies of both fixed and concomitant administration of dorzolamide/timolol) and found no difference in diurnal mean percent reduction in IOP at any time point (1, 2, 3, and 6 months).[27]

Detailed Analysis of Primary Studies

The medications used to lower IOP may not have equal effectiveness at different time points during the day. It is possible that some medications work better at night than others while others may work better during the daytime hours. The main way to assess this difference is to measure the IOP over the entire 24-hour period. Five RCTs met the inclusion criteria. IOP outcomes for the five RCTs were largely reported graphically and so we provide a narrative summary of the findings.

We present a summary of the studies included in the review of circadian studies with comparators, outcomes and results (Table 4).

Table 4. Summary table for circadian studies

Study	Comparators	Patients	Treatment Specifics	Mean IOP Baseline (mmHg)	Conclusions
Larsson 2001[44]	Latanoprost 0.005% Timolol 0. 5%	27 pts Cross over	Wash out 4w Duration 4w	23.8	Better effect on IOP with latanoprost than Timolol. No effect on blood pressure or heart rate
Orzalesi 2006[46]	Latanoprost 0.005% Bimatoprost 0.03% Travoprost 0.04%	44 pts Cross over	Wash out 4w Duration 1m	21.9	IOP was reduced with the 3 drugs, more so with bimatoprost. No effect on blood pressure.
Quaranta 2008[42]	Latanoprost 0.005% Bimatoprost 0.03%	40 pts Cross over	Wash out 6 w Duration 8w	≤21	No significant difference in IOP or blood pressure
Quaranta 2006[43]	Latanoprost 0.005% Timolol 0.5% Brimonidine 0.2% Dorzolamide 2%	27 pts Cross over	Wash out 4w Duration 6w	24.2	All drugs decreased IOP but latanoprost lowered it more. Some effect on blood pressure with Timolol and Brimonidine.
Yildirim 2008[45]	Latanoprost 0.005% Bimatoprost 0.03% Travoprost 0.04%	17 16 15	Wash out NS Duration 8w	22.3 22.6 23.4	IOP was reduced with the 3 drugs with no significant difference between the 3

Quaranta (2008) studied latanoprost versus bimatoprost in 40 newly diagnosed participants with glaucoma with IOP less than or equal to 21 mmHg when measured once every two hours from 8 a.m. until 8 p.m.[42] The trial randomized participants to either bimatoprost or latanoprost for 8 weeks, followed by a 24-hour IOP assessment. Participants then crossed over to the other drug for another 8 weeks, followed by a 24-hour IOP assessment. There was no difference over the 24-hour period between the two treatments. IOP dropped between 1.5 and 3.5 mmHg at different time points with an average drop of 2 mmHg from a mean of 15.5 mmHg. Blood pressure (monitored over 24 hours) did not change when using either medication.

A separate study, by the same authors involved a cohort of 27 newly diagnosed glaucoma patients with IOP greater than or equal to 23 mmHg and less than or equal to 32 mmHg (computed by taking the average of the two highest IOP measurements between 8 a.m. and 6 p.m.) The study randomized the patients to timolol 0.5 percent, brimonidine 0.2 percent, dorzolamide 0.2 percent (all given twice a day) and latanoprost (given once a day) in a crossover design in which all four medications were used by each of the patients for 6 weeks followed by 4-week washout periods.[43] Latanoprost lowered IOP about 1 mmHg more than the other medications over the 24-hour time period, and no differences were seen when comparing the other medications to themselves in other arms of the study. All drugs decreased IOP at all time points over 24 hours. Both brimonidine and timolol lowered IOP less during sleeping hours than latanoprost. Brimonidine and timolol lowered systolic blood pressure and diastolic blood pressure compared to baseline over 24 hours, and brimonidine lowered it the most, especially at night.

Larsson (2001) randomized 27 participants with IOP greater than 21 mmHg (who did not have glaucoma) to 4 weeks of either timolol 0.5 percent gel (once a day in the morning) or latanaprost (once a day in the evening) with a washout of 4 weeks before crossover.[44] Latanoprost lowered IOP more than timolol gel at every time point by an average of about 1.5 mmHg with a slightly greater reduction observed during sleeping hours. The study saw no differences in systolic blood pressure, diastolic blood pressure or heart rate were noted over 24 hours.

In a randomized 8-week trial, Yildrin (2008) compared latanoprost, bimatoprost and travaprost in 48 participants with IOP greater than 22 mmHg who had not previously received IOP lowering therapy.[45] All three medications lowered IOP at all time points. The only observed difference between the medications was travaprost lowered IOP more than the other two at 8 a.m. and 10 a.m.

Orsalezi (2006) compared latanoprost, bimatoprost and travaprost in 44 patients with either primary OAG or ocular hypertension (OHT) and IOP greater than 21 mmHg, who had not previously received prostaglandin. The trial was a randomized cross-over study in which patients used the drugs for 1 month prior to each 24-hour measurement.[46] All three medications lowered IOP by about 7 mmHg, however bimatoprost lowered IOP more at most time points by about one mmHg. None of the medications had any effect on blood pressure.

The grading of evidence for circadian studies is summarized in Table 5.

Table 5. Grading of evidence for circadian studies

Number of Studies; Participants	Risk of Bias	Consistency	Directness	Precision	Strength of Evidence
Diurnal Intraocular Pressure					
5; 186	RCT/Medium	Inconsistent	Direct	Imprecise	Low

Conclusions

Of the available monotherapies, prostaglandins appear to lower IOP most throughout the circadian period. Combination timolol/dorzolamide appears to be equally effective. Most findings are from single studies comparing specific agents, so the evidence is relatively weak. The importance of fluctuations in IOP throughout the 24-hour period on long-term outcomes for glaucoma patients is not known. Studies looking at fluctuation in eye pressure over long periods of time have had inconsistent results with some reporting worse outcomes with greater fluctuations and others reporting no difference.

KQ 4a: What is the comparative effectiveness of medical treatments for preventing or slowing the progression of optic nerve damage and visual field loss?

Key Points

- A systematic review of medical treatment for glaucoma determined treatment to be protective against progressive visual field loss. This review included the results of both the Early Manifest Glaucoma Trial and the Ocular Hypertension Treatment Study.
- Other included primary studies are of insufficient size or duration to detect differences in the rates of optic nerve damage or visual field loss. Given the slowly progressive nature of glaucoma, the large trials of glaucoma therapy (summarized elsewhere) have demonstrated the need to follow hundreds of participants for 5 or more years to detect change.
- A single study addressed the comparative effectiveness of glaucoma medications with respect to their ability to prevent optic nerve damage or visual field loss and found brimonidine superior to timolol.

Summary of Evidence From Systematic Reviews

Vass (2007) reported that any topical medical treatment (including beta blockers and studies with unspecified topical medications) had a significant protective effect on incident visual field defect progression when compared to placebo or no treatment (odds rations [OR]. 0.62; 95% CI, 0.47 to 0.81, 10 trials). Beta blockers were also protective when compared to placebo (OR, 0.67; 95% CI, 0.45 to 1.00, eight trials), as was timolol when compared to carteolol.[29] Participants randomized to timolol, however, experienced a twofold higher odds of visual field defects when compared to participants receiving levobunolol (95% CI, 1.17 to 4.14, two trials).

Detailed Analysis of Primary Studies

Two studies reported an improvement in visual field with topical medical treatment. Prata (2009) showed an improvement in mean deviation across their entire population of subjects taking timolol, brimonidine, or travoprost.[30] This was only a 4-week study and included no control group. The study of betaxolol versus levobunolol by Marcon (1990) found one subject of 20 whose visual field improved over 12 weeks of treatment, though criteria were not specified.[31]An additional seven studies found no change in visual field parameters. The subanalysis of the Ocular Hypertension Treatment Study by Herman (2006) regarding cataract formation, reported no statistically significant change in either foveal sensitivity or visual field mean deviation.[47] An evaluation of dorzolamide-timolol versus travoprost versus latanoprost showed no change in mean deviation or pattern standard deviation after 9 months.[32] A comparison of timolol to betaxolol by Rainer (2003) revealed an improvement in the mean deviation for the betaxolol group alone but no significant difference in final mean deviation between the two groups.[48] The study of timolol, metipranolol, and carteolol by Mirza (2000) did not find any change in visual field parameters over 3 months.[49] Using a custom analysis of visual field point clusters of the Octopus G1 pattern, Vainio-Jylha and Vuori (1999) found no changes in visual fields over their 24-month study of betaxolol and timolol.[50] Finally, the study of timolol versus carteolol by Yamamoto (1996) found no change in visual field over 16 weeks.[33]

An additional nine studies were identified in which visual field measures worsened. The crossover study of latanoprost and timolol by Evans (2008) did not report on all visual field outcomes but did find that the latanoprost-then-timolol group had a statistically significant worsening of mean deviation (-1.49 to -2.41, p=0.04).[51] Dirks (2006), comparing latanoprost to bimatoprost, found one subject in the latanoprost group worsened by unspecified visual field criteria.[52] The European Glaucoma Prevention Study compared dorzolamide to placebo and found that in both groups, visual field worsened at a similar rate over 5 years.[53] Similarly, a study of ocular hypertensives randomized to placebo or timolol found less disease progression in the treated group but the difference was not statistically significant.[54] A study of brimonidine and timolol treatment found that two subjects of 48 and 46 (enrolled respectively in each group) worsened but, again, the criteria were not specified.[55] Messmer (1991) randomized subjects to betaxolol or timolol and found that both groups improved during the initial 6 months and then worsened.[56] Without clear statistical analysis, they report that the slope of the mean sensitivity in the betaxolol group was more positive. Another study of carteolol and timolol using the Octopus G1 pattern reports the distribution of the slope of the mean defect. This analysis seems to show disease progression in both groups but there are no analyses.[34] Finally, Berry (1984) compared timolol and betaxolol and found that three of 35 eyes treated with betaxolol and two of 43 eyes treated with timolol worsened, although their conclusion was that this was due to "normal variation."[41]

The Low-pressure Glaucoma Treatment Study (Krupin 2011) compared brimonidine to timolol in subjects with glaucoma at normal IOP. The investigators found the brimonidine group was significantly less likely than the timolol group to have visual field progression (9% vs. 39.2%, p=0.001).

One additional study (Martinez 2010) compared dorzolamide added to timolol with brinzolamide added to timolol and found that there was less visual field progression in the group receiving dorzolamide.[57]

Only one additional primary study was identified that addressed optic nerve changes. The European Glaucoma Progression Study found statistically similar risk of disease progression (by optic disc criteria) in the dorzolamide and placebo groups.[53]

The grading of evidence for KQ 4a with all the domains is summarized in Table 6.

Table 6. Grading of evidence for Key Question 4a

Number of Studies; Participants	Risk of Bias	Consistency	Directness	Precision	Strength of Evidence
Visual Field					
19;3079	RCT/ Low	Inconsistent	Direct	Imprecise	Low
Optic Nerve Changes					
1;1076	RCT/Low	N/A	Direct	Imprecise	Insufficient

Conclusions

A systematic review of medical treatment for glaucoma found treatment to be protective against visual field progression. Most other studies were not large enough or not of a long enough duration to detect differences in the rates of optic nerve damage or visual field loss. No other systematic reviews or individual studies addressed the comparative effectiveness of glaucoma medications with respect to their ability to prevent optic nerve damage or visual field loss.

Most of the primary studies found in our search were of inadequate duration to detect any changes in the optic nerve or visual field. Of the large studies evaluating medical therapy for glaucoma, both the Ocular Hypertension Treatment Study and the Early Manifest Glaucoma Study (which also included treatment with laser trabeculoplasty) showed a decreased rate of visual field loss and progressive optic nerve damage in those subjects treated with medications. Among such studies, only the European Glaucoma Prevention Study (EGPS) failed to find such a difference between treatment and placebo. Two important limitations of the EGPS were the relatively high loss to follow up and the fact that the response to placebo treatment was significantly higher than in prior studies. Based on the results of the Ocular Hypertension Treatment Study and the Early Manifest Glaucoma Trial, medical treatments decrease the risk of progression by 50 percent or less.

Only one of the primary studies was appropriately designed to compare rates of progression by visual field or optic nerve criteria between any two or more medications and found that brimonidine was superior to timolol in this regard.

Note that one key study in this area, the Ocular Hypertension Treatment Study (OHTS) is included in the discussion of a systematic review that is discussed in the section for KQ 4 in the medical versus surgical treatments, below.

KQ 6a: What are the harms associated with medical treatments for open-angle glaucoma?

Key Points

- The prostaglandin agents produce more ocular redness than does timolol (beta-adrenergic blocker). (Systematic review)
- Within the prostaglandins, latanoprost is less likely to cause redness. (Systematic review)
- Subjects on timolol (beta-blocker) were less likely to drop out of studies due to side effects than those on brimonidine (alpha-adrenergic agonist), latanoprost (prostaglandin analog), travoprost (prostaglandin analog), or betaxolol (beta-blocker). (Systematic review)

Summary of Evidence From Systematic Reviews

Bimatoprost was associated with a higher risk of conjunctival hyperemia when compared to other prostaglandin analogs. Aptel (2008) noted that the risk of conjunctival hyperemia was 1.7 times as high among participants receiving bimatoprost when compared to participants receiving latanoprost (95% CI, 1.44 to 2.02, five trials). [18] Cheng (2008), Eyawo (2009), and Honrubia (2009) reported similar results for the same comparison.[19 20 23] Aptel (2008) and Li (2006) reported similar results after comparing bimatoprost to travoprost.[18 24] However, in one trial Eyawo (2009) found the opposite result (higher risk among those using travoprost).[20] Cheng (2008) further noted that there were no significant differences in other adverse effects such as eye irritation, ocular inflammation, cystoid macular edema, and iris pigmentation with use of bimatoprost versus latanoprost.[19]

Aptel (2008), Eyawo (2009), Honrubia (2009), and Li (2006), reported the harms related to use of latanoprost versus travoprost.[18,20,23,24] In these systematic reviews, participants randomized to latanoprost were less likely to experience conjunctival hyperemia when compared to travoprost. From a meta-analysis of six randomized trials, Eyawo (2009) reported 49 percent lower odds of conjunctival hyperemia among participants exposed to latanoprost compared with those given travoprost. Li (2006) further noted that comparisons of travoprost 0.004 percent to travoprost 0.0015 percent in four trials showed that participants receiving travoprost 0.004 percent were at increased odds of conjunctival hyperemia compared to those receiving 0.0015% (OR, 1.64; 95% CI, 1.32 to 2.04).[24]

There were no significant differences in reports of harms such as conjunctival hyperemia, dry eye, and increased pigmentation between latanoprost, brimonidine (α2 adrenergic agonist) or dorzolamide (carbonic anhydrase inhibitor) as reported by Fung (2007) and Hodge (2008).[21 22] However, there was an increased risk of fatigue reported by participants using brimonidine.

Li (2006), Loon (2008), Vass (2007), Zhang (2001) conducted separate comparison of timolol with brimonidine (α2 adrenergic agonist), prostaglandin analogs (travoprost, latanoprost), other β adrenergic antagonists, and placebo.[24-26 29] While there was a twofold increase in the odds of participant drop out due to drug-related adverse events among participants randomized to timolol versus betaxolol (OR. 2.40; 95% CI, 1.04 to 5.53, five trials), the odds of dropping out were lower among participants randomized to timolol when compared to those receiving brimonidine (OR, 0.21; 95% CI, 0.14 to 0.31, three trials).[29] As to the comparison of timolol with prostaglandin analogs, participants receiving either travoprost [24] or latanoprost [25] had six times the odds and twice the odds, respectively, of dropping out of the study due to

conjuctival hyperemia, compared to patients receiving timolol. Both drugs also significantly increased iris pigmentation.

Conjunctival hyperemia and iris pigmentation were also significantly related to use of lantanoprost when compared to fixed and concomitant administration of timolol and dorzolamide. Cox (2008) concluded that adverse event reporting in studies of fixed versus concomitant medication formulations was inconsistent and the authors were thus unable to determine whether reports were associated with use of medications under investigation.[28]

Detailed Analysis of Primary Studies

We included 17 randomized controlled trials [32,33,37-39,41,42,49,52,53,55,58-63] and 10 observational studies [64-73] that reported harms of medical treatment (See evidence tables 11 and 12 in Appendix C).

Conjunctival Hyperemia

Conjunctival hyperemia is the most commonly reported adverse effect among the observational studies of medical treatment for OAG. Denis (2010) conducted an open label uncontrolled 3-month study of once-daily use of 0.005 percent latanoprost in 258 ophthalmology practices that included 600 participants with OHT or OAG. [64] Conjunctival hyperemia occurred in 10.7 percent of participants with an IOP between 20 and 23 mmHg and in 8.5 percent of participants with an IOP of 24 mmHg or greater. Eye pain was also reported among 3% of participants in each group. Chiselita (2007) conducted an open label study of travoprost among 1,133 participants (1,109 analyzed). [68] The most frequently reported adverse event was conjunctival hyperemia (6%) with severe cases requiring the withdrawal of travoprost in 10 participants. Thelen (2006) reviewed medical data for 353 OHT participants treated with lananoprost for approximately two years. [69] During this period the most frequently reported adverse event was ocular hyperemia, occurring in 20.7 percent of participants (73). Zimmerman (2003) conducted a historically controlled study of 3.534 participants (3.245 analyzed) who were switched from prior monotherapy to latanoprost. [70] Over the 6 months of follow-up the most frequently reported adverse effect was conjuntival hyperemia occurring in 2 percent of participants, and burning eyes, occurring in 1.4 percent of participants.

Other Harms

Barnett (2010) conducted a retrospective analysis of 1,636 Ocular Hypertension Treatment Study participants to determine the risk of retinal vein occlusion (RVO) among those randomized to medication versus those randomized to no treatment. Although there were 26 cases of RVO, the proportion of participants who developed RVO over 9 years of followup was 1.4 percent in the medication group and 2.1 percent in the control group ($p = 0.14$).[65]

Farris 2008 conducted a retrospective study of 97 participants with 188 eyes receiving various medications in addition to latanoprost who were switched to travoprost. Within 3 months, one subject experienced irritation severe enough to warrant a change back to latanoprost (1.6%).[66]

Sharpe (2007) reviewed the charts of 236 participants using latanoprost and 137 using bimatoprost. Within 12 months of treatment, 6 percent of participants receiving bimatoprost and 1 percent receiving latanoprost experienced periocular pigmentation ($p = 0.004$). [67]

Arıcı (2000) compared the occurrence of ocular surface adverse effects among 24 OAG participants receiving betaxolol, 27 OAG participants receiving timolol, 26 OAG participants

using betaxolol and dipivefrin hydrocholoride, and 30 control participants. OAG participants using topical medications were more likely to have fewer normal results from Schirmer's tests and tear break up time tests and also have higher conjunctival impression cytology scores ($p < 0.01$) than those in the control group.[71]

Grading of Evidence

Because studies assessed a variety of different harms we did not complete a grading of evidence table for this question. There are a number of issues with assessing harms. For example, harms were not the primary outcome for the studies, meaning that the studies were not powered to detect differences. We judged the overall strength of evidence to be insufficient to make firm determination of differential harms for one therapy compared with another.

Conclusions

The harms of medical therapy for glaucoma are not consistently reported in a way that allows them to be easily analyzed across studies. Of the currently used medications, the prostaglandin agents are more likely to cause conjunctival hyperemia (redness) than timolol. Within the class of prostaglandins, latanoprost is less likely to cause redness than travoprost or bimatoprost and all three agents are similar with regard to ocular irritation, inflammation, cystoid macular edema, and iris pigmentation.

In a systematic review of timolol compared to other medications, subjects taking brimonidine, latanoprost, travoprost, or betaxolol were more likely to drop out of a study due to side effects than subjects taking timolol.

Surgical Treatment of Open-Angle Glaucoma

Systematic Reviews of Surgical Interventions for Open-Angle Glaucoma

We included 10 systematic reviews that address the comparative effectiveness of surgical interventions for the treatment of OAG (Appendix C).

Chai (2010) and Cheng (2010) discuss comparisons of viscocanalostomy versus trabeculectomy,[74 75] with Cheng (2010) also compared viscocanalostomy to trabeculectomy with antimetabolites and deep sclerectomy to trabeculectomy (with or without antimetabolites).[75]

Wilkins (2005) and Wormald (2001) reviewed RCTs that compared primary trabeculectomy with antimetabolites versus trabeculectomy with placebo versus no treatment. [76,77] Wilkins (2005) included trials of the antimetabolite mytomycin C (MMC) and Wormald (2001) included trials of 5-Fluorouacil.

Kirwan (2009) compared trabeculectomy with beta radiation versus trabeculectomy with or without placebo.[78]

Rolim de Moura (2007) assessed the effectiveness of diode versus argon laser trabeculoplasty as well as SLT or trabeculectomy versus argon laser trabeculoplasty.[79]

Minckler (2006) compared the individual effectiveness of various aqueous shunts. The study also compared the effectiveness of these shunts with trabeculectomy and endocyclophotocoagulation.[80]

Finally, we identified four reviews addressing the comparative effectiveness of treatments for coexisting cataract and glaucoma.[7,76,81,82] Comparisons include one-site versus two-site

phacotrabeculectomy; [81] extracapsular cataract extraction or phacoemulsification and trabeculectomy with intraoperative (MMC) versus extracapsular cataract extraction or phacoemulsification and trabeculectomy with placebo or no treatment[76] or with a postoperative injection of 5-Fluorouacil versus placebo or no treatment.[82]

KQ 1b: What is the comparative effectiveness of laser and other surgical treatments for reducing visual impairment?

Key Points

- No studies reported on visual impairment after laser or other surgical treatments.
- We could not determine whether individual patients sustained a clinically important decrease in visual acuity, because in all our identified studies comparing laser and other surgical treatments for glaucoma, visual acuity outcomes were reported as a mean value and not assessed as a primary outcome.
- No single treatment appeared to have a greater effect on visual acuity than any other treatment.

Summary of Evidence From Systematic Reviews

Liu (2010) and Minckler (2006) addressed visual acuity outcomes after surgical treatment of glaucoma.[80 81] Liu (2010) found no difference in the percentage of patients with a post operative best corrected visual acuity of 20/40 or better (two trials) when one-site phacotrabeculectomy was compared to two-site phacotrabeculectomy. Minckler (2006) reported that participants receiving endocyclophotocoagulation had a 0.24 higher mean difference (worse) in logMAR visual acuity at 24 months when compared to those receiving the Ahmed implant. A comparison in one trial of single plate Molteno implant with corticosteroids versus single plate Molteno implant alone revealed that participants receiving the implant with corticosteroids were 22 percent more likely to have stable vision at followup (unchanged or within one line difference from baseline) than those receiving the implant only. None of these differences were statistically significant.

Detailed Analysis of Primary Studies

We did not identify any studies that reported on the primary outcome of visual impairment. We identified four studies that reported on the secondary outcome of visual acuity.

De Jong (2009) reported a change from baseline visual acuity at 12 months in an RCT comparing trabeculectomy with Ex-press minishunt, both using intraoperative mitomycin C (MMC) at a concentration of 0.2 mg/ml (the duration of exposure was not specified).[83] Visual acuity was measured on an Early Treatment of Diabetic Retinopathy Study chart, but the manuscript does not specify whether patients were refracted either preoperatively or at 12 months. Two-thirds of patients had visual acuity that was unchanged, and about one-sixth had improved visual acuity and about one-sixth had decreased visual acuity. No definition of what constituted a change in acuity was provided.

Russo (2008) reported logMAR visual acuity results at 4 years in a trial in which patients received either a trabeculectomy or a non-penetrating deep sclerectomy with hyaluronic acid implant, both with MMC 0.2 mg/ml for two minutes.[84] They report that the mean logMAR visual acuity in the trabeculectomy eyes changed from 0.8 (+/- 0.1) preoperatively to 0.4 (+/- 0.1) at 4 years, and that in the nonpenetrating deep sclerectomy eyes the visual acuity changed from 0.7

(+/- 0.1) preoperatively to 0.6 (+/- 0.1) at 4 years. Although this would suggest an improvement in visual acuity after both procedures, especially in the trabeculectomy group, the authors conclusion that there was more vision loss in the trabeculectomy group makes their findings uninterpretable.

Mielke (2006) performed an RCT in West Africa comparing nonpenetrating deep sclerectomy with and without intraoperative application of 0.25 mg/ml of MMC for 2 minutes.[85] In the group without MMC, three of 21 eyes (14%) lost more than two lines of Snellen acuity with a mean follow-up of 18.3 months, and in the group receiving MMC, three of 18 eyes (17%) lost more than two lines of Snellen acuity with a mean followup of 14.3 months.

Shaarawy (2005) randomly performed a nonpenetrating deep sclerectomy in one eye of 13 patients and a nonpenetrating deep sclerectomy with a collagen implant in the fellow eye.[86] They report aggregate visual acuity, expressed in Snellen fractions. In the eyes not receiving the collagen implant the preoperative, two-year, and four-year acuities were 0.67 (+/- 0.18), 0.56 (+/- 0.20), and 0.58 (+/- 0.20), respectively, and in the eyes receiving the collagen implant 0.66 (+/- 0.30), 0.58 (+/- 0.30), and 0.57 (+/- 0.3), respectively. The authors comment that the postoperative acuity was no different from the preoperative acuity, but offer no statistical support for their conclusion.

Note that one important study including laser trabeculoplasty, the Early Manifest Glaucoma Trial (EMGT) is included in the discussion of medical treatments of glaucoma, above.

The grading of evidence for KQ 1b with all the domains is summarized in Table 7.

Table 7. Grading of evidence for KQ 1b

Number of Studies; Participants	Study Design/Risk of Bias	Consistency	Directness	Precision	Strength of Evidence
Visual Impairment/Visual Acuity					
4; 238	RCT/ Low	Inconsistent	Direct	Imprecise	Low

Conclusions

The literature is uninformative in addressing the question of the comparative effectiveness of laser and other surgical procedures in reducing visual impairment from glaucoma because no studies provide data on visual impairment.

KQ 3b: What is the comparative effectiveness of laser and other surgical treatments for lowering intraocular pressure?

Key Points

- Trabeculectomy lowers IOP more than nonpenetrating surgeries. (Systematic review)
- The use of mitomycin-C intraoperatively with trabeculectomy results in lower IOP than when it is not used. (Systematic review)
- Other alterations in surgical technique, location of surgery on the eye, and adjuvants other than mitomycin-C have not been shown to result in an added pressure decrease. (Primary studies)
- The intraocular pressure lowering effect of combined cataract surgery and trabeculectomy is not affected by the location of the conjunctival incision or the presence or absence of a peripheral iridectomy but may be more in two-site (cataract and

trabeculectomy performed using different incisions) than one-site (cataract and trabeculectomy performed using the same incision) surgery. (Systematic review)
- Laser trabeculoplasty effectively lowers IOP in glaucoma patients and effectiveness does not vary with the type of laser used. (Primary studies)
- The data available for the role of aqueous drainage devices in open-angle glaucoma are inadequate to draw conclusions. (Primary studies, Systematic review)

Summary of Evidence From Systematic Reviews

The authors of the included systematic reviews of trabeculectomy compared to non-penetrating filtering surgeries concluded that trabeculectomy is a more effective surgical intervention for lowering IOP. Chai (2010) noted that the mean IOP of participants receiving trabeculectomy was 3.64 mmHg lower at 12 months (six trials) and 3.42 mmHg lower at 24 months (three trials) than the IOP of participants treated with viscocanalostomy.[74] The outcomes were statistically significant, but the included studies enrolled participants with primary chronic angle closure glaucoma (1.7% of total included participants). Cheng (2010) confirmed this finding among participants with OAG.[75] In Cheng's study, there were fewer participants achieving normal endpoint IOP without medications or surgery (complete success) after one year in the viscocanalostomy group when compared to the trabeculectomy group (RD, -0.16; 95% CI, -0.30 to -0.02; three trials) and to the trabeculectomy with antimetabolite group (RD, -0.39; 95% CI, -0.53 to -0.24; three trials).

In a meta-analysis of five trials comparing deep sclerectomy to trabeculectomy, fewer deep sclerectomy participants achieved complete success (RD, -0.10; 95% CI, -0.19 to 0.00). [75] This finding was mirrored in an analysis of deep sclerectomy with MMC versus trabeculectomy with MMC (RD, -0.16, 95% CI, -0.32 to -0.01; two trials).

Wilkins (2005) and Wormald (2001) reported that the addition of antimetabolites to trabeculectomy significantly reduced IOP among participants enrolled in the included studies.[76] [82]Wilkins (2005) determined after pooling the results of two trials that participants receiving intraoperative MMC had an average IOP that was 5.41 mm Hg lower than participants receiving placebo or no treatment at 12 months. A similar finding was reported among participants receiving postoperative 5-FU (WMD, -4.67; 95% CI, -6.60 to -2.74; two trials).

The addition of beta radiation to trabeculectomy does not appear to reduce IOP more than trabeculectomy alone as Kirwan (2009) reported no difference in the mean IOP of participants treated with trabeculectomy and beta radiation compared to participants receiving trabeculectomy only, at one year after surgery (WMD, -0.97; 95% CI, -2.56 to 0.62; two trials).[78]

Rolim de Moura (2007) reported (in two studies) no difference in the risk of failure (defined as an IOP greater than or equal to 22) when diode and argon laser trabeculoplasty were compared at one year (relative risk [RR], 3.0; 95% CI, 0.37 to 24.17) and two years follow-up (RR, 0.50; 95% CI, 0.10 to 2.43) and when SLT was compared to argon laser trabeculoplasty at one year (RR, 1.27; 95% CI, 0.84 to 1.90). [79] When argon laser trabeculoplasty was compared with trabeculectomy across two trials at 24 months, participants randomized to argon laser trabeculoplasty were 2.03 times more likely to have failed treatment than participants randomized to trabeculectomy (95% CI, 1.38 to 2.98).

Three of the four systematic reviews addressing surgical treatments for coexisting cataract and glaucoma include pooled results for IOP, but these analyses also include results of studies with angle closure glaucoma participants in addition to OAG participants. Liu (2010) pooled the results of five trials that compared one-site to two-site phacotrabeculectomy and concluded that

two-site phacotrabeculectomy significantly lowered IOP by an average of 6 percent more than one-site phacotrabeculectomy, from baseline to 12 or more months after surgery.[81] Wilkins (2005) reported significant improvements in mean IOP at 12 months with the addition of MMC to extracapsular cataract extraction with trabeculectomy when compared to placebo or no treatment (WMD, -3.34; 95% CI, -4.16 to -2.51; three trials). [76] Wormald (2001) noted no significant difference in mean IOP at 12 months when postoperative 5-FU is used as an antimetabolite versus placebo or no treatment (WMD, -1.02; 95% CI, -2.40 to 0.37).[82] Jampel (2003) provided a qualitative synthesis of the evidence on surgical treatment of coexisting cataract and glaucoma from literature searches conducted between 1980 and April 2000.[7] The investigators found that use of the antimetabolite MMC improves outcomes and is more beneficial than 5-FU, that there are no differences in outcomes with limbal- and fornix-based conjunctival incisions, and that the risk of postoperative cataract increases with glaucoma surgery. Jampel (2003) concluded that the evidence did not support use of one strategy for IOP control over any other and that more research is needed particularly addressing the long-term progression of visual field loss and optic nerve damage.

Minckler (2006) reported the results of trials of aqueous shunts for all types of glaucoma.[80] Overall, trabeculectomy performed better than the Ahmed implant. The mean IOP in the trabeculectomy group was 3.81 mm Hg lower than the IOP in the Ahmed implant group (two trials). Outcomes from single trials comparing endocyclophotocoagulation and Ahmed implant failed to show a difference in mean IOP at 12 months (MD 1.14; 95% CI, -1.93 to 4.21) and 24 months (MD, 0.66; 95% CI, -2.98 to 4.30). The comparisons of various shunts to each other or a single shunt compared with or without the use of antimetabolites were from single studies addressing these questions. Minckler (2006) reported no difference in mean IOP at 12 months when the Ahmed or Molteno implants were compared with or without the addition of MMC. Additionally there were no differences in high-pressure versus standard Ahmed implant, double-plate Molteno and Schocket shunts and single-plate Molteno implants with or without use of oral corticosteroids. As of the January 2006 search date for this review, there were few studies of aqueous shunts and thus the authors concluded that the evidence was insufficient for reaching any conclusions regarding the comparisons included in the review.

Detailed Analysis of Primary Studies

Trabeculectomy has long been considered the mainstay of incisional surgery for lowering IOP. It is often performed at the same time as cataract surgery, because many patients have concurrent cataract and glaucoma. We included 19 randomized controlled trials: Three involving trabeculectomy technique, six evaluating adjuvants at the time of trabeculectomy, four comparing trabeculectomy with variations of trabeculectomy or other glaucoma surgery, two addressing surgical techniques in combined cataract and glaucoma surgery, two addressing combining cataract surgery with glaucoma surgery other than trabeculectomy, and one studying deep sclerectomy.

One additional primary study was identified comparing “low” energy SLT to normal energy SLT.[87]

Trabeculectomy Techniques

Location of Surgery

Sanders (1993) in Scotland randomized 60 presumably Caucasian patients undergoing fornix-based trabeculectomy without antifibrosis agent to three different ocular sites for the surgery: nasal, superior, or temporal.[88] No patient had undergone previous laser or intraocular surgery. At 18 months after surgery, the mean IOP was 14.5, 17.5 and 18.2 mm Hg for the three sites respectively. The IOPs for the nasal versus the temporal sites were statistically significantly different ($p = 0.01$). Although the numbers were too small for statistical analysis, eyes with a nasal trabeculectomy seemed to have more discomfort, more wound leaks, and were associated with more corneal dellen.

Fornix Versus Limbus Conjunctival Incision

El Sayyad (1999) randomly assigned one eye to fornix-based trabeculectomy and one eye to limbus-based trabeculectomy in 28 patients undergoing bilateral first-time trabeculectomies.[89] Postoperative injections of 5-FU were used. Starting from a similar preoperative IOP of 33 mm Hg in each eye, IOPs were similar in both eyes, with a mean of 12 mm Hg at one year after surgery and 13 mm Hg at 2 years after surgery. Two late bleb leaks were noted in the limbus-based eyes and none in the fornix-based eyes.

Laser Suture Lysis Versus Adjustable Sutures

Kobayashi (2010) randomized 50 Japanese patients with OAG undergoing a fornix-based trabeculectomy with MMC to either scleral flap sutures requiring laser suture lysis after surgery or adjustable sutures that could be manipulated with a forceps.[90] Both groups had a preoperative IOP of approximately 27 mm Hg. One year after surgery the IOP was 12.9 mm Hg in the adjustable suture group and 12.3 in the laser suture lysis group.

Trabeculectomy With Adjuvants

Mitomycin C

Reibaldi (2008) recalled patients who participated in a clinical trial in which patients with primary OAG received a limbus-based trabeculectomy with either balanced salt solution or 0.2 mg/ml of MMC applied on a sponge for 2 minutes.[91] The preoperative IOP was 25 mm Hg in both groups with an average of three medications in each group. Of the 133 patients who entered the study, 114 were re-examined at a mean of 10 years in both groups, with mean IOP of 13.3 mm Hg in the MMC treated group and 14.7 in the balanced salt solution group ($p=0.014$). Using Kaplan-Meier curves, the authors determined that the success rate, defined as an IOP of 18 mm Hg or less was 75 percent for MMC and 55 percent for balanced salt solution ($p=0.02$).

Length of Mitomycin C Application

Kim (1998) randomized phakic patients undergoing their first trabeculectomy to receive either a 0.50-1 minute or a 3-5 minute application of 0.5 mg/ml of MMC.[92] A limbus-based conjunctival flap was used. These eyes were compared to a group of similar historical controls that did not received MMC. The preoperative intraocular pressures, which ranged from 29.7 to 32.7 mm Hg were not statistically significant. The mean intraocular pressure and mean number of postoperative medications at one year, estimated from the figures, were 15 mm Hg with one

postoperative medication, 12 mm Hg with 0.5 postoperative medication, and 11 mm Hg with 0.3 medications (for the no MMC, 0.5-1 minute exposure to MMC, and the 3–5-minute exposure to MMC groups, respectively).

5-Fluorouracil Versus Fibrinolytic Drug

Quaranta (2000) randomized eyes undergoing their first trabeculectomy, done with a fornix-based flap, to either postoperative injections of (5-FU)or sulodexide, a fibrinolytic drug, on 10, 17, 24, 31, and 38 days after surgery.[93] Preoperative IOP was comparable in both groups at about 27 mm Hg, and at one year after surgery was 15.5 mm Hg in the sulodexide eyes and 14.8 mm Hg in the 5-FU eyes. There were two bleb leaks requiring surgical repair in the 5-FU group and none in the sulodexide group**.**

Olegen Implant

Rosentreter (2010) randomized 20 eyes of 20 Caucasian patients undergoing fornix-based trabeculectomy to either MMC 0.2 mg/ml for three minutes or an Olegen (porous collagen-glycosaminoglycan matrix) implant placed on top of the scleral flap.[94] Despite the small number of patients limiting the power of the study, the authors were able to conclude that the IOP at one year after surgery (11.3 mm Hg for the MMC treated group and 15.6 mm Hg for the Olegen treated group) as well as the requirement for IOP lowering medications (0.0 for the mitomycin treated group versus 0.8 for the Olegen treated group), were both statistically significant ($p=0.01$ for IOP and $p=0.05$ for medications).

Amniotic Graft

Eliezer (2006) randomized 32 patients, undergoing trabeculectomy using a limbus-based incision without an antifibrosis agent, to either receive or not receive an amniotic membrane graft intraoperatively.[95] The amniotic membrane graft was sewn to the sclera, over the trabeculectomy flap because of its potential to decrease scarring and improve the success of the surgery. At one year, the IOP was 15.2 mm Hg in the eyes not receiving amniotic membrane and 12.8 in eyes receiving amniotic membrane, however this difference was not statistically significant ($p=0.3$).

Polytetrafluoroethylene Membrane

Cillino (2008) performed an RCT to evaluate the effect of placing a pericardial expanded polytetrafluoroethylene membrane underneath the scleral flap during trabeculectomy in eyes without previous ocular surgery.[96] Sixty Caucasian patients with either OAG or pseudoexfoliation glaucoma, were randomized to one of four groups: trabeculectomy alone, trabeculectomy with MMC, trabeculectomy with membrane, or trabeculectomy with both MMC and membrane. Preoperative IOPs ranged from 28 to 35 mm Hg. At one year after surgery, mean IOP ranged from 16.4 to 17.4 mm Hg, with no difference between the four groups. Avascular blebs were noted in eyes receiving MMC but not in the other two groups.

Trabeculectomy Compared With Trabeculectomy Variants and Other Glaucoma Procedures

Minitrab

Thimmarayan (2006) randomly assigned 60 eyes of 54 subjects to either a conventional trabeculectomy (although they do not describe the surgical technique) or a "mini-trabeculectomy" in which a smaller than usual fornix-based conjunctival flap is made, and in which a scleral tunnel is created instead of a scleral flap.[97] Ten percent of the eyes received postoperative 5-FU on an "as needed" basis. IOP was lowered in both groups from 28 mm Hg preoperatively to 16 mm Hg 15 months after surgery. The mini-trabeculectomy group appeared to have more hypotony, and shallower anterior chamber depths in the immediate postoperative period, but evidently the differences did not reach statistical significance.

Das (2002) randomly assigned 80 eyes of 80 subjects with OAG to either a limbus-based trabeculectomy without antifibrosis agent or a fornix-based trabeculectomy using a small incision and avoiding Tenon's capsule.[98] The preoperative IOP was 30 mm Hg in each group. At one year after surgery the mean IOP was 18.9 in the trabeculectomy group and 16.6 mm Hg in the small incision group ($p=0.6$), with 0.38 IOP-lowering medications in the trabeculectomy group as opposed to 0.25 IOP-lowering medications in the small incision group ($p=0.025$). There were no differences noted in either early or later postoperative complications between the two groups.

Ex-Press Shunt

De Jong (2009) performed an RCT comparing two limbus-based trabeculectomies using MMC, one with the implantation of an Ex-press minishunt underneath a trabeculectomy flap and one without in 80 eyes of 78 patients.[83] The preoperative IOP was 22.8 mm Hg in the Ex-press group and 21.5 mm Hg in the trabeculectomy group, and 1 year after surgery the respective IOPs were 12.0 mm Hg and 13.9 mm Hg, respectively ($p=0.02$). Complications were not common and similar between the two groups.

Deep Sclerectomy With SK-Gel

Russo (2008) enrolled 93 Italian patients with primary OAG, who had baseline IOP of about 25.5 mmHg and had not had previous surgery, in a randomized comparison of non-penetrating deep sclerectomy with SK-Gel versus traditional trabeculectomy with MMC, and followed subjects at three and four years.[84] Mean IOP was similar between the two groups at 36 and 48 months, but on average fewer medications were required in the trabeculectomy group. At 4 years, the two groups appeared to have differential outcomes with 72 percent of the trabeculectomy group having IOP greater than 21 mmHg without medicines versus 51 percent in the deep sclerectomy group ($p<0.05$). However, there were no statistically significant differences in achieving this IOP criterion when allowing for medication use by patients. Cataracts and flat anterior chambers were more common with trabeculectomy. In summary, IOP outcomes were similar, but more medications were required in the deep sclerectomy group.

Combined Cataract and Trabeculectomy Surgery Techniques

Peripheral Iridectomy

Kaplan-Messas (2009) performed a small clinical trial in which patients undergoing either trabeculectomy with MMC (n=11) or combined phacoemulsification and trabeculectomy with MMC (n=36), were randomized to either receive, or not receive, a peripheral iridectomy at the time of surgery.[99] Given that their power to detect differences between the two groups must have been low, they found no difference in reduction of IOP with or with peripheral iridectomy. One eye in the group without an iridectomy had iris incarceration in the wound as opposed to none in the group with an iridectomy**.**

Fornix Versus Limbus Conjunctival Incision

Kozobolis (2002) performed bilateral phacoemulsification and trabeculectomy with MMC using a two-site (separate incisions for the phacoemulsification and trabeculectomy) approach in 22 patients.[100] One eye was randomly assigned to a fornix-based trabeculectomy and the other to a limbus-based trabeculectomy. At one year after surgery there was no difference in the mean IOP (15 mm Hg) or the mean number of IOP lowering medications (0.3). Although the numbers were small, the authors observed faster visual recovery after surgery in the fornix-based trabeculectomies. but more bleb leaks.

Combined Cataract and Other (Non-Trabeculectomy) Glaucoma Surgery

Micro-Bypass Stent

Fea (2010) randomized patients with OAG under medical treatment needing cataract surgery to either phacoemulsification cataract surgery alone or phacoemulsification cataract surgery plus implantation of a single micro-bypass stent (iStent, Glaukos).[101] The preoperative IOP was 17.9 mm Hg on an average of 2.0 medications in the iStent group and 17.3 mm Hg on an average of 1.9 medications in the control group. Sixteen months after surgery (after a one month washout of all IOP lowering medications) the IOP was lower in the group receiving the iStent (16.6 mm Hg) than in the group not receiving the iStent (19.2 mm Hg, p=0.04).

Comparing Trabeculectomy With Viscocanalostomy

Kobayashi (2007) randomized one eye of each of 40 Japanese patients with primary OAG and visually significant cataract to either phacoemulsification cataract surgery with limbus-based trabeculectomy or to phacoemulsification cataract surgery and viscocanalostomy.[102] MMC was applied at a concentration of 0.4 mg/ml for 3 minutes. The preoperative IOP of the eyes randomized to viscocanalostomy was 24.0 mm Hg on an average of 2.8 medications, In the trabeculectomy group, IOP was 23.7 mm Hg on an average of 2.6 medications. There were no significant differences in IOP between the two groups at 1, 3, 6, and 12 months after surgery. At 12 months, the mean IOP was 14.9 mm Hg on an average of 0.2 medications in the viscocanalostomy group and 14.1 mm Hg on an average of 0.1 medications in the trabeculectomy group.

Other Glaucoma Operations

Deep Sclerectomy With and Without Mitomycin C

Mielke (2006) performed a small RCT of 39 Nigerian patients with POAG without prior surgery to assess the benefit of using MMC in deep sclerectomy.[85] Deep sclerectomy (with or without MMC) resulted in an IOP of less than 18 mmHg at 18 months in less than 25 percent of both groups. The study was underpowered to determine if IOP differed between the two groups.

Laser Trabeculoplasty

One study compared argon laser trabeculoplasty to SLT.[103] As initial laser treatment in subjects already on medical therapy, the two procedures showed similar efficacy with IOP decreasing 6.01 mmHg in the SLT group and 6.12 mmHg in the argon laser trabeculoplasty group (p = NS). When used in eyes that had failed prior angle treatment, SLT resulted in a greater reduction in IOP than argon laser trabeculoplasty (6.24 mmHg versus 4.65 mmHg, $p<0.01$).

Another study of titanium-sapphire laser trabeculoplasty compared to argon laser trabeculoplasty found no significant difference in the reduction of IOP between the two (8.3 versus 6.5 mmHg, p non-significant).[104]

Frenkel (1997) found that 35 applications over 120 degrees resulted in similar reduction of IOP when compared to 50 applications over 180 degrees (3.9 mmHg versus 4.4 mmHg, $p=0.63$).[105]

Finally, Tang (2011) compared "low" energy SLT to normal energy SLT and found no difference in the rate of success at any time point up to 12 months.

The grading of evidence for KQ 3b with all the domains is summarized in Table 8.

Table 8. Grading of evidence for KQ 3b

Number of Studies; Participants	Risk of Bias	Consistency	Directness	Precision	Strength of Evidence
Intraocular Pressure					
20;1194	RCT/Medium	Consistent	Direct	Precise	Moderate

Conclusions

Trabeculectomy has been repeatedly demonstrated to lower IOP to a mean level in the low to mid teens. Its IOP lowering effect is potentiated by the use of MMC intraoperatively, but does not appear to be increased by alterations in surgical technique, or the addition of implants designed to improve wound healing. One small study reported slightly lower IOPs with the Ex-press mini-shunt compared to trabeculectomy. Combined cataract surgery with glaucoma surgery lowers IOP more than cataract surgery alone, but less than trabeculectomy alone.

The studies identified regarding laser trabeculoplasty consistently show a decrease in IOP with treatment but are not adequate to draw strong conclusions with regard to the type of laser used or the number of applications.

The exclusion of the Tube versus Trabeculectomy (TVT) study is important to note. While the study was well designed and well executed, the patient population enrolled in the study did not exclusively have open-angle glaucoma. Other studies of glaucoma drainage devices were also not eligible for this review as they reflect the practice of using tubes in glaucomas other than open-angle and in complex cases.

Another important exclusion is the Advanced Glaucoma Intervention Study (AGIS). The results of the AGIS could not be included as a primary study because it enrolled angle closure glaucoma subjects as well as open-angle glaucoma. Even though the number of angle closure cases was small, the data were never analyzed using the open-angle group alone so there was no way to abstract the data from the study publications. The AGIS is an important study in glaucoma, however, and also supports the conclusion that both trabeculectomy and laser can be used to lower IOP in glaucoma patients. In terms of the fundamental question asked by the study – whether initial laser trabeculoplasty or initial trabeculectomy was preferable – the 10 year results suggested that initial laser trabeculoplasty was less likely to result in visual field change in black subjects while initial trabeculectomy was preferable in white patients.[106]

KQ 4b: What is the comparative effectiveness of laser and other surgical treatments for preventing or slowing the progression of optic nerve damage and visual field loss?

Key Points

- No studies comparing laser and surgical treatments were found for which data on whether these procedures slow the progression of optic nerve damage and visual field loss were reported.

Summary of Evidence From Systematic Reviews

We did not identify any systematic reviews of surgical interventions for OAG that included outcomes related to optic nerve damage or visual field loss.

Detailed Analysis of Primary Studies

We did not identify any primary studies of surgical interventions for OAG that included outcomes related to optic nerve damage or visual field loss. However, outcomes related to optic nerve damage and visual field loss are discussed in reference to KQ 4c, comparing the effectiveness of medical and surgical interventions.

KQ 6b: What are the harms associated with laser and other surgical treatments for open-angle glaucoma?

Key Points

- Trabeculectomy results in more complications than nonpenetrating surgeries. (Systematic review)
- The profile of harms does not differ between one- and two-site combined cataract and glaucoma surgery. (Systematic review)

Summary of Evidence From Systematic Reviews

Chai (2010) and Cheng (2010) concluded that adverse effects were experienced more often by participants randomized to trabeculectomy when compared to participants randomized to other nonpenetrating filtering surgeries.[74 75] Hypotony, hyphema, shallow/flat anterior chamber, and cataract were all more frequent among participants treated with trabeculectomy compared to viscocanalostomy and deep sclerectomy. Cheng (2010) additionally noted a significantly higher

risk of choroidal detachment among participants receiving trabeculectomy versus both viscocanalostomy and deep sclerectomy.[75]

Wilkins (2005) and Wormald (2001) reported harms for the addition of antimetabolites to primary trabeculectomy. The risk of epithelial toxicity was 5.85 times as great with the addition of postoperative 5-FU in participants receiving primary trabeculectomy (95% CI, 2.04 to 16.83).[82] Wilkins (2005) noted that wound leak, hypotony, and cataract were more often reported among those receiving intraoperative MMC, but these differences were not statistically significant.[76]

The addition of beta radiation to trabeculectomy resulted in significantly higher risk of cataract when compared to trabeculectomy alone (RR, 2.89; 95% CI, 1.39 to 6.00).[78] The risk of hypotony was higher while the risk of bleb leaks was lower, but the confidence intervals overlapped the line of no difference.

Diode laser trabeculoplasty treatment resulted in a lower, but not significant, risk of peripheral anterior synechiae (RR, 0.54; 95% CI, 0.17 to 1.76, one trial) and early IOP spikes (RR, 0.66; 95% CI, 0.21 to 2.14, three trials) when compared to argon laser trabeculoplasty.[79]

Reports of adverse effects across studies that addressed questions related to combined surgery for co-existing cataract and glaucoma varied by intervention under consideration. There were no differences in the risk of hyphema, choroidal detachment, and hypotony when one-site phacotrabeculectomy was compared to two-site phacotrabeculectomy.[81] The odds of wound leak (1.88), hypotony (1.65), and endophthalmitis (3.44 and 1.14) were greater among participants randomized to receive MMC with trabeculectomy in addition to cataract extraction (Wilkins (2005)), as compared to the same surgery without MMC.[76] Additionally the risk of wound leak was 17% lower among participants receiving postoperative 5-FU with cataract extraction and trabeculectomy while the risk of epithelial toxicity was three times greater among those receiving 5-FU (95% CI, 1.56 to 5.92), compared to the same surgery without 5-FU. As it was with primary trabeculectomy, epithelial toxicity was significantly different among participants exposed and not exposed to 5-FU.

Reports of the complications of aqueous shunts across the five trials included in the Minckler (2006) review were not amenable to meta-analysis due to the unavailability of key data from the original manuscripts.[80] Minckler (2006) noted that there were limited reports of choroidal hemorrhage with the single-plate, double-plate, and pressure-ridge double-plate Molteno implants. One study reported several cases of choroidal complications, corneal complications, and strabismus with the 350-mm and 500-mm Baerveldt implants (13/55 and 19/52 respectively for choroidal hemorrhage; 17/55 and 19/52 for corneal failure; and 10/55 and 8/52 for strabismus). Other harms noted include no light perception, phthisis, tube exposure, retinal detachment, and infection.

Detailed Analysis of Primary Studies

We included 22 randomized controlled trials [83-85,88-91,93-100,103,104,107-111] and three observational studies [112-114] that addressed questions of harms related to surgical treatment of OAG.

Nassiri (2008) reviewed the medical records of 61 participants receiving one-site phacotrabeculectomy and 52 participants receiving two-site phacotrabeculectomy.[112] Over a 1-year follow-up period, the percent difference in the mean of corneal endothelial cell area was greater with two-site phacotrabeculecomy (38.04%) than one-site (32.46%) ($p<0.001$), where a larger increase in cell area is worse.

Jeganathan (2008) conducted a case control study of 29 cases of delayed suprachoroidal haemorrhage (DSCH) identified over a 10-year period from a total of 2,752 glaucoma surgeries.[113] Prior intraocular surgery (pars plana vitrectomy and penetrating keratoplasty) was associated with a 4.4 higher odds of DSCH. Other risk factors included postoperative hypotony defined as an IOP less than or equal to 3 mm Hg within the first week (OR 2.7; 95% CI 1.8 to 4.3). There was no association of DSCH with combined surgeries or preoperative or immediate postoperative IOP.

Shingleton (2002) conducted a retrospective study of 117 participants (126 eyes) randomized to phacotrabeculectomy with MMC with peripheral iridectomy (PI) (66 eyes) or without PI (60 eyes).[115] The most frequently reported harms/complications included posterior capsule opacification among participants receiving PI (34.8%) and those not receiving PI (40%) and capsulotomy (22.7% and 11.7% among the PI and no- PI group respectively).

Grading of Evidence

Because studies assessed a variety of different harms, we did not complete a grading of evidence table for this question. There are a number of issues with assessing harms. For example, harms were not the primary outcome for the studies, meaning that the studies were not powered to detect differences. We judged the overall strength of evidence to be insufficient to make firm determination of differential harms for one therapy compared to another.

Conclusions

Trabeculectomy, when compared to the nonpenetrating procedures of deep sclerectomy or viscocanalostomy, produces more hypotony, hyphema, shallow anterior chambers, cataract, and choroidal detachment.

There is no clear difference in harms produced by one-site versus two-site combined cataract extraction and trabeculectomy.

The harms associated with glaucoma drainage devices have not been adequately compared to the harms of other procedures in the treatment of OAG.

Medical Versus Surgical Treatment of Open-Angle Glaucoma

This section summarizes systematic reviews, and any additional primary studies not included in those systematic reviews, of medical versus surgical treatment of OAG. It also includes various combinations of medical and surgical treatment versus other treatment (medical, surgical, or no treatment).

Systematic Reviews of Medical Versus Surgical Interventions for Open-Angle Glaucoma

We included two systematic reviews that summarize comparisons of surgical and medical treatments of OAG. One additional systematic review includes comparisons of medical and/or surgical treatments with a concurrent no treatment group among participants with ocular hypertension, OAG, or normal-tension glaucoma.

Burr (2004) summarized the evidence from three RCTs addressing the effect of initial medical treatment versus initial trabeculectomy for preventing the progression of visual field loss and optic nerve damage.[116] Two of the studies assessed patients with “severe” glaucoma, one assessed “mild” glaucoma and the final one did not state the baseline glaucoma status. Medicines

and surgical techniques have evolved since this review—two of the studies were initiated before 1990 when prostaglandins were not available. Furthermore, visual field testing has also evolved substantially.

Maier (2005) reviewed five clinical trials of participants with ocular hypertension randomized to either medical and/or surgical (laser or incisional) treatment to lower IOP or to no treatment.[117] Rolim de Moura (2007) summarized the evidence from 19 randomized controlled trials comparing laser trabeculoplasty alone to medical treatment, another surgical treatment (trabeculectomy), and a different type of laser trabeculoplasty.[79] Rolim de Moura (2007) also included comparisons of laser trabeculoplasty plus medical treatment to no treatment and comparisons of alternative trabeculoplasty techniques (six studies - not discussed in this report).

KQ 1c: What is the comparative effectiveness of medical versus surgical treatment for reducing visual impairment?

Key Points

- Although trabeculectomy may reduce the risk of vision loss compared to medical treatment after adjusting for demographic and comorbid factors, the body of evidence is limited and inconclusive. (Systematic review)

Summary of Evidence From Systematic Reviews

Burr (2004) reported that in two trials with reports of visual acuity outcomes, there were no significant differences in visual acuity (mean or loss of two or more Snellen lines) when trabeculectomy was compared to medical treatment.[116] The investigators of a third trial reported that participants receiving trabeculectomy experienced a 53 percent lower risk of losing two or more Snellen lines of visual acuity (0.3 logMAR) after adjustments for demographic factors and comorbidities including cataract requiring surgery (95% CI, 0.31 to 0.74).

Detailed Analysis of Primary Studies

We did not identify any primary studies of medical versus surgical interventions for OAG that included outcomes related to visual impairment or visual acuity.

Grading of Evidence

Not applicable as we did not identify evidence from primary studies addressing this question.

Conclusions

There is limited evidence in the literature regarding visual acuity outcomes when comparing medical to surgical treatments for glaucoma.

KQ 3c: What is the comparative effectiveness of medical versus surgical treatment for lowering intraocular pressure**?**

Key Points

- Incisional surgery lowers IOP more than lasers or medications. (Systematic review)
- Initial treatment with lasers tends to reduce the need for medications to achieve the same IOP. (Systematic review)

Summary of Evidence From Systematic Reviews

Burr (2004) reported that the IOP of participants randomized in two trials to trabeculectomy was 6.14 mmHg lower than participants receiving medical treatment at one year (95% CI, 4.25 to 8.02).[116] In the third included trial, the mean difference at one year was on average 3.6 mmHg lower with trabeculectomy (95% CI, 2.78 to 4.42).

In one trial, there was a 1.6 mmHg difference in IOP between 2 to 4 years of followup (95% CI, -0.69 to 3.89), and a 3.4 mm Hg difference in favor of trabeculectomy at 5 years (95% CI, 1.04 to 5.76, one trial). In another trial that followed participants for 5 years, the mean difference in IOP in the group receiving trabeculectomy was 1.9 mm Hg (95% CI, 0.85 to 2.95). This finding was not statistically significant.

Rolim de Moura (2007) reported that the relative risk of experiencing an IOP greater than or equal to 22 mmHg (failure) at one year among participants receiving argon laser trabeculoplasty versus continued medical treatment was 0.08 in one trial (95% CI, 0.02 to 0.31) and 0.41 in a second trial (95% CI, 0.22 to 0.77).[79] At 24 months, the relative risk of failure was 0.80 with argon laser trabeculoplasty compared to medical treatment alone (95% CI, 0.71 to 0.91, two trials).

Detailed Analysis of Primary Studies

Only a small number of articles compared IOP outcomes between medical and surgical therapy and the treatments compared were dissimilar. We therefore did not perform meta-analysis.

Tuuolonin (1989) enrolled 191 consecutive Finnish treatment-naive phakic patients with primary OAG or pseudoexfoliation glaucoma (PXG) in an RCT comparing laser trabeculoplasty to medical therapy.[35] Outcomes from 39 participants were available at 1 year. Nearly half of the patients receiving laser were subsequently treated with medications. The reduction of IOP was slightly greater in the laser trabeculoplasty group.

Lai (2004) randomized one eye of each patient (n=29) to either SLT or medical therapy (baseline IOP was about 26 mmHg, medications used were not stated).[118] While more medications were required in the eyes that did not have SLT, the IOP was lowered about 8.5 mmHg in both groups (however, nearly one-fifth required surgery within 5 years). Eyes treated with SLT required fewer medications over 5 years of follow-up (total 24 subjects).

Migdal (1986) was included in existing systematic reviews but we include a brief description here.[119] In this study, Migdal (1986) randomized 168 primary OAG patients with IOP greater than or equal to 24 mmHg (mean around 35 mmHg) to medicines (pilocarpine, sympathomimetic, and/or timolol), laser (360 degrees in two sessions) or trabeculectomy without antimetabolite. Mean IOP was similar in the medicine and laser groups (around 21 mmHg with some having failed and advanced to other therapy) and around 14 mmHg in the surgery group at one year. Failures of each therapy were excluded from mean IOP reported values in all follow-up reports,[120] but almost none of those assigned to surgery developed IOP greater than 22 mmHg whereas about 20% in the medicine group and 30% in the laser group had elevated IOP within 5 years (which meant that IOP could not be kept below 23 mmHg with pilocarpine alone).

The grading of evidence for KQ 4b with all the domains is summarized in Table 9.

Table 9. Grading of evidence for KQ 4b

Number of Studies; Participants	Risk of Bias	Consistency	Directness	Precision	Strength of Evidence
Intraocular Pressure					
2; 220	RCT/Medium	Consistent	Direct	Imprecise	Low

Conclusions

IOP is lowered more by trabeculectomy than by laser or medical treatment. Treating with lasers lowers IOP and when compared to treating with medications reduces the number of medications needed to keep IOP at the same level.

KQ 4c: What is the comparative effectiveness of medical versus surgical treatment for preventing or slowing the progression of optic nerve damage and visual field loss?

Key Points

- Trabeculectomy may prevent more visual field loss than medicines when used as initial therapy in advanced glaucoma. (Systematic review)
- The Collaborative Initial Glaucoma Treatment Study (CIGTS) included surgical techniques and medications that are current and found no difference in change in visual field (but did not report on change in the optic nerve).
- Treatment of ocular hypertension with medicines preserves visual fields better than no treatment. (Systematic review)

Summary of Evidence From Systematic Reviews

Maier (2005) summarized the evidence from five RCTs, which randomized participants with ocular hypertension to either medical and/or surgical treatment to lower IOP, or to no treatment.[117] Participants receiving topical medications were 44 percent less likely to experience progression of visual field loss and optic disc damage when compared to participants receiving no treatment (HR 0.56; 95% CI, 0.39 to 0.81). Among participants with primary OAG (two trials), medically and/or surgically treated participants were 35 percent less likely to experience progression of field loss and optic disc damage when compared to participants receiving no treatment. This finding was mirrored in a subgroup analysis (two trials) of participants with normal tension glaucoma (HR 0.70; 95% CI, 0.48 to 1.02).

Burr (2004) reviewed the evidence from three RCTs addressing the effect of initial medical treatment versus initial trabeculectomy for preventing the progression of visual field loss and optic nerve damage.[116] In one trial, at a mean of 4.6 years of followup, 26 percent of participants undergoing trabeculectomy compared with 47 percent medically treated participants experienced progression of visual field severity of one stage or more (OR, 2.56; 95% CI, 1.12 to 5.83).

In the second trial that examined participants with IOP less than 22 mm Hg at 5 or more years of follow-up, visual field progression was more likely in medically treated participants than those receiving trabeculectomy. Using the mean of the first three visual field scores compared to the mean of the last three scores, medically treated participants scored on average four points higher than those in the trabeculectomy group (MD, 3.92; 95% CI, 2.02 to 5.82). In this same trial, the investigators found no difference in progression of visual field loss measured by

Humphrey automated perimetry in the trabeculectomy group (71%) versus the medical treatment group (63%) (OR, 0.69; 95% CI, 0.29 to 1.67).

In the third trial, there was no difference in the mean change in visual field score at one year in the unadjusted analysis (MD, -0.5; 95% CI, -1.10 to 0.10) and 5 years (MD, 0.30; 95% CI,

-0.45 to 1.05), but the investigators reported a significant difference after adjusting for demographic factors (age, gender, race) and baseline visual field score. The medical treatment group's change in visual field score was lower than the trabeculectomy group (MD, -0.36; 95% CI, -0.67 to -0.05) suggesting less progression among those receiving medical treatment. Further adjustments for the incidence of cataract requiring surgery resulted in mean scores that were not different among the groups of interest (MD, -0.28; 95% CI, -0.59 to 0.03).

Two trials included in the Rolim de Moura (2007) review compared ALT to medications in newly diagnosed glaucoma patients and reported on visual field outcomes.[79] The risk of visual field loss among participants randomized to laser trabeculoplasty was 23 percent lower when compared to participants receiving medical treatment at one year (RR, 0.77; 95% CI, 0.46 to 1.28) and 30 percent lower at two years (RR, 0.70; 95% CI, 0.42 to 1.16).

Detailed Analysis of Primary Studies

A limited number of trials with optic nerve and visual field outcomes met our inclusion criteria. Given the methodological heterogeneity of these studies, we present a narrative summary of the results.

Two studies, included in existing systematic reviews, warrant mention. Jay (1989) enrolled 116 newly diagnosed patients with primary OAG who had untreated IOP greater than 25 mmHg on two occasions in an RCT comparing medical therapy (up to three medications followed by trabeculectomy) to trabeculectomy from 1980–1985.[110] Additional therapy was provided at the discretion of the treating clinician. Visual fields were followed using a Tubingen perimeter and categorized by severity with a one grade worsening of the visual field considered "progression." Those undergoing surgery had more stable fields than those started with medical therapy. Based on results from survival analysis, surgery appeared to preserve visual field more in those with mild field loss than those with more severe field loss at baseline. This study showed a benefit of surgery first on the visual field, but the baseline IOP was very high (in the upper 30s) for the group as a whole and the results may not apply to those with lower baseline IOP.

In a study included in the existing systematic reviews, Migdal (1986) assessed visual field outcomes using Friedman automated visual field tests in 168 POAG patients randomized to surgery, medicines (pilocarpine, sympathomimetics, and/or timolol) or laser SLT and found that visual field score did not change significantly over 5 years in the surgery group, but did worsen in both the other arms.[120]

Our systematic review identified one eligible RCT. Tuuolonin (1989) enrolled 191 consecutive Finnish treatment-naive phakic patients with primary OAG or PXG in an RCT comparing laser trabeculoplastySLT to medical therapy and reported on 39 of these at one year.[35] No significant changes in visual field or optic nerve were noted in the two groups, but duration of followup was short and the number of patients completing one year was small.

The grading of evidence for KQ 4c with all the domains is summarized in Table 10.

Table 10. Grading of evidence for KQ 4c

Number of Studies; Participants	Domains Pertaining to Strength of Evidence	Consistency	Directness	Precision	Strength of Evidence
Visual Field					
1;191	RCT/High	Not Applicable	Indirect	Imprecise	Insufficient
Optic Nerve Changes					
1;191	RCT/High	Not applicable	Direct	Precise	Insufficient

Conclusions

Based on systematic reviews and additional primary studies, both medical and surgical treatments decrease the risk of incident or worsening of visual field loss, but initial surgery may be more effective in this regard.

KQ 6c: What harms are reported in studies of medical versus surgical treatments for open-angle glaucoma?

Key Points

- Trabeculectomy is associated with cataract worsening and an increased need for cataract surgery over time when compared to medical treatments for glaucoma. (Systematic review)
- Intraocular surgery rarely results in severe vision loss due to infection and or bleeding. These risks are not associated with medical or laser treatments.
- Laser trabeculoplasty can produce peripheral anterior synechiae, whereas medical treatment does not. (Systematic review)

Summary of Evidence From Systematic Reviews

Burr (2004) reported a significantly higher risk of cataract (OR, 2.69; 95% CI, 1.64 to 4.42) and cataract surgery at up to three years post intervention (HR, 2.72; 95% CI, 1.51 to 4.89) in the trabeculectomy group compared to the medication group.[116] Surgical complications included serous choroidal detachment (11%), hyphema (11%), encapsulated blebs (12%), and shallow or flat anterior chamber (14%) (one trial, 517 eyes, but reports also encompass fellow eyes not enrolled in the trial).

Rolim de Moura (2007) reported an elevated risk of systemic (RR 4.88) and ocular (RR 1.5) adverse effects among participants receiving laser trabeculoplasty with beta blockers versus no treatment, but each of these outcomes were reports from single trials and were not statistically significant.[79] There was, however, an 11-fold increase in the risk of peripheral anterior synechiae among participants randomized to argon laser trabeculoplasty when compared to participants receiving medical treatment (95% CI, 5.63 to 22.09, two trials).

Detailed Analysis of Primary Studies

We included two randomized controlled trials that reported harms related to medical versus surgical treatment of OAG.[35 110] We did not identify any observational studies.

Harms were not covered in a systematic fashion in the primary studies and therefore the results could not be synthesized. The harms reported in the primary studies are summarized in Appendix C.

Grading of Evidence

Grading was not completed as harms were addressed in a variety of ways (i.e., different outcomes) in the two RCTs identified for this question.

Conclusions

The evidence is conclusive that intraocular glaucoma surgery increases the risk of cataract and cataract surgery when compared to laser trabeculoplasty and medical treatment. Laser trabeculoplasty does not carry the risk of ocular discomfort associated with intraocular glaucoma surgery or medications. Medical therapy can produce systemic harms that are not produced by trabeculoplasty or intraocular glaucoma surgery. Ocular side effects are greater in the first 2 years after trabeculectomy than with medical therapy, but are similar after 2 years. Intraocular glaucoma surgery carries the rare but serious risk of intraocular infection, which does not occur with laser or medical treatment.

KQ 2: Do medical treatments, lasers and other surgical treatments improve patient-reported outcomes?

Key Points

- There is no direct evidence regarding the impact of glaucoma treatment on patient reported outcomes
- Medical and surgical treatments reduce the patient's fear of blindness compared to after diagnosis
- Several studies suggest that the type of glaucoma treatment does not have an influence on QOL.
- There is some evidence that among medical treatments, patients prefer those that are less frequently applied.
- Since there are unlikely to be any future trials with a placebo arm, it will not be possible to determine definitively if treatments improve patient-reported outcomes relative to no treatment. It will still be possible to compare the effectiveness of different treatments on patient-reported outcomes, however.

Summary of Evidence From Systematic Reviews

Two systematic reviews addressed the relationship between medical versus surgical treatment of OAG and patient-reported outcomes, and the included studies are summarized in the analysis of primary studies section that follows.[79,116]

Detailed Analysis of Primary Studies

We identified nine trials that met our eligibility criteria and assessed patient-reported outcomes. Three trials reported QOL outcomes and one of these also reported fear of blindness as a QOL outcome.[121-123] Two trials reported patient preference.[124,125] One trial reported patient satisfaction and convenience.[126] Three additional trials used a QOL instrument that was not

publicly available and were not analyzed for that reason.[127-129] We thus include six trials in our narrative summary.

Four trials compared medical treatments, including one that compared a solution to a gel. One trial compared trabeculectomy to medical treatment and another trial compared laser plus medical treatment to no treatment. The six trials varied in diagnosis, age, race and severity of glaucoma and risk of bias. We did not perform a meta-analysis due to appreciable variability in interventions, outcomes, and follow-up intervals. The studies are described in detail in Evidence Table 21 (Appendix C) and those included in the analysis are summarized in Summary Table below.

We present a summary of the studies included in the review of KQ 2 with interventions, outcomes and results (Table 11).

Table 11. Summary of evidence for KQ 2

Study	Design, Sample Size	Interventions	Outcomes	Overall Risk of Bias	Results
CIGTS 2001[122, 130]	RCT 607 patients,	Primarily trabeculectomy (with or without 5-fluorouracil) vs. Primarily medications, starting with topical beta-blocker	-QOL -Fear of blindness - Symptom (frequency and bothersomeness)	Low	- QOL: No differences. - Symptoms: Overall decrease in both groups. Surgical patients reporting 22% more symptom bothersomeness related to visual function -Fear of blindness decreased in both groups
EMGT 2005[123]	RCT 255 patients	No treatment vs. Betaxolol and ALT,	-QOL	Low	No difference
Javitt 2000[121]	RCT 219 patients	Brimonidine vs. Timolol	-QOL	Medium	No difference
Solish 2004[126]	RCT 492 patients	Timolol/ Dorzolamide fixed combination vs. Timolol and Brimonidine	-Convenience -Satisfaction	Medium	Both treatments were convenient for >80% of patients and satisfied > 82% of the patients.
Konstas 2003[125]	Randomized cross-over trial 54 patients	Latanoprost vs. Timolol/Dorzolamide fixed combination	-Preference	Medium	80 % preferred lanatanoprost vs. 20% timolol/dorzolamide
Schenker 1999[124]	Randomized cross-over trial 202 patients	Timolol Gel vs. Timolol Solution	-Preference	Medium	-71% preferred timolol gel vs. 29% timolol solution -compliance was higher with timolol gel

Outcomes

Quality of Life

Comparison between different treatment groups was made in three trials (Collaborative Initial Glaucoma Treatment Study - CIGTS 2001, EMGT 2005, Javitt 2000). The CIGTS Study, comparing medical treatment to surgical trabeculectomy, reported no significant time-specific

differences between treatment groups in either the Visual Activities Questionnaire Total or Peripheral Vision subscale scores; however, with the Acuity subscale, time-specific treatment group differences were observed at 2-, 6-, and 30-month followup periods, with more dysfunction reported by the surgically treated group.[130] In addition, surgical patients reported approximately 22% more symptom bothersomeness on the Symptom Impact Glaucoma Total score. There were no treatment group differences noted in model-based results for the disease-specific measure of patient perceptions.[130] In the EMGT, a Swedish version of the National Eye Institute Visual Function Questionnaire-25 was administered to subjects in the two arms of the study, those treated with laser trabeculoplasty and betaxolol 0.5%, and those who were not treated. Treatment was not associated with a change in the QOL as assessed by the National Eye Institute Visual Function Questionnaire-25.[123] Lastly, Javitt (2000) compared brimonidine 0.2% and timolol 0.5% treated individuals over 4 months and QOL was assessed with the SF-36. [121] The changes of the SF-36 scores only varied during the study from 1 to 3 units on a scale of 0-100, which was not statistically significant.

One study (CIGTS, 2001) assessed fear of blindness as a QOL outcome and found a decrease in both groups (pharmacological and surgical) throughout the course of the study.[122] At baseline, 34% of all patients reported moderate amount or a lot of worry about blindness. After 5 years this number decreased to 11%. The authors could not detect any association between the initial treatment assignment and fear of blindness.

Satisfaction and Convenience

Solish (2004) assessed patient satisfaction and convenience after 1 and 3 months of treatment with either the fixed combination (both drugs in one bottle) of timolol 0.5 percent and dorzolamide 2 percent, or the unfixed combination (separate bottles) of timolol 0.5 percent and brimonidine 0.2 percent.[126] They found no statistically significant differences between the two drugs alone and in fixed combination. Eight-seven percent of patients treated with the fixed combination of dorzolamide/timolol reported the treatment to be convenient versus 80 percent treated with the concomitant administration of the two drugs ($p=0.056$). Eighty-seven percent of patients treated with the fixed combination of dorzolamide/timolol were satisfied with the treatment versus 85 percent treated with the concomitant administration of the two drugs ($p=0.643$). The study was funded by the manufacturer of the fixed combination product.

Preference

In one trial (Konstas, 2003), the subjects preferred latanoprost over the fixed combination of timolol maleate/dorzolamide (80% vs 20%, $p<0.0001$), mostly because of convenience (latanoprost was administered only once a day).[125] In the other trial (Schenker (1999)) the patients preferred timolol gel given once a day over timolol solution (71% vs 29%) given twice a day after 6 weeks on each treatment ($p<0.001$), because of the reduced frequency of administration.[124]

The grading of evidence for KQ 2 with all the domains is summarized in Table 12.

Table 12. Grading of evidence for KQ 2

Number of Studies; Subjects	Risk of Bias: Design/Quality	Consistency	Directness	Precision	Strength of Evidence
Quality of Life					
3; 1081	RCT/ low	Consistent	Direct	Imprecise	Insufficient
Satisfaction and Convenience					
1; 492	RCT/ medium	Not applicable	Direct	Imprecise	Insufficient
Preference					
2; 256	Randomized cross-over/ medium	Consistent	Direct	Imprecise	Insufficient
Fear of Blindness					
1; 607	RCT/ low	Not applicable	Direct	Imprecise	Insufficient

Conclusions

Open-angle glaucoma generally is asymptomatic until late in its clinical course, and treatment is generally considered to slow or stop the course of disease rather than improve symptoms. For this reason, it is understood that the initiation of treatment is not expected to improve patient-reported outcomes. Hence, the goal is to select an effective treatment with the least treatment-related adverse outcomes. Therefore, it is not surprising that few studies compare patient-reported outcomes before and after the initiation of treatment. In the EMGT, subjects treated with eye drops and laser treatment reported the same QOL as those subjects who were observed without treatment. In the CIGTS, patients undergoing trabeculectomy surgery reported more eye-related symptoms in the first 2 years after surgery when compared to the group randomized to medical treatment.

The reduction in fear of blindness with initiation of treatment in the CIGTS must be kept in context. These were newly diagnosed patients who had no fear of blindness before diagnosis, and so naturally would have had concerns about blindness after learning of their diagnosis. This fear of blindness diminished over time, possibly as they realized that there was not rapidly losing vision, and was not clearly a treatment effect.

KQ 5: Does lowering intraocular pressure or preventing or slowing the progression of optic nerve damage and visual field loss reduce visual impairment and change vision-related quality of life?

Key Points

- We found no studies that adequately addressed the relationship between the intermediate outcomes of intraocular pressure reduction, prevention of optic nerve damage, or prevention of visual field loss and the outcomes of visual impairment and vision-related quality of life.

Summary of Evidence From Systematic Reviews

We did not identify any systematic reviews or well designed primary studies that address the relationship between the intermediate outcomes of IOP reduction, prevention of optic nerve damage, or prevention of visual field loss and the outcomes of visual impairment and vision-related QOL.

Detailed Analysis From Primary Studies

Two studies were identified in which some link was made between the intermediate outcomes of IOP reduction, prevention of optic nerve damage, and prevention of visual field loss and the final outcomes of decreased visual impairment and vision-related QOL.[30 131] The study by Prata (2009) was motivated by the hypothesis that decreasing IOP alone can result in an improvement in visual function.[30] All 54 subjects received pressure-lowering medication such that there was an overall reduction in IOP from 24.8 mmHg to 16.9 mmHg ($p<0.001$). After four weeks of treatment, the authors reported an increase in both visual field mean deviation from -6.56 to -5.72 ($p=0.02$) and a visual analog scale[132] from 6.96 to 7.52 ($p=0.045$). These results, while suggestive that lowering IOP alone may be beneficial for visual function and patient-reported quality of vision, are severely limited by the fact that there was no control group that did not receive pressure-lowering medications.

The second study, by Montemayor (2001), is a cross-sectional evaluation of the relationship between quality of life, visual function, and numbers of glaucoma medications.[131] While there were no significant correlations between objective measures of visual function (visual acuity, visual field mean deviation) and quality of life, they did find correlation between the Visual Function Assessment[133] and quality of life as measured by the EQ-5D health status tool.[134] These results only indirectly address KQ 5 by measuring the correlation between visual field damage and QOL, which does not imply a cause and effect relationship, and the study also does not consider reduction in visual field loss.

While these studies met our inclusion criteria, neither of them was adequately designed to provide reliable information on which to draw conclusions regarding KQ 5.

The grading of evidence for KQ 5 with all the domains is summarized in Table 13.

Table 13. Grading of evidence for KQ 5

Number of Studies; Participants	Risk of Bias	Consistency	Directness	Precision	Strength of Evidence
Visual Impairment					
2; 278	RCT and Observational (cross-sectional) studies/ Medium	Inconsistent	Indirect	Imprecise	Insufficient

Link Between Visual Field Loss and Visual Impairment

Although there are no studies linking any glaucoma treatment to differential effects on either visual impairment or patient reported outcomes, there have been a number of cross-sectional studies relating the degree of visual field loss due to glaucoma to both of these outcomes. While none of these studies was eligible for inclusion in this systematic review, some of this evidence

is discussed below in order to make it clear that treatment may affect the final outcomes in the analytic framework by slowing the loss of visual field.

In its most severe form OAG can cause total and irreversible bilateral blindness. Therefore there is no question that OAG can produce marked decreases in both patient reported outcomes and objectively observed functional limitations. Cross-sectional studies comparing patients with OAG with visual field loss to controls have demonstrated that both patient-reported and objectively observed function is diminished in glaucoma.

Walking and balance are important functions, particularly in the older age group most likely to have visual field loss from glaucoma. In a glaucoma focus group, difficulty walking was a common complaint. Forty-nine percent of patients described difficulties with steps, 42 percent described difficulty going shopping, and 36 percent described difficulty crossing the road.[135] Similarly, questionnaires given to glaucoma patients demonstrated that two of the strongest correlates with binocular visual field loss were difficulty with stairs and bumping into objects, [136] Observation of walking by patients with glaucoma provides objective evidence of problems to corroborate the patient reported outcomes. Patients with glaucoma walk more slowly than similarly aged controls, and walking speed is strongly correlated with mean deviation in the worse-eye visual field.[137] A population-based comparison of walking in individuals with and without glaucoma demonstrated that patients with bilateral, but not unilateral, glaucoma walked slower, and bumped into objects more frequently.[138] In the Salisbury Eye Evaluation Study, patients with bilateral, but not unilateral glaucoma had more trouble performing balance tasks such as semi-tandem and tandem stands, in which the heel of one foot is placed next to or in front of the big toe of the second foot.[138]

Falling is one serious outcome that may result from difficulties with walking and balance. Glaucoma patients in the Singapore Malay Eye Study had four-fold higher odds of falling than non-glaucoma individuals after adjusting for visual acuity.[139] Among Medicare recipients, glaucoma patients coded as visually impaired were more likely to have had a fall or accident (OR 1.6) and to have had a femur fracture (OR 1.6) when compared with glaucoma patients not coded to have visual loss.[140]

Driving is a critical activity of daily living. Patients with glaucoma perceive more difficulty driving than control individuals without glaucoma,[141] and perceived difficulty increases with worsening visual field damage in the better eye.[142] Participants in the Salisbury Eye Evaluation Study with bilateral, but not unilateral, glaucoma had worse self-reported scores with regard to driving at night, suggesting that disability may occur primarily in patients with bilateral disease.[143]

Difficulty with tasks involving near vision is more common in glaucoma patients than in persons without glaucoma. Altangerel directly tested the performance of glaucoma patients on an index of activities and identified searching for objects, reading, and manual tasks (placing a stick into holes of different sizes) as most related to the extent of visual field loss.[144]

Therefore, with respect to varied important tasks of everyday living, individuals with visual field loss from glaucoma have worse self-reported visual abilities and measurably worse task performance than their counterparts without glaucoma.

Conclusions

Evidence from cross-sectional studies not included in this review, because these studies do not address the KQs in our analytic framework, supports the conclusion that more severe visual field loss results in more visual impairment and worse patient reported outcomes. This link is the

basis for current treatments, which are intended to slow visual field progression by lowering intraocular pressure. However, we found no studies showing a direct link between treatment and visual impairment or patient-reported outcomes, however. We also found no link between those final outcomes and the intermediate outcomes addressed by KQ 3 and 4. Future studies might advance the field by evaluating this indirect link.

Discussion

In the analytic framework we developed to structure this work, the ultimate outcome of treating open-angle glaucoma (OAG) is the prevention of visual impairment and the maintenance or improvement of patient-reported outcomes like quality of life. Key Questions (KQs) 1 and 2 directly evaluate these outcomes. Recognizing that studying these final outcomes of glaucoma treatment directly requires large studies of long duration, we also included in the analytic framework the intermediate outcomes of intraocular pressure (IOP), rate of visual field loss, and rate of optic nerve damage as each of these outcomes is very likely linked to the final outcome of visual impairment. KQs 3 and 4 address the link between treatment and these intermediate outcomes. In an effort to gather all evidence linking treatment to changes in visual impairment and quality of life, Key Question 5 was included to assess the link between the intermediate outcomes reported by most glaucoma trials (IOP, visual field, optic nerve) and the ultimate outcomes of visual impairment and self-reported declines in quality of life.

Because glaucoma can be treated both medically and surgically, our evaluation was further structured to compare medications to other medications, medications to surgeries, and surgeries to other surgeries. This was done because it made the most sense from a clinical perspective. The key questions were therefore each evaluated within each of these three categories.

We identified no studies that evaluated either medical or surgical glaucoma treatments with regard to their impact on visual impairment (KQ 1). Our methods were designed to use standard definitions of visual impairment based on visual acuity and visual field loss, but even alternative definitions of visual impairment did appear in any appropriate studies. Glaucoma is a slowly progressive disease and recent publications indicate that the average untreated glaucoma patient would require more than 20 years to lose most of his/her visual field.[9] Most clinical trials cannot enroll a large enough number of subjects and follow them long enough to detect a difference in the proportion progressing to severe vision loss. A small number of studies provided data on visual acuity or visual field outcomes that might have been used to evaluate this question, but either the data reported were not adequate to determine rates of visual disability or the studies were of too short a duration to ascertain relative differences in glaucoma progression.

We also found the evidence linking treatment with relative changes in patient-reported outcomes (KQ 2) to be insufficient. There is some evidence that patients prefer less frequent dosing of medications and there is evidence that treatment of any kind reduces the fear of blindness compared to after diagnosis, but we found nothing linking treatment to more important outcomes like vision-related quality of life.

As mentioned above, we attempted to find an indirect link from treatment to the final outcomes via KQ 5. Again, no studies were found that adequately evaluated the link between any of the intermediate outcomes and the final outcomes in the analytic framework.

Taking KQs 1, 2, and 5 together, we therefore did not find evidence for direct or indirect links between treatment of glaucoma and the prevention of visual impairment or changes in patient-reported outcomes. As noted above, since glaucoma is a slowly progressive disease (even if untreated), it is not surprising that no studies of these links were identified. The required duration of such studies would present significant challenges, primarily in terms of the followup of the subjects for a long enough period of time to ascertain relative differences in the outcomes.

In contrast to the lack of evidence for KQs 1, 2, and 5, the past decade has seen significant progress in terms of information related to the intermediate outcomes of IOP (KQ 3) and changes in visual field and optic nerve (KQ 4). With regard to IOP, there is moderate evidence that a number of treatments can significantly lower IOP relative to no treatment.

Medical therapy for glaucoma has been available for over a century and there is moderate evidence that all of the currently used medications lower IOP. Among medications, the prostaglandin agents are consistently superior to the other classes in terms of their pressure lowering ability. Specifically, latanoprost has been shown to be superior to timolol, brimonidine, and dorzolamide. This result is consistent with the NICE guidelines from 2009 regarding glaucoma medications.[145] It is also now clear from large clinical trials (Collaborative Normal-Tension Glaucoma Study, Early Manifest Glaucoma Trial, and Ocular Hypertension Treatment Study) that treatment with medications decreases the risk of visual field loss or optic nerve damage. The reduction in the risk of visual field loss or optic nerve damage was close to 50% in these major trials. The topical medications included in this review have been shown to be superior to placebo with regard to visual field loss and/or optic nerve damage, but there is not adequate evidence to suggest the superiority of one medication over another in terms of these same outcomes.

Laser trabeculoplasty has also been shown to decrease IOP in OAG. Although multiple types of laser are currently in use, there is no evidence to support the use of one technology over another. Specifically, our results, similar to the conclusions provided in the National Institute for Health and Clinical Excellence glaucoma guidelines,[145] support the equivalence of argon laser trabeculoplasty and SLT. Furthermore, laser trabeculoplasty and topical medications have similar ability to prevent visual field loss due to glaucoma.

As with medications and laser, incisional surgeries lower IOP. In terms of relative effect, trabeculectomy lowers pressure more than non-penetrating procedures like viscocanalostomy and deep sclerectomy. There is also moderate evidence that trabeculectomy with the antimetabolite mitomycin-C lowers pressure more than the same procedure without mitomycin-C. Interestingly, there is no evidence to support a reduction in IOP when mitomycin-C is used with the non-penetrating procedures. Although many variations on the basic trabeculectomy have been evaluated, including differences in technique and in adjuvants, there is insufficient evidence that any of them provides additional reduction in IOP.

Based on the evidence we analyzed, it is likely that trabeculectomy is superior to medications in terms of preventing visual field loss. Taken together, the current best evidence supports the contention that medication and laser trabeculoplasty have similar efficacy but that trabeculectomy is superior to both with respect to the intermediate outcomes addressed by KQs 3 and 4.

There is, of course, a downside to any treatment in the form of side effects and complications. In general, the harms produced by medications are not vision threatening and most commonly include signs and symptoms like conjunctival hyperemia and ocular irritation. There is evidence that the prostaglandin agents are more likely to cause conjunctival hyperemia than are the other classes of medication, and that latanoprost is the least likely to cause this of the three prostaglandins that have been most widely used and studied (latanoprost, bimatoprost and travoprost). On the other hand, timolol is more likely to result in systemic side effects like shortness of breath or bradycardia, though these are rarely severe.

As expected, the complications of surgery are more significant compared to those of medications, and they include cataract formation, choroidal effusions, hyphema, and flattening of the anterior chamber. If these complications are severe, they can result in vision loss. Among surgical treatments, these complications are more common in trabeculectomy than in non-penetrating surgeries and are likely more common in trabeculectomies done with mitomycin-C than in those performed without it.

The fact that the treatment that is most likely to lower IOP and prevent visual field and optic nerve progression (trabeculectomy) is also the one with the most significant side effects is a challenge to clinical decision making. When deciding from among medications, laser, and incisional surgery, a clinician would ideally perform some sort of patient-specific risk-benefit analysis to determine which intervention is most appropriate, given the risk of progression. Even if this were something clinicians were good at, the fact is that there are no good studies that clearly quantify the relative risks and benefits of various treatments to inform such an analysis.

In conclusion, we did not find direct or indirect links between glaucoma treatment and visual impairment or patient-reported outcomes. This should be an area of focus in future glaucoma trials, but trials would need to be of adequate size and duration to detect differences between groups. We did find, however, that a number of current medical and surgical treatments clearly lower IOP and can prevent visual field loss and optic nerve damage. While we found direct comparisons between some treatments, the remaining gaps noted above also represent an area in which future research could be directed.

Future Research Needs

The available evidence regarding glaucoma treatments demonstrates definitively that intraocular pressure can be lowered by medications, laser treatments, and surgery. High-quality randomized controlled trials have also shown that reduction of intraocular pressure slows the development and progression of damage to the optic nerve and slows visual field loss. Although logical to presume that slowing glaucoma damage would lead to preservation of vision-related quality of life and reduction in visual impairment, this link has not been demonstrated in the research literature. Establishing this link is perhaps the most important next step in fleshing out the analytic framework presented above, thereby establishing (or not) the impact of treatment on the more meaningful final outcomes.

As part of this systematic review, it also became clear that most of the available literature on glaucoma treatments was deficient in one or more ways and therefore could not be used to answer the questions incorporated in the analytic framework. First of all, many studies had to be excluded because they were non-comparative or too small. In general, the lack of a control or comparison group precludes the kind of conclusions one would like to draw from a study, specifically whether a particular treatment is superior to another. Similarly, studies with inadequate sample sizes are also less informative than desired. The glaucoma treatment literature also contains many non-randomized studies. This seems to be a general deficiency in surgical fields where it is possible to implement new procedures or devices without the same level of oversight or approval found with medications. Regardless of the underlying reasons, the fact that subjects were not drawn from the same population and randomized to one of a number of treatments means that it is again difficult to draw any meaningful conclusions. All of these problems could be overcome with more rigorous study design, which should include at least two groups, preferably randomized, and some kind of a priori sample size calculation to increase the likelihood of being able to answer the question motivating the study in the first place.

It is not true that only prospective randomized studies should be conducted but other study designs need to be purposefully designed to answer some question. For example, large observational studies or clinical data registries could be used to assess harms of treatment that might not be detected in smaller, randomized studies. Similarly, these non-randomized designs could also provide information about the incidence or prevalence of visual impairment or disability among various groups.

Another category of deficiency in much glaucoma literature is with regard to the reporting of outcomes and harms for study populations. This may be due to the facts that there is no universally accepted measure of glaucoma or its progression (outcomes) and that there has also been no consensus regarding which harms should be reported and how. As such, the ability to combine results from multiple studies would be enhanced by more commonality with regard to study design. Fortunately, such a consensus is now available and the World Glaucoma Association publication “Guidelines on Design and Reporting of Glaucoma Surgical Trials” should serve as a basis for all trials of new and existing treatments.[15]

One area of glaucoma that has only recently received attention is that of formal risk estimation for patients. In the case of patients who are similar to the subjects of the Ocular Hypertension Treatment Study, it is possible to use a calculator to estimate their risk of conversion to glaucoma within 5 years. Production of similar calculators for other stages of disease (early, moderate, severe) and for other groups of glaucoma suspects (African Americans, Latinos, etc.) may help identify those patients most at risk of incident or progressive disease, thereby allowing treatment efforts to be better focused. Based on the results of the studies

described above, there is not yet compelling evidence that these groups would benefit from any particular approach to treatment.

Below, we utilize the Population, Intervention, Comparison, and Outcome framework to outline areas of research that might help resolve the deficiencies in prior work identified as part of this review.

Lack of Association Between Treatment and Visual Impairment

Population:

- Patients with moderate visual loss from glaucoma, that is, those at highest risk for visual impairment

Interventions:

- Studies evaluating all interventions are needed: medical therapy, laser trabeculoplasty, incisional surgery

Outcomes:

- Visual impairment as measured by standard definitions (e.g., International Classification of Diseases)
- Functional measures of impairment: reading, driving, other activities of daily living
- Long-term trials or patient registries (i.e., greater than 10 years) are needed to determine the relative impact of treatments on visual impairment
- All studies of glaucoma treatments should routinely include generally accepted measures of visual impairment

Lack of Association Between Treatment and Patient-Reported Outcomes

Population:

- Open-angle glaucoma patients in need of treatment

Interventions:

- Studies evaluating all interventions are needed: medical therapy, laser trabeculoplasty, incisional surgery

Outcomes:

- Assessment of patient-reported outcomes prior to the start of therapy to provide appropriate basis for assessing these outcomes after therapy
- Potential outcomes for consideration in future research include satisfaction with therapy, self-assessment of visual function, and concerns about future vision loss.

Assessment of the Relative Risks and Benefits of Treatment

Population:

- Glaucoma patients in need of treatment
- Provide subanalysis or complete stratification by risk

Interventions:

- Studies evaluating all interventions are needed: medical therapy, laser trabeculoplasty, incisional surgery

Outcomes:

- All studies of glaucoma treatments should be designed to provide information on the comparative effectiveness of one treatment versus the most appropriate “standard.”

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Abbreviations

AHRQ	Agency for Healthcare Research and Quality
CI	confidence interval
EPC	Evidence-based Practice Center
5-FU	5-Fluorouracil
HR	hazard ratio
IOP	intraocular pressure
logMAR	logarithm of the minimum angle of resolution
MD	mean deviation
MMC	Mitomycin-C
OR	odds ratio
QOL	quality of life
RCT	randomized controlled trial
RD	risk difference
RR	relative risk
SD	standard deviation
SLT	selective laser trabeculoplasty
WMD	weighted mean difference

Appendix A. Search Strategy

PubMed

("Ocular Hypertension"[mh] OR "ocular hypertension"[tiab] OR "Intraocular Pressure"[mh] OR "intraocular pressure"[tiab] OR “glaucoma, open-angle” [mh] OR “Open angle glaucoma” [tiab] OR “low tension glaucoma” [tiab] OR “normal tension glaucoma” [tiab] OR “pseudoexfoliative glaucoma” [tiab] OR “pseudoexfoliative syndrome” [tiab]) AND ("Trabeculectomy"[mh] OR trabeculectomy[tiab] OR "Laser Coagulation"[mh] OR "laser coagulation"[tiab] OR photocoagulation[tiab] OR "sclerostomy"[mh] OR sclerostomy[tiab] OR canaloplasty [tiab] OR viscocanalostomy[tiab] OR "glaucoma drainage implants"[mh] OR "glaucoma drainage implants"[tiab] OR shunt[tiab] OR "laser therapy"[tiab] OR "laser surgery"[tiab] OR apraclonidine[tiab] OR "brimonidine"[Substance Name] OR brimonidine[tiab] OR "Timolol"[mh] OR Timolol[tiab] OR "Betaxolol"[Mesh] OR Betaxolol [tiab] OR "Levobunolol"[mh] OR "Metipranolol"[mh] OR "Carbonic Anhydrase Inhibitors"[mh] OR "Carbonic Anhydrase Inhibitors"[tiab] OR "dorzolamide"[Substance Name] OR dorzolamide[tiab] OR "Acetazolamide"[mh] OR Acetazolamide[tiab] OR "Cholinergic Agents"[mh] OR "Pilocarpine"[mh] OR Pilocarpine[tiab] OR "Carbachol"[mh] OR "Prostaglandins, Synthetic"[mh] OR Prostaglandins[tiab] OR travoprost[tiab] OR bimatoprost[tiab] OR latanoprost[tiab] OR "isopropyl unoprostone"[Substance Name] OR "Antihypertensive Agents"[mh] OR "Epinephrine"[mh] OR Epinephrine[tiab]) AND (randomized controlled trial [pt] OR controlled clinical trial [pt] OR randomized [tiab] OR placebo [tiab] OR drug therapy [sh] OR randomly [tiab] OR trial [tiab] OR groups [tiab]) NOT (animals [mh] NOT humans [mh]) **6191 titles**

EMBASE

('intraocular hypertension'/exp OR 'ocular hypertension':ab,ti OR 'intraocular pressure'/exp OR 'intraocular pressure':ab,ti OR 'open angle glaucoma'/exp OR 'open angle glaucoma':ti,ab OR 'low tension glaucoma':ti,ab OR ‘normal tension glaucoma’:ti,ab OR ‘pseudoexfoliative glaucoma’:ti,ab OR ‘pseudoexfoliative syndrome’:ab,ti) AND ('trabeculectomy'/exp OR trabeculectomy:ab,ti OR 'laser coagulation'/exp OR 'laser coagulation':ab,ti OR photocoagulation:ab,ti OR 'glaucoma surgery'/exp OR sclerostomy:ab,ti OR canaloplasty:ab,ti OR viscocanalostomy:ab,ti OR 'glaucoma drainage implant'/exp OR 'glaucoma drainage implants':ab,ti OR shunt:ab,ti OR 'laser therapy':ab,ti OR 'laser surgery':ab,ti OR apraclonidine:ab,ti OR 'brimonidine'/exp OR brimonidine:ab,ti OR 'timolol'/exp OR timolol:ab,ti OR 'betaxolol'/exp OR betaxolol:ab,ti OR 'levobunolol'/exp OR 'metipranolol'/exp OR 'carbonate dehydratase inhibitor'/exp OR 'carbonic anhydrase inhibitors':ab,ti OR 'dorzolamide'/exp OR dorzolamide:ab,ti OR 'acetazolamide'/exp OR acetazolamide:ab,ti OR 'cholinergic receptor stimulating agent'/exp OR 'pilocarpine'/exp OR pilocarpine:ab,ti OR 'carbachol'/exp OR 'prostaglandin derivative'/exp OR prostaglandins:ab,ti OR travoprost:ab,ti OR bimatoprost:ab,ti OR latanoprost:ab,ti OR 'isopropyl unoprostone'/exp OR 'antihypertensive agent'/exp OR 'adrenalin'/exp OR epinephrine:ab,ti) AND (‘randomized controlled trial’:pt OR ‘controlled clinical trial’:pt OR randomized:ab OR placebo:ab OR 'clinical trial'/exp OR randomly:ab OR trial:ti) NOT (animals/exp NOT humans/exp) **3480 titles**

LILACS

glaucoma$ AND (Trabeculectom$ OR 'Laser Coagulation'$ OR photocoagulation$ OR sclerostomy$ canaloplast$ OR viscocanalostom$ OR 'glaucoma drainage implants' OR 'glaucoma drainage implant'$ OR shunt OR 'laser therapy' OR laser surgery OR apraclonidine OR brimonidine] OR Timolol$ OR Betaxolol$ OR Levobunolol$ OR Metipranolol$ OR 'Carbonic Anhydrase Inhibitors'$ OR dorzolamide$ OR Acetazolamide$ OR 'Cholinergic Agents'$ OR Pilocarpine$ OR Carbachol$ OR Prostaglandins$ OR travoprost$ OR bimatoprost$ OR 'isopropyl unoprostone' OR 'Antihypertensive Agents' OR Epinephrine$) **276 titles**

Cochrane

glaucoma AND (Trabeculectomy OR 'Laser Coagulation' OR photocoagulation OR sclerostomy canaloplasty OR viscocanalostomy OR 'glaucoma drainage implants' OR 'glaucoma drainage implant' OR shunt OR 'laser therapy' OR laser surgery OR apraclonidine OR brimonidine] OR Timolol OR Betaxolol$ OR Levobunolol OR Metipranolol OR 'Carbonic Anhydrase Inhibitors' OR dorzolamide OR Acetazolamide OR 'Cholinergic Agents' OR Pilocarpine OR Carbachol OR Prostaglandins OR travoprost OR bimatoprost OR 'isopropyl unoprostone' OR 'Antihypertensive Agents' OR Epinephrine) **463**

Search Strategy

	Glaucoma (The disease)	
	("Ocular Hypertension"[mh] OR "ocular hypertension"[tiab] OR "Intraocular Pressure"[mh] OR "intraocular pressure"[tiab] OR “glaucoma, open-angle” [mh] OR “Open angle glaucoma” [tiab] OR “low tension glaucoma” [tiab] OR “normal tension glaucoma” [tiab] OR “pseudoexfoliative glaucoma” [tiab] OR “pseudoexfoliative syndrome” [tiab])	
AND	Surgical treatment OR Medical treatment (the intervention)	
	("Trabeculectomy"[mh] OR trabeculectomy[tiab] OR "Laser Coagulation"[mh] OR "laser coagulation"[tiab] OR photocoagulation[tiab] OR "sclerostomy"[mh] OR sclerostomy[tiab] OR canaloplasty [tiab] OR viscocanalostomy[tiab] OR "glaucoma drainage implants"[mh] OR "glaucoma drainage implants"[tiab] OR shunt[tiab] OR "laser therapy"[tiab] OR "laser surgery"[tiab]	apraclonidine[tiab] OR "brimonidine"[Substance Name] OR brimonidine[tiab] OR "Timolol"[mh] OR Timolol[tiab] OR "Betaxolol"[Mesh] OR Betaxolol [tiab] OR "Levobunolol"[mh] OR "Metipranolol"[mh] OR "Carbonic Anhydrase Inhibitors"[mh] OR "Carbonic Anhydrase Inhibitors"[tiab] OR "dorzolamide"[Substance Name] OR dorzolamide[tiab] OR "Acetazolamide"[mh] OR Acetazolamide[tiab] OR "Cholinergic Agents"[mh] OR "Pilocarpine"[mh] OR Pilocarpine[tiab] OR "Carbachol"[mh] OR "Prostaglandins, Synthetic"[mh] OR Prostaglandins[tiab] OR travoprost[tiab] OR bimatoprost[tiab] OR latanoprost[tiab] OR "isopropyl unoprostone"[Substance Name] OR "Antihypertensive Agents"[mh] OR "Epinephrine"[mh] OR Epinephrine[tiab])
AND	Study design	
	(randomized controlled trial [pt] OR controlled clinical trial [pt] OR randomized [tiab] OR placebo [tiab] OR drug therapy [sh] OR randomly [tiab] OR trial [tiab] OR groups [tiab])	
NOT	Only human studies	
	(animals [mh] NOT humans [mh])	

Appendix B. Screening and Data Abstraction Forms

Include	Exclude
Primary OAG	Angle-closure glaucoma
Secondary OAG	Juvenile glaucoma
Ocular Hypertension	Traumatic glaucoma
Normal tension glaucoma	Neovascular glaucoma
Low tension glaucoma	
Pigmentary glaucoma	
Pseudoexfoliative	

B Key Questions

KQ1: Do medical, laser, and other surgical treatments for open-angle glaucoma reduce visual impairment?
KQ2:Does treatment of open-angle glaucoma improve patient-reported outcomes?
KQ3:Do medical, laser, and other surgical treatments for open-angle glaucoma lower intraocular pressure?
KQ4: Do medical, laser, and other surgical treatments for open-angle glaucoma prevent or slow the progression of optic nerve damage and visual field loss?
KQ5: Does lowering intraocular pressure or preventing or slowing the progression of optic nerve damage and visual field loss reduce visual impairment and change vision-related quality of life?
KQ6: What are the harms associated with medical, laser, and other surgical treatments for open-angle glaucoma?

Submit Form and go to or Skip to Next

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Messages Nothing new

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Refid: 12, Skateboards: Are they really perilous? A retrospective study from a district hospital.
Rethnam U, Yesupalan RS, Sinha A.

Submit Form and go to or Skip to Next

1. **Exclude article if (please choose one)**

- No original data (e.g., systematic review, narrative review, editorial, letter)
- No subjects with open-angle glaucoma (see A for other terms)
- Does not include treatment for open-angle glaucoma (medical, surgical or combined; See addendum for list of interventions)
- Does not address any key questions (see below for questions)
- Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- It is a case series
- It is not a RCT and has less than 100 patients
- It is combined cataract/glaucoma surgery study published before April 2000
- Animal or in vitro data
- Data not abstractable
- Other (specify):
- OAG can't be analyzed separately

Clear Response

2. **Include Article**
Check the Key Question it addresses (you may check more than one)

- KQ1: Do medical, laser, and other surgical treatments for open-angle glaucoma reduce visual impairment?
- KQ2:Does treatment of open-angle glaucoma improve patient-reported outcomes?
- KQ3:Do medical, laser, and other surgical treatments for open-angle glaucoma lower intraocular pressure?
- KQ4: Do medical, laser, and other surgical treatments for open-angle glaucoma prevent or slow the progression of optic nerve damage and visual field loss?
- KQ5: Does lowering intraocular pressure or preventing or slowing the progression of optic nerve damage and visual field loss reduce visual impairment and change vision-related quality of life?
- KQ6: What are the harms associated with medical, laser, and other surgical treatments for open-angle glaucoma?

3. **Check the study design ONLY for included article**

- Randomized Controlled Trial / Quasi-Randomized Controlled Trial / Randomized Cross-over
- Other trial (e.g., Cross over trials, before-after, switch, controlled trial)
- Observational study(Cohort studies, Case control studies)

4. **Non-english article**

Non-english article (Specify if possible)

Clear Response

5. **FLAG excluded article:**

Useful reference (retrieve for hand searching)

Clear Response

6. **Comments**

A Glaucoma terms

Include

Primary OAG
Ocular Hypertension
Normal and low tension glaucoma
Pigmentary glaucoma
Pseudoexfoliative

Exclude

Angle-closure glaucoma
Juvenile glaucoma/Congenital
Traumatic glaucoma
Neovascular glaucoma
Refractory
Secondary glaucoma except for Pigmentary and Pseudoexfoliative

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Refid: 12, Skateboards: Are they really perilous? A retrospective study from a district hospital.
Rethnam U, Yesupalan RS, Sinha A.

Submit Form and go to [ ] or Skip to Next

Please check for a 24-hour study

- [ ] 24 hour study

Please define comparators for each arm below:

Arm 1	Arm 2	Arm 3	Arm 4
Select an Answer	Select an Answer	Select an Answer	Select an Answer
Medication concentration Select an Answer	Medication concentration Select an Answer	Medication concentration Select an Answer	Medication concentration Select an Answer
Adjuvant recieved in arm 1 - [ ] Mitomycin-C - [ ] 5-fluorouracil (5-FU)	Adjuvant recieved in arm 2 - [ ] Mitomycin-C - [ ] 5-fluorouracil (5-FU)	Adjuvant recieved in arm 3 - [ ] Mitomycin-C - [ ] 5-fluorouracil (5-FU)	Adjuvant recieved in arm 4 - [ ] Mitomycin-C - [ ] 5-fluorouracil (5-FU)

Comments

This article should be excluded (specify reason)

Submit Form and go to [ ] or Skip to Next

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Messages Nothing new
Live Support Currently Unavailable | User Guide

Review | Datarama | Reports | References | Forms | Manage Levels | Users | Logout

Refid: 12, Skateboards: Are they really perilous? A retrospective study from a district hospital.
Rethnam U, Yesupalan RS, Sinha A.

Submit Form and go to [ ] or Skip to Next

Study Design Characteristics

1. What study design was used? (check one):

- ( ) Randomized Controlled Trial
- ( ) Quasi-Randomized Controlled Trial
- ( ) Randomized Cross-Over
- ( ) Controlled Trial ( )

Cross-Over Trial ( )
Before-After Study ( )
Switch Study

- ( ) Cohort Study
- ( ) Case Control Study
- ( ) Case Series

2. Was the study:

- [ ] Prospective
- [ ] Retrospective

3. Is this study part of a bigger study? Please specify the citation number from the article.

- ( ) Yes, specify which [ ]
- ( ) No

4. Is this study part of a multicenter trial?

- ( ) Yes
- ( ) No

5. In what region did the study occur? (check all that apply):

- ☐ North America
- ☐ Europe
- ☐ Asia
- ☐ Africa
- ☐ Australia
- ☐ South America

6. Mean follow-up duration (select unit and value of duration):

- ○ Days
- ○ Weeks
- ○ Months
- ○ Years
- ○ Not specified
- ○ 24-hour study

Clear Response

Study Eligibility Criteria

Please select and specify the inclusion and exclusion criteria for the entire study

Age ☐ Inclusion ☐ Exclusion
IOP ☐ Inclusion ☐ Exclusion
Ocular hypertension ☐ Inclusion ☐ Exclusion
Glaucoma suspects ☐ Inclusion ☐ Exclusion

Prior cataract surgery

Inclusion Exclusion

Prior glaucoma surgery

Inclusion Exclusion

Prior glaucoma laser

Inclusion Exclusion

Submit Form and go to or Skip to Next

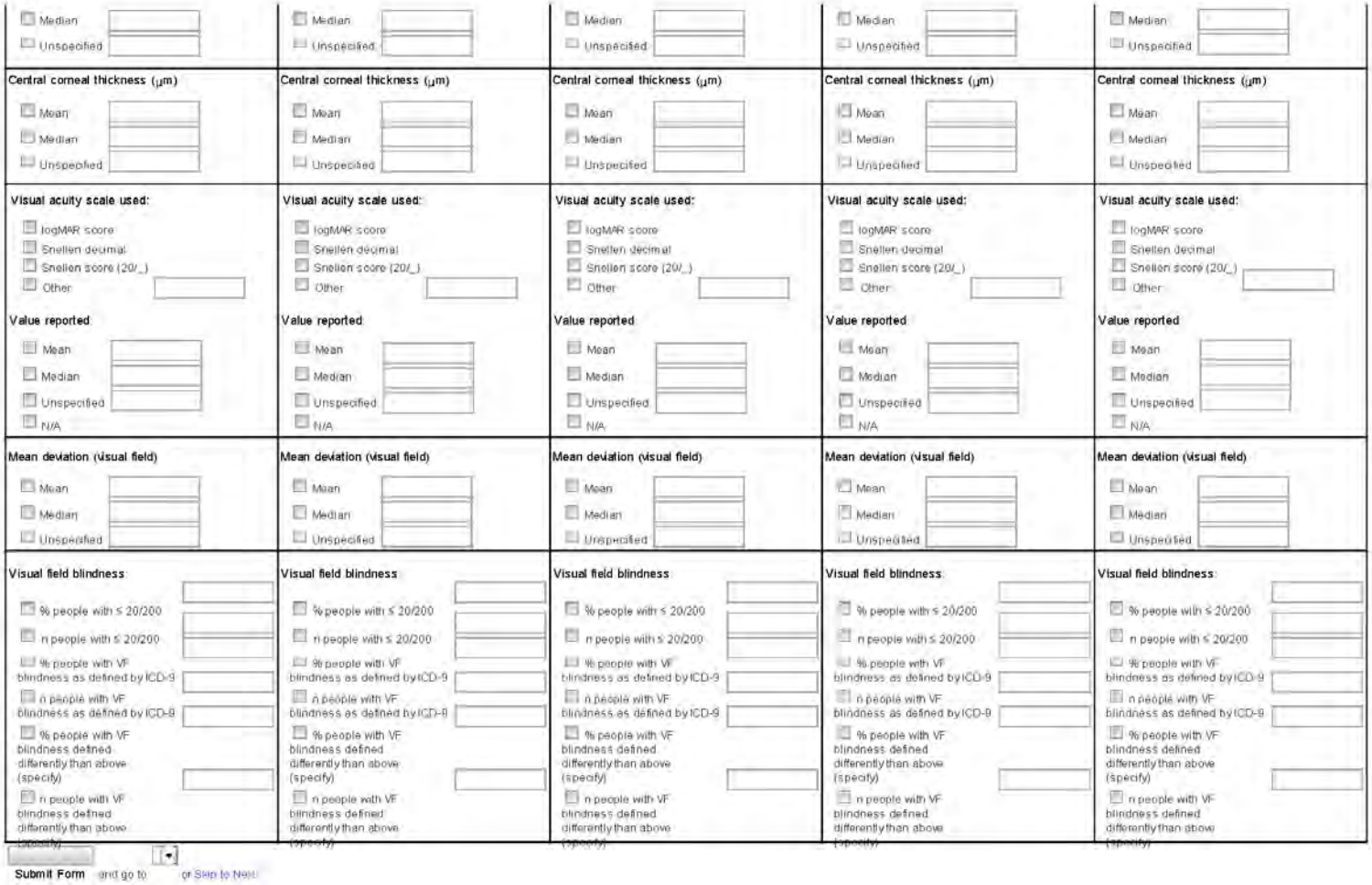
Study Population Characteristics

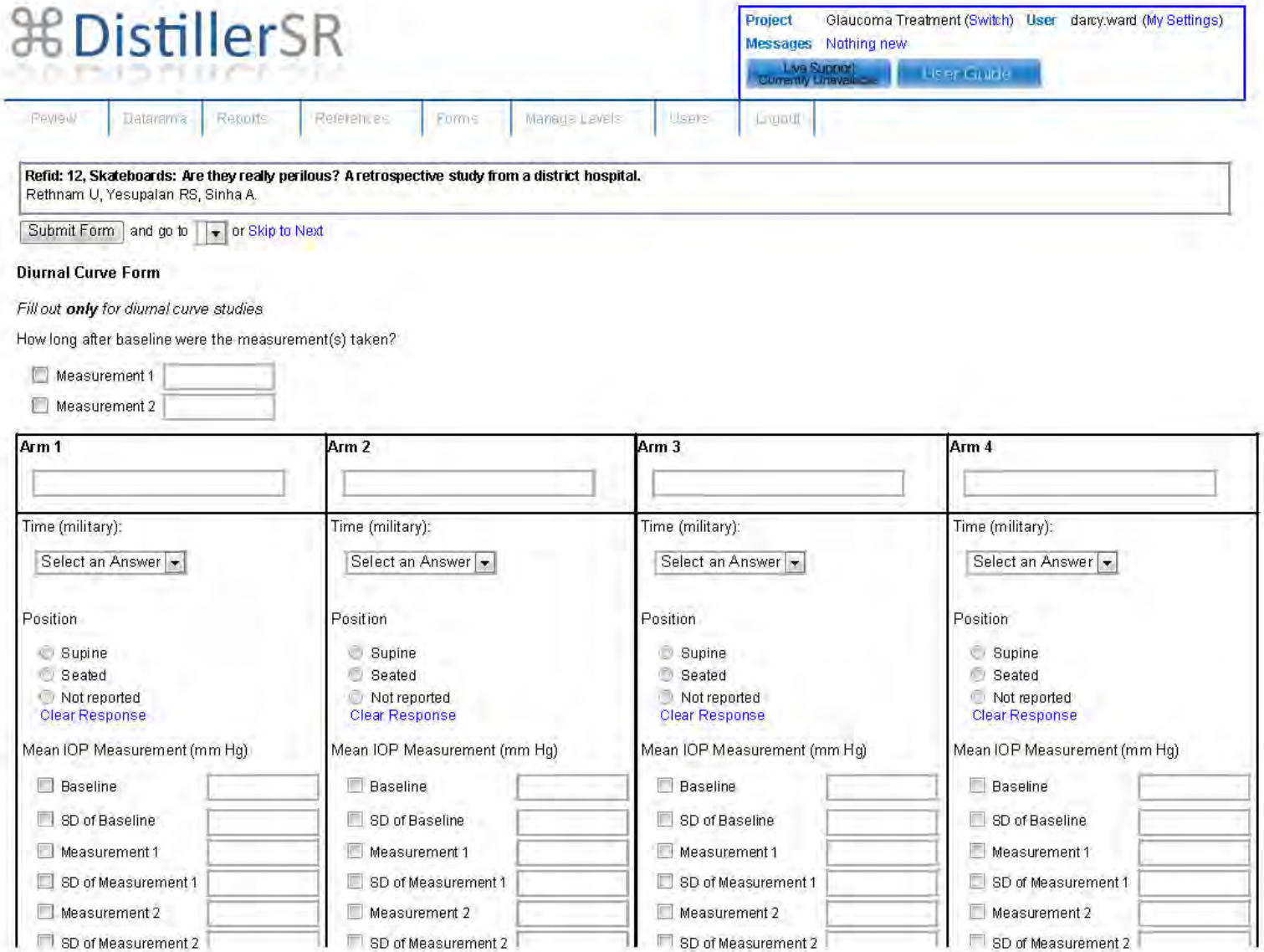
Arm 1	Arm 2	Arm 3	Arm 4	Entire Study
Number Eyes Patients	Number Eyes Patients	Number Eyes Patients	Number Eyes Patients	Number Eyes Patients
Age Mean age Median age	Age Mean age Median age	Age Mean age Median age	Age Mean age Median age	Age Mean age Median age
Sex % Male % Female n Male n Female	Sex % Male % Female n Male n Female	Sex % Male % Female n Male n Female	Sex % Male % Female n Male n Female	Sex % Male % Female n Male n Female
Caucasian/White n %	Caucasian/White n %	Caucasian/White n %	Caucasian/White n %	Caucasian/White n %
African American/Black: n %	African American/Black: n %	African American/Black: n %	African American/Black: n %	African American/Black: n %
Asian: n	Asian: n	Asian: n	Asian: n	Asian: n

Hispanic/Latino ☐ n ☐ %	Hispanic/Latino ☐ n ☐ %	Hispanic/Latino ☐ n ☐ %	Hispanic/Latino ☐ n ☐ %	☐ n ☐ %
Other Race (specify below): ☐ Specify ☐ n ☐ %	Other Race (specify below): ☐ Specify ☐ n ☐ %	Other Race (specify below): ☐ Specify ☐ n ☐ %	Other Race (specify below): ☐ Specify ☐ n ☐ %	Other Race (specify below): ☐ Specify ☐ n ☐ %
Primary OAG ☐ n ☐ %	Primary OAG ☐ n ☐ %	Primary OAG ☐ n ☐ %	Primary OAG ☐ n ☐ %	Primary OAG ☐ n ☐ %
Ocular hypertension: ☐ n ☐ %	Ocular hypertension: ☐ n ☐ %	Ocular hypertension: ☐ n ☐ %	Ocular hypertension: ☐ n ☐ %	Ocular hypertension: ☐ n ☐ %
Normal/Low tension glaucoma: ☐ n ☐ %	Normal/Low tension glaucoma: ☐ n ☐ %	Normal/Low tension glaucoma: ☐ n ☐ %	Normal/Low tension glaucoma: ☐ n ☐ %	Normal/Low tension glaucoma: ☐ n ☐ %
Pigmentary glaucoma: ☐ n ☐ %	Pigmentary glaucoma: ☐ n ☐ %	Pigmentary glaucoma: ☐ n ☐ %	Pigmentary glaucoma: ☐ n ☐ %	Pigmentary glaucoma: ☐ n ☐ %
Pseudoexfoliative glaucoma: ☐ n ☐ %	Pseudoexfoliative glaucoma: ☐ n ☐ %	Pseudoexfoliative glaucoma: ☐ n ☐ %	Pseudoexfoliative glaucoma: ☐ n ☐ %	Pseudoexfoliative glaucoma: ☐ n ☐ %

Baseline Parameter Characteristics:

Arm 1	Arm 2	Arm 3	Arm 4	Entire Study
Number assessed at baseline ☐ eyes ☐ patients	Number assessed at baseline ☐ eyes ☐ patients	Number assessed at baseline ☐ eyes ☐ patients	Number assessed at baseline ☐ eyes ☐ patients	Number assessed at baseline ☐ eyes ☐ patients
IOP (mm Hg) ***If multiple values reported record earliest*** ***If values reported both with and without meds, capture IOP WITH medication*** ☐ mean IOP ☐ median IOP ☐ mean number of meds ☐ median number of meds	IOP (mm Hg) ***If multiple values reported record earliest*** ***If values reported both with and without meds, capture IOP WITH medication*** ☐ mean IOP ☐ median IOP ☐ mean number of meds ☐ median number of meds	IOP (mm Hg) ***If multiple values reported record earliest*** ***If values reported both with and without meds, capture IOP WITH medication*** ☐ mean IOP ☐ median IOP ☐ mean number of meds ☐ median number of meds	IOP (mm Hg) ***If multiple values reported record earliest*** ***If values reported both with and without meds, capture IOP WITH medication*** ☐ mean IOP ☐ median IOP ☐ mean number of meds ☐ median number of meds	IOP (mm Hg) ***If multiple values reported record earliest*** ***If values reported both with and without meds, capture IOP WITH medication*** ☐ mean IOP ☐ median IOP ☐ mean number of meds ☐ median number of meds
C/D ratio (vertical): ☐ Mean	C/D ratio (vertical): ☐ Mean	C/D ratio (vertical): ☐ Mean	C/D ratio (vertical): ☐ Mean	C/D ratio (vertical): ☐ Mean


Median
Unspecified
Central corneal thickness (μm)
Mean
Median
Unspecified
Visual acuity scale used:
logMAR score
Snellen decimal
Snellen score (20/_)
Other
Value reported:
Mean
Median
Unspecified
N/A
Mean deviation (visual field)
Visual field blindness:
% people with ≤ 20/200
n people with ≤ 20/200
% people with VF blindness as defined by ICD-9
n people with VF blindness as defined by ICD-9
% people with VF blindness defined differently than above (specify)
n people with VF blindness defined differently than above (specify)
Submit Form
and go to
or Skip to Next


DistillerSR
Project Glaucoma Treatment (Switch) User darcy.ward (My Settings)
Messages Nothing new
Live Support Currently Unavailable
User Guide
Review
Dataramma
Reports
References
Forms
Manage Levels
Users
Logout
Refid: 12, Skateboards: Are they really perilous? A retrospective study from a district hospital.
Rethnam U, Yesupalan RS, Sinha A.
Submit Form
and go to
or Skip to Next
Diurnal Curve Form
Fill out only for diurnal curve studies
How long after baseline were the measurement(s) taken?
Measurement 1
Measurement 2
Arm 1
Arm 2
Arm 3
Arm 4
Time (military):
Select an Answer
Position
Supine
Seated
Not reported
Clear Response
Mean IOP Measurement (mm Hg)
Baseline
SD of Baseline
Measurement 1
SD of Measurement 1
Measurement 2
SD of Measurement 2

SD Measurement	SD Measurement	of 2	of 2
Time (military):	Time (military):	Time (military):	Time (military):
Select an Answer	Select an Answer	Select an Answer	Select an Answer
Position	Position	Position	Position
Supine	Supine	Supine	Supine
Seated	Seated	Seated	Seated
Not reported	Not reported	Not reported	Not reported
Clear Response	Clear Response	Clear Response	Clear Response
Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)
Baseline	Baseline	Baseline	Baseline
SD of Baseline	SD of Baseline	SD of Baseline	SD of Baseline
Measurement 1	Measurement 1	Measurement 1	Measurement 1
SD of Measurement 1	SD of Measurement 1	SD of Measurement 1	SD of Measurement 1
Measurement 2	Measurement 2	Measurement 2	Measurement 2
SD of Measurement 2	SD of Measurement 2	SD of Measurement 2	SD of Measurement 2
Time (military):	Time (military):	Time (military):	Time (military):
Select an Answer	Select an Answer	Select an Answer	Select an Answer
Position	Position	Position	Position
Supine	Supine	Supine	Supine
Seated	Seated	Seated	Seated
Not reported	Not reported	Not reported	Not reported
Clear Response	Clear Response	Clear Response	Clear Response
Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)
Baseline	Baseline	Baseline	Baseline
SD of Baseline	SD of Baseline	SD of Baseline	SD of Baseline
Measurement 1	Measurement 1	Measurement 1	Measurement 1
SD of Measurement 1	SD of Measurement 1	SD of Measurement 1	SD of Measurement 1
Measurement 2	Measurement 2	Measurement 2	Measurement 2
SD of Measurement 2	SD of Measurement 2	SD of Measurement 2	SD of Measurement 2

Time (military): Select an Answer Position Supine Seated Not reported Clear Response Mean IOP Measurement (mm Hg) Baseline SD of Baseline Measurement 1 SD of Measurement 1 Measurement 2 SD of Measurement 2	Time (military): Select an Answer Position Supine Seated Not reported Clear Response Mean IOP Measurement (mm Hg) Baseline SD of Baseline Measurement 1 SD of Measurement 1 Measurement 2 SD of Measurement 2	Time (military): Select an Answer Position Supine Seated Not reported Clear Response Mean IOP Measurement (mm Hg) Baseline SD of Baseline Measurement 1 SD of Measurement 1 Measurement 2 SD of Measurement 2	Time (military): Select an Answer Position Supine Seated Not reported Clear Response Mean IOP Measurement (mm Hg) Baseline SD of Baseline Measurement 1 SD of Measurement 1 Measurement 2 SD of Measurement 2
Time (military): Select an Answer Position Supine Seated Not reported Clear Response Mean IOP Measurement (mm Hg) Baseline SD of Baseline Measurement 1 SD of Measurement 1 Measurement 2 SD of Measurement 2	Time (military): Select an Answer Position Supine Seated Not reported Clear Response Mean IOP Measurement (mm Hg) Baseline SD of Baseline Measurement 1 SD of Measurement 1 Measurement 2 SD of Measurement 2	Time (military): Select an Answer Position Supine Seated Not reported Clear Response Mean IOP Measurement (mm Hg) Baseline SD of Baseline Measurement 1 SD of Measurement 1 Measurement 2 SD of Measurement 2	Time (military): Select an Answer Position Supine Seated Not reported Clear Response Mean IOP Measurement (mm Hg) Baseline SD of Baseline Measurement 1 SD of Measurement 1 Measurement 2 SD of Measurement 2
Time (military):	Time (military):	Time (military):	Time (military):

Time	(military):	(military):	(military):
Select an Answer	Select an Answer	Select an Answer	Select an Answer
Position	Position	Position	Position
Supine Seated Not reported Clear Response	Supine Seated Not reported Clear Response	Supine Seated Not reported Clear Response	Supine Seated Not reported Clear Response
Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)
Baseline SD of Baseline Measurement 1 SD of Measurement 1 Measurement 2 SD of Measurement 2	Baseline SD of Baseline Measurement 1 SD of Measurement 1 Measurement 2 SD of Measurement 2	Baseline SD of Baseline Measurement 1 SD of Measurement 1 Measurement 2 SD of Measurement 2	Baseline SD of Baseline Measurement 1 SD of Measurement 1 Measurement 2 SD of Measurement 2
Time (military):	Time (military):	Time (military):	Time (military):
Select an Answer	Select an Answer	Select an Answer	Select an Answer
Position	Position	Position	Position
Supine Seated Not reported ear Response	Supine Seated Not reported Clear Response	Supine Seated Not reported Clear Response	Supine Seated Not reported Clear Response
Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)
Baseline SD of Baseline Measurement 1 SD of Measurement 1 Measurement 2 SD of Measurement 2	Baseline SD of Baseline Measurement 1 SD of Measurement 1 Measurement 2 SD of Measurement 2	Baseline SD of Baseline Measurement 1 SD of Measurement 1 Measurement 2 SD of Measurement 2	Baseline SD of Baseline Measurement 1 SD of Measurement 1 Measurement 2 SD of Measurement 2
Time (military):	Time (military):	Time (military):	Time (military):

Select an Answer	Select an Answer	Select an Answer	Select an Answer
Position	Position	Position	Position
Supine	Supine	Supine	Supine
Seated	Seated	Seated	Seated
Not reported	Not reported	Not reported	Not reported
Clear Response	Clear Response	Clear Response	Clear Response
Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)
Baseline	Baseline	Baseline	Baseline
SD of Baseline	SD of Baseline	SD of Baseline	SD of Baseline
Measurement 1	Measurement 1	Measurement 1	Measurement 1
SD of Measurement 1	SD of Measurement 1	SD of Measurement 1	SD of Measurement 1
Measurement 2	Measurement 2	Measurement 2	Measurement 2
SD of Measurement 2	SD of Measurement 2	SD of Measurement 2	SD of Measurement 2
Time (military):	Time (military):	Time (military):	Time (military):
Select an Answer	Select an Answer	Select an Answer	Select an Answer
Position	Position	Position	Position
Supine	Supine	Supine	Supine
Seated	Seated	Seated	Seated
Not reported	Not reported	Not reported	Not reported
Clear Response	Clear Response	Clear Response	Clear Response
Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)
Baseline	Baseline	Baseline	Baseline
SD of Baseline	SD of Baseline	SD of Baseline	SD of Baseline
Measurement 1	Measurement 1	Measurement 1	Measurement 1
SD of Measurement 1	SD of Measurement 1	SD of Measurement 1	SD of Measurement 1
Measurement 2	Measurement 2	Measurement 2	Measurement 2
SD of Measurement 2	SD of Measurement 2	SD of Measurement 2	SD of Measurement 2
Time (military):	Time (military):	Time (military):	Time (military):

Select an Answer	Select an Answe	Select an Answer	Select an Answer
Position	Position	Position	Position
Supine	Supine	Supine	Supine
Seated	Seated	Seated	Seated
Not reported	Not reported	Not reported	Not reported
Clear Response	Clear Response	Clear Response	Clear Response
Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)
Baseline	Baseline	Baseline	Baseline
SD of Baseline	SD of Baseline	SD of Baseline	SD of Baseline
Measurement 1	Measurement 1	Measurement 1	Measurement 1
SD of Measurement 1	SD of Measurement 1	SD of Measurement 1	SD of Measurement 1
Measurement 2	Measurement 2	Measurement 2	Measurement 2
SD of Measurement 2	SD of Measurement 2	SD of Measurement 2	SD of Measurement 2
Time (military):	Time (military):	Time (military):	Time (military):
Select an Answer	Select an Answer	Select an Answer	Select an Answer
Position	Position	Position	Position
Supine	Supine	Supine	Supine
Seated	Seated	Seated	Seated
Not reported	Not reported	Not reported	Not reported
ear Response	Clear Response	Clear Response	Clear Response
Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)
Baseline	Baseline	Baseline	Baseline
SD of Baseline	SD of Baseline	SD of Baseline	SD of Baseline
Measurement 1	Measurement 1	Measurement 1	Measurement 1
SD of Measurement 1	SD of Measurement 1	SD of Measurement 1	SD of Measurement 1
Measurement 2	Measurement 2	Measurement 2	Measurement 2
SD of Measurement 2	SD of Measurement 2	SD of Measurement 2	SD of Measurement 2
Time (military):	Time (military):	Time (military):	Time (military):
Select an Answer	Select an Answer	Select an Answer	Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine
- Seated
- Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- Baseline
- SD of Baseline
- Measurement 1
- SD of Measurement 1
- Measurement 2
- SD of Measurement 2

Time (military):

Select an Answer

Position

- Supine

- ○ Seated
- ○ Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- ☐ Baseline
- ☐ SD of Baseline
- ☐ Measurement 1
- ☐ SD of Measurement 1
- ☐ Measurement 2
- ☐ SD of Measurement 2

Time (military):

Select an Answer ▾

Position

- ○ Supine
- ○ Seated
- ○ Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- ☐ Baseline
- ☐ SD of Baseline
- ☐ Measurement 1
- ☐ SD of Measurement 1
- ☐ Measurement 2
- ☐ SD of Measurement 2

Time (military):

Select an Answer ▾

Position

- ○ Supine
- ○ Seated

- ○ Seated
- ○ Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- ☐ Baseline
- ☐ SD of Baseline
- ☐ Measurement 1
- ☐ SD of Measurement 1
- ☐ Measurement 2
- ☐ SD of Measurement 2

Time (military):

Select an Answer ▾

Position

- ○ Supine
- ○ Seated
- ○ Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- ☐ Baseline
- ☐ SD of Baseline
- ☐ Measurement 1
- ☐ SD of Measurement 1
- ☐ Measurement 2
- ☐ SD of Measurement 2

Time (military):

Select an Answer ▾

Position

- ○ Supine
- ○ Seated

- ○ Seated
- ○ Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- ☐ Baseline
- ☐ SD of Baseline
- ☐ Measurement 1
- ☐ SD of Measurement 1
- ☐ Measurement 2
- ☐ SD of Measurement 2

Time (military):

Select an Answer ▾

Position

- ○ Supine
- ○ Seated
- ○ Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- ☐ Baseline
- ☐ SD of Baseline
- ☐ Measurement 1
- ☐ SD of Measurement 1
- ☐ Measurement 2
- ☐ SD of Measurement 2

Time (military):

Select an Answer ▾

Position

- ○ Supine
- ○ Seated

- ○ Seated
- ○ Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- ☐ Baseline
- ☐ SD of Baseline
- ☐ Measurement 1
- ☐ SD of Measurement 1
- ☐ Measurement 2
- ☐ SD of Measurement 2

Time (military):

Select an Answer ▾

Position

- ○ Supine
- ○ Seated
- ○ Not reported

Clear Response

Mean IOP Measurement (mm Hg)

- ☐ Baseline
- ☐ SD of Baseline
- ☐ Measurement 1
- ☐ SD of Measurement 1
- ☐ Measurement 2
- ☐ SD of Measurement 2

Time (military):

Select an Answer ▾

Position

- ○ Supine
- ○ Seated

Not reported Clear Response	Not reported Clear Response	Not reported Clear Response	Not reported Clear Response
Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)	Mean IOP Measurement (mm Hg)
Baseline	Baseline	Baseline	Baseline
SD of Baseline	SD of Baseline	SD of Baseline	SD of Baseline
Measurement 1	Measurement 1	Measurement 1	Measurement 1
SD of Measurement 1	SD of Measurement 1	SD of Measurement 1	SD of Measurement 1
Measurement 2	Measurement 2	Measurement 2	Measurement 2
SD of Measurement 2	SD of Measurement 2	SD of Measurement 2	SD of Measurement 2

Submit Form and go to or Skip to Next

Medical Intervention

Arm 1	Arm 2	Arm 3	Arm 4
Define arm:	Define arm:	Define arm:	Define arm:
Alpha$_2$ adrenergic agonists: Apraclonidine 0.5 % Apraclonidine 1 % Brimonidine 0.1% Brimonidine 0.15% Brimonidine 0.2%	Alpha$_2$ adrenergic agonists: Apraclonidine 0.5 % Apraclonidine 1 % Brimonidine 0.1% Brimonidine 0.15% Brimonidine 0.2%	Alpha$_2$ adrenergic agonists: Apraclonidine 0.5 % Apraclonidine 1 % Brimonidine 0.1% Brimonidine 0.15% Brimonidine 0.2%	Alpha$_2$ adrenergic agonists: Apraclonidine 0.5 % Apraclonidine 1 % Brimonidine 0.1% Brimonidine 0.15% Brimonidine 0.2%

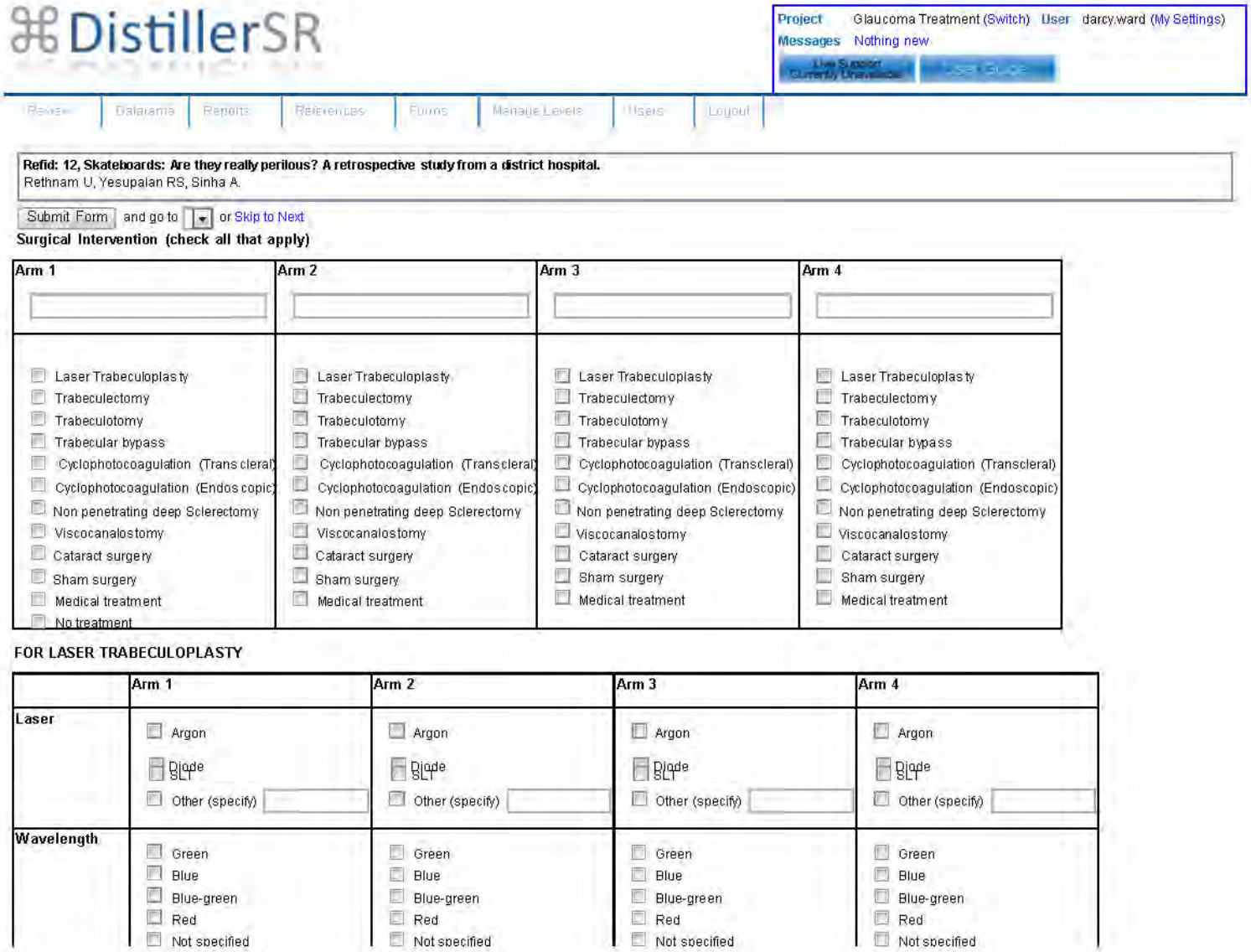
Beta adrenergic antagonists: ☐ Betaxolol 0.5 % ☐ Carteolol 1% ☐ Metipronolol 0.3% ☐ Levobunolol 0.25 % ☐ Levobunolol 0.5 % ☐ Timolol 0.25 % ☐ Timolol 0. 5 %	Beta adrenergic antagonists: ☐ Betaxolol 0.5 % ☐ Carteolol 1% ☐ Metipronolol 0.3% ☐ Levobunolol 0.25 % ☐ Levobunolol 0.5 % ☐ Timolol 0.25 % ☐ Timolol 0. 5 %	Beta adrenergic antagonists: ☐ Betaxolol 0.5 % ☐ Carteolol 1% ☐ Metipronolol 0.3% ☐ Levobunolol 0.25 % ☐ Levobunolol 0.5 % ☐ Timolol 0.25 % ☐ Timolol 0. 5 %	Beta adrenergic antagonists: ☐ Betaxolol 0.5 % ☐ Carteolol 1% ☐ Metipronolol 0.3% ☐ Levobunolol 0.25 % ☐ Levobunolol 0.5 % ☐ Timolol 0.25 % ☐ Timolol 0. 5 %
Carbonic anhydrase inhibitors: ☐ Acetazolamide 250 mg ☐ Acetazolamide 500 mg	Carbonic anhydrase inhibitors: ☐ Acetazolamide 250 mg ☐ Acetazolamide 500 mg	Carbonic anhydrase inhibitors: ☐ Acetazolamide 250 mg ☐ Acetazolamide 500 mg	Carbonic anhydrase inhibitors: ☐ Acetazolamide 250 mg ☐ Acetazolamide 500 mg

g	g	g	g
Brinzolamide 1% Dorzolamide 2%	Brinzolamide 1% Dorzolamide 2%	Brinzolamide 1% Dorzolamide 2%	Brinzolamide 1% Dorzolamide 2%
Parasympathomimetics: Carbachol 1.5% Carbachol 3% Pilocarpine 1% Pilocarpine 2% Pilocarpine 4% Pilocarpine 6%	Parasympathomimetics: Carbachol 1.5% Carbachol 3% Pilocarpine 1% Pilocarpine 2% Pilocarpine 4% Pilocarpine 6%	Parasympathomimetics: Carbachol 1.5% Carbachol 3% Pilocarpine 1% Pilocarpine 2% Pilocarpine 4% Pilocarpine 6%	Parasympathomimetics: Carbachol 1.5% Carbachol 3% Pilocarpine 1% Pilocarpine 2% Pilocarpine 4% Pilocarpine 6%
Prostaglandin analogs: Bimatoprost 0.03% Latanoprost 0.005 % Travoprost 0.004%	Prostaglandin analogs: Bimatoprost 0.03% Latanoprost 0.005 % Travoprost 0.004%	Prostaglandin analogs: Bimatoprost 0.03% Latanoprost 0.005 % Travoprost 0.004%	Prostaglandin analogs: Bimatoprost 0.03% Latanoprost 0.005 % Travoprost 0.004%
Combinations: Brimonidone 0.2% + Timolol 0.5% Dorzolamide 2% + Timolol 0.5%	Combinations: Brimonidone 0.2% + Timolol 0.5% Dorzolamide 2% + Timolol 0.5%	Combinations: Brimonidone 0.2% + Timolol 0.5% Dorzolamide 2% + Timolol 0.5%	Combinations: Brimonidone 0.2% + Timolol 0.5% Dorzolamide 2% + Timolol 0.5%

Medication Information

Arm 1	Arm 2	Arm 3	Arm 4
When two drugs given separately specify drug:	***When two drugs given separately specify drug:***	***When two drugs given separately specify drug:***	***When two drugs given separately specify drug:***
Timing: Once a day Twice a day 3 times a day 4 times a day Other (specify)	Timing: Once a day Twice a day 3 times a day 4 times a day Other (specify)	Timing: Once a day Twice a day 3 times a day 4 times a day Other (specify)	Timing: Once a day Twice a day 3 times a day 4 times a day Other (specify)
Specify other drug (if applicable):	***Specify other drug (if applicable)***:	***Specify other drug (if applicable)***:	***Specify other drug (if applicable)***:

Drug two timing: ☐ Once a day ☐ Twice a day ☐ 3 times a day ☐ 4 times a day ☐ Other (specify)	Drug two timing: ☐ Once a day ☐ Twice a day ☐ 3 times a day ☐ 4 times a day ☐ Other (specify)	Drug two timing: ☐ Once a day ☐ Twice a day ☐ 3 times a day ☐ 4 times a day ☐ Other (specify)	Drug two timing: ☐ Once a day ☐ Twice a day ☐ 3 times a day ☐ 4 times a day ☐ Other (specify)
Duration of Treatment: ☐ Hours ☐ Days ☐ Weeks ☐ Months	Duration of Treatment: ☐ Hours ☐ Days ☐ Weeks ☐ Months	Duration of Treatment: ☐ Hours ☐ Days ☐ Weeks ☐ Months	Duration of Treatment: ☐ Hours ☐ Days ☐ Weeks ☐ Months
Note exceptional preservative	Note exceptional preservative	Note exceptional preservative	Note exceptional preservative
Wash out period duration (if applicable): ☐ Days ☐ Weeks ☐ Unspecified ☐ N/A	Wash out period duration (if applicable): ☐ Days ☐ Weeks ☐ Unspecified ☐ N/A	Wash out period duration (if applicable): ☐ Days ☐ Weeks ☐ Unspecified ☐ N/A	Wash out period duration (if applicable): ☐ Days ☐ Weeks ☐ Unspecified ☐ N/A
Other information	Other information	Other information	Other information
Other information	Other information	Other information	Other information
Comments	Comments	Comments	Comments


DistillerSR

Project Glaucoma Treatment (Switch) User darcy.ward (My Settings)
Messages Nothing new
Live Support (Currently Unavailable) User Guide

Review | Data entry | Reports | References | Forms | Manage Levels | Users | Logout

Refid: 12, Skateboards: Are they really perilous? A retrospective study from a district hospital.
Rethnam U, Yesupalan RS, Sinha A.

Submit Form and go to or Skip to Next

Surgical Intervention (check all that apply)

Arm 1	Arm 2	Arm 3	Arm 4
Laser Trabeculoplasty	Laser Trabeculoplasty	Laser Trabeculoplasty	Laser Trabeculoplasty
Trabeculectomy	Trabeculectomy	Trabeculectomy	Trabeculectomy
Trabeculotomy	Trabeculotomy	Trabeculotomy	Trabeculotomy
Trabecular bypass	Trabecular bypass	Trabecular bypass	Trabecular bypass
Cyclophotocoagulation (Transcleral)	Cyclophotocoagulation (Transcleral)	Cyclophotocoagulation (Transcleral)	Cyclophotocoagulation (Transcleral)
Cyclophotocoagulation (Endoscopic)	Cyclophotocoagulation (Endoscopic)	Cyclophotocoagulation (Endoscopic)	Cyclophotocoagulation (Endoscopic)
Non penetrating deep Sclerectomy	Non penetrating deep Sclerectomy	Non penetrating deep Sclerectomy	Non penetrating deep Sclerectomy
Viscocanalostomy	Viscocanalostomy	Viscocanalostomy	Viscocanalostomy
Cataract surgery	Cataract surgery	Cataract surgery	Cataract surgery
Sham surgery	Sham surgery	Sham surgery	Sham surgery
Medical treatment	Medical treatment	Medical treatment	Medical treatment
No treatment			

FOR LASER TRABECULOPLASTY

	Arm 1	Arm 2	Arm 3	Arm 4
Laser	Argon Diode SLT Other (specify)	Argon Diode SLT Other (specify)	Argon Diode SLT Other (specify)	Argon Diode SLT Other (specify)
Wavelength	Green Blue Blue-green Red Not specified	Green Blue Blue-green Red Not specified	Green Blue Blue-green Red Not specified	Green Blue Blue-green Red Not specified

Degrees treated	☐ 90 ☐ 180 ☐ 360 ☐ Other (specify) [ ] ☐ Not specified ☐ NA	☐ 90 ☐ 180 ☐ 360 ☐ Other (specify) [ ] ☐ Not specified ☐ NA	☐ 90 ☐ 180 ☐ 360 ☐ Other (specify) [ ] ☐ Not specified ☐ NA	☐ 90 ☐ 180 ☐ 360 ☐ Other (specify) [ ] ☐ Not specified ☐ NA
Laser power	☐ MW [ ] ☐ Not specified	☐ MW [ ] ☐ Not specified	☐ MW [ ] ☐ Not specified	☐ MW [ ] ☐ Not specified
Laser duration	☐ 0.1 s ☐ 0.05 s ☐ Other (specify) [ ] ☐ Not specified	☐ 0.1 s ☐ 0.05 s ☐ Other (specify) [ ] ☐ Not specified	☐ 0.1 s ☐ 0.05 s ☐ Other (specify) [ ] ☐ Not specified	☐ 0.1 s ☐ 0.05 s ☐ Other (specify) [ ] ☐ Not specified
Spot size	☐ 50 µm ☐ 100 µm ☐ Other [ ] ☐ Not specified	☐ 50 µm ☐ 100 µm ☐ Other [ ] ☐ Not specified	☐ 50 µm ☐ 100 µm ☐ Other [ ] ☐ Not specified	☐ 50 µm ☐ 100 µm ☐ Other [ ] ☐ Not specified

FOR TRABECULECTOMY

	Arm 1	**Arm 2**	**Arm 3**	**Arm 4**
Device	☐ ExPRESS shunt	☐ ExPRESS shunt	☐ ExPRESS shunt	☐ ExPRESS shunt
Adjuvant received	☐ Mitomycin-C ☐ Intraoperative 5-fluorouracil (5-FU) ☐ Postoperative 5-fluorouracil (5-FU) ☐ None	☐ Mitomycin-C ☐ Intraoperative 5-fluorouracil (5-FU) ☐ Postoperative 5-fluorouracil (5-FU) ☐ None	☐ Mitomycin-C ☐ Intraoperative 5-fluorouracil (5-FU) ☐ Postoperative 5-fluorouracil (5-FU) ☐ None	☐ Mitomycin-C ☐ Intraoperative 5-fluorouracil (5-FU) ☐ Postoperative 5-fluorouracil (5-FU) ☐ None
Method of administration	☐ Sponge ☐ Injection ☐ Not specified	☐ Sponge ☐ Injection ☐ Not specified	☐ Sponge ☐ Injection ☐ Not specified	☐ Sponge ☐ Injection ☐ Not specified
MITOMYCIN Concentration	☐ 0.1 mg/ml ☐ 0.2 mg/ml ☐ 0.3 mg/ml ☐ 0.4 mg/ml ☐ 0.5 mg/ml ☐ Not specified	☐ 0.1 mg/ml ☐ 0.2 mg/ml ☐ 0.3 mg/ml ☐ 0.4 mg/ml ☐ 0.5 mg/ml ☐ Not specified	☐ 0.1 mg/ml ☐ 0.2 mg/ml ☐ 0.3 mg/ml ☐ 0.4 mg/ml ☐ 0.5 mg/ml ☐ Not specified	☐ 0.1 mg/ml ☐ 0.2 mg/ml ☐ 0.3 mg/ml ☐ 0.4 mg/ml ☐ 0.5 mg/ml ☐ Not specified

MITOMYCIN Duration	☐ < 1 minute ☐ 1-1.9 minutes ☐ 2-2.9 minutes ☐ 3-3.9 minutes ☐ 4-4.9 minutes ☐ ≥ 5 minutes ☐ Not specified	☐ < 1 minute ☐ 1-1.9 minutes ☐ 2-2.9 minutes ☐ 3-3.9 minutes ☐ 4-4.9 minutes ☐ ≥ 5 minutes ☐ Not specified	☐ < 1 minute ☐ 1-1.9 minutes ☐ 2-2.9 minutes ☐ 3-3.9 minutes ☐ 4-4.9 minutes ☐ ≥ 5 minutes ☐ Not specified	☐ < 1 minute ☐ 1-1.9 minutes ☐ 2-2.9 minutes ☐ 3-3.9 minutes ☐ 4-4.9 minutes ☐ ≥ 5 minutes ☐ Not specified
5-FU sponge Concentration	☐ 50 mg ☐ Other ____ ☐ Not specified	☐ 50 mg ☐ Other ____ ☐ Not specified	☐ 50 mg ☐ Other ____ ☐ Not specified	☐ 50 mg ☐ Other ____ ☐ Not specified
5-FU sponge Duration	☐ 5 min ☐ Other ☐ Not specified	☐ 5 min ☐ Other ☐ Not specified	☐ 5 min ☐ Other ☐ Not specified	☐ 5 min ☐ Other ☐ Not specified
5-FU Injection Dose	☐ 5 mg ☐ Other ____ ☐ Not specified	☐ 5 mg ☐ Other ____ ☐ Not specified	☐ 5 mg ☐ Other ____ ☐ Not specified	☐ 5 mg ☐ Other ____ ☐ Not specified
5-FU number of **Injections**	☐ N ____ ☐ Not specified	☐ N ____ ☐ Not specified	☐ N ____ ☐ Not specified	☐ N ____ ☐ Not specified
Site	☐ Limbus ☐ Fornix ☐ Not specified	☐ Limbus ☐ Fornix ☐ Not specified	☐ Limbus ☐ Fornix ☐ Not specified	☐ Limbus ☐ Fornix ☐ Not specified
Other variation	☐ Collagen implants ____ ☐ Viscoelastics ____ ☐ Tissue implants ____ ☐ Other (specify) ____ ☐ Other (specify) ____	☐ Collagen implants ____ ☐ Viscoelastics ____ ☐ Tissue implants ____ ☐ Other (specify) ____ ☐ Other (specify) ____	☐ Collagen implants ____ ☐ Viscoelastics ____ ☐ Tissue implants ____ ☐ Other (specify) ____ ☐ Other (specify) ____	☐ Collagen implants ____ ☐ Viscoelastics ____ ☐ Tissue implants ____ ☐ Other (specify) ____ ☐ Other (specify) ____

FOR OTHER PROCEDURES

	Arm 1	Arm 2	Arm 3	Arm 4
Other Procedure	☐ Trabeculotomy	☐ Trabeculotomy	☐ Trabeculotomy	☐ Trabeculotomy

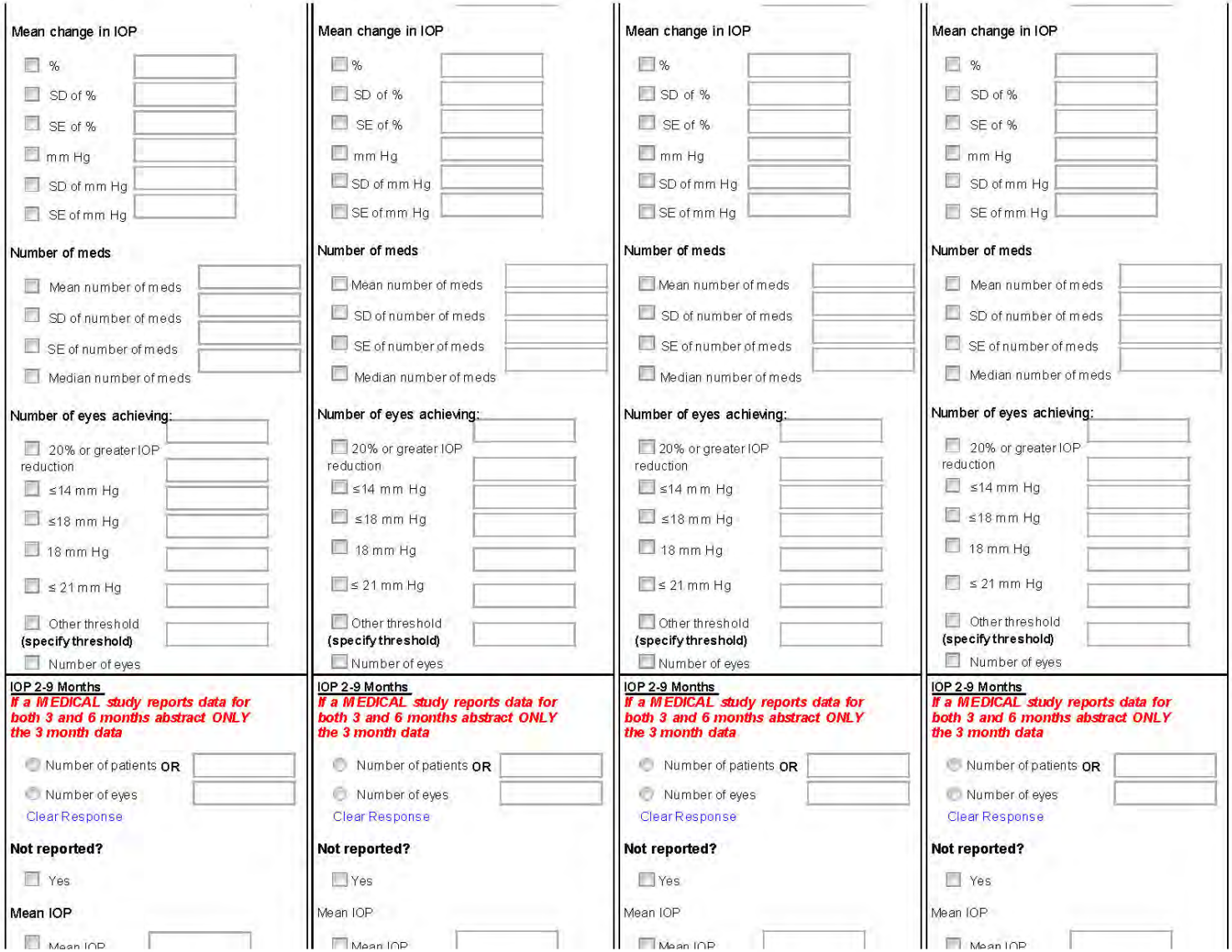
	☐ iStent ☐ Trabectome ☐ Non penetrating deep Sclerectomy ☐ Viscocanalostomy ☐ Canaloplasty	☐ iStent ☐ Trabectome ☐ Non penetrating deep Sclerectomy ☐ Viscocanalostomy ☐ Canaloplasty	☐ iStent ☐ Trabectome ☐ Non penetrating deep Sclerectomy ☐ Viscocanalostomy ☐ Canaloplasty	☐ iStent ☐ Trabectome ☐ Non penetrating deep Sclerectomy ☐ Viscocanalostomy ☐ Canaloplasty
Cyclophotocoagulation	☐ Transscleral ☐ Endoscopic	☐ Transscleral ☐ Endoscopic	☐ Transscleral ☐ Endoscopic	☐ Transscleral ☐ Endoscopic
Degrees treated	☐ 90 ☐ 180 ☐ 360 ☐ Other (specify) ☐ ☐ Not specified ☐ NA	☐ 90 ☐ 180 ☐ 360 ☐ Other (specify) ☐ ☐ Not specified ☐ NA	☐ 90 ☐ 180 ☐ 360 ☐ Other (specify) ☐ ☐ Not specified ☐ NA	☐ 90 ☐ 180 ☐ 360 ☐ Other (specify) ☐ ☐ Not specified ☐ NA
Laser power	☐ MW ☐ ☐ Not specified	☐ MW ☐ ☐ Not specified	☐ MW ☐ ☐ Not specified	☐ MW ☐ ☐ Not specified
Laser duration	☐ 0.1 s ☐ 0.05 s ☐ Other (specify) ☐ ☐ Not specified	☐ 0.1 s ☐ 0.05 s ☐ Other (specify) ☐ ☐ Not specified	☐ 0.1 s ☐ 0.05 s ☐ Other (specify) ☐ ☐ Not specified	☐ 0.1 s ☐ 0.05 s ☐ Other (specify) ☐ ☐ Not specified
Tubes variation	☐ Superior ☐ Inferior ☐ Not specified	☐ Superior ☐ Inferior ☐ Not specified	☐ Superior ☐ Inferior ☐ Not specified	☐ Superior ☐ Inferior ☐ Not specified
Other variation	☐ Collagen implants ☐ Viscoelastics ☐ Tissue implants ☐ Other	☐ Collagen implants ☐ Viscoelastics ☐ Tissue implants ☐ Other	☐ Collagen implants ☐ Viscoelastics ☐ Tissue implants ☐ Other	☐ Collagen implants ☐ Viscoelastics ☐ Tissue implants ☐ Other
Drainage device	☐ Baerveldt ☐ Ahmed ☐ Krupin ☐ Molteno ☐ Other	☐ Baerveldt ☐ Ahmed ☐ Krupin ☐ Molteno ☐ Other	☐ Baerveldt ☐ Ahmed ☐ Krupin ☐ Molteno ☐ Other	☐ Baerveldt ☐ Ahmed ☐ Krupin ☐ Molteno ☐ Other

DATA ABSTRACTION FOR OUTCOMES

INSTRUCTIONS:

- *If there are no data for a particular outcome please check "Not reported." **Do NOT leave a section blank to indicate the information was not reported***
- *When there is information reported for both "N patients" and "N eyes" for a given outcome record **ONLY the N that was used as the denominator to calculate the outcome, NOT both patients and eyes***
- *If there is a **discrepancy in sample size across outcomes within the same category** (e.g. N for Mean IOP differs from N for Mean number of meds) **please note this discrepancy in the COMMENTS box** at the bottom of the form.*
- *Enter standard error (SE) data ONLY when standard deviation (SD) is not available*
- *If data are reported both with and without medication, **capture data WITH medication***
- *If a study reports more than one level or type of worsening of visual fields, visual acuity or nerve damage **report all catagories of decline together** within that outcome and time period*
- *If a MEDICAL study reports data for both 3 and 6 months abstract ONLY the 3 month data*
- ***Do NOT abstract outcomes measured less than one year after SURGERY***

Arm 1	Arm 2	Arm 3	Arm 4
IOP 1 Month	**IOP 1 Month**	**IOP 1 Month**	**IOP 1 Month**
Number of patients **OR**	Number of patients **OR**	Number of patients **OR**	Number of patients **OR**
Number of eyes	Number of eyes	Number of eyes	Number of eyes
Clear Response	Clear Response	Clear Response	Clear Response
Not reported?	**Not reported?**	**Not reported?**	**Not reported?**
Yes	Yes	Yes	Yes
Mean IOP	Mean IOP	Mean IOP	Mean IOP
Mean IOP	Mean IOP	Mean IOP	Mean IOP
SD of mean IOP	SD of mean IOP	SD of mean IOP	SD of mean IOP
SE of mean IOP	SE of mean IOP	SE of mean IOP	SE of mean IOP


Mean change in IOP
%
SD of %
SE of %
mm Hg
SD of mm Hg
SE of mm Hg
Number of meds
Mean number of meds
SD of number of meds
SE of number of meds
Median number of meds
Number of eyes achieving:
20% or greater IOP reduction
≤14 mm Hg
≤18 mm Hg
18 mm Hg
≤ 21 mm Hg
Other threshold (specify threshold)
Number of eyes
IOP 2-9 Months
If a MEDICAL study reports data for both 3 and 6 months abstract ONLY the 3 month data
Number of patients OR
Number of eyes
Clear Response
Not reported?
Yes
Mean IOP
Mean IOP

- ☐ SD of mean IOP
- ☐ SE of mean IOP

Mean change in IOP

- ☐ %
- ☐ SD of %
- ☐ SE of %
- ☐ mm Hg
- ☐ SD of mm Hg
- ☐ SE of mm Hg

Number of meds

- ☐ Mean number of meds
- ☐ SD of number of meds
- ☐ SE of number of meds
- ☐ Median number of meds

Number of eyes achieving:

- ☐ 20% or greater IOP reduction
- ☐ ≤14 mm Hg
- ☐ ≤18 mm Hg
- ☐ 18 mm Hg
- ☐ ≤ 21 mm Hg
- ☐ Other threshold **(specify threshold)**
- ☐ Number of eyes

IOP 10-18 Months

- ○ Number of patients **OR**
- ○ Number of eyes

Clear Response

Not reported?

- ☐ Yes

Mean IOP

- ☐ SD of mean IOP
- ☐ SE of mean IOP

Mean change in IOP

- ☐ %
- ☐ SD of %
- ☐ SE of %
- ☐ mm Hg
- ☐ SD of mm Hg
- ☐ SE of mm Hg

Number of meds

- ☐ Mean number of meds
- ☐ SD of number of meds
- ☐ SE of number of meds
- ☐ Median number of meds

Number of eyes achieving:

- ☐ 20% or greater IOP reduction
- ☐ ≤14 mm Hg
- ☐ ≤18 mm Hg
- ☐ 18 mm Hg
- ☐ ≤ 21 mm Hg
- ☐ Other threshold **(specify threshold)**
- ☐ Number of eyes

IOP 10-18 Months

- ○ Number of patients **OR**
- ○ Number of eyes

Clear Response

Not reported?

- ☐ Yes

Mean IOP

- ☐ SD of mean IOP
- ☐ SE of mean IOP

Mean change in IOP

- ☐ %
- ☐ SD of %
- ☐ SE of %
- ☐ mm Hg
- ☐ SD of mm Hg
- ☐ SE of mm Hg

Number of meds

- ☐ Mean number of meds
- ☐ SD of number of meds
- ☐ SE of number of meds
- ☐ Median number of meds

Number of eyes achieving:

- ☐ 20% or greater IOP reduction
- ☐ ≤14 mm Hg
- ☐ ≤18 mm Hg
- ☐ 18 mm Hg
- ☐ ≤ 21 mm Hg
- ☐ Other threshold **(specify threshold)**
- ☐ Number of eyes

IOP 10-18 Months

- ○ Number of patients **OR**
- ○ Number of eyes

Clear Response

Not reported?

- ☐ Yes

Mean IOP

- ☐ SD of mean IOP
- ☐ SE of mean IOP

Mean change in IOP

- ☐ %
- ☐ SD of %
- ☐ SE of %
- ☐ mm Hg
- ☐ SD of mm Hg
- ☐ SE of mm Hg

Number of meds

- ☐ Mean number of meds
- ☐ SD of number of meds
- ☐ SE of number of meds
- ☐ Median number of meds

Number of eyes achieving:

- ☐ 20% or greater IOP reduction
- ☐ ≤14 mm Hg
- ☐ ≤18 mm Hg
- ☐ 18 mm Hg
- ☐ ≤ 21 mm Hg
- ☐ Other threshold **(specify threshold)**
- ☐ Number of eyes

IOP 10-18 Months

- ○ Number of patients **OR**
- ○ Number of eyes

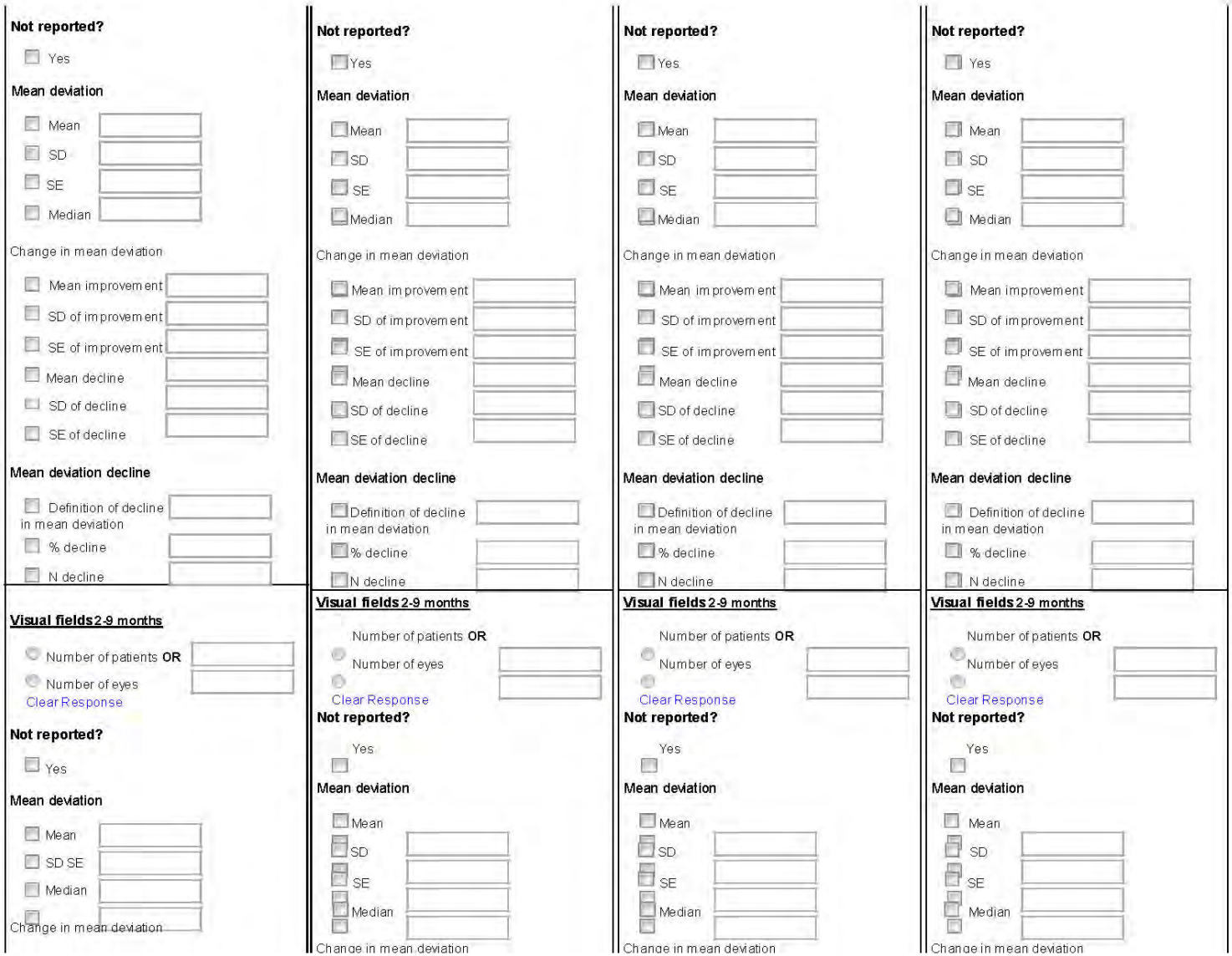
Clear Response

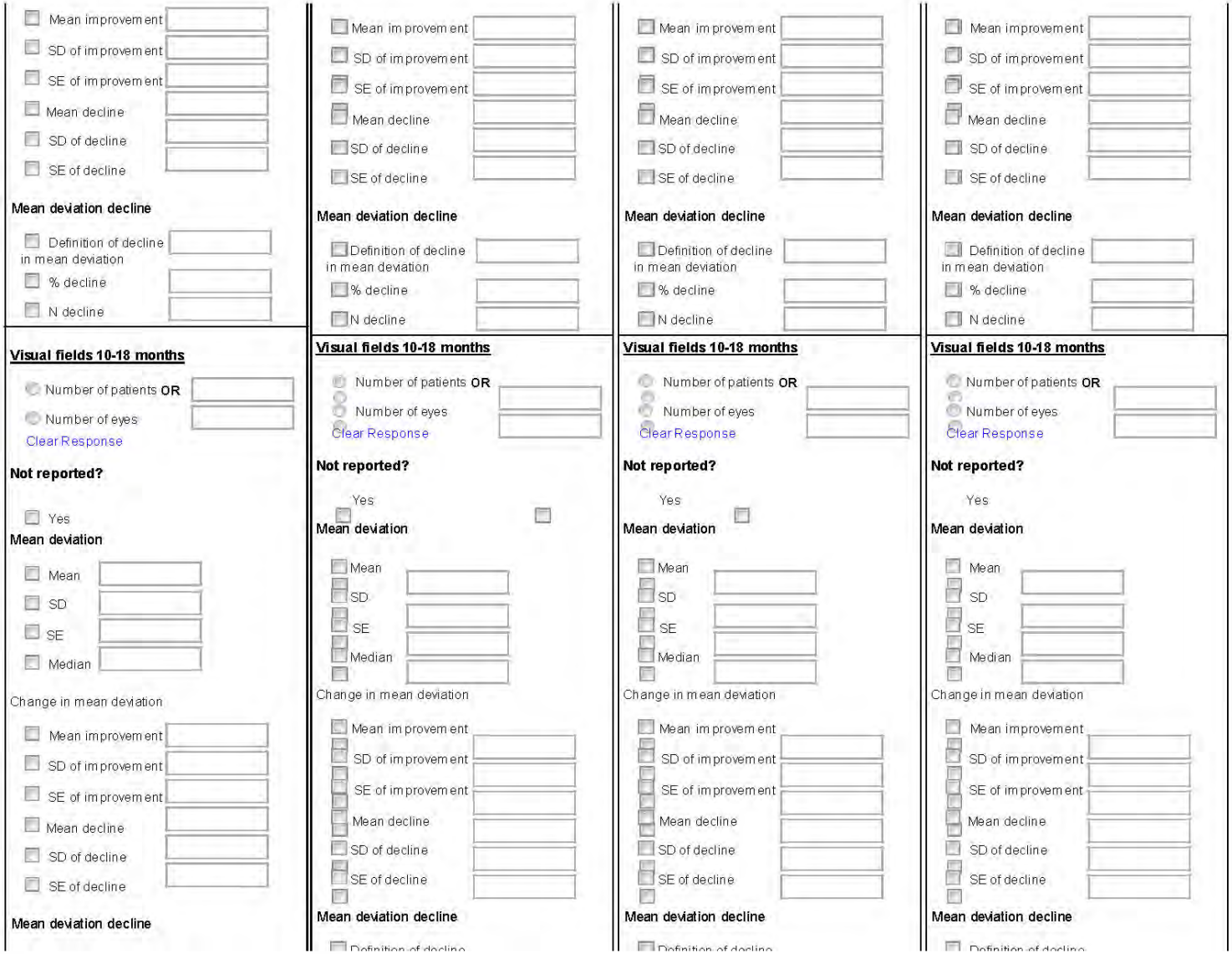
Not reported?

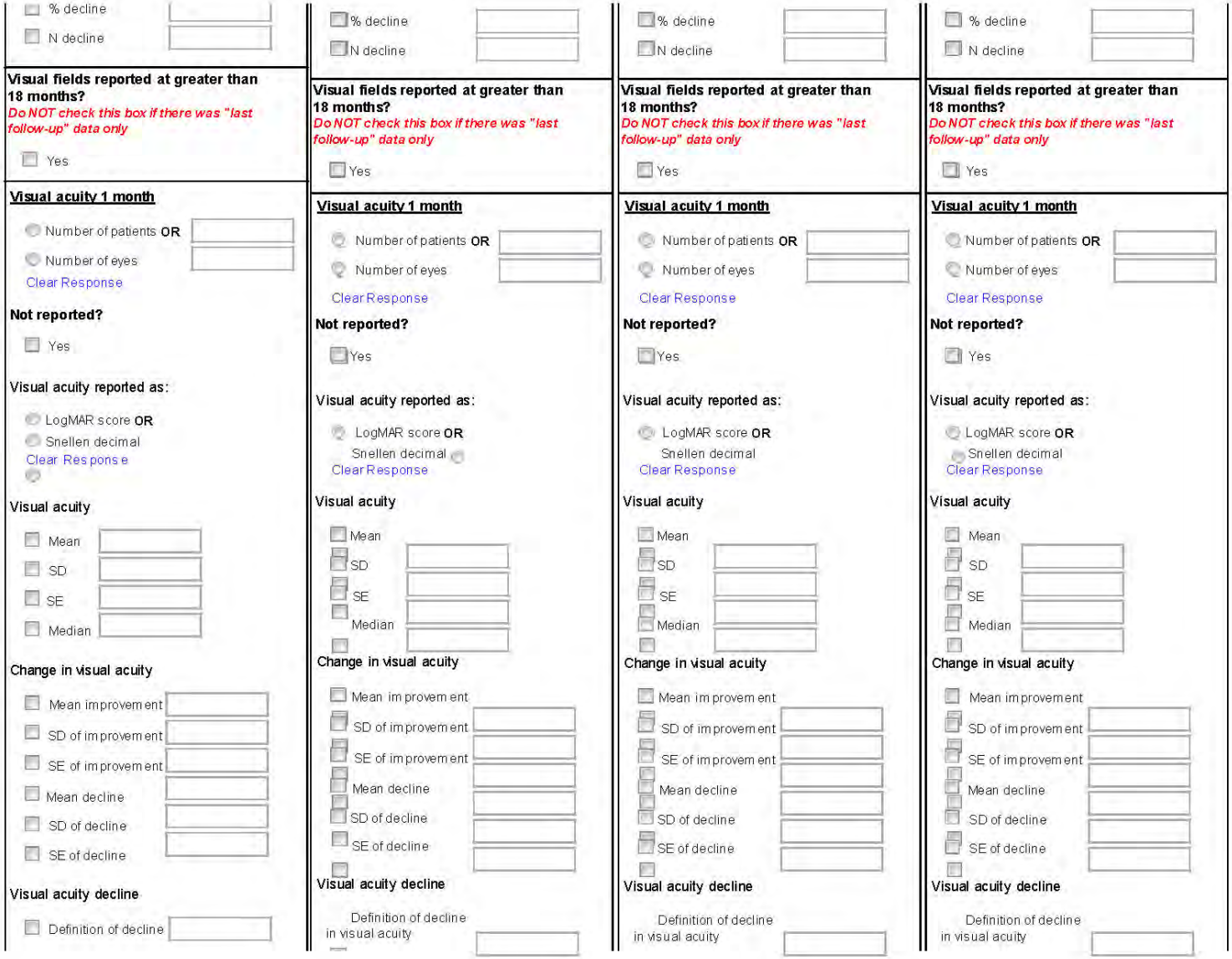
- ☐ Yes

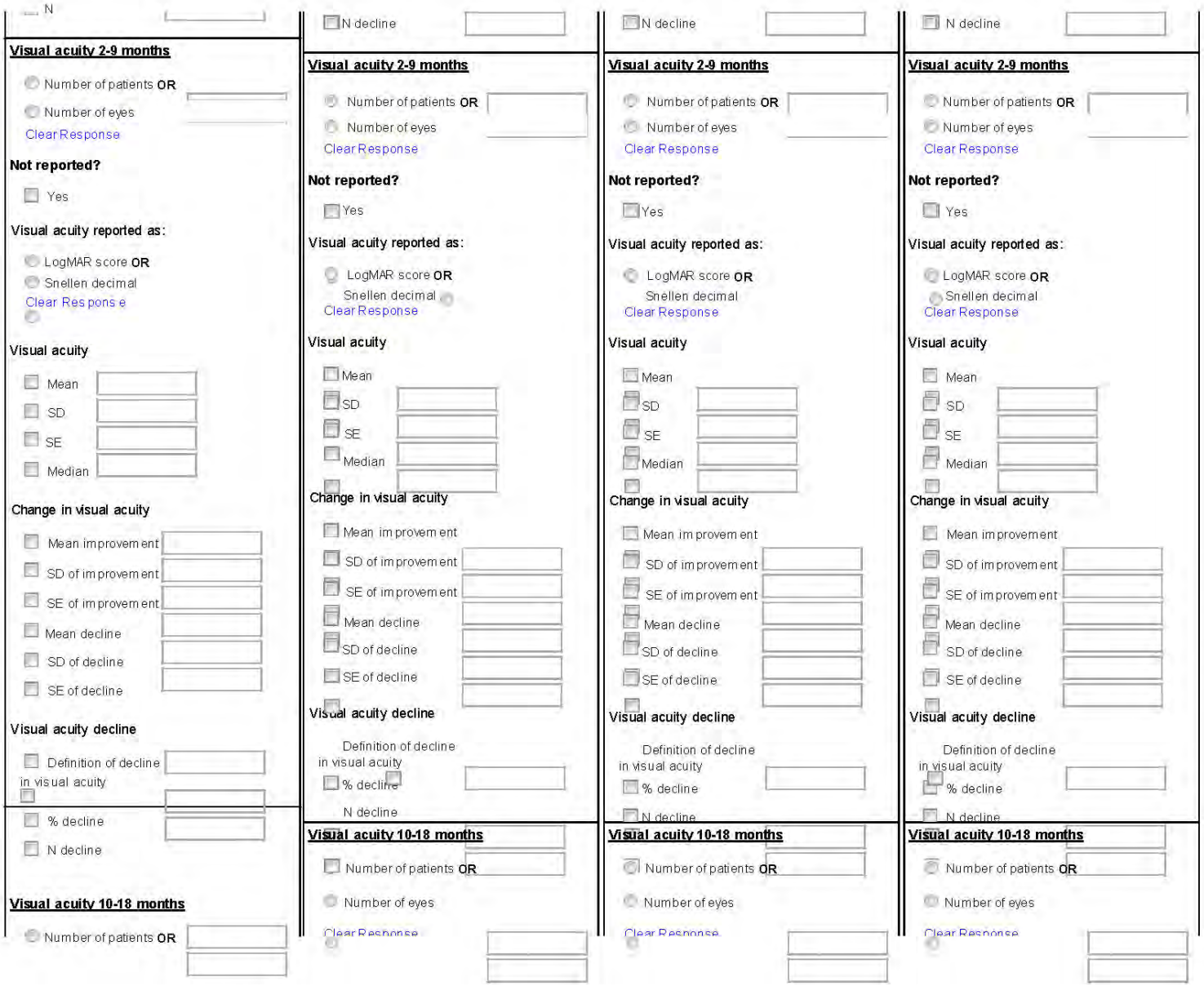
Mean IOP

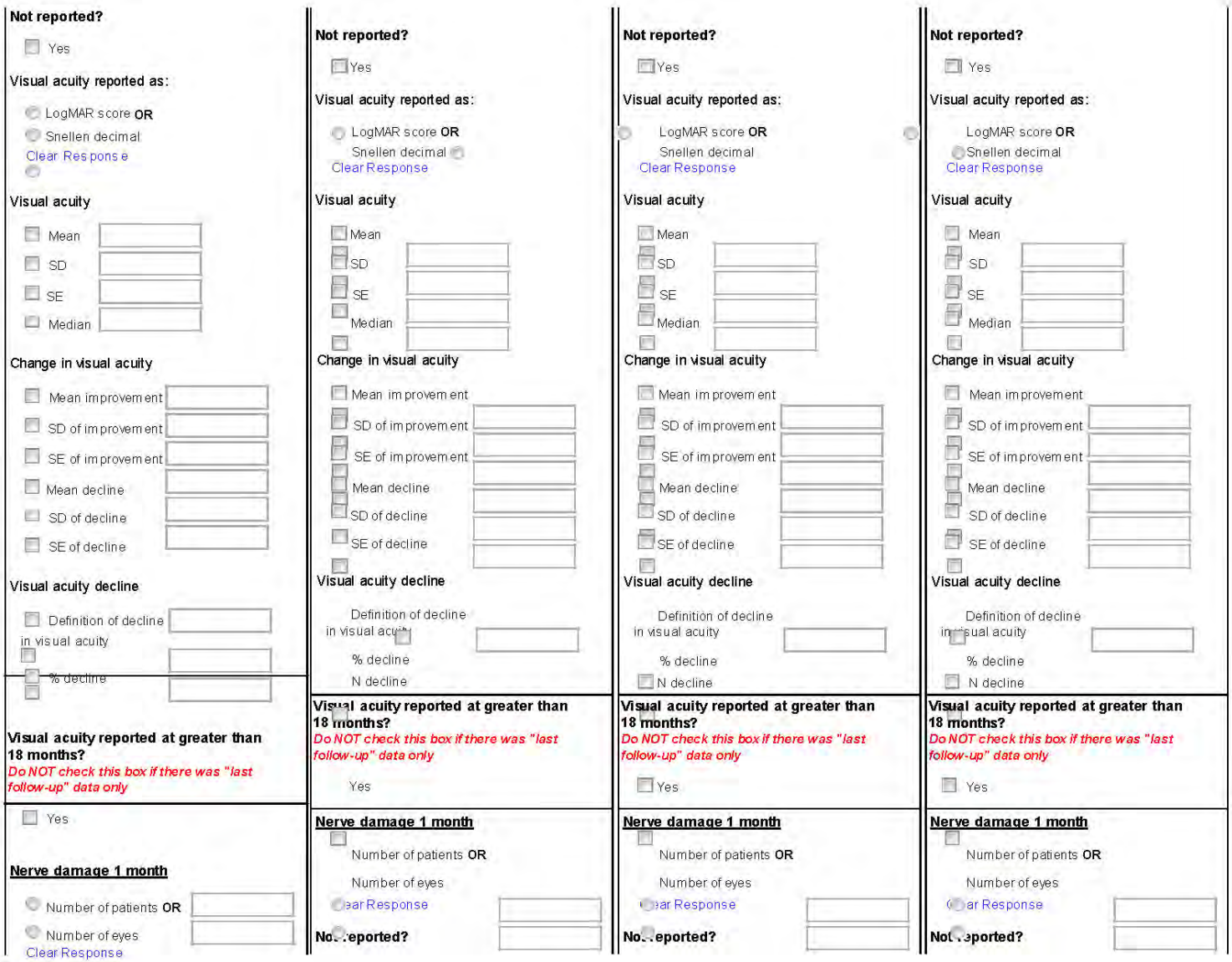
Mean IOP	Mean IOP	Mean IOP	Mean IOP
SD of mean IOP	SD of mean IOP	SD of mean IOP	SD of mean IOP
SE of mean IOP	SE of mean IOP	SE of mean IOP	SE of mean IOP
Mean change in IOP	**Mean change in IOP**	**Mean change in IOP**	**Mean change in IOP**
%	%	%	%
SD of %	SD of %	SD of %	SD of %
SE of %	SE of %	SE of %	SE of %
mm Hg	mm Hg	mm Hg	mm Hg
SD of mm Hg	SD of mm Hg	SD of mm Hg	SD of mm Hg
SE of mm Hg	SE of mm Hg	SE of mm Hg	SE of mm Hg
Number of meds	**Number of meds**	**Number of meds**	**Number of meds**
Mean number of meds	Mean number of meds	Mean number of meds	Mean number of meds
SD of number of meds	SD of number of meds	SD of number of meds	SD of number of meds
SE of number of meds	SE of number of meds	SE of number of meds	SE of number of meds
Median number of meds	Median number of meds	Median number of meds	Median number of meds
Number of eyes achieving:	**Number of eyes achieving:**	**Number of eyes achieving:**	**Number of eyes achieving:**
20% or greater IOP reduction	20% or greater IOP reduction	20% or greater IOP reduction	20% or greater IOP reduction
≤14 mm Hg	≤14 mm Hg	≤14 mm Hg	≤14 mm Hg
≤18 mm Hg	≤18 mm Hg	≤18 mm Hg	≤18 mm Hg
18 mm Hg	18 mm Hg	18 mm Hg	18 mm Hg
≤ 21 mm Hg	≤ 21 mm Hg	≤ 21 mm Hg	≤ 21 mm Hg
Other threshold **(specify threshold)**	Other threshold **(specify threshold)**	Other threshold **(specify threshold)**	Other threshold **(specify threshold)**
Number of eyes	Number of eyes	Number of eyes	Number of eyes
IOP Reported at greater than 18 months? *Do NOT check this box if there was "last follow-up" data only*	**IOP Reported at greater than 18 months?** *Do NOT check this box if there was "last follow-up" data only*	**IOP Reported at greater than 18 months?** *Do NOT check this box if there was "last follow-up" data only*	**IOP Reported at greater than 18 months?** *Do NOT check this box if there was "last follow-up" data only*
Yes	Yes	Yes	Yes
Visual fields 1 month	**Visual fields 1 month**	**Visual fields 1 month**	**Visual fields 1 month**
Number of patients **OR**	Number of patients **OR**	Number of patients **OR**	Number of patients **OR**
Number of eyes	Number of eyes	Number of eyes	Number of eyes
Clear Response	Clear Response	Clear Response	Clear Response

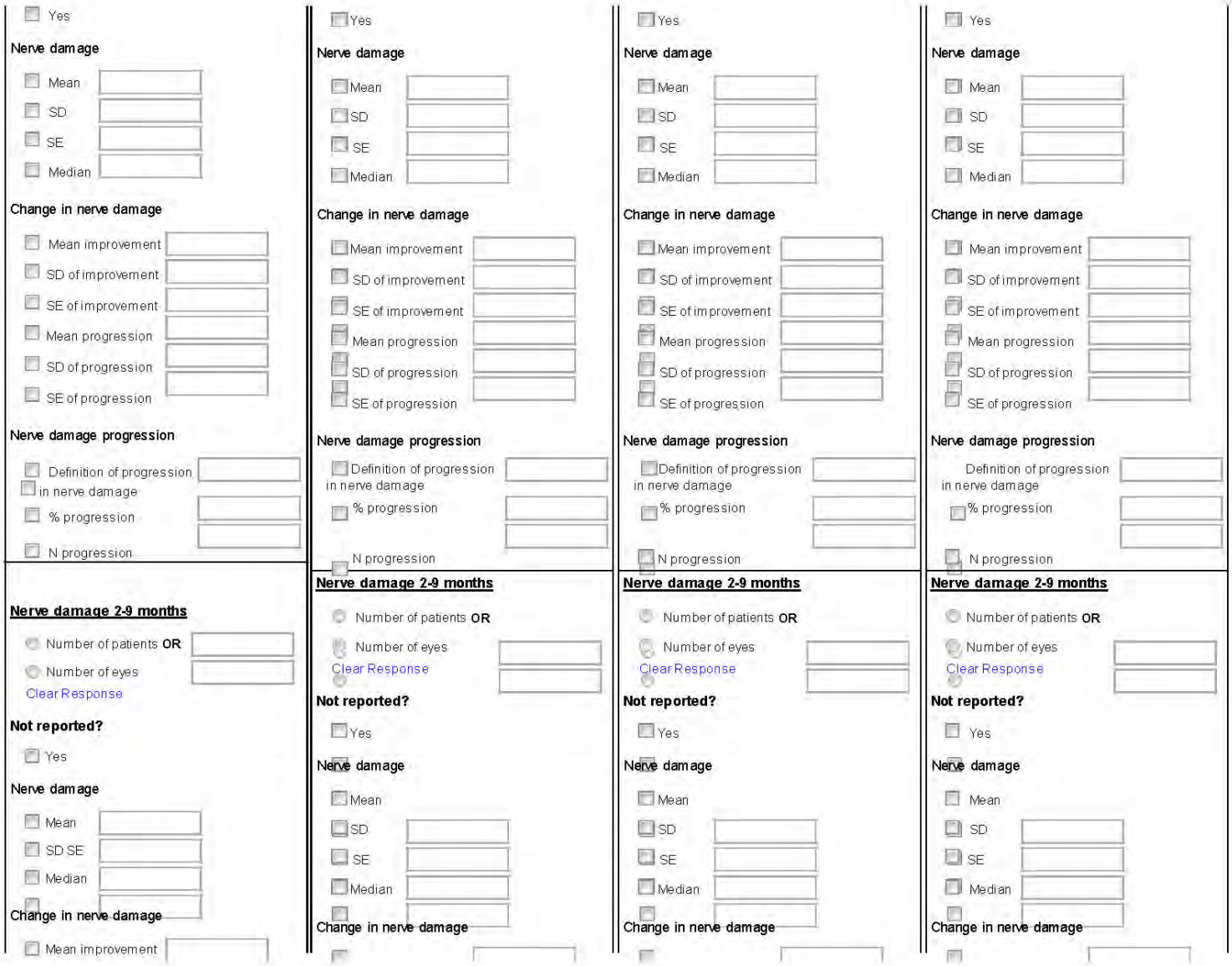

Not reported?
Yes
Mean deviation
Mean
SD
SE
Median
Change in mean deviation
Mean improvement
SD of improvement
SE of improvement
Mean decline
SD of decline
SE of decline
Mean deviation decline
Definition of decline in mean deviation
% decline
N decline
Visual fields 2-9 months
Number of patients OR
Number of eyes
Clear Response
Not reported?
Yes
Mean deviation
Mean
SD SE
SD
SE
Median
Change in mean deviation

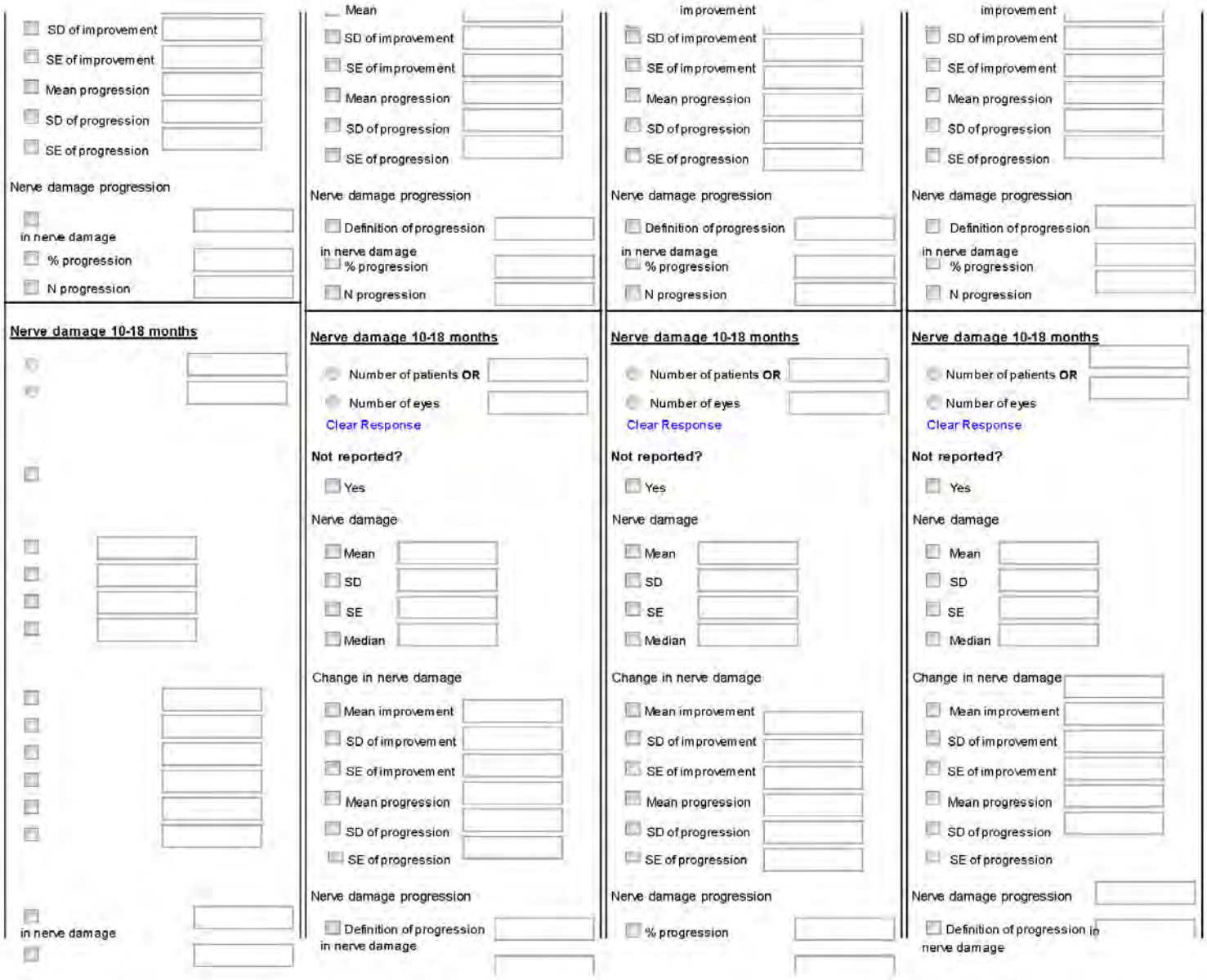

Mean improvement
SD of improvement
SE of improvement
Mean decline
SD of decline
SE of decline
Mean deviation decline
Definition of decline in mean deviation
% decline
N decline
Visual fields 10-18 months
Number of patients OR
Number of eyes
Clear Response
Not reported?
Yes
Mean deviation
Mean
SD
SE
Median
Change in mean deviation
Mean improvement
SD of improvement
SE of improvement
Mean decline
SD of decline
SE of decline
Mean deviation decline


% decline
N decline
Visual fields reported at greater than 18 months?
Do NOT check this box if there was "last follow-up" data only
Yes
Visual acuity 1 month
Number of patients OR
Number of eyes
Clear Response
Not reported?
Yes
Visual acuity reported as:
LogMAR score OR
Snellen decimal
Clear Response
Visual acuity
Mean
SD
SE
Median
Change in visual acuity
Mean improvement
SD of improvement
SE of improvement
Mean decline
SD of decline
SE of decline
Visual acuity decline
Definition of decline in visual acuity


N
N decline
N decline
N decline
Visual acuity 2-9 months
Number of patients OR
Number of eyes
Clear Response
Not reported?
Yes
Visual acuity reported as:
LogMAR score OR
Snellen decimal
Clear Response
Visual acuity
Mean
SD
SE
Median
Change in visual acuity
Mean improvement
SD of improvement
SE of improvement
Mean decline
SD of decline
SE of decline
Visual acuity decline
Definition of decline in visual acuity
% decline
N decline
Visual acuity 10-18 months
Number of patients OR
Number of eyes
Clear Response


Not reported?
Yes
Visual acuity reported as:
LogMAR score OR
Snellen decimal
Clear Response
Visual acuity
Mean
SD
SE
Median
Change in visual acuity
Mean improvement
SD of improvement
SE of improvement
Mean decline
SD of decline
SE of decline
Visual acuity decline
Definition of decline in visual acuity
% decline
N decline
Visual acuity reported at greater than 18 months?
Do NOT check this box if there was "last follow-up" data only
Yes
Nerve damage 1 month
Number of patients OR
Number of eyes
Clear Response
Not reported?


Yes
Nerve damage
Mean
SD
SE
Median
Change in nerve damage
Mean improvement
SD of improvement
SE of improvement
Mean progression
SD of progression
SE of progression
Nerve damage progression
Definition of progression in nerve damage
% progression
N progression
Nerve damage 2-9 months
Number of patients OR
Number of eyes
Clear Response
Not reported?
Yes
Nerve damage
Mean
SD SE
SD
SE
Median
Change in nerve damage
Mean improvement


SD of improvement
SE of improvement
Mean progression
SD of progression
SE of progression
Nerve damage progression
in nerve damage
% progression
N progression
Mean
SD of improvement
SE of improvement
Mean progression
SD of progression
SE of progression
Nerve damage progression
Definition of progression
in nerve damage
% progression
N progression
improvement
SD of improvement
SE of improvement
Mean progression
SD of progression
SE of progression
Nerve damage progression
Definition of progression
in nerve damage
% progression
N progression
improvement
SD of improvement
SE of improvement
Mean progression
SD of progression
SE of progression
Nerve damage progression
Definition of progression
in nerve damage
% progression
N progression
Nerve damage 10-18 months
Nerve damage 10-18 months
Number of patients OR
Number of eyes
Clear Response
Not reported?
Yes
Nerve damage
Mean
SD
SE
Median
Change in nerve damage
Mean improvement
SD of improvement
SE of improvement
Mean progression
SD of progression
SE of progression
Nerve damage progression
Definition of progression
in nerve damage
Nerve damage 10-18 months
Number of patients OR
Number of eyes
Clear Response
Not reported?
Yes
Nerve damage
Mean
SD
SE
Median
Change in nerve damage
Mean improvement
SD of improvement
SE of improvement
Mean progression
SD of progression
SE of progression
Nerve damage progression
% progression
Nerve damage 10-18 months
Number of patients OR
Number of eyes
Clear Response
Not reported?
Yes
Nerve damage
Mean
SD
SE
Median
Change in nerve damage
Mean improvement
SD of improvement
SE of improvement
Mean progression
SD of progression
SE of progression
Nerve damage progression
Definition of progression in
nerve damage

☐ N progression

Nerve damage reported at greater than 18 months?

Do NOT check this box if there was "last follow-up" data only

☐ Yes

Visual impairment

Definition of visual impairment:

Levels of Visual Impairment :
Best Corrected Visual acuity and/or Visual Field

- MODERATE VISUAL IMPAIRMENT:
  20/70 20/80 20/100 20/125 20/160
  (20/70 to 20/160)
- SEVERE VISUAL IMPAIRMENT:
  20/200 20/250 20/320 20/400
  (20/200 to 20/400)
  OR Visual field of 20 degrees or less
- PROFOUND VISUAL IMPAIRMENT:
  20/500 20/630 20/800 20/1000
  (20/500 to 20/1000)
  OR Visual field of 10 degrees or less

Not reported?

☐ Yes

When was visual impairment reported?

☐ Not reported
☐ At 1 month
☐ At 2-9 months
☐ At 10-18 months
☐ Greater than 18 months

☐ N progression

Nerve damage reported at greater than 18 months?

Do NOT check this box if there was "last follow-up" data only

☐ Yes

Visual impairment

Definition of visual impairment:

Levels of Visual Impairment :
Best Corrected Visual acuity and/or Visual Field

- MODERATE VISUAL IMPAIRMENT:
  20/70 20/80 20/100 20/125 20/160
  (20/70 to 20/160)
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  20/200 20/250 20/320 20/400
  (20/200 to 20/400)
  OR Visual field of 20 degrees or less
- PROFOUND VISUAL IMPAIRMENT:
  20/500 20/630 20/800 20/1000
  (20/500 to 20/1000)
  OR Visual field of 10 degrees or less

Not reported?

☐ Yes

When was visual impairment reported?

☐ Not reported
☐ At 1 month
☐ At 2-9 months
☐ At 10-18 months
☐ Greater than 18 months

☐ N progression

Nerve damage reported at greater than 18 months?

Do NOT check this box if there was "last follow-up" data only

☐ Yes

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☐ At 1 month
☐ At 2-9 months
☐ At 10-18 months
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Do NOT check this box if there was "last follow-up" data only

☐ Yes

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  20/200 20/250 20/320 20/400
  (20/200 to 20/400)
  OR Visual field of 20 degrees or less
- PROFOUND VISUAL IMPAIRMENT:
  20/500 20/630 20/800 20/1000
  (20/500 to 20/1000)
  OR Visual field of 10 degrees or less

Not reported?

☐ Yes

When was visual impairment reported?

☐ Not reported
☐ At 1 month
☐ At 2-9 months
☐ At 10-18 months
☐ Greater than 18 months

Primary outcomes not reported above:

COMMENTS:

Statistical Analysis Results

INSTRUCTIONS

- *Fill out one **ROW** for EACH time period of EACH comparison of EACH outcome for EACH statistic reported. Fill multiple forms if necessary.*
- ***Capture BOTH comparisons within arms** (e.g. baseline to 10-18 months mean IOP where both Comparators A and B are Arm 1) **and** **comparisons between arms** (e.g. baseline to 10-18 months mean IOP in Arm 1 vs. Arm 2)*
- ***Capture statistical significance values** even if refIDS have "Not applicable/Not reported" point estimates*
- *Confidence intervals (CI) should be **reported as a range** (e.g. "x to y")*
- *If both the CI and p value are reported, **please capture CI only***

***Tests for statistical significance will not be captured but may include**: Chi-square, Fisher's exact test, T-test (paired, unpaired), ANOVA, ANCOVA, Mann Whitney U (Wilcoxon rank sum), Log rank test*

OUTCOMES TO BE CAPTURED ARE:

- *Mean IOP*
- *Proportion of eyes with 20% or greater IOP reduction*
- *Proportion eyes with less than or equal to 14mm Hg*
- *Mean number of medications,*
- *Mean visual acuity (LogMAR score or Snellen decimal)*
- *Proportion with progression by visual field*
- *Mean mean deviation.*

COMPARATOR A	COMPARATOR B	TIME PERIOD	OUTCOME	POINT ESTIMATE	STATISTICAL SIGNIFICANCE VALUE
Select an Answer	Select an Answer	Select an Answer	Select an Answer	Select an Answer	Select an Answer
COMPARATOR A	COMPARATOR B	TIME PERIOD	OUTCOME	POINT ESTIMATE	STATISTICAL SIGNIFICANCE VALUE
Select an Answer	Select an Answer	Select an Answer	Select an Answer	Select an Answer	Select an Answer
COMPARATOR A	COMPARATOR B	TIME PERIOD	OUTCOME	POINT ESTIMATE	STATISTICAL SIGNIFICANCE VALUE
Select an Answer	Select an Answer	Select an Answer	Select an Answer	Select an Answer	Select an Answer

COMPARATOR A	COMPARATOR B	TIME PERIOD	OUTCOME	POINT ESTIMATE	STATISTICAL SIGNIFICANCE VALUE
Select an Answer	Select an Answer	Select an Answer	Select an Answer	Select an Answer	Select an Answer

COMPARATOR A	COMPARATOR B	TIME PERIOD	OUTCOME	POINT ESTIMATE	STATISTICAL SIGNIFICANCE VALUE
Select an Answer	Select an Answer	Select an Answer	Select an Answer	Select an Answer	Select an Answer

COMPARATOR A	COMPARATOR B	TIME PERIOD	OUTCOME	POINT ESTIMATE	STATISTICAL SIGNIFICANCE VALUE
Select an Answer	Select an Answer	Select an Answer	Select an Answer	Select an Answer	Select an Answer

COMPARATOR A	COMPARATOR B	TIME PERIOD	OUTCOME	POINT ESTIMATE	STATISTICAL SIGNIFICANCE VALUE
Select an Answer	Select an Answer	Select an Answer	Select an Answer	Select an Answer	Select an Answer

Variables included in any regression analyses as confounders

Please note if the analyses were adjusted for age, gender, severity, etc.

Submit Form and go to or Skip to Next

Refid: 12, Skateboards: Are they really perilous? A retrospective study from a district hospital.
Rethnam U, Yesupalan RS, Sinha A.

Submit Form and go to or Skip to Next

ARM

For what arm of the study were harms reported? (select and define arm)

Please fill out one form per ARM of the study which reported harms

- Arm 1
- Arm 2
- Arm 3
- Arm 4
- Entire study

Clear Response

Please enter the numbers of events, people and eyes (n), the denominator assessed for each harm (N) and the time after treatment they were reported.

- For medical treatments "early" results should be considered 1 month and "late" should be 3 months
- For surgical treatments "early" results should be considered 3 months and "late" should be 1 year

HARMS

Eye irritation

- n people
- n Events

- 1 mo
- 3 mo
- 1 yr
- Unspecified

☐ n Eyes

☐ **Denominator assessed for this adverse event (N)**

Watering

☐ n people

☐ n Events

☐ n Eyes

☐ **Denominator assessed for this adverse event (N)**

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

Redness

☐ n people

☐ n Events

☐ n Eyes

☐ **Denominator assessed for this adverse event (N)**

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

Discomfort

☐ n people

☐ n Events

☐ n Eyes

☐ **Denominator assessed for this adverse event (N)**

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

Cataract formation (visually significant cataract requiring surgery or report of cataract surgery)

☐ n people

☐ n Events

☐ n Eyes

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

☐ **Denominator assessed for this adverse event (N)** ☐

Low intraocular pressure (hypotony)

☐ n people ☐
☐ n Events ☐
☐ n Eyes ☐
☐ **Denominator assessed for this adverse event (N)** ☐

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

Decreased visual acuity

☐ n people ☐
☐ n Events ☐
☐ n Eyes ☐
☐ **Denominator assessed for this adverse event (N)** ☐

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

Infection (e.g., blebitis, endophthalmitis)

☐ n people ☐
☐ n Events ☐
☐ n Eyes ☐
☐ **Denominator assessed for this adverse event (N)** ☐

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

Inflammation

☐ n people ☐
☐ n Events ☐
☐ n Eyes ☐
☐ **Denominator assessed for this adverse event (N)** ☐

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

Strabismus

☐ 1 mo

☐ n people
☐ n Events
☐ n Eyes
☐ **Denominator assessed for this adverse event (N)**

☐ 3 mo
☐ 1 yr
☐ Unspecified

Ocular surface disease

☐ n people
☐ n Events
☐ n Eyes
☐ **Denominator assessed for this adverse event (N)**

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

Retinal tear and detachment

☐ n people
☐ n Events
☐ n Eyes
☐ **Denominator assessed for this adverse event (N)**

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

Other patient complaint

☐ n people
☐ n Events
☐ n Eyes
☐ **Denominator assessed for this adverse event (N)**
☐ Specify other complaint:

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

Respiratory problems

☐ n people
☐ n Events

☐ 1 mo
☐ 3 mo
☐ 1 yr

☐ n Eyes ☐ Unspecified

☐ **Denominator assessed for this adverse event (N)**

Skin discoloration

☐ n people ☐ 1 mo

☐ n Events ☐ 3 mo

☐ n Eyes ☐ 1 yr

☐ **Denominator assessed for this adverse event (N)** ☐ Unspecified

Conjunctival injection

☐ n people ☐ 1 mo

☐ n Events ☐ 3 mo

☐ n Eyes ☐ 1 yr

☐ **Denominator assessed for this adverse event (N)** ☐ Unspecified

Iris color change

☐ n people ☐ 1 mo

☐ n Events ☐ 3 mo

☐ n Eyes ☐ 1 yr

☐ **Denominator assessed for this adverse event (N)** ☐ Unspecified

Punctal stenosis

☐ n people ☐ 1 mo

☐ n Events ☐ 3 mo

☐ n Eyes ☐ 1 yr

☐ **Denominator assessed for this adverse event (N)** ☐ Unspecified

Conjunctival foreshortening

- ☐ n people
- ☐ n Events
- ☐ n Eyes
- ☐ **Denominator assessed for this adverse event (N)**

- ☐ 1 mo
- ☐ 3 mo
- ☐ 1 yr
- ☐ Unspecified

Peripheral anterior synechiae

- ☐ n people
- ☐ n Events
- ☐ n Eyes
- ☐ **Denominator assessed for this adverse event (N)**

- ☐ 1 mo
- ☐ 3 mo
- ☐ 1 yr
- ☐ Unspecified

Systemic allergic reaction

- ☐ n people
- ☐ n Events
- ☐ n Eyes
- ☐ **Denominator assessed for this adverse event (N)**

- ☐ 1 mo
- ☐ 3 mo
- ☐ 1 yr
- ☐ Unspecified

Loss of eye

- ☐ n people
- ☐ n Events
- ☐ n Eyes
- ☐ **Denominator assessed for this adverse event (N)**

- ☐ 1 mo
- ☐ 3 mo
- ☐ 1 yr
- ☐ Unspecified

Need for additional surgery as a result of complications

- ☐ 1 mo
- ☐ 3 mo
- ☐ 1 yr

☐ n people ☐ Unspecified

☐ n Events

☐ n Eyes

☐ **Denominator assessed for this adverse event (N)**

Choroidals (choroidal detachment, effusion and hemmorrhage

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

☐ n people

☐ n Events

☐ n Eyes

☐ **Denominator assessed for this adverse event (N)**

Hyphema

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

☐ n people

☐ n Events

☐ n Eyes

☐ **Denominator assessed for this adverse event (N)**

Transient decrease in central vision as a result of complications

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

☐ n people

☐ n Events

☐ n Eyes

☐ **Denominator assessed for this adverse event (N)**

Systemic side effects

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

☐ n people

☐ n Events

☐ n Eyes

☐ **Denominator assessed for this adverse event (N)**

Cardiac arrhythmia

☐ n people

☐ n Events

☐ n Eyes

☐ **Denominator assessed for this adverse event (N)**

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

Death

☐ n people

☐ n Events

☐ n Eyes

☐ **Denominator assessed for this adverse event (N)**

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

Other

☐ Define "other"

☐ n people

☐ n Events

☐ n Eyes

☐ **Denominator assessed for this adverse event (N)**

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

Other

☐ Define "other"

☐ n people

☐ n Events

☐ n Eyes

☐ 1 mo
☐ 3 mo
☐ 1 yr
☐ Unspecified

EI Denominator assessed for this adverse event (N) [ ]

| Submit Form | and go to [T:..] or Skip

Quality form for RCTs

Sequence Generation

1. Was the allocation sequence adequately generated?

- Low risk of bias
- High risk of bias
- Unclear/not reported

Clear Response

Criteria for a judgment of "YES" (i.e., low risk of bias)

- *The investigators describe a random component in the sequence generation process such as:*
  - *Referring to a random number table; Using a computer random number generator; Coin tossing; Shuffling cards or envelopes; Throwing dice; Drawing of lots; Minimization. Minimization may be implemented without a random element, and this is considered to be equivalent to being random.*

Criteria for a judgment of "NO" (i.e., high risk of bias)

- *The investigators describe a non-random component in the sequence generation process. Usually, the description would involve some systematic, non-random approach, for example:*
  - *Sequence generated by odd or even date of birth;*
  - *Sequence generated by some rule based on date (or day) of admission;*
  - *Sequence generated by some rule based on hospital or clinic record number.*
- *Other non-random approached happen much less frequently than the systematic approaches mentioned above and tend to be obvious. They usually involve judgment or some method of non-random categorization of participants, for example:*
  - *Allocation by judgment of the clinician;*
  - *Allocation by preference of the participant;*
  - *Allocation based on the results of a laboratory test or a series of tests.*

Criteria for a judgment of "UNCLEAR" (i.e., uncertain risk of bias)

- *Insufficient information about the sequence generation process to permit judgement of "YES" or "NO."*

Allocation Concealment

2. Was allocation adequately concealed?

- Low risk of bias
- High risk of bias
- Unclear/not reported

Clear Response

Criteria for a judgment of "YES" (i.e. low risk of bias)

- *Participants and investigators enrolling participants could not foresee assignment because one of the following, or an equivalent method, was used to conceal allocation:*
  - *Central allocation (including telephone, web-based, and pharmacy-controlled, randomization);*
  - *Sequentially numbered drug containers of identical appearance;*
  - *Sequentially numbered, opaque, sealed envelopes.*

Criteria for a judgment of "NO" (i.e. high risk of bias)

- *Participants or investigators enrolling participants could possibly foresee assignments and thus introduce selection bias, such as allocation based on:*
  - *Using an open random allocation schedule (e.g. a list of random numbers);*
  - *Assignment envelopes were used without appropriate safeguards (e.g. if envelopes were unsealed or non-opaque or not sequentially numbered);*
  - *Alternation or rotation;*
  - *Date of birth;*
  - *Case record number;*
  - *Any other explicitly unconcealed procedure*

Criteria for the judgment of "UNCLEAR" (i.e. uncertain risk of bias)

- *Insufficient information about the sequence generation process to permit judgment of "YES" or "NO".*
  - *This is usually the case if the method of concealment is not described or not described in sufficient detail to allow a definite judgment – for example if the use of assignment envelopes is described, but it remains unclear whether envelopes were sequentially numbered, opaque and sealed.*

Blinding of Participants, Personnel, and Outcome Assessors

3. Was knowledge of the allocated interventions adequately prevented during the study?

- Low risk of bias
- High risk of bias
- Unclear/not reported

Clear Response

Criteria for a judgment of "YES" (i.e. low risk of bias)

- *Any one of the following:*

- *No blinding, but the review authors judge that the outcomes*
- *Blinding of participants and key study personnel ensured, and unlikely that the blinding could have been broken;*
- *Either participants or some key study personnel were not blinded, but outcome assessment was blinded and the nonblinding of others unlikely to introduce bias.*

Criteria for a judgment of "NO" (i.e. high risk of bias)

- *Any one of the following:*
  - *No blinding or incomplete blinding, and the outcome or outcome measurement is likely to be influenced by lack of blinding;*
  - *Blinding of key study participants and personnel attempted, but likely that the blinding could have been broken;*
  - *Either participants or some key study personnel were not blinded, and the non-blinding of others likely to introduce bias.*

Criteria for the judgment of "UNCLEAR" (i.e. uncertain risk of bias)

- *Any one of the following:*
  - *Insufficient information to permit judgment of 'Yes' or 'No';*
  - *The study did not address this outcome.*

Incomplete Outcome Data

4. Were incomplete outcome data adequately addressed?

- Low risk of bias
- High risk of bias
- Unclear/not reported

Clear Response

Criteria for a judgment of "YES" (i.e. low risk of bias)

- *Any one of the following:*
  - *No missing outcome data;*
  - *Reasons for missing outcome data unlikely to be related to true outcome (for survival data, censoring unlikely to be introducing bias);*
  - *Missing outcome data balanced in numbers across intervention groups, with similar reasons for missing data across groups;*
  - *For dichotomous outcome data, the proportion of missing outcomes compared with observed event risk not enough to have a clinically relevant impact on the intervention effect estimate;*
  - *For continuous outcome data, plausible effect size (difference in means or standardized difference in means) among missing outcomes not enough to have a clinically relevant impact on observed effect size;*
  - *Missing data have been imputed using appropriate methods.*

Criteria for a judgment of "NO" (i.e. high risk of bias)

- *Any one of the following:*
  - *Reason for missing outcome data likely to be related to true outcome, with either imbalance in numbers or reasons for missing data across intervention groups;*
  - *For dichotomous outcome data, the proportion of missing outcomes compared with observed event risk enough to induce clinically relevant bias in intervention effect estimate;*
  - *For continuous outcome data, plausible effect size (difference in means or standardized difference in means) among missing outcomes enough to induce clinically relevant bias in observed effect size;*
  - *'As-treated' analysis done with substantial departure of the intervention received from that assigned at randomization;*

- *Potentially inappropriate application of simple imputation*

Criteria for the judgment of "UNCLEAR" (i.e. uncertain risk of bias)

- *Any one of the following:*
  - *Insufficient reporting of attrition/exclusions to permit judgment of 'Yes' or 'No' (e.g. number randomized not stated, no reasons for missing data provided);*
  - *The study did not address this outcome.*

Other Potential Threats to Validity

5. Was the study apparently free of other problems that could put it at a risk of bias?

Low risk of bias
High risk of bias
Unclear/not reported
Clear Response

Criteria for a judgment of "YES" (i.e. low risk of bias)

- *The study appears to be free of other sources of bias.*

Criteria for a judgment of "NO" (i.e. high risk of bias)

- *There is at least one important risk of bias. For example, the study:*
  - *Had a potential source of bias related to the specific study design used; or*
  - *Stopped early due to some data-dependent process (including a formal-stopping rule); or*
  - *Had extreme baseline imbalance; or*
  - *Has been claimed to have been fraudulent; or*
  - *Had some other problem.*

Criteria for the judgment of "UNCLEAR" (i.e. uncertain risk of bias)

- *There may be a risk of bias, but there is either:*
  - *Insufficient information to assess whether an important risk of bias exists; or*
  - *Insufficient rationale or evidence that an identified problem will introduce bias.*

Pharmaceutical Support

6. Did this study receive support (research funds, medications provided, writing services, author or staff was employee) from a company having a financial interest in any of the medications studied?

Low risk of bias
High risk of bias
Unable to determine/not reported
Clear Response

7. If "Yes," did the company have any involvement in the design, conduct, or reporting of the study?
For "NO," the authors are not employees of the company and the authors had complete access to the data, and the company was not involved in the design, conduct, analysis, or reporting of the study.

- Low risk of bias
- High risk of bias
- Unable to determine/not reported
- N/A

Clear Response

Overall Quality of Study

8. Please rate the overall quality of the study:

- GOOD
- FAIR
- POOR

Clear Response

Criteria for a judgment of "GOOD" (i.e. low risk of bias)

- *These studies have the least bias and results are considered valid*
- *A study that adheres mostly to the commonly held concepts of high quality including the following*
  - *A formal randomized controlled study;*
  - *Clear description of the population, setting, interventions, and comparison groups;*
  - *Appropriate measurements of outcomes;*
  - *Appropriate statistical and analytic methods and reporting;*
  - *No reporting errors;*
  - *Low dropout rate; and*
  - *Clear reporting of dropouts*

Criteria for a judgment of "FAIR"

- *These studies are susceptible to some bias, but it is not sufficient to invalidate the results.*
- *Do not meet all the criteria required for a rating of good qualities because they have some deficiencies, but no flaw is likely to cause major bias.*
- *The study may be missing information, making it difficult to assess limitations and potential problems*

Criteria for a judgment of "POOR" (i.e. high risk of bias)

- *These studies have significant flaws that imply biases of various types that may invalidate the results.*
- *Have serious errors in design, analysis, or reporting; large amounts of missing information; or discrepancies in reporting.*

9. Were >20% of the study participants lost to followup at any of the following time points?

- First reported time point (weeks) [ ]
- 12-16 weeks
- 48-54 weeks
- Last pre-specified time point (weeks) [ ]
- Not Reported
- No

Clear Response

10. Please add comments below.

Submit Form and go to or Skip to Nexy

Quality Form for Observational Studies

Reporting

1. Are the main outcomes to be measured clearly described in the Introduction or Methods section?

   If the main outcomes are both identified and defined, then the answer is "YES". If the main outcomes are first mentioned in the Results section, the question should be answered "NO".

   - YES
   - NO
   - UNABLE TO DETERMINE/ NOT REPORTED

   Clear Response

2. Are the characteristics of the patients included in the study clearly described?

   In cohort studies and trials, inclusion and/or exclusion criteria should be given. In case-control studies, a case-definition and the source for controls should be given.

   - YES
   - NO
   - UNABLE TO DETERMINE/ NOT REPORTED

   Clear Response

3. Are the interventions of interest clearly described?

   Treatments and placebo (where relevant) that are to be compared should be identified and defined.

   - YES
   - NO
   - UNABLE TO DETERMINE/ NOT REPORTED

Clear Response

4. Are the distributions of principal confounders in each group of subjects to be compared clearly described?

The confounders should be 1) identified and 2)defined along with 3) distribution in each group. A list of principal confounders is provided in text (identification) with definitions of each confounder. Table 1 and/or the first paragraph of the Results usually provide the distribution of potential confounders by treatment/case status.

- YES
- NO
- UNABLE TO DETERMINE/ NOT REPORTED

Clear Response

Selection Bias

5. Were the patients in different intervention groups (cohort studies) or were the cases and controls (case-control studies) recruited from the same population?

The patients in each group should be 1) from the same source population, 2) with the same inclusion/exclusion criteria applied (other than exposure/case status), 3) recruited over the same period of time.

For a study which does not specify the time period over which patients were recruited, the question should be answered as unable to determine.

- YES
- NO
- UNABLE TO DETERMINEUNABLE TO DETERMINE/ NOT REPORTED
- N/A

Clear Response

6. Were losses of patients to follow-up taken into account?

Methods to account for losses to follow-up include calculating the incidence rate directly or using a survival/life table method.
If the numbers of patients lost to follow-up are not reported, the question should be answered as unable to determine. If the proportion lost to follow-up was less than 20% in each arm at the end of the study, the question should be answered "YES".

- YES
- NO
- UNABLE TO DETERMINE/ NOT REPORTED
- N/A

Clear Response

Confounding

7. Was there adequate adjustment for confounding in the analyses from which the main findings were drawn?

stratified by the demonstrated confounders of interest, the answer is 'YES'.
If the effect of the main confounders was not investigated or confounding was demonstrated (different distribution of potential confounders by exposure/case group) but no adjustment was made in the final analyses the question should be answered as 'NO'.
If the study was a matched case-control study and the method of analysis was not conditional logistic regression, the answer is 'NO'.

- YES
- NO
- UNABLE TO DETERMINE/ NOT REPORTED

Clear Response

Overall Quality of Study

8. Please rate the overall quality of the study using the reporting, selection bias and confounding domains:

Good indicates all "YES" responses
Fair indicates mostly "YES" for Reporting and all "YES" for Selection Bias and Confounding bias. Poor indicates at least 1 "NO" or "Unable to determine" for selection or confounding bias.

- GOOD
- FAIR
- POOR

Clear Response

Conflict of Interest

9. Did this study receive support (research funds, medications provided, writing services, author or staff was employee) from a company having a financial interest in any of the medications studied?

- YES
- NO
- UNABLE TO DETERMINE/ NOT REPORTED

Clear Response

10. If above question is answered yes: did the company have any involvement in the design, conduct, or reporting of the study?

For "NO," the authors are not employees of the company and the authors had complete access to the data, and the company was not involved in the design, conduct, analysis, or reporting of the study.

- YES
- NO
- UNABLE TO DETERMINE/ NOT REPORTED

Clear Response

11. Please add any comments below

Appendix C. Evidence Tables

Evidence Table 1. Systematic review evidence I

Study	KQs	Aims of the study	Conclusions	Types of participants					Types of interventions
				OAG	OHT	ACG	NTG	Other	
Aptel 2008[1]	3,6	"This systematic meta-analysis was performed to evaluate the intraocular pressure (IOP) lowering effects and tolerability of latanoprost, bimatoprost, and travoprost."	"The findings suggest a greater efficacy of bimatoprost compared with latanoprost and travoprost, although the incidence of hyperemia was lower with the latter 2 agents.	Y	Y	N	N	POAG or OHT in at least 90% of trial participants	Latanoprost, travopost, or brimatoprost monotherapy
Burr 2004[2]	1,2,3,4,6	"To study the relative efficacy of medical and surgical treatment for OAG in terms of measures of glaucoma progression and adverse effects of treatment."	"Evidence from one trial suggests, for mild OAG, that VF deterioration up to five-years is not significantly different whether treatment is initiated with medication or trabeculectomy. Reduced vision, cataract and eye discomfort are more likely with trabeculectomy. There is some evidence, for more severe OAG, that initial medication (pilocarpine, now rarely used as first line medication) is associated with greater VF deterioration than surgery. In general, surgery lowers IOP more than medication."	Y	N	N	N		IOP lowering meds compared with trabeculectomy w/ or w/o use of anti-scarring agents; non-penetrating trabeculectomy w/ or w/o use of antiscarring agents; any other antiglaucomatous surgery
Chai 2010[3]	3,6	Compare the efficacy and safety profile of viscocanalostomy	"Trabeculectomy was found to have a greater pressure lowering effect compared with viscocanalostomy. However, viscocanalostomy had a significantly better risk profile."	NR	NR	NR	NR	1.7% of participants with primary chronic angle closure glaucoma	Viscocanalostomy versus trabeculectomy

Study	KQs	Aims of the study	Conclusions	Types of participants					Types of interventions
				OAG	OHT	ACG	NTG	Other	
Cheng 2008[4]	3,6	"To evaluate the efficacy and tolerability of bimatoprost compared with latanoprost in reducing intraocular pressure."	"Bimatoprost was associated with significantly greater efficacy in lowering morning IOP than latanoprost at all time points. Comparable proportions of patients reached the IOP target with bimatoprost and latanoprost. Both agents were well tolerated, although bimatoprost was associated with a significantly greater frequency of conjunctival hyperemia than latanoprost."	NR	Y	NR	NR	Glaucoma	Bimatoprost versus latanoprost
Cheng 2009[5]	3,6	"The aim of this study was to evaluate the effi cacy and tolerability of latanoprost, compared with the combination of dorzolamide and timolol, in the treatment of patients with elevated intraocular pressure."	"Latanoprost was associated with significantly greater effi cacy in lowering diurnal mean IOP than combined dorzolamide and timolol in patients with IOP insuffi ciently controlled by timolol alone, and latanoprost was as effective as combined dorzolamide and timolol in patients without baseline timolol treatment. The combination of dorzolamide and timolol was less tolerated than latanoprost."	Y	Y	Y	N	Pigmentary, mixed glaucoma as well as 1 trial with chronic angle closure glaucoma participants	Latanoprost versus combined dorzolaminde and timolol (concomitant administration or fixed combination)
Cheng 2010[6]	3,6	"To evaluate the efficacy and tolerability of nonpenetrating filtering surgery in the treatment of patients with open-angle glaucoma."	"Viscocanalostomy and deep sclerectomy were less effective than trabeculectomy in the treatment of open angle glaucoma, and deep sclerectomy plus mitomycin C (MMC) was also less effective than trabeculectomy plus MMC. However, viscocanalostomy and deep sclerectomy were associated with fewer complications than trabeculectomy."	Y	N	N	N		Viscocanalostomy versus trabeculectomy with or without antimetabolite; deep sclerectomy versus trabeculectomy with or without mitomycin C

Study	KQs	Aims of the study	Conclusions	Types of participants					Types of interventions
				OAG	OHT	ACG	NTG	Other	
Cox 2008[7]	3,6	"To evaluate the efficacy of the fixed combination ocular hypotensive therapies compared with their nonfixed components used concomitantly for lowering intraocular pressure in glaucoma and ocular hypertension."	"Fixed combination therapies are equally safe and effective at lowering IOP as their non-fixed components administered concomitantly."	NR	Y	NR	NR	Glaucoma	Fixed combination medications compared with non-fixed components used (concomitant) (travoprost, brimonidine, dorzolamide, bimatoprost) and a beta blocker
Eyawo 2009[8]	3,6	"To identify randomized trials evaluating the head-to-head effectiveness of prostaglandin analogs in the treatment of POAG and ocular hypertension and to conduct a meta-analysis of their results to improve understanding of the drugs' relative efficacy."	"Randomized head-to-head evaluations of prostaglandin therapy demonstrate similar efficacy effects, but differing hyperemia effects."	Y	Y	N	N	Other types of chronic open angle glaucoma	Travoprost versus latanoprost or bimatoprost; latanoprost versus bimatoprost
Fung 2007[9]	3,6	"To compare the efficacy and tolerability of latanoprost versus brimonidine in the treatment of open angle glaucoma, ocular hypertension or normal-tension glaucoma."	"Latanoprost is more effective than brimonidine as monotherapy in lowering IOP. Brimonidine is associated with a higher rate of fatigue."	Y	Y	N	Y	Mixed glaucoma	Latanoprost versus brimonidine
Hodge 2008[10]	3,6	"To systematically review the literature on the efficacy and harm of prostaglandin analogues compared to brimonidine and dorzolamide in treating elevated intraocular pressure."	"Latanoprost was found to be significantly superior to dorzolamide but not brimonidine. However, ocular adverse events were significantly fewer in latanoprost users than in brimonide users. Neither travoprost nor bimatoprost was compared to dorzolamide or brimonidine in the present literature."	N	Y	N	N		Latanoprost versus dorzolamide and brimonidine

Study	KQs	Aims of the study	Conclusions	Types of participants					Types of interventions
				OAG	OHT	ACG	NTG	Other	
Honrubia 2009[11]	6	"To conduct a meta-analysis of randomised clinical trials to evaluate the development of conjunctival hyperaemia after the use of latanoprost versus travoprost and bimatoprost, in patients with ocular hypertension or glaucoma."	"According to available data, the use of latanoprost is associated with a lower incidence of conjunctival hyperaemia when compared with travoprost and bimatoprost in the treatment of patients with ocular hypertension or glaucoma."	NR	Y	NR	NR	Glaucoma	Latanoprost versus travoprost and bimatoprost
Jampel 2003[12]	3,4,6	"The objectives of this evidence report were to: identify the most important questions pertinent to treatment of patients with coexisting cataract and glaucoma; assess the published literature with respect to quality and content regarding these questions; and to inform clinical practitioners and identify areas where future research is needed, based on the literature findings"	"The literature does not point to one optimal strategy for controlling IOP in patients with coexisting cataract and glaucoma needing surgery. Therefore, there is a continued need for high quality studies with greater duration and more information on optic nerve and visual field findings."	Y	N	Y	N	OAG or ACG with coexisting cataract	Laser treatment, filtration surgery, endoscopic cyclophotocoagulation, nonpenetrating surgeries. Clear corneal and scleral cataract incision and nuclear expression/phacoemulsification
Kirwan 2009[13]	3,6	"To assess the effectiveness of beta radiation during glaucoma surgery (trabeculectomy)."	"Trabeculectomy with beta irradiation has a lower risk of surgical failure compared to trabeculectomy alone. A trial of beta irradiation versus anti-metabolite is warranted."	Y	Y	Y	Y	1st surgical procedure; no simultaneous bilateral surgery; all types of glaucoma included in review inclusion criteria, but included studies enrolled participants with OAG	

Study	KQs	Aims of the study	Conclusions	Types of participants					Types of interventions
				OAG	OHT	ACG	NTG	Other	
Li 2006[14]	3,6	"To evaluate the incidence of reported side-effects and intraocular pressure-lowering effect of travoprost versus other prostaglandin analogues (latanaprost, bimatoprost, unoprostone) or timolol."	"Travoprost is more effective than timolol in lowering IOP in patients with openangle glaucoma or ocular hypertension. Compared with other prostaglandin analogues, travoprost appears to be equivalent to bimatoprost and latanoprost. Although a limited number of local side-effects were reported, no serious treatment-related side-effects were reported."	Y	Y	N	N		Travoprost compared with other prostagladin analogs or timolol
Liu 2010[15]	1,3,6	"This meta-analysis evaluated the efficacy and tolerability of one-site versus two-site phacotrabeculectomy in the treatment of patients with coexisting cataract and glaucoma."	"Two-site phacotrabeculectomy is superior to one-site phacotrabeculectomy in reducing IOP, but other post-operative effects are similar. One-site and two-site phacotrabeculectomies have similar adverse event rates."	NR	NR	NR	NR	Coexisting cataract and glaucoma	Phacotrabeculectomy (1 site versus 2 site)
Loon 2008[16]	3,6	"To compare the efficacy and tolerability of timolol versus brimonidine in the treatment of glaucoma."	"Both drugs are effective in lowering IOP. Brimonidine is associated with a higher rate of allergy."	Y	Y	NR	NR	Other glaucoma (2%)	Timolol versus brimonidine
Maier 2005[17]	4	"To summarize the evidence of the effectiveness of introacular pressure lowering treatment to 1) delay OAG among those with OHT ocular hypertension 2) delay progression of OAG"	"Lowering intraocular pressure in patients with ocular hypertension or manifest glaucoma is beneficial in reducing the risk of visual field loss in the long term."	Y	Y	N	Y		Medical and/or surgical treatment (timolol, betaxolol, various medications, laser trabeculoplasty, betaxolol, and latanoprost versus concurrent untreated control group (Includes OHTS, EMGT, CNGTS)
Minckler 2006[18]	1,3,6	"This review compares aqueous shunts for IOP control and safety."	"Relatively few randomized trials have been published on aqueous shunts and methodology and data quality among them is poor. To date there is no evidence of superiority of one shunt over another."	Y	NR	Y	NR	Glaucoma patients irrespective of lens status; %OAG unknown	Aqueous shunts versus standard surgery or cyclodestruction

Study	KQs	Aims of the study	Conclusions	Types of participants					Types of interventions
				OAG	OHT	ACG	NTG	Other	
Rolim de Moura 2007[19]	2,3,4,6	"To study the effects of laser trabeculoplasty for OAG"	"Evidence suggests that, in people with newly diagnosed OAG, the risk of uncontrolled IOP is higher in people treated with medication used before the 1990s when compared to laser trabeculoplasty at two years followup.Trabeculoplasty is less effective than trabeculectomy in controlling IOP at six months and two years follow up. Different laser technology and protocol modalities were compared to the traditional laser trabeculoplasty and more evidence is necessary to determine if they are equivalent or not. There is no evidence to determine the effectiveness of laser trabeculoplasty compared to contemporary medication (prostaglandin analogues, topical anhydrase inhibitors and alpha2-agonists) and also with contemporary surgical techniques."	Y	N	N	N		Argon laser trabeculoplasty versus medication, trabeculectomy, diode laser trabeculoplasty or ND: Yag laser; Laser trabeculoplasty, betaxolol, and latanoprost versus observation for POAG or NTG (Includes EMGT)
Vass 2007[20]	4,6	"To assess and compare the effectiveness of topical	"The results of this review support the current practice of IOP	Y	Y	N	N		Topical medications versus placebo or untreated control

Study	KQs	Aims of the study	Conclusions	Types of participants					Types of interventions
				OAG	OHT	ACG	NTG	Other	
		pharmacological treatment for POAG or OHT to prevent progression or onset of glaucomatous optic neuropathy."	lowering treatment of OHT. A visual field protective effect has been clearly demonstrated for medical IOP lowering treatment. Positive but weak evidence for a beneficial effect of the class of beta-blockers has been shown. Direct comparisons of prostaglandins or brimonidine to placebo are not available and the comparison of dorzolamide to placebo failed to demonstrate a protective effect. However, absence of data or failure to prove effectiveness should not be interpreted as proof of absence of any effect. The decision to treat a patient or not, as well as the decision regarding the drug with which to start treatment, should remain individualised, taking in to account the amount of damage, the level of IOP, age and other patient characteristics."						group; head to head comparisons of medications; unspecified medications versus untreated control group (Includes OHTS)
Wilkins 2005[21]	3,6	"To assess the effects of intraoperative mitomycin C compared to placebo in trabeculectomy."	"Intraoperative mitomycin C reduces the risk of surgical failure in eyes that have undergone no previous surgery and in eyes at high risk of failure. Compared to placebo it reduces mean IOP at 12 months in all groups of participants in this review. Apart from an increase in cataract formation following MMC, there was insufficient power to detect any increase in other serious side effects such as endophthalmitis."	NR	NR	NR	NR	Glaucoma; Two included studies enrolled participants with ACG; Unsure if two additional included studies enrolled ACG participants	Intraoperative mitomycin C versus placebo or control
Wormald 2001[22]	3,6	"To assess the effects of postoperative injections of 5-FU in eyes of people	"Postoperative injections of 5-FU are now rarely used as a planned series but are increasingly used on	NR	NR	NR	NR	People undergoing glaucoma surgery (high risk of	Post-operative injection of 5-FU (any dose) versus placebo or no injection

Study	KQs	Aims of the study	Conclusions	Types of participants					Types of interventions
				OAG	OHT	ACG	NTG	Other	
		undergoing surgery for glaucoma."	an ad hoc basis. This presumably reflects an aspect of the treatment that is unacceptable to both patients and doctors. None of the trials reported on the participants' perspective of care which constitutes a serious omission for an invasive treatment such as this."					failure, combined glaucoma and cataract surgery, and primary trabeculectomy; At least one included study enrolled participants with ACG	
Zhang 2001[23]	3,6	"To evaluate the comparative efficacy and tolerance of latanoprost versus timolol through a meta-analysis of randomised controlled trials."	"This meta-analysis suggests that latanoprost is more effective than timolol in lowering IOP. However, it often causes iris pigmentation. While current evidence suggests that this pigmentation is benign, careful lifetime evaluation of patients is still justified."	Y	Y	N	N		Latanoprost versus timolol

Evidence Table 2. Systematic review evidence II

Study	Types of studies included			Summary Outcomes				
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
Aptel 2008[1]	Y	N	N	NR	NR	Bimatoprost versus Latanoprost (5 trials) IOP reduction from baseline to 3 months (range 1 to 6 months) 8 AM: WMD, 0.50; 95% CI, 0.01 to 0.99 12PM: WMD, 1.17; 95% CI, 0.68 to 1.66 4 PM: WMD, 0.78; 95% CI, 0.26 to 1.29 8 PM: WMD, 0.67; 95% CI, 0.02 to 1.32 Bimatoprost versus Travoprost (3 trials) IOP reduction from baseline to 3 months (range 1 to 6 months) 8 AM: WMD, 1.02; 95% CI, 0.32 to 1.72 12 PM: WMD, 0.86; 95% CI, 0.12 to 1.59 4PM: WMD, 0.52; 95% CI, -0.25 to 1.30 8PM: WMD, 0.80;95% CI,-0.06 to 1.66 Travoprost versus Latanoprost (2 trials) IOP reduction from baseline to 3 months (range 1 to 6 months) 8AM: WMD, 0.70; 95%CI, -0.14 to 1.54 12PM: WMD, 0.40; 95% CI, -0.49 to 1.29 4PM: WMD, -0.10; 95%CI, -0.98 to 0.78 8PM: WMD, 0.20; 95% CI-0.71 to 1.11	NR	Bimatoprost versus Latanoprost Conjuctival hyperemia (5 trials): RR, 1.70; 95% CI 1.44 to 2.02 Bimatoprost versus Travoprost Conjuctival hyperemia (3 trials): RR, 1.19; 95% CI, 1.00 to 1.42 Travoprost versus Latanoprost Conjuctival hyperemia (2 trials): RR,1.45; 95% CI, 1.22 to 1.72

Study	Types of studies included		Summary Outcomes					
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
Burr 2004[2]	Y	Y	N	Initial medical treatment versus initial trabeculectomy Visual acuity loss of 2 or more Snellen lines OR 1.48; 95%CI, 0.58 to 3.81 (1 study) OR 0.5; 95% CI, 0.33 to 0.75 (1 study)	Covered with primary study discussion (KQ 2)	Initial medical treatment versus initial trabeculectomy Mean change in IOP at 1 year (2 trials): WMD, 6.14; 95% CI, 4.25 to 8.02 Mean IOP difference from baseline to 1 year (1 trial): MD, 3.60; 95% CI, 2.78 to 4.42	Initial medical treatment versus initial trabeculectomy Mean difference in visual field score at 1 year follow-up (1 trial): MD, -0.5; 95% CI, -1.10 to 0.10 Visual field progression by at least one stage of visual field severity at a mean of 4.6 years follow-up (1 trial): OR, 2.56; 95% CI, 1.12 to 5.83 Mean difference in visual field score at 5 year follow-up MD, 3.92; 95% CI, 2.02 to 5.82 (1 trial) MD, 0.30; 95% CI, -0.45 to 1.05 (1 trial) Visual field progression at 5 year follow-up (1 trial): OR, 0.69; 95% CI, 0.29 to 1.67	Initial medical treatment versus initial trabeculectomy Argon laser trabeculoplasty required as additional treatment at 1 year follow-up (1 trial): OR, 2.36; 95% CI, 1.52 to 3.67

Study	Types of studies included		Summary Outcomes					
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
Chai 2010[3]	Y	N	N	NR	NR	Viscocanalostomy versus trabeculectomy Mean IOP difference from baseline to 6 months (8 trials): WMD, 2.25; 95% CI, 1.38 to 3.1WMD, 3.82; 95% CI, 2.27 to 5.37 (POAG participants only - 3 trials) Mean IOP difference from baseline to 12 months (6 trials): WMD, 3.64; 95% CI, 2.75 to 4.54 Mean IOP difference from baseline to 24 months (3 trials): WMD, 3.42; 95% CI, 1.80 to 5.03	NR	Viscocanalostomy versus trabeculectomy Hypotony (9 trials): RR, 0.29; 95% CI, 0.15 to 0.58 Hyphema (9 trials): RR, 0.50; 95% CI, 0.30 to 0.84 Shallow anterior chamber (9 trials): RR, 0.19; 95% CI, 0.08 to 0.45 Cataract formation (8 trials): RR, 0.31; 95% CI, 0.15 to 0.64

Study	Types of studies included		Summary Outcomes					
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
Cheng 2008[4]	Y	N	N	NR	NR	Bimatoprost versus Latanoprost Proportion of patients achieving IOP <= 17mmHg 1 month (2 trials): RD, 5; 95% CI, -9 to 18 3 months (2 trials): RD, 12; 95%CI, 4 to 21 6 months (1 trial): RD, 11; 95% CI 0 to 23 Percent reduction from baseline in diurnal IOP 1 month (3 trials): WMD, 0.25; 95%CI, -5.07 to 5.57 3 months (3 trials): WMD, 2.10; 95%CI, -0.46 to 4.65 Percent reduction from baseline in morning IOP 1 month (9 trials): WMD, 2.59; 95% CI, 0.81 to 4.37 3 months (6 trials): WMD, 2.41; 95%CI, 0.58 to 4.25 6 months (4 trials): WMD, 5.60; 95%CI, 2.95 to 8.26	NR	Bimatoprost versus Latanoprost Conjunctival hyperemia (9 trials): RD, 20; 95%CI, 15 to 24 Eye irritation (5 trials): RD, 1; 95% CI, -3 to 4 Pruritus (5 trials): RD, 4; 95% CI, -5 to 12 Dry eye (3 trials): RD, 0; 95% CI, -3 to 3 Ocular inflammation (4 trials): RD, -1; 95% CI, -2 to 1 Eye pain (2 trials): RD, -1; 95% CI, -3 to 2 Visual disturbance (2 trials): RD, 0; 95% CI, -3 to 3 Cystoid macular edema (4 trials): RD, 0; 95% CI, -2 to 2 Iris pigmentation (2 trials): RD, 0; 95% CI, -1 to 2

Study	Types of studies included		Summary Outcomes					
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
Cheng 2009[5]	Y	Y	N	NR	NR	Latanoprost versus Dorzolamide and Timolol (fixed combination and concomitant administration) Diurnal mean percent reduction in IOP 1 month (5 trials): WMD, -3.22; 95% CI, –6.85 to 0.40 2 months (5 trials): WMD, –1.88; 95% CI, –4.71 to 0.96 3 months (6 trials): WMD, 0.57; 95% CI, –2.46 to 3.59 6 months (2 trials): WMD, –5.14; 95% CI, –14.13 to 4.14 Mean percent reduction in IOP at 10:00 1 month (6 trials): WMD, –2.47; 95% CI, –5.20 to 0.26 2 months (4 trials): WMD, 0.19; 95% CI, –4.81 to 5.19 3 months (5 trials): WMD, 1.03; 95% CI, –1.79 to 3.84 6 months (2 trials): WMD, –1.47; 95% CI–4.00 to 1.05	NR	Latanoprost versus Dorzolamide and Timolol (fixed combination and concomitant administration) Ocular adverse events (3 trials): RR, 0.96; 95% CI, 0.21 to 4.46 Conjunctival hyperemia (8 trials): RR, 2.38; 95% CI, 1.47 to 3.83 Taste perversion (8 trials): RR, 0.11; 95% CI, 0.04 to 0.26 Keratitis (4 trials): RR, 0.80; 95% CI, 0.43 to 1.79 Iris pigmentation (3 trials): RR, 8.11; 95% CI, 1.47 to 44.75 Dry eye (4 trials): RR, 0.96; 95% CI, 0.27 to 3.43 Visual disturbance (6 trials): RR, 1.22; 95% CI, 0.53 to 2.82

Study	Types of studies included		Summary Outcomes					
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
Cheng 2010[6]	Y	N	N	NR	NR	Proportion of patients with normal endpoint IOP without antiglaucoma surgery or medication after at least one year Viscocanalostomy versus trabeculectomy (3 trials): RD, -0.16; 95% CI, -0.30 to -0.02 Viscocanalostomy versus trabeculectomy plus antimetabolites (3 trials): RD, -0.39; 95% CI, -0.53 to -0.24 Deep sclerectomy versus trabeculectomy (5 trials): RD, -0.10; 95% CI, -0.19 to 0.00 Deep sclerectomy plus Mitomycin C versus trabeculectomy plus Mitomycin C (2 trials): RD, -0.16, 95% CI, -0.32 to -0.01 (2 trials)	NR	Viscocanalostomy versus trabeculectomy Hyphema (7 trials): RD, –0.08; 95% CI, –0.16 to 0.00 Shallow/flat anterior chamber (5 trials): RD, –0.16; 95% CI, –0.23 to –0.09 Hypotony (7 trials) : RD, –0.12; 95% CI, –0.24 to 0.00 Choroidal detachment (3 trials) RD, –0.15; 95% CI, –0.24 to –0.05 Cataract (5 trials) RD, –0.09 95% CI, –0.16 to –0.03 Deep sclerectomy versus trabeculectomy Hyphema (7 trials) RD, –0.11; 95% CI, –0.20 to –0.02 Shallow/flat anterior chamber (7 trials) RD, –0.22; 95% CI, –0.34 to –0.09 Hypotony (6 trials) RD, –0.09; 95% CI, –0.16 to –0.01 Choroidal detachment (4 trials) RD, –0.16; 95% CI, –0.25 to –0.07 Inflammation (6 trials) RD, –0.05; 95% CI, –0.10 to –0.01 Cataract (4 trials) RD, –0.23; 95% CI, –0.50 to 0.04

Study	Types of studies included		Summary Outcomes					
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
Cox 2008[7]	Y	N	N	NR	NR	Mean differences in IOP from baseline to 3 months Non-Fixed versus fixed combination medications Prior to instillation of morning dose: MD, 0.20; 95% CI, -0.11 to 0.51 (6 trials) 2 hours after dose: MD, 0.39; 95% CI, 0.04 to 0.75 (6 trials) 8 hours after dose: MD, 0.50; 95% CI, 0.16 to 0.85 (4 trials)	NR	Narrative summary only
Eyawo 2009[8]	Y	N	N	NR	NR	Mean IOP reduction from baseline to > = 3 months Travoprost versus Latanoprost (9 trials): WMD, –0.24; 95% CI, –0.87 to 0.38 (9 trials) Travoprost versus Bimatoprost (8 trials): WMD, 0.88, 95% CI, 0.13 to 1.63 Latanoprost versus Bimatoprost (8 trials): WMD, 0.73, 95% CI, 0.10 to 1.37	NR	Travoprost versus Latanoprost Conjuctival hyperemia (6 trials): RR, 5.71; 95% CI, 1.81 to 18.02 Bimatoprost versus Travoprost Conjunctival hyperemia (1 trial): RR, 0.82; 95% CI, 0.69 to 0.97 Bimatoprost versus Latanoprost Conjunctival hyperemia (5 trials): RR, 1.59; 95% CI, 1.02 to 2.48

Study	Types of studies included		Summary Outcomes					
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
Hodge 2008[10]	Y	Y	N	NR	NR	Latanoprost versus Brimonidine Mean IOP reduction from baseline to < 6 months (10 trials): WMD, 0.76; 95% CI, 0.12 to 1.39 Mean IOP reduction from baseline to > = 8 months (4 trials): WMD, 1.64; 95% CI, 0.92 to 2.36 Mean IOP reduction from baseline (all endpoints above - 14 trials): WMD, 1.10; 95% CI, 0.57 to 1.63	NR	Latanoprost versus Brimonidine Itch/discomfort (8 trials): RR, 0.81; 95% CI, 0.40 to 1.61 Hyperemia (8 trials): RR, 1.37; 95% CI, 0.84 to 2.25 Eyelid disorder (5 trials): RR, 1.61; 95% CI, 0.47 to 5.48 Visual disturbance (8 trials): RR, 1.19; 95% CI, 0.88 to 1.61 Conjunctival disorder (2 trials): RR, 0.16; 95% CI, 0.01 to 5.09 Keratopathy (3 trials): RR, 0.69; 95% CI, 0.24 to 1.96 Dry eye (4 trials): RR, 0.76; 95% CI, 0.26 to 2.27 Hypertrichosis (1 trial): RR, 10.37; 95% CI, 0.59 to 182.60 Increased iris pigmentation (2 trials): RR, 5.48; 95% CI, 0.65 to 46.50 Fatigue (3 trials): RR, 0.27; 95% CI, 0.08 to 0.88 Headache (4 trials): RR, 0.43; 95% CI, 0.17 to 1.1

Study	Types of studies included		Summary Outcomes					
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
Fung 2007[9]	Y	N	N	NR	NR	Latanoprost versus brimonidine Mean IOP reduction from baseline to 3 months (3 trials): WMD, -1.04; 95% CI, -3.01 to 0.93 Latanoprost versus dorzolamide Mean IOP reduction from baseline to 3 months (3 trials): WMD, -2.64; 95% CI, -3.25 to -2.04	NR	Latanoprost versus brimonidine Ocular hyperaemia (2 trials): RR, 1.22, 95% CI, 0.63 to 2.37 Latanoprost versus dorzolamide Ocular hyperaemia (4 trials): RR, 1.18; 95% CI, 0.59 to 2.37
Honrubia 2009[11]	Y	N	N	NR	NR	Not reported	NR	Latanoprost versus Travoprost: Conjunctival hyperemia (6 trials): OR, 0.512; 95% CI, 0.390 to 0.674 Latanoprost versus Bimatoprost Conjunctival hyperemia (8 trials): OR, 0.32; 95% CI, 0.24 to 0.42
Jampel 2003[12]	Y	Y	Y	NR	NR	Narrative summary only	Narrative summary only	Narrative summary only
Kirwan 2009[13]	Y	N	N	NR	NR	Trabeculectomy with beta radiation versus trabeculectomy only Mean reduction IOP 12 or more months after surgery (2 trials): WMD, -0.97; 95% CI, -2.56 to 0.62	NR	Trabeculectomy with beta radiation versus trabeculectomy only or placebo Cataract (2 trials): RR, 2.89; 95% CI, 1.39 to 6.00 Hypotony (3 trials): RR, 1.79; 95% CI, 0.62 to 5.14 Bleb leak (2 trials): RR, 0.53; 95% CI, 0.12 to 2.38

Study	Types of studies included		Summary Outcomes					
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
Li 2006[14]	Y	N	N	NR	NR	Travoprost versus Timolol Mean reduction IOP after 3 or more months (range 3 to 12 months - 4 trials) WMD, −0.81; 95% CI,−1.16 to −0.45 Travoprost versus Bimatoprost Mean reduction IOP after 3 or more months (range 3 to 6 months - 5 trials) WMD, 0.08; 95% CI, −0.62 to 0.79 Travoprost versus Latanoprost Mean reduction IOP after 2 or more weeks (range 2 weeks to 12 months - 6 trials) WMD, −0.57; 95% CI, −1.18 to 0.04 Travoprost 0.004 versus Travoprost 0.0015 Mean reduction IOP after 6 or more months (range 6 to 12 months - 4 trials) WMD, −0.32; 95% CI, −0.62 to −0.02	NR	Travoprost versus Timolol Conjunctival hyperemia (4 trials): OR, 6.76; 95% CI, 4.93 to 9.25 Iris pigmentation (3 trials): OR, 11.6; 95% CI 2.07 to 59.08 Travoprost versus Bimatoprost Conjunctival hyperemia (4 trials): OR, 0.65; 95% CI, 0.42 to 1.00 Travoprost 0.004 versus Latanoprost Conjunctival hyperemia (3 trials): OR, 2.03; 95% CI, 1.49 to 2.75 Travoprost 0.004 versus Travoprost 0.0015 Conjunctival hyperemia (4 trials): OR, 1.64; 95% CI, 1.32 to 2.04 Iris pigmentation (4 trials): OR, 0.74; 95% CI, 0.38 to 1.46
Liu 2010[15]	Y	N	N	2-site versus 1-site phacotrabeculectomy Percent of participants with best corrected visual acuity of > = 0.5 RR, 0.91; 95% CI, 0.74 to 1.12 (2 trials)	NR	2-site versus 1-site phacotrabeculectomy Mean IOP reduction from baseline to > = 12 months (range 12 - 24 months - 5 trials): WMD, –5.99; 95% CI, –10.74 to -1.24	NR	2-site versus 1-site phacotrabeculectomy Hyphema (4 trials): RR, 0.88; 95% CI, 0.42 to 1.82 Choroidal detachment (3 trials): RR, 0.79; 95% CI, 0.31 to 2.02 Hypotony (3 trials): RR, 1.74; 95% CI, 0.84 to 3.60

Study	Types of studies included		Summary Outcomes					
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
Loon 2008[16]	Y	Y	N	NR	NR	Timolol versus Brimonidine Mean IOP reduction (trials of less than 6 months - 3 trials): WMD, 0.16; 95% CI, -0.93 to 1.25 Mean IOP reduction (trials of more than 6 months - 5 trials): WMD, 0.22; 95% CI, -0.81 to 1.26 Mean IOP reduction (all timepoints - 8 trials): WMD, 0.24; 95% CI, -0.57 to 1.04	NR	Timolol versus Brimonidine Burning and stinging (8 trials): RR, 1.14; 95% CI, 0.61 to 2.14 Allergy (8 trials): RR, 0.08; 95% CI, 0.01 to 0.47
Maier 2005[17]	Y	N	N	NR	NR	NR	Medical and/or surgical interventions versus no treatment Visual field loss or deterioration of optic disc, or both (OHT - 5 trials): HR, 0.56; 95% CI, 0.39 to 0.81 (POAG - 2 trials): HR, 0.65; 95% CI, 0.49 to 0.87 (2 trials) (NTG - 2 trials): HR 0.70; 95% CI, 0.48 to 1.02	NR

Study	Types of studies included		Summary Outcomes					
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
Minckler 2006[18]	Y	Y	N	Endocyclophotocoagulation versus Ahmed implant Mean logMAR visual acuity at 24 months follow-up MD, 0.24; 95% CI, -0.04 to 0.52 (1 trial) Single-plate Molteno implant with oral corticosteroids versus single-plate Molteno implant alone Visual acuity unchanged or within one line from baseline RR, 1.22; 95% CI, 0.93 to 1.61 (1 trial) Loss of 2 or more lines from baseline RR, 0.22; 95% CI, 0.01 to 4.06 (1 trial) Double-plate Molteno implant + MMC versus Molteno implant + balanced salt solution Mean logMAR visual acuity at 12 months follow up MD, -0.60; 95% CI, -1.85 to 0.65 (1 trial)	NR	Trabeculectomy versus Ahmed implant Mean IOP at 11 to 13 months follow-up (2 trials): WMD, -3.81; 95% CI, -5.69 to -1.94 Endocyclophotocoagulation versus Ahmed implant Mean IOP at 12 months follow-up (1 trial): MD, 1.14; 95% CI, -1.93 to 4.21 Mean IOP at 24 months follow-up (1 trial): MD, 0.66; 95% CI, -2.98 to 4.30 Ahmed implant with MMC versus Ahmed implant with balanced salt solution Mean IOP at 12 months follow-up (1 trial): MD, -0.20; 95% CI, -2.82 to 2.42 High-pressure Ahmed implant + MMC + partial Tenon capsule resection versus Standard Ahmed implant + MMC Mean IOP at 12 months follow-up (1 trial): MD, -1.13; 95% CI, -4.69 to 2.43 Double-plate Molteno implant versus Schocket shunt Mean IOP at 6 months follow-up MD, 1.67; 95% CI, -1.37 to 4.71 (1 trial) MD, -2.50; 95% CI, -4.60 to -0.40 (1 trial) Single-plate Molteno implant with oral corticosteroids versus single-plate Molteno implant alone Mean IOP at 6 months follow-up (1 trial): MD, 0.00; 95% CI, -4.75 to 4.75 Double-plate Molteno implant + MMC versus Molteno implant + balanced salt solution Mean IOP at 12 months follow-up (1 asldjkasldkjalskdj trial): MD, 0.30; 95% CI, -7.75 to 8.35	NR	Narrative summary only

Study	Types of studies included		Summary Outcomes					
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
						Argon laser trabeculoplasty versus medical treatment (newly diagnosed patients) Failure to control IOP at 24 months (2 trials): RR, 0.80; 95% CI, 0.71 to 0.91 Argon laser trabeculoplasty versus medical treatment(maximum medical therapy patients) Failure to control IOP at 12 months		

Study	Types of studies included		Summary Outcomes					
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
Rolim de Moura 2007[19]	Y	N	N	NR	Covered with primary study discussion (KQ 2)	RR, 0.08; 95% CI, 0.02 to 0.31 (1 trial) RR, 0.41; 95% CI, 0.22 to 0.77 (1 trial) Argon laser trabeculoplasty versus trabeculectomy Failure to control IOP at 24 months (2 trials: RR 2.03; 95%CI, 1.38 to 2.98 Diode laser trabeculoplasty versus argon laser trabeculoplasty Failure to control IOP at 12 months (1 trial): RR 3.0; 95%CI, 0.37 to 24.17 Failure to control IOP at 24 months (1 trial): RR 0.50; 95% CI, 0.10 to 2.43 Selective laser trabeculoplasty versus argon laser trabeculoplasty Failure to control IOP at 12 months (1 trial): RR 1.27; 95% CI, 0.84 to 1.90	Argon laser trabeculoplasty versus medical treatment (newly diagnosed patients) Visual field progression at 1 year (2 trials): RR, 0.77; 95% CI, 0.46 to 1.28 Visual field progression at 2 years (2 trials): RR, 0.70; 95% CI, 0.42 to 1.16	Laser trabeculoplasty and topical medications (beta blockers) versus no treatment Ocular adverse events (1 trial): RR, 1.52; 95% CI, 0.89 to 2.60 Systemic adverse events (1 trial): RR, 4.88; 95% CI, 0.58 to 41.22 Argon laser trabeculoplasty versus medical treatment (newly diagnosed patients) Peripheral anterior synechiae formation (2 trials): RR, 11.15; 95% CI, 5.63 to 22.09 Diode laser trabeculoplasty versus argon laser trabeculoplasty Peripheral anterior synechiae formation (1 trial): RR 0.54; 95% CI, 0.17 to 1.76 (1 trial) Early IOP spikes (3 trials): RR, 0.66; 95% CI, 0.21 to 2.14

Study	Types of studies included		Summary Outcomes					
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
Vass 2007[20]	Y	N	N	NR	NR	NR	Incidence of visual field defect progression Beta blockers versus placebo or untreated (8 trials): OR, 0.67; 95% CI, 0.45 to 1.00 Timolol versus placebo or untreated (7 trials): OR, 0.66; 95% CI, 0.41 to 1.05 Betaxolol versus placebo or untreated (1 trial): OR, 0.70; 95% CI, 0.32 to 1.51 Timolol versus Carteolol (2 trials): OR 0.18; 95% CI, 0.05 to 0.62 Timolol versus Levobunolol (2 trials): OR, 2.20; 95% CI, 1.17 to 4.14Timolol versus brimonidine (3 trials): OR, 1.11; 95% CI, 0.60 to 2.04 (3 trials) Any topical medical treatment versus placebo or untreated (10 trials): OR. 0.62; 95% CI, 0.47 to 0.81 Change of visual field mean sensitivity Timolol versus Betaxolol (6 trials): WMD, 0.07; 95% CI, -0.43 to 0.57	Drop out due to drug-related adverse events Timolol versus placebo (3 trials): OR, 2.48; 95% CI, 0.61 to 10.10 Betaxolol versus placebo (1 trial): OR, 0.95; 95% CI, 0.40 to 2.26 Timolol versus Levobunolol (2 trials): OR, 0.80; 95% CI, .034 to 1.87 Timolol versus Betaxolol (5 trials): OR, 2.40; 95% CI, 1.04 to 5.53 Timolol versus Brimonidine (3 trials): OR, 0.21; 95% CI, 0.14 to 0.31

Study	Types of studies included		Summary Outcomes					
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
Wilkins 2005[21]	Y	N	N	NR	NR	Cataract extraction combined with trabeculectomy with MMC versus with Placebo or no treatment Mean IOP at 12 months (3 trials): WMD, -3.34; 95% CI,-4.16 to -2.51 Primary trabeculectomy with MMC versus with Placebo or no treatment Mean IOP at 12 months (2 trials): WMD, -5.41; 95% CI, -7.34 to -3.49	NR	Cataract extraction combined with trabeculectomy with MMC versus with Placebo or no treatment Wound leak (3 trials): OR, 1.88; 95% CI, 0.68 to 5.16 Hypotony (3 trials): OR, 1.65; 95% CI, 0.34 to 7.94 Endophthalmitis (1 trial): OR, 3.44; 95% CI, 0.16 to 91.79 Endophthalmitis (1 trial): OR, 1.14, 95% CI, 0.04 to 29.12 Primary trabeculectomy with MMC versus with Placebo or no treatment Would leak (2 trials): OR, 1.65; 95% CI, 0.16 to 17.47 Hypotony (3 trials): OR, 1.05; 95% CI, 0.23 to 4.68 Cataract (4 trials): RR, 1.93; 95% CI, 0.98 to 3.80

Study	Types of studies included		Summary Outcomes					
	RCT	Quasi RCT	Obs	Visual impairment	Patient Reported	IOP	Visual field progression Optic nerve damage	Harms
Wormald 2001[22]	Y	N	N	NR	NR	Cataract extraction combined with trabeculectomy with 5-FU versus with Placebo or no treatment Mean IOP at 12 months (2 trials): WMD, -1.02; 95% CI, -2.40 to 0.37 Primary trabeculectomy with 5-FU versus with Placebo or no treatment Mean IOP at 12 months (2 trials): WMD, -4.67; 95% CI, -6.60 to -2.74	NR	Cataract extraction combined with trabeculectomy with 5-FU versus with Placebo or no treatment Wound leak (2 trials): RR, 0.83; 95% CI, 0.15 to 4.56 Epithelial toxicity (2 trials): RR, 3.04; 95% CI, 1.56 to 5.92 Primary trabeculectomy with 5-FU versus with Placebo or no treatment Wound leak (2 trials): RR, 0.47; 95% CI, 0.04 to 4.91 Epithelial toxicity (2 trials): RR. 5.85; 95% CI, 2.04 to 16.83
Zhang 2001[23]	Y	N	N	NR	NR	Latanoprost versus timolol Difference in percent IOP reduction from baseline to 1 month (3 trials): MD, 3.8; 95% CI, 1.2 to 6.3 (3 trials) Difference in percent IOP reduction from baseline to 3 months (5 trials): WMD, 5.0; 95% CI, 2.8 to 7.3 Difference in percent IOP reduction from baseline to 6 months (4 trials): WMD, 5.0; 95% CI, 2.8 to 7.3 (4 trials)	NR	Latanoprost versus timolol Conjunctival hyperemia (6 trials): RR, 2.20; 95% CI, 1.33 to 3.65 Conjunctivitis (3 trials): RR, 0.80; 95% CI, 0.25 to 2.53 Increased pigmentation (4 trials): RR, 8.01; 95% CI, 1.87 to 34.30

Abbreviations: Y = Yes; N = No; NR = Not reported; IOP = Intraocular pressure; OR = Odds ratio; MD = Mean difference, WMD = Weighted mean difference ; 95% CI = 95% confidence interval; RR = relative risk; RD = risk difference; RCT = Randomized controlled trial; Quasi RCT = Quasi randomized controlled trial; Obs = Observational study; PRO = Patient reported outcome

Evidence Table 3. Risk of bias for RCTs

Study	Sequence Generation	Allocation Concealment	Masking	Incomplete Outcome Data Adequately Addressed	Participant loss to follow-up >20%	Other Threats to validity	Industry Support	Industry Involvement	Overall Rating
Berry 1984[24]	Low	Low	Low	Low	No	Low	Unclear	NA	Good
Berson 1985[25]	Unclear	Unclear	Unclear	High	Yes, 48-54 week	High	High	High	Poor
Chiselita 2005[26]	High	Unclear	High	Low	NR	Low	Unclear	NA	Poor
CIGTS 2001[27]	Low	Low	Low	Unclear	No	Low	Low	Low	Good
Cillino 2008[28]	High	High	Unclear	Low	No	Low	Unclear	NA	Poor
Das 2002[29]	Unclear	Unclear	Unclear	Low	NR	Low	Unclear	NA	Fair
de Jong 2009[30]	Low	Unclear	Unclear	Low	No	Low	Unclear	NA	Good
D'Eliseo 2003[31]	Unclear	Unclear	Unclear	Low	No	High	Unclear	NA	Poor
Diggory 1998[32]	Low	Low	Low	Low	No	Low	High	Unclear	Good
Dirks 2006[33]	Unclear	Unclear	Unclear	Low	No	Low	Unclear	NA	Fair
el Sayyad 1999[34]	Low	Unclear	Unclear	Low	No	Low	Unclear	NA	Fair
Eliezer 2006[35]	Unclear	Unclear	Unclear	Low	No	Low	Unclear	NA	Fair
EMGT 2005[36]	Low	Low	Low	Unclear	Yes, for second time point	Low	Low	Low	Good
Evans 2008[37]	Unclear	Unclear	Low	Low	No	Low	High	High	Fair
Fea 2010[38]	Low	Unclear	Low	Low	No	Low	High	High	Fair
Flammer 1992[39]	High	Unclear	Low	High	Yes	Low	Low	Low	Poor
Frenkel 1997[40]	Low	Unclear	Unclear	High	Yes, 1 week	Low	Unclear	NA	Poor
Goldenfeld 2009[41]	Low	Unclear	Low	Low	No	Low	Low	NA	Good
Halpern 2002[42]	Unclear	Low	Low	Low	No	Low	High	High	Good
Heijl 2000[43]	Unclear	Unclear	Low	Low	Yes, 108 week	Low	High	Unclear	Fair
Herman 2006[44]	Unclear	Low	Low	Low	No	Low	High	Unclear	Fair

Study	Sequence Generation	Allocation Concealment	Masking	Incomplete Outcome Data Adequately Addressed	Participant loss to follow-up >20%	Other Threats to validity	Industry Support	Industry Involvement	Overall Rating
Javitt 2000[45]	Low	Unclear	Low	Low	No	Low	High	Low	Fair
Jay 1989[46]	Low	Unclear	Unclear	Low	Yes, 208 week	Low	Unclear	NA	Fair
Kaplan-Messas, 2009[47]	Low	Unclear	Unclear	Low	No	Low	Unclear	NA	Good
Kim 1998[48]	Unclear	Unclear	Unclear	Unclear	NR	Low	Low	NA	Fair
Kobayashi 2011[49]	Unclear	Low	High	Low	No	Low	Low	NA	Fair
Kobayashi 2010[50]	Unclear	Unclear	Unclear	Low	No	Low	Low	NA	Fair
Kobayashi 2007[51]	Unclear	Unclear	Unclear	Low	No	Low	Unclear	NA	Fair
Konstas 2003[52]	Unclear	Unclear	Low	Low	No	Low	Low	High	Fair
Kozobolis 2002[53]	Low	Unclear	Unclear	Low	No	Low	Low	NA	Fair
Krupin 2001[54]	Unclear	Low	Low	Low	Yes 48-54 weeks	Low	High	Low	Good
Lai 2004 [55]	Unclear	Unclear	High	Low	No	Low	Unclear	NA	Fair
Larsson 2001[56]	Low	Unclear	Low	Low	No	Low	High	Low	Good
Liu 2002[57]	Low	Unclear	Low	Low	No	Low	Low	NA	Good
Macky 2010[58]	Unclear	High	High	Low	No	Low	Low	NA	Fair
Marcon 1990[59]	Unclear	Unclear	Low	Low	No	Low	Unclear	NA	Fair
Melamed 2000[60]	Unclear	Unclear	Low	Low	No	Low	High	Low	Fair
Martinez 2010[61]	Low	High	Low	Low	Low	Low	Low	NA	Good
Messmer 1991[62]	Unclear	Unclear	Low	Low	No	Unclear	Unclear	NA	Fair
Mielke 2006[63]	Low	Unclear	High	Low	No	Low	Unclear	NA	Fair
Miglior 2005[64]	Unclear	Low	Low	Low	Yes, 72 week	Low	High	Unclear	Good
Mirza 2000[65]	Unclear	Unclear	Unclear	Low	No	Low	Unclear	NA	Fair
Netland 1997[66]	Unclear	Unclear	Low	Low	No	Low	High	High	Poor
Orzalesi 2006[67]	Low	Unclear	Low	Low	No	Low	Low	NA	Good

Study	Sequence Generation	Allocation Concealment	Masking	Incomplete Outcome Data Adequately Addressed	Participant loss to follow-up >20%	Other Threats to validity	Industry Support	Industry Involvement	Overall Rating
Pfeiffer, 2011 [68]	Unclear	Unclear	Low	Low	No	Low	High	Unclear	Fair
Prata 2009[69]	Low	Low	Low	Low	No	Low	Low	NA	Good
Quaranta 2008[70]	Unclear	Unclear	Low	High	NR	Low	High	Low	Fair
Quaranta 2006[71]	Unclear	Unclear	Low	Low	No	Low	Unclear	NA	Fair
Quaranta 2000[72]	Unclear	Unclear	Unclear	Low	NR	Low	Unclear	NA	Fair
Rainer 2003[73]	Unclear	Unclear	Low	Low	No	Low	Unclear	NA	Fair
Ravalico, 1994[74]	Unclear	Unclear	Unclear	High	Yes, 96 week	High	Unclear	NA	Poor
Reibaldi, 2008[75]	Unclear	Unclear	Low	Low	No	Low	Unclear	NA	Fair
Rosentreter, 2010[76]	Unclear	Low	Unclear	Low	No	Low	High	Low	Fair
Russo, 2009[77]	High	High	Low	Low	No	High	Low	NA	Poor
Russo, 2008 [78]	High	High	Unclear	Low	No	Unclear	Unclear	NA	Poor
Sanders, 1993[79]	Low	Unclear	Unclear	Unclear	NR	Low	Unclear	NA	Poor
Sawada 2011[80]	Unclear	Unclear	Unclear	Low	No	Low	Low	NA	Fair
Schenker 1999[81]	Unclear	Unclear	Low	Low	No	Low	Unclear	High	Fair
Schuman 1997[82]	Unclear	Unclear	Unclear	High	NR	High	High	High	Poor
Scoville 1988[83]	Unclear	Unclear	Low	Low	Yes, unspecified	Unclear	High	High	Poor
Shaarawy 2005[84]	Low	Unclear	Unclear	Unclear	NA	Low	Low	Low	Fair
Sharpe 2004[85]	Unclear	Unclear	Low	Low	No	Low	High	Unclear	Fair
Shin 2000[86]	Low	Unclear	Low	High	Yes, 12-16 week	High	Unclear	NA	Fair
Shuster, 1984[87]	Low	Unclear	Unclear	Unclear	No	Unclear	Low	NA	Fair
Singh 1998[88]	Unclear	Unclear	High	Unclear	Yes, unspecified	High	Unclear	NA	Poor
Solish 2004[89]	Unclear	Unclear	Low	Low	No	Low	High	High	Fair

Study	Sequence Generation	Allocation Concealment	Masking	Incomplete Outcome Data Adequately Addressed	Participant loss to follow-up >20%	Other Threats to validity	Industry Support	Industry Involvement	Overall Rating
Tang 2011[90]	Unclear	Unclear	High	Low	No	Low	Unclear	NA	Poor
Thimmarayan 2006[91]	Unclear	Unclear	High	Low	No	Low	Low	NA	Fair
Tressler 1996[92]	Low	Unclear	Unclear	Low	No	Low	Unclear	NA	Fair
Tuulonen 1989[93]	High	High	Unclear	Unclear	NR	High	Low	NA	Poor
Vainio-Jylha 1999[94]	Unclear	Unclear	Low	Low	No	Low	Unclear	NA	Fair
Yamamoto 1996[95]	Unclear	Unclear	Unclear	Low	No	Low	Unclear	NA	Fair
Yildirim 2008[96]	Low	Unclear	Low	Low	NR	Low	Unclear	NA	Good
Yuksel 2011[97]	Low	Low	Low	High	No	Low	Unclear	NA	Good

Evidence Table 4. KQ1 medical population characteristics

Study	Region	Mean follow up	Inclusion criteria	Exclusion criteria	Comparators	Number of patients/ Number of eyes	Mean age (years)	Mean IOP
Berson 1985[25]	US	NS	Baseline IOP >23 Chronic OAG	NS	Levobunolol 0.5% Levobunolol 1% Timolol 0.5%	48 pat 51 pat 42 pat	60.3 64.7 65.4	26.3 26.0 27.0
Chiselita 2005[26]	Europe	NS	Baseline IOP >21 with β blockers POAG	acute or chronic angle closure glaucoma	Timolol 0.5% Carteolol	38pat/38 eyes total	65.42 (all study	25.11 all study
Flammer 1992[39]	Europe	12 months	Baseline IOP >21 OAG with borderline visual field damage	prior ocular surgery	Carteolol Timolol 0.5%	35 pat 37 pat	54.6 58.4	24.5 24.7
Marcon 1990[59]	Europe	NS	POAG	prior ocular surgery within last 6 months	Betaxolol Levobunolol	Pat/eyes 20/39 20/38	61.2 53.6	25.2 26.2
Prata 2009[69]	South America	NS	Baseline IOP >21 OAG	secondary glaucoma	Timolol 0.5% Brimonidine Travoprost	17 pat 14 pat 19 pat	56.2 60.9 65.9	25.3 24.6 24.5
Ravalico 1994[74]	Europe	NS	Baseline IOP 22-30, only OHT	narrow angle	Levobunolol 0.5% Untreated	12 pat/23 eyes 14 pat/26 eyes	57.5 64.79	23.65 24.15
Schuman 1997[82]	US	NS	Baseline IOP 23-35 POAG	prior ocular surgery within last 6 months	Brimonidine Timolol 0.5%	186 pat 188 pat	NS	24.8 24.6
Tuulonen 1989[93]	Europe	NS	IOP ≤22 Simple or capsular glaucoma	Prior ocular surgery or laser	Laser Medical	Pat/eyes 19/19 20/20	69.6 68.1	29.4 28.3
Yamamoto 1996[95]	Asia	NS	POAG	prior ocular surgery	Timolol 0.5% Carteolol 1% Carteolol 2%	12 pat 9 pat 12 pat	50.3 52.3	21.0 20.9 20.8

Evidence Table 5. KQ 1 medical outcomes

Study	Comparators	Visual Acuity at baseline	Visual Acuity at Follow-up/timepoint	Comments
Berson 1985[25]	Levobunolol 0.5% Levobunolol 1% Timolol 0.5%	Not reported	Not reported	57 patients similarly distributed among the groups, had reduction on 2 lines on VA at some point of the study, but it was transient and was considered unrelated to study treatments.
Chiselita 2005[26]	Latanoprost Travoprost Dorzolamide/Timolol	VA 0.89 ±0.19 (mean±SD)	VA 0.90 ± 0.20(mean±SD)	Results for all population. Time not specified (Follow up 3months each phase)
Flammer 1992[39]	Carteolol Timolol 0.5%	Mean ±SD VA 1.01 ± 0.1 VA 1.04 ± 0.1	VA 0.00 ± 0.0 VA 0.00 ± 0.1 At 12 months	NA
Marcon 1990[59]	Betaxolol 0.5% Levobunolol	Not reported	Not reported	VA unchanged during the study
Prata 2009[69]	Timolol 0.5% Brimonidine Travoprost	BCVA logMAR score 0.18 / VAS 6.8 BCVA logMAR score 0.27 / VAS 6.5 BCVA logMAR score 0.24 / VAS 7.4	BCVA logMAR -0.03/ VAS 0.23 BCVA logMAR -0.04/ VAS 0.78 BCVA logMAR -0.04/ VAS 0.68 At 4 weeks	No correlation between IOP reduction and changes in visual function between the 3 medications
Ravalico 1994[74]	Levobunolol 0.5% Untreated	Not reported	VA unchanged during study	Visual acuity inclusion criteria 20/20. Claims “no variation” in visual acuity
Schuman 1997[82]	Brimonidine Timolol 0.5%	Not reported	Loss of 2 lines or more VA (5.9%) Loss of 2 lines or more VA (9.5%) At 12 months	Changes in VA assumed to be due to cataract formation
Tuulonen 1989[93]	Laser Medical treatment	Not reported	Not reported	Visual acuity was measured at baseline and at 1 year. No values have been provided but it has been reported that there were no significant differences between the two groups
Yamamoto 1996[95]	Timolol 0.5% Carteolol 1% Carteolol 2%	Not reported	Not reported	Visual acuity was measured at baseline and at 16 weeks. No values have been provided but it has been reported that no changes were seen.

Evidence Table 6. KQ 3 24-hour studies

Study	Origin	Patients included	Comparators	Number of patients	Treatment specifics	Results
Larsson. 2001[56]	Europe	OHT	Latanoprost 0.005% Timolol 0. 5%	27 pts all study Cross over	Wash out 4 w Duration 4w	Better effect on IOP with Latanoprost than Timolol. No effect on BP or HR
Orzalesi. 2006[67]	Europe	OAG and OHT	Latanoprost 0.005% Bimatoprost 0.03% Travoprost 0.04%	44 pts all study Cross over	Wash out 4 w Duration 1m	All drugs decreased IOP. Better effect with Bimatoprost. No effect on BP.
Quaranta 2008[70]	Europe	NTG	Latanoprost 0.005% Bimatoprost 0.03%	40 pts all study Cross over	Wash out 6 w Duration 8w	No significant difference in IOP or BP
Quaranta 2006[71]	Europe	OAG	Latanoprost 0.005% Timolol 0.5% Brimonidine 0.2% Dorzolamide 2%	27 pts all study Cross over	Wash out 4w Duration 6w	All drugs decreased IOP. Better effect with Latanoprost. Some effect on BP with Timolol and Brimonidine.
Yildirim 2008[96]	Europe	OAG	Latanoprost 0.005% Bimatoprost 0.03% Travoprost 0.04%	17 16 15	Wash out NS Duration 8w	All drugs decreased IOP. No significant difference

Evidence Table 7. KQ 4 medical population

Study	Region	Mean Follow-up	Inclusion IOP	Glaucoma type	Exclusion Criteria	Comparators	Patients/ Eyes	Mean age (years)
Berry 1984[24]	North America	26 weeks	≥26	POAG	Prior ocular surgery	Betaxolol Timolol	Pat/eyes 20/35 26/43	62.5 64.5
Chiselita 2005[26]	Europe	Not specified	>21 with β blockers	POAG	Prior ocular surgery within 12 months or laser within 6 months	Latanoprost Travoprost Dorzolamide/Timolol	38 Pat total	65.4 Overall
Dirks 2006[33]	US	Not specified	mean IOP≤20	NTG	Prior ocular surgery within 3 months	Bimatoprost Latanoprost	33 Pat 27	70.84 71.63
Evans 2008[37]	US	Not specified	≥ 21	POAG	Prior ocular surgery within 6 months	Latanoprost-Timolol Timolol-Latanoprost	Pat 20 14	 60.3 62.2
Flammer 1992[39]	Europe	12 months	>21	POAG	Prior laser and surgery	Carteolol Timolol	35 Pat 37	54.6 58.4
Heijl 2000[43]	Europe	Not specified	≥ 22	OHT	≥ 35, Prior ocular surgery	Timolol Placebo	Pat/Eyes 73/46 72/44	63 62
Herman (OHTS) 2006[44]	US	Not specified	Not specified	Not specified	Not specified	Observation Topical hypotensives	810 pat / 1620 eyes total	55.4 overall
Krupin 2011[54]	North America	30 months	IOP <21mmHg	Low-pressure	Mean deviation worse than -16 decibels	Brimonidine Timolol	99 Pat 79	64.3 65.7
Marcon 1990[59]	Europe	Not specified	Not specified	POAG	Prior ocular surgery within 6 months	Betaxolol Levobunolol	Pat/eyes 20/39 20/38	61.2 53.6
Martinez 2010[61]	Europe	5 years	≥20 under beta blocker monotherapy	POAG	Prior ocular filtering surgery	Dorzolamide-timolol Brinzolamide-timolol	70 Pat 76	64.0 63.7
Melamed 2000[60]	Asia	3 years	23-34	POAG	Prior ocular surgery or cataract surgery	Brimonidine Timolol	48 Pat 46	65.4 63.9
Messmer 1991[62]	Europe	Not specified	≥24	POAG, early glaucomatous visual field defects and clinical evidence of glaucomatous optic nerve damage	Prior ocular surgery or laser	Betaxolol Timolol	19 Pat 17	66.2 66.8
Miglior 2005[64]	Europe	55.3 Months	22-29	POAG	Prior ocular surgery	Dorzolamide Placebo	536 Pat 540	Not specified
Mirza 2000[65]	Europe	90 Days	>21	POAG	Prior ocular surgery or laser	Timolol Carteolol Metipranolol	15 Pat 15 15	51 overall

Study	Region	Mean Follow-up	Inclusion IOP	Glaucoma type	Exclusion Criteria	Comparators	Patients/ Eyes	Mean age (years)
Prata 2009[69]	South America	4 Weeks	>21	OAG	Not specified	Timolol Brimonidine Travoprost	17 Pat 14 19	56.2 60.9 65.9
Rainer 2003[73]	Europe	Not specified	<21	POAG	Prior ocular surgery	Betaxolol Placebo	17 Pat 17	63.1 68.8
Tuulonen 1989[93]	Europe	16 months (laser) 18.3 months (medical)	≤22	Simple or capsular glaucoma	Prior ocular surgery or laser	Laser Medical	Pat/eyes 19/19 20/20	69.6 68.1
Vainio-Jylha 1999[94]	Europe	Not specified	Not specified	POAG	Not specified	Betaxolol Timolol	29 Pat 28	60.9 59.4
Yamamoto 1996[95]	Asia	Not specified	Not specified	OHT, POAG	Prior ocular surgery	Timolol 0.5% Carteolol 1% Carteolol 2%	12 Pat 9 12	50.3 52.3 55.7

Evidence Table 8. KQ 4 medical outcomes

Study	Comparators	Visual Field Mean Deviation at baseline	Visual Field Mean Deviation at follow-up	Comments
Berry 1984[24]	Betaxolol Timolol	Not reported	Not reported	Small changes, consistent with glaucomatous damage, were observed between the visual fields before treatment and at 26 weeks in three betaxolol-treated and two timolol-treated patients. These changes were considered to be within the expected normal range of variation.
Chiselita 2005[26]	Latanoprost 0.005% Travoprost 0.004% Dorzalamide/Timolol	Entire study MD= -4.01	Entire study MD= -4.68 ± 4.51 2-9 months	No significant difference
Dirks 2006[33]	Bimatoprost 0.03% Latanoprost 0.005%	Not reported	Not reported	Defects of visual field in one patient in the latanoprost group worsened in both eyes. No other changes were reported during the 3 months.
Evans 2008[37]	Latanoprost - Timolol Timolol – Latanoprost	CS 3 cpg 1.35±0.11 CS 18cpd 0.86±0.23 MD -2.22±1.97 CS 3cpd 1.36±0.21 CS 18 cpd 0.77±0.30 MD -3.63±4.27	Increase in MD from -1.49 (at cross over) to -2.41 6 months	Significant loss in CS at 3cpd and 18 cpd Significant improvement in CS 3cpd
Flammer 1992[39]	Carteolol Timolol	4.1 4.4	Not reported	Majority of the patients had a stable visual field, although few experienced either a deterioration or improvement after 1 year of treatment. There was no significant difference between groups.
Heijl 2000[43]	Timolol 0.5% Placebo			At 5 years of follow-up, eight patients in the placebo group, and five patients in the timolol group developed glaucomatous field loss. No significant difference (P=0.53) in survival function between treatment groups during this period. At 10 years, 15 patients in the placebo group and seven patients in the timolol group had developed glaucoma. The Kaplan-Meier plot suggests a difference between the treatment groups, but the difference is not significant (P=0.07).
Herman (OHTS) 2006[44]	Observation Topical hypotensives	0.21 0.28	-0.42±1.94 -0.20±1.57 Last follow-up (mean follow-up duration = 6.3 years)	No significant difference between the 2 groups

Study	Comparators	Visual Field Mean Deviation at baseline	Visual Field Mean Deviation at follow-up	Comments
Krupin 2011[54]	Brimonidine Timolol	0.89 ± 0.2 0.90 ± 0.2	Not reported	Primary outcome of the study was visual field progression. Fewer patients treated with Bimonidine (9.1%) had visual field progression than timolol-treated patients (39.2%) (p=0.001). However, more brimonidine-treated (28.3%) than timolol-treated (11.4%) patients discontinued treatment because of adverse events (p=0.008).
Marcon 1990[59]	Betaxolol Levobulol	Not reported	Not reported	One patient showed marked visual field improvement from baseline to 12 weeks in Betaxolol group, but there were no measurable changes in the other 19 patients in Betaxolol group and all 20 patients in Levobunolol group
Martinez 2010[61]	Dorzolamide-timolol Brinzolamide-timolol	-3.1 ±0.9 -3.1 ±0.9	Not reported	Mean deviation slopes during followup were -0.26 dB/ year and -0.46 dB/year for the DT and BT treatment groups, respectively (p = 0.008). According to the event-based method, progression was observed in 24 eyes (24%) in the DT group and 55 eyes (47%) in the BT group (p = 0.0006; chi-square test).
Melamed 2000[60]	Brimonidine 0.2% Timolol 0.5%			In the brimonidine group (n =40), 36 patients had no change in visual fields (within 5 dB of baseline) and 2 patients had improvement. In the timolol group (n = 39), 36 patients had no change and 1 showed improvement. Two brimonidine and 2 timolol patients had worsening of visual fields >5 dB from baseline.
Messmer 1991[62]	Betaxolol 0.5% Timolol 0.5%	2.2 3.4	Not reported	In both treatment groups, visual fields tended to improve in the first 6 months and then remained stable or deteriorated. The treatment effect on visual fields was better in betaxolol group than in the timolol group
Miglior 2005[64]	Dorzalamide Placebo	Not reported	Not reported	Visual field progression 38/407 in placebo group, 26/345 in dorzolamide group. Optic disc progression in 22/407 in placebo group, 20/345 in dorzolamide group.
Mirza 2000[65]	Timolol 0.5% Carteolol 2% Metipranolol 0.3%	5.0 3.4 3.8 3 months	4.9±3.0 3.9±2.5 3.1±1.9	No significant differences between groups
Prata 2009[69]	Timolol 0.5% Brimonidine 0.2% Travoprost 0.004%	-6.84 -5.45 -7.10	1.01±2.53 0.68±2.70 0.81±2.32 Mean improvement in MD at 1 month	Significant improvement in MD from baseline to 1 month in all three arms. In the travoprost group alone there was a mean (0.81±2.32) improvement of nerve damage
Rainer 2003[73]	Betaxolol 0.25% Timolol 0.5%	-3.6 -2.9	-2.6±6.1 -2.3±3.4 3 months	No significant differences between groups. Significant difference from baseline to 3 months in Betaxolol group only

Study	Comparators	Visual Field Mean Deviation at baseline	Visual Field Mean Deviation at follow-up	Comments
Tuulonen 1989[93]	Laser Medical	-7.4 ± 9.0 -9.1 ± 6.1	-8.6 ± 9.7 -9.4 ± 8.5 At 12 months	No significant differences between group
Vainio-Jylha 1999[94]	Betaxolol 0.5% Timolol 0.25%	23.1±3.1 22.2±4.1	24.3±3.5 23.9±3.4 24 months	No significant differences between groups but differences were significant for within group comparisons
Yamamoto 1996[95]	Timolol 0.5% Carteolol 1% Carteolol 2%	Not reported	Not reported	Visual field was considered to have progressed if there was a decline in light sensitivity of 10 dB or more at any points except the four superior most ones and/or deterioration in mean deviation of 2 dB or more. During the study there were no significant changes in visual field

Evidence Table 9. KQ5

Study	Patients included	Patients characteristics	Comparators	Number of patients	Study Design, Risk of bias	Outcomes	Results
Montemayor 2001[98]	POAG, NPG, Glaucoma suspects	-Mean age 64 years	different	224 patients	Cross-sectional, FAIR	correlation between the Visual Function Assessment and quality of life as measured by the EQ-5D health status tool	On multivariate analysis only visual acuity and visual field status were independently associated with visual function
Prata 2009[69]	POAG	-Mean age 61 years -54% black, 46% white -mean IOP 25 mmHg	timolol maleate 0.5% vs brimonidine tartrate 0.2% vs travoprost 0.004% For 1 month	50 patients	RCT, GOOD	correlations between IOP and visual function changes	No significant correlations between IOP reduction and changes in visual function were found (P40.30).

Evidence Table 10. Risk of bias for observational studies

Study	Main outcome described	Patient characteristics described	Interventions of interest described	Principal confounder distribution in groups described	Selection Bias: Recruitment from same population	Selection Bias: Losses to follow-up take into account	Adequate adjustment for confounding	Industry Support	Industry Involvement	Overall Quality
Alm 2004[99]	Yes	Yes	Yes	Yes	Yes	Yes	Unclear	No	NA	Good
Arici 2000[100]	Yes	Yes	Yes	Yes	Yes	Yes	Unclear	Unclear	NA	Good
Barnette 2010[101]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Good
Chiselita 2007[102]	Yes	Yes	Yes	No	Unclear	Yes	Unclear	Unclear	NA	Poor
Denis 2010[103]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Unclear	Good
Farris 2008[104]	Yes	Yes	Yes	No	Yes	NA	Unclear	Yes	Yes	Poor
Jeganathan 2008[105]	Yes	No	Yes	Yes	Yes	NA	Unclear	No	NA	Poor
Kobayashi, 2011[106]	Yes	Yes	Yes	Yes	Unclear	NA	No	No	NA	Fair
Renieri 2010[107]	Yes	No	Yes	No	No	Yes	No	Yes	Yes	Poor
Schwartz, 2011[108]	Yes	Yes	Yes	Yes	Yes	NA	No	Yes	Yes	Good
Sharpe 2007[109]	Yes	Yes	Yes	Yes	Unclear	Unclear	Yes	Yes	Unclear	Fair
Shingleton 2002[110]	Yes	No	Yes	No	Unclear	Unclear	Unclear	Unclear	NA	Poor
Thelen 2007[111]	Yes	Yes	Yes	Yes	Unclear	Unclear	Unclear	Yes	Unclear	Fair
Waldock 2000[112]	Yes	No	Yes	No	Yes	Yes	Unclear	No	NA	Fair
Zimmerman 2003[113]	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	NA	Fair

Evidence Table 11. KQ 6 medical I

Study	Comparators	Pat/ eyes	Eye irritation N(%)	Eye watering N (%)	Eye redness N (%)	Discomfort N(%)	↓visual acuity N(%)	Inflamm. N (%)	Ocular surface disease N (%)	Conj. injection N (%)	Iris color change N (%)
Denis 2010[103]	Latanoprost therapy in patients with IOP 20 to <24	262			28 (10.7)	8 (3.1)	0		2 (0.8)		
	Latanoprost therapy in patients with IOP >=24	328			28 (8.5)	11 (3.4)	1 (0.3)		3 (0.9)		
Barnett 2010[101]	Medication vs Observation Reported for the Entire study	1623									
Quaranta, 2008[70]	Bimatoprost	40	8 (20)						3 (7.5)	16 (40)	
	Latanoprost	40	6 (15)						3 (7.5)	6 (15)	
Farris 2008[104]	Monotherapy with travoprost	60 (eyes)									
	Concomitant therapy with travoprost and latanoprost	128 (eyes)	2 (1.6)								
Sharpe 2007[109]	Latanoprost	263									
	Bimatoprost	137									
Chiselita 2005[102]	Travoprost 0.04%	1109			67 (6.4)						
Thlen 2007[111]	Latanoprost	353	34 (9.6)		73 (20.7)						
Dirks 2006[33]	Bimatoprost	33								7 (21.2)	
	Latanoprost	27								2 (7.4)	
Orzalesi 2006[26]	Latanoprost	38 (eyes)	1 (2.6)							6 (15.8)	6 (15.8)
	Travoprost	38 (eyes)	2 (5.3)			1 (2.6)				16 (42.1)	4 (10.5)
	Timolol/ dorzalamide fixed combination	38 (eyes)								1 (2.6)	
Miglior 2005[64]	Dorzalamide	536	463 (86.4)								
	Placebo	540	107 (19.8)								
Alm 2004[99]	Latanoprost (as adjunctive therapy)	380	131 (34.5)								127 (33.4)
Sharpe 2004[85]	Brimonidine	33	3 (9.1)						1 (3.0)	4 (12.1)	
	Dorzolamide	33	9 (27.3)						1 (3.0)	5 (15.2)	
Zimmerman 2003[113]	Latanoprost (Switch after monotherapy)	3245	41 (1.3)					4 (0.1)	8 (0.3)	66 (2.0)	

Study	Comparators	Pat/ eyes	Eye irritation N(%)	Eye watering N (%)	Eye redness N (%)	Discomfort N(%)	↓visual acuity N(%)	Inflamm. N (%)	Ocular surface disease N (%)	Conj. injection N (%)	Iris color change N (%)
Arici 2000[100]	0.5% betaxolol hydrochloride	24							24 (100)		
Waldock 2000[112]	Betaxolol	34		2(5.9)		19 (55.9)	2 (5.88)				
	Brimonidine	34		4 (11.8)		9 (26.5)	3 (8.8)				
	Latanoprost	33		1 (3.1)		5 (15.2)	2 (6.1)				
	Timolol	33		0		17 (51.5)	2 (6.1)				
Mirza 2000[65]	Timolol	15	2 (13.3)								
	Carteolol	15	1 (6.7)								
	Metipranolol	15	1 (6.7)								
Melamed 2000[60]	Brimonidine	48	7 (14.6)							6 (12.5)	
	Tmolol	46	8 (17.4)					1 (2.2)	4 (8.7)	3 (6.5)	
Shin 2000[86]	Brinzolamide+Timolol	65	0		0	0	1 (1.5)		2 (3.1)		
	Placebo+ Timolol	67	2 (3.0)		4 (6.0)	3 (4.5)	1 (1.5)		3 (4.5)		
Diggory 1998[32]	Betaxolol	20	20 (100)								
	Timolol	20	1 (5)								
Netland 1997[66]	Carteolol	87									
	Timolol	89									
Yamamoto 1996[95]	Timolol	12									
	Carteolol 1%	9									
Scoville 1988[83]	Timolol	47			17 (36.2)						
	Carteolol	50				5 (10)					
Berson 1985[25]	Levobunolol 0.5%	48						2 (4.1)			
	Levobunolol 1%	51				1 (2.0)		2 (3.9)			
	Timolol 0.5%	42							1 (2.4)		
Berry 1984[24]	Betaxolol	20	6 (30)								
	Timolol	26	2 (7.7)								
Schuman 1997[82]	0.2% Brimonidine	221	96 (43.4)		67 (30.3)				23 (10.4)		
	0.5% Timolol	222	129 (58.1)		52 (23.4)				16 (7.2)		
Renieri 2010[107]	Dorzolamide/ timolol fixed combination	2298	56 (2.4)	13 (0.6)	20 (0.9)	18 (0.8)			9 (0.4)		
Kobayashi 2011[106]	Latanoprost 0.005%	114			81 (71.1)						
Macky 2010[58]	Bimatoprost 0.03%	34		7 (20.6)							
	Latanoprost 0.005%	38			6 (15.8)						

Evidence Table 12. KQ6 medical II

Study	Comparators	Systemic allergic reaction N (%)	Systemic side effects N (%)	Respiratory N (%)	Cardiac arrhythmia N (%)	Death N (%)	Other harms: description	N (%)	Other harms: description	N (%)
Denis 2010[103]	Latanoprost therapy in patients with IOP 20 to <24						eyelid symptoms	6 (2.3)		
	Latanoprost therapy in patients with IOP >=24						eyelid symptoms	5 (1.5)		
Barnett 2010[101]	Travoprost 0.04%						Retinal Vein Occlusion	23 (1.4)		
Quaranta 2008[70]	Bimatoprost									
	Latanoprost									
Farris 2008[104]	Monotherapy with travoprost									
	Concomitant therapy with travoprost and latanoprost									
Sharpe 2007[109]	Latanoprost						Periocular Pigmentation	2 (0.8)		
	Bimatoprost						Periocular Pigmentation	8 (5.8)		
Chiselita 2005[102]	Entire study				1 (0.1)		abnormal eyelash growth	33 (3.0)		
Thlen 2007[111]	Latanoprost		13 (3.7)							
Dirks 2006[33]	Bimatoprost		1 (3.0)				Lid erythema	2 (6.1)	Darker eyelashes	1 (3.0)
	Latanoprost						Lid erythema	1 (3.7)		
Orzalesi 2006[26]	Latanoprost						Long lashes	9 (23.7)		
	Travoprost						Long lashes	13 (34.2)	headache	1 (2.6)
	Timolol/dorzalamide fixed combination						blurring of vision	1 (2.6)	bitter taste	2 (5.26)
Miglior 2005[64]	Dorzalamide					7 (1.3)	Taste disorders	100 (18.7)		
	Placebo					8 (1.5)	Taste disorders	7 (1.3)		
Alm 2004[99]	Latanoprost (as adjunctive therapy)						hypertrichosis	54 (14.2)		
Sharpe 2004[85]	Brimonidine						bitter taste on instillation	1 (3.0)	blurriness on instillation	2 (6.1)
	Dorzolamide						bitter taste on instillation	3 (9.1)	blurriness on instillation	3 (9.1)
Zimmerman 2003[113]	Latanoprost (Switch after monotherapy)	6 (0.2)					Headache	9 (0.3)	muscle ache	7 (0.2)
Arici 2000[100]	0.5% betaxolol hydrochloride									

Study	Comparators	Systemic allergic reaction N (%)	Systemic side effects N (%)	Respiratory N (%)	Cardiac arrhythmia N (%)	Death N (%)	Other harms: description	N (%)	Other harms: description	N (%)
Waldock 2000[112]	Betaxolol			1 (2.9)			Headache	2 (5.9)	Drowsy	2 (5.9)
	Brimonidine			5 (14.7)			Headache	3 (8.8)	Drowsy	7 (20.6)
	Latanoprost			0			Headache	1 (3.0)	Drowsy	0
	Timolol			5 (15.2)			Headache	1 (3.0)	Drowsy	3 (9.1)
Mirza 2000[65]	Timolol									
	Carteolol									
	Metipranolol									
Melamed 2000[60]	Brimonidine		11 (22.9)				Lens pathology	13 (27.1)	Lacrimation disorder	4 (8.3)
	Tmolol		3 (6.5)				Lens pathology	8 (17.4)	Fundus pathology	4 (8.7)
Shin 2000[86]	Brinzolamide+Timolol		15 (23.1)				blurred vision	4 (6.2)	Itching	0
	Placebo+Timolol		4 (6.0)				blurred vision, abnormal vision	1 (1.5) 4 (6.0)	Itching	4 (6.0)
Diggory 1998[32]	Betaxolol				0				Impaired spirometry	3 (15)
	Timolol				1 (5.0)				impaired spirometry	5 (25)
Netland 1997[66]	Carteolol			15 (17.3)	6 (6.9)		Digestive system	7 (8.1)	Nervous system	5 (5.8)
	Timolol			11 (12.4)	89 (100)		Digestive system	7 (7.9)	Nervous system	5 (5.6)
Yamamoto 1996[95]	Timolol									
	Carteolol 1%									
Scoville 1988[83]	Timolol									
	Carteolol									
Berson 1985[25]	Levobunolol 0.5%									
	Levobunolol 1%						headache	1 (2.0)		
	Timolol 0.5%									
Berry 1984[24]	Betaxolol									
	Timolol									
Schuman 1997[82]	0.2% Brimonidine		159 (72.0)				Blurring	49 (22.2)	Photophobia	25 (11.3)
	0.5% Timolol	125 (56.3)					Blurring	50 (22.5)	Photophobia	25 (11.3)
Renieri 2010[107]	Preservative free dorzolamide and timolol combination									
	Dorzolamide and timolol combination with preservative									
Renieri 2010 [107]	Dorzolamide/ timolol								Eyelid erythema	22

Study	Comparators	Systemic allergic reaction N (%)	Systemic side effects N (%)	Respiratory N (%)	Cardiac arrhythmia N (%)	Death N (%)	Other harms: description	N (%)	Other harms: description	N (%)
	fixed combination								Blurred vision Allergic conjunctivitis	(0.96) 4 (0.2) 9 (0.4)
Kobayashi 2011[106]	Latanoprost 0.005%									
Macky 2010[58]	Bimatoprost 0.03%									
	Latanoprost 0.005%									

Evidence Table 13. KQ1 surgical population, visual acuity and visual impairment

Study	Origin	Follow up	Inclusion Criteria	Exclusion	Comparators	N patients/eyes	Mean age	Mean IOP
de Jong 2009[30]	Europe	12 m		prior cataract surgery	Trabeculectomy Ex-PRESS shunt	40 eyes 40 eyes	68.9 62.3	21.5 22.8
Russo 2008[78]	Europe	47 for NPDS 46 for PT		prior cataract surgery	NPDS Trabeculectomy	43 eyes/43 pat 50 eyes/50 pat	66.3 68.2	25.3 26.0
Mielke 2006[63]	Africa	16.4 m	Uncontrolled POAG		DS only DS w/MMC	21 pat 18 pat	60 62	29.5 26.4
Shaarawy 2005[84]	Europe	49.5 m	Baseline IOP Uncontrolled >22	prior ocular surgery <6months	DS DS w/collagen implant	13 eyes 13 eyes	79.3 79.2	24.1 25.3

Abbreviations: IOP given in mmHg; OAG = Open angle glaucoma; POAG = Primary open angle glaucoma; NTG = Normal tension glaucoma; OHT = Ocular hypertension; DS = Deep sclerectomy; NPDS = Non penetrating deep sclerectomy

Evidence Table 14. KQ1 surgical Interventions

Study	Intervention	Specification	Adjuvant	Administration Route	Dose
de Jong 2009[30]	Trabeculectomy	360 mw, 1s, 50	Mitomycin-C	NS	0.2 mg/ml
	Trabecular bypass	ExPRESS shunt	Mitomycin-C	Sponge	0.2 mg/ml
Russo 2008[78]	Non penetrating deep Sclerectomy	+SK Gel Implant	Mitomycin-C	Sponge	0.2 mg/ml
	Trabeculectomy		Mitomycin-C	Sponge	0.2 mg/ml
Mielke 2006[63]	Non penetrating deep Sclerectomy only				
	Non penetrating deep Sclerectomy + MMC		Mitomycin-C	Sponge	0.25 mg/ml
Shaarawy 2005[84]	Non penetrating deep Sclerectomy				
	Non penetrating deep Sclerectomy	With collagen implants			

Evidence Table 15. KQ1 surgical outcomes

Study	Comparators	Visual Acuity at baseline	Visual Acuity at Follow-up/timepoint	Comments
de Jong 2009[30]	Trabeculectomy Ex-PRESS shunt	NR	24.3 % improved 62.1 % Unchanged 13.5 % Declined 18.4 % improved 65.8 % Unchanged 15.8 % Declined At 12 months	
Russo 2008[78]	NPDS PT	BCVA 0.7 +/- 0.1 BCVA 0.8 +/- 0.1	BCVA 0.6 +/- 0.1 BCVA 0.4 +/- 0.1 At 48 months	
Mielke 2006[63]	DS only DS w/MMC	Snellen VA < 20/40 (53.9%)	Loss of 2 lines or more VA (14.2%) Loss of 2 lines or more VA (16.3%) At 18 months	Not statistically significant
Shaarawy 2005[84]	DS DS w/collagen implant	Snelldec vismean 0.67 (BCVA) Snelldec vismean 0.66 (BCVA)	24 months (BCVA) 0.56 for DS (BCVA) 0.58 for DSC 48 months (BCVA) 0.58 for DS (BCVA) 0.57 for DSC	

Evidence Table 16. KQ3 surgical population characteristics

Study	Geographic Origin	Follow up	Inclusion Criteria	Exclusion Criteria	Comparators	N patients/eyes	Mean age	Mean IOP Baseline
Laser								
Goldenfeld 2009[41]	Eur	14.65 m			TLT ALT	18 eyes, 18 pat 19 eyes, 19 pat	68 68	25.7 25.7
Russo 2009[77]	Asia, Eur	12 m			SLT-Group A ALT- Group A SLT- Group B ALT-GroupB	43 eyes 41 eyes 18 eyes 18 eyes	57.8 59.1 56.5 57.6	22.7 23 21.8 22.2
Frenkel 1997[40]	US, Asia	14 m		Prior ocular surgery, laser	50 laser spots 35 laser spots		68 overall study	22.8 22.3
Tang 2011[90]	Asia	12	OHT, suspects and POAG	Not specified	SLT half of conventional laser energy SLT conventional	39 patients, 39 eyes 35 patients, 35 eyes	52.10 54.88	25.05 24.47
Trabeculectomy								
De Jong 2009[30]	Eur	50.3 wk	>18 years, prior cataract surgery	prior cataract surgery	Trabeculectomy Ex-PRESS shunt	40 eyes 40 eyes	68.9 62.3	21.5 22.8
Kaplan-Messas 2009[47]	Eur	Not specified		<18 years	Peripheral iridectomy No Peripheral iridectomy	24 pat 23 pat	75 75.2	26.9 28.0
Sanders 1993[79]	Eur	Not specified		Prior ocular surgery, laser	Nasal Superior Temporal (sites of trabeculectomy)	20 pat 20 pat 20 pat	67 73 70	29 27 28
Kozobolis 2002[53]	Eur	Not specified		Prior incisional surgery, Argon Laser Trabeculectomy	Fornix-based flap Limbal-based flap	30 eyes,30 pat 30 eyes,30 pat	71.4 71.4	22.34 22.56
Thimmarayan 2006[91]	Asia	18 m	≥40 years	Prior intraocular and glaucoma surgery	Mini trabeculectomy Conventional Trabeculectomy	30 eyes,26 pat 30 eyes,28 pat	60.2 58.3	28.63 28.60
Trabeculectomy with adjuvants or implants								
Rosentreter 2010[76]	EUr	1 year	Uncontrolled IOP		Trab + MMC Trab + Ologen implant	20 patients 20 patients	62.8 +/- 9.5	22.4 27.2
Kobayashi 2010[50]	Asia	Not specified	≥22 mmHg	Prior ocular surgery	Adjustable suture Laser suture lysis	25 pat 25 pat	69.6 69.2	27.8 27.3

Cillino 2008[28]	Eur	Not specified	>21 mmHg	Prior ocular surgery	1) Trabeculectomy 2) Trabeculectomy with MMC 3) Trabeculectomy with ePTFE 4) Trabeculectomy with MMC and ePTFE	15 eyes 15 eyes 15 eyes 15 eyes	71.1 68.1 67.2 65.3	28.6 30.9 35.3 30.6
Quaranta 2000[72]	Eur	Not specified	≥22 mmHg	Prior ocular surgery	Sulodexide 5-FU	22 eyes 19 eyes	57.8 63	26 28
Eliezer 2006[35]	Asia	Not specified			Control Amniotic membrane	16 eyes,16 pat 16 eyes,16pat	67.6 68.3	
Das 2002[29]	Asia	Not specified	>22 mmHg	Previous failed glaucoma surgery	1) Conventional trabeculectomy 2) SIT	40 eyes,40pat 40eyes,40pat	56.1 51.62	29.85 30.20
Singh 1998[88]	Af	17.7 m			5-FU (1st trial) 5-FU (2nd trial) Mitomycin C	20 pat 37 pat 44 pat	61.6 52.7 54.1	29.6 32.0 30.7
Reibaldi 2008[75]	Eur	126 m	Baseline IOP >21 OAG	pigmentary, pseudoexfoliative, NTG, prior ocular surgery	MCC-TE BSS-TE	67 pat 47 pat	61.2 61.6	
Tressler 1996[92]	US	Not specified	Aphakia, pseudophakia, failed filtering surgery		subconjunctival MMC intrascleral MMC	12 eyes 12 eyes	69.33 69.08	26 28
Kim 1998[48]	US	Not specified			0.5-1 minute MMC 3-5 minute MMC No MMC	50 pat 38 pat 36 pat	60.5 63.4 65.8	32.7 30.2 29.7
El Sayyad 1999[34]	Asia	Not specified	35 - 90 years, >21mmHg with maximal medical therapy		Fornix-based flap Limbal-based flap	29 eyes,29 pat 29 eyes, 29 pat	51.3 51.3	33.9 33.0
Deep Sclerectomy								
Russo 2008[78]	Eur	47 for NPDS 46 for PT		prior cataract surgery	NPDS Trabeculectomy	43 eyes/43pat 50eyes/50pat	66.3 68.2	25.3 26.0
Mielke 2006[63]	Af	16.4 m	uncontrolled POAG		DS only DS w/MMC	21 pat 18 pat	60 62	29.5 26.4
Other Treatments								
Fea 2010[38]	Eur	Not specified	>18 mmHg		Phaco + stent Phaco only	12 pat 24 pat	64.5 64.9	17.9 17.3

Kobayashi 2007[51]	Asia	Not specified			Phacoviscocanalostomy Phacotrabeculectomy	20 eyes, 20 pat 20 eyes, 20 pat	71.5 71.0	24.0 23.7

IOP given in mmHg. OAG: Open angle glaucoma, POAG: Primary open angle glaucoma, NTG: Normal tension glaucoma, OHT, Ocular hypertension, DS, Deep sclerectomy, NPDS: Non penetrating deep sclerectomy, ALT: Argon laser trabeculoplasty, TLT: Titanium-sapphire laser trabeculoplasty, SLR: Selective laser trabeculoplasty, E-PTFE: Gore-Tex implant, MMC: Mitomycin C, 5-FU: 5-Fluorouracil, SIT: Small incision trabeculectomy, BSS: Balanced salt solution, PDS: Phaco+deep sclerectomy

Evidence Table 17. KQ3 surgical interventions

Study	Comparators	Specification	Adjuvant	Administration Route	Dose
deJong 2009[30]	Trabecular bypass	ExPRESS shunt	None	None	----
	Trabeculectomy		None	None	----
Russo 2008[78]	Non penetrating deep Sclerectomy	+SK Gel Implant	Mitomycin-C	Sponge	0.2 mg/ml
	Trabeculectomy	----	Mitomycin-C	Sponge	0.2 mg/ml
Reibaldi 2008[75]	Trabeculectomy +MCC-TE	----	Mitomycin-C	Sponge	0.2 mg/ml
	Trabeculectomy +BSS-TE	----	None	None	Buffer
Mielke 2006[63]	Non penetrating deep Sclerectomy only	----	None	None	----
	Non penetrating deep Sclerectomy + MMC	----	Mitomycin-C	Sponge	0.25 mg/ml
Rosentreter 2010[76]	Trabeculectomy +MCC		Mitomycin-C	Sponge	0.2 mg/ml – 3 min
	Trabeculectomy +Ologen implant	Ologen implant	None	None	
Kobayashi 2010[50]	Adjustable suture	----	Mitomycin-C	Sponge	0.04%
	Laser suture lysis	----	Mitomycin C	Sponge	0.04%
Goldenfield 2009[41]	TLT	180°, 790nm wavelength, 7 msec, 200µm spot size	None	None	----
	ALT	180°, 600 Mw, 0.1 sec, 50µm spotsize	None	None	----
Russo 2009[77]	SLT – Group A	360°, 532 nm, 3 ns, 400µm	None	None	----
	ALT- Group A	360°, 470-1150 mw, 0.1 s, 50µm	None	None	----
	SLT- Group B	360°, 532 nm, 3 ns, 400µm	None	None	----
	ALT-Group B	360°, 470-1150 mw, 0.1 s, 50µm	None	None	----
Kaplan-Messas 2009[47]	Peripheral iridectomy	----	Mitomycin-C	Not specified	0.2 mg/ml
	No Peripheral iridectomy	----	Mitomycin C	Not specified	0.2 mg/ml
Thimarayan 2006[91]	Mini trabeculectomy	----	None	None	----
	Conventional Trabeculectomy	----	None	None	----
Eliezer	Control	----	None	None	----

Study	Comparators	Specification	Adjuvant	Administration Route	Dose
2006[35]	Amniotic membrane	Amniotic membrane	None	None	----
Kozobolis 2002[53]	Fornix-based flap	2-site trabeculectomy	Mitomycin-C	Sponge	0.2 mg/ml
	Limbal-based flap	2-site trabeculectomy	Mitomycin C	Sponge	0.2 mg/ml
Das 2002[29]	Conventional trabeculectomy	---	None	None	----
	SIT	Small incision	None	None	----
Quaranta 2000[72]	Sulodexide	----	Sulodexide	Injection	300 USL/ml
	5-FU	----	5-Fluorouracil (post-op)	Injection	25 mg
El Sayyad 1999[34]	Fornix-based flap	----	5-Fluorouracil (post-op)	Injection	5 mg
	Limbal-based flap	----	5-Fluorouracil (post-op)	Injection	5 mg
Kim 1998[48]	0.5-1 minute MMC	----	Mitomycin-C	Sponge	0.5 mg/ml
	3-5 minute MMC	----	Mitomycin C	Sponge	0.5 mg/ml
	No MMC	----	None	None	----
Singh 1998[88]	5-FU (1st trial)	----	5-Fluorouracil (intra-op)	Sponge	50 mg
	5-FU (2nd trial)	----	5-Fluorouracil (intra-op)	Sponge	50 mg
	Mitomycin C	----	Mitomycin-C	Sponge	0.5 mg/ml
Frenkel 1997[40]	50 laser spots (ALT)	1.5 W, 0.1s, 50µm, 50±3 laser spots	None	None	----
	35 laser spots (ALT)	1.5 W, 0.1s, 50µm, 35±3 laser spots	None	None	----
Tressler 1996[92]	subconjunctival MMC	----	Mitomycin-C	Sponge	0.27 mg/ml
	intrascleral MMC	----	Mitomycin C	Sponge	0.27 mg/ml
Sanders 1992[79]	Nasal	----	None	None	----
	Superior	----	None	None	----
	Temporal	----	None	None	----
Cilino 2008[28]	Trabeculectomy	----	None	None	----
	Trabeculectomy with MMC	----	Mitomycin-C	Sponge	0.2 mg/ml

Study	Comparators	Specification	Adjuvant	Administration Route	Dose
	Trabeculectomy with ePTFE	0.1 mm thick GORE PRECLUDEÒ pericardial implant	None	None	----
	Trabeculectomy with MMC and ePTFE	0.1 mm thick GORE PRECLUDEÒ pericardial implant	Mitomycin-C	Sponge	0.2 mg/ml
Fea 2010[38]	Phaco + stent	iStent 1	None	None	----
	Phaco only	----	None	None	----
Kobayashi 2007[51]	Phacoviscocanalostomy	150 µm cannula	None	None	----
	Phacotrabeculectomy	---	Mitomycin-C	Sponge	0.04%
Tang 2011[90]	SLT half of conventional laser energy	360°, 400 nm, 3 ns, the laser energy was half of the therapeutic energy used in the control group (usually ranging 0.3 to 0.5 mJ)	None	None	Not specified
	SLT conventional	360°, 400 nm, 3 ns, starting 0.6 mJ, laser energy was increased in 0.1 mJ increments until champagne-like bubbles appeared. That energy was reduced by 0.1 mJ and used as the therapeutic energy for the control group	None	None	Not specified

Abbreviations: MMC: Mitomycin C, TLT: Titanium-sapphire laser trabeculectomy, ALT: Argon laser trabeculectomy, SLT: Selective laser trabeculoplasty, DS: Deep sclerectomy, PDS: Phacoemulsification+ deep sclerectomy, SIT: Small incision trabeculectomy, 5-FU: 5-Fluorouracil

Evidence Table 18. KQ6 surgical I

Study	Comparators	Pats/eyes	Time	CataractN (%)	Hypotony N(%)	↓ Acuity N(%)	Infect. N (%)	Inflam. N (%)	Ocular surface disease N (%)	Addl. surgery N (%)	Choroidal detachment N (%)	Hyphema N (%)
Rosentreter 2010[76]	Trab+ Ologen implant	10	NS		6 (60)							1 (10)
	Trab+MMC	10	NS		6 (60)					1 (10)	1 (10)	2 (10)
Kobayashi 2010[50]	Trab+ adjustable sutures	25	NS									
	Trab+ laser suture lysis	25	NS		3 (12)						1 (4)	1 (4)
Goldenfeld 2009[41]	TLT	18	NS									
	ALT	19	NS									
Russo 2009[77]	SLT	43 (eyes)	NS					32 (74.4)				
	ALT	41 (eyes)	NS					34 (82.9)				
	ALT (retreatment)	18 (eyes)	NS					12 (66.7)				
	SLT (retreatment)	18 (eyes)	NS					13 (72.2)				
de Jong. 2009[30]	Trab	40 (eyes)	NS		9 (22.5)	6 (15.8)					1 (2.5)	2 (5)
	ExPress shunt	40 (eyes)	NS		6 (15)	5 (13.5)					3 (7.5)	
Kaplan-Messas 2009[47]	Trab without PI	23 (eyes)			1 (4.4)			4 (17.4)			0	1 (4.4)
	Trab with PI	24 (eyes)			3 (12.5)			6 (25)			0	3 (12.5)
Russo 2008[78]	NDS	43 (eyes)	*	2 (4.7)				1 (2.3)				1 (2.3)
	Trab	50 (eyes)	*	9 (18)	4 (8)			2 (4)			4 (8)	3 (6)

Study	Comparators	Pats/eyes	Time	CataractN (%)	Hypotony N(%)	↓ Acuity N(%)	Infect. N (%)	Inflam. N (%)	Ocular surface disease N (%)	Addl. surgery N (%)	Choroidal detachment N (%)	Hyphema N (%)
Reibaldi 2008[75]	Trab with MMC	67 (eyes)	NS	27 (40.3)	1 (1.5)							
	Trab with BSS	47 (eyes)	NS	25 (53.2)	0							
Nassiri, 2008[114]	1-site PT	61	NS								3 (4.9)	8 (13.1)
	2-site PT	52	NS								3 (5.8)	7 (13.5)
Jeganathan 2008[105]	Delayed suprachoroidal haemorrhage cases	29	NS		2							
	Patients without delayed suprachoroidal haemorrhage	2723										
Thimmaray 2006[91]	Mini-trab	30 (eyes)	NS	1 (3.3)	1 (3.3)							1 (3.3)
	Conventional trab	30 (eyes)	NS	3 (10)	5 (16.7)							4 (13.3)
Eliezer 2006[35]	Trab without AM	16 (eyes)	NS								1 (6.3)	
	Trab with AM	16 (eyes)	NS									
Mielke 2006[63]	DS	21	*									
	DS with MMC	18	NS									
Kozobolis, 2002[53]	PT with limbal flap	30 (eyes)	NS								2 (6.7)	2 (6.7)
	PT with fornix flap	30 (eyes)	NS								3 (10)	2 (6.7)
Shingleton, 2002[110]	PI	60	NS		2 (3.3)					37 (61.7)	1 (1.7)	
	No PI	57	NS		0						1 (1.8)	

Study	Comparators	Pats/eyes	Time	CataractN (%)	Hypotony N(%)	↓ Acuity N(%)	Infect. N (%)	Inflam. N (%)	Ocular surface disease N (%)	Addl. surgery N (%)	Choroidal detachment N (%)	Hyphema N (%)
Das, 2002[29]	Conventional trab	40 (eyes)	NS	6 (15)								2 (5)
	SIT	40 (eyes)	NS	2 (5)								1 (2.5)
Quaranta. 2000[72]	Trab with sulodexide	22 (eyes)	NS									
	Trab with 5-FU	19 (eyes)	NS						6 (31.6)	2 (10.5)		
el Sayyad, 1999[34]	Fornix-based flap	29 (eyes)	*		1 (3.5)	1 (3.5)			4 (13.8)		1 (3.5)	
	Limbal-based flap	29 (eyes)	*						3 (10.3)		1(3.5)	
Singh, 1998[88]	Trab with 5-FU (1st trial)	20	NS	4 (20)								
	Trab with 5-FU (2nd trial)	37	NS	3 (8.1)	1 (2.7)							
	Trab with MMC	44	NS	3 (6.8)	1 (2.3)							
Tressler, 1996[92]	Subconj. MMC	12 (eyes)					1 (8.3)		1 (8.3)	4 (33.3)	2 (16.7)	
	Intrascleral MMC	12 (eyes)								7 (58.3)	1 (8.3)	
Sanders, 1993[79]	Nasal trab	20	NS							2 (10)		2 (10)
	Superior trab	20	NS							0		3 (15)
	Temporal trab	20	NS							1 (5)		1 (5)
Jay, 1989[46]	Conventional therapy	53 (eyes)	NS	5 (9.4)								
	Trab	46 (eyes)	NS	3 (6.5)								

Study	Comparators	Pats/eyes	Time	CataractN (%)	Hypotony N(%)	↓ Acuity N(%)	Infect. N (%)	Inflam. N (%)	Ocular surface disease N (%)	Addl. surgery N (%)	Choroidal detachment N (%)	Hyphema N (%)
Shuster, 1984[87]	Limbus-based flap	18 (eyes)	NS									7 (38.9)
	Fornix-based flap	19 (eyes)	NS									5 (26.3)
Cillino, 2008[28]	Trab	15 (eyes)	NS		7 (46.7)			2 (13.3)			3 (20	5 (33.3)
	Trab+ MMC	15 (eyes)	NS		7 (46.7)			3 (20)			4 (26.7)	5 (33.3)
	Trab+E-PTFE implant	15 (eyes)	NS		1 (6.7)			3 (20)			2 (13.3)	4 (26.7)
	Trab+E-PTFE implant+MMC	15 (eyes)	NS		3 (20)			4 (26.7)			1 (6.7)	4 (26.7)
Tang 2011[90]	SLT half of conventional laser energy	39	NS					2 (5.2)				
	SLT conventional	35	NS		3 (8.6)			5 (14.3)				

Abbreviations**:** Trab= trabeculectomy, MMC= Mitomycin C, SLT= Selective laser trabeculoplast, ALT= Argon laser trabeculoplasty, SpLT, PI= Peripheral iredectomy, NDS= Non-penetrating deep sclerectomy, DS= Deep sclerectomy, BSS= balanced salt solution, PT= Phacotrabeculectomy, AM= amniotic membrane, PGTP= Primary glaucoma triple proced

Evidence Table 19. KQ6 surgical II

Study	Comparators	Pats/eyes	Other harms: description	N(%)	Other harms: description	N (%)	Other harms: description	N (%)	Other harms: description	N (%)
Rosentreter 2010[76]	Trab+Ologen implant	10	Shallow anterior chamber	2 (20)	Leakage	3 (30)				
	Trab+MMC	10	Shallow anterior chamber	1 (10)	Leakage	3 (30)				
Kobayashi 2010[50]	Trab+adjustable sutures	25	Flat bleb	1 (4)						
	Trab+laser suture lysis	25	Flat bleb	2 (8)	shallow/flat anterior chamber	3 (12)				
Goldenfeld 2009[41]	SpLT	18	Treatment failure (Trabeculectomy done)	1 (5.6)						
	ALT	19	Treatment failure (Trabeculectomy done)	1 (5.3)	Peripheral anterior synechiae	3 (15.8)				
Russo 2009[77]	SLT	43 (eyes)	IOP elevation>6 mmHg within 2 hours postoperation	6 (14.0)						
	ALT	41 (eyes)	IOP elevation>6 mmHg within 2 hours postoperation	7 (17.1)						
	ALT (retreatment)	18 (eyes)	IOP elevation>6 mmHg within 2 hours postoperation	3 (16.7)						
	SLT (retreatment)	18 (eyes)	IOP elevation>6 mmHg within 2 hours postoperation	4 (22.2)						
de Jong. 2009[30]	Trab	40 (eyes)	Shallow anterior chamber	5 (12.5)	Bleb leak	2 (5)				
	ExPress shunt	40 (eyes)	Shallow anterior chamber	8 (20)	Bleb leak	1 (2.5)				
Kaplan-Messas 2009[47]	Trab without PI	23 (eyes)	iris incarceration	1 (4.4)	wound leak	1 (4.4)				

Study	Comparators	Pats/eyes	Other harms: description	N(%)	Other harms: description	N (%)	Other harms: description	N (%)	Other harms: description	N (%)
	Trab with PI	24 (eyes)	iris incarceration	0	wound leak	1 (4.2)				
Russo 2008[78]	NDS	43 (eyes)	microperforation of trabeculo-descemet membrane	1 (2.3)	Macular edema	1 (2.3)				
	Trab	50 (eyes)	flat anterior chamber	3 (6)	postoperative IOP elevation	2 (4)				
Reibaldi 2008[75]	Trab with MMC	67 (eyes)	Blebitis	1 (1.5)	Bleb leakage	2 (3.0)				
	Trab with BSS	47 (eyes)	Blebitis	0	Bleb leakage	0				
Nassiri, 2008[114]	1-site PT	61								
	2-site PT	52								
Jeganathan 2008[105]	Delayed suprachoroidal haemorrhage cases	29	Loss of eye	3	Retinal tear and detachment	3	Hypotonous maculopathy	2		
	Patients without suprachoroidal haemorrhage	2723	shallow anterior chamber with iridocorneal touch	1 (3.3)						
Thimmaray 2006[91]	Mini-trab	30 (eyes)	shallow anterior chamber with iridocorneal touch	5 (1.7)						
	Conventional trab	30 (eyes)	shallow anterior chamber	1 (6.3)	blebitis	1 (3.3)				
Eliezer 2006[35]	Trab without AM	16 (eyes)			encapsulated bleb	1 (6.3)				
	Trab swith AM	16 (eyes)	intraoperative perforation	2 (9.5)	encapsulated bleb	1 (6.3)				
Mielke 2006[63]	DS	21	conjunctival edge leak	1 (5.6)	Shallow anterior chamber	1 (4.8)				

Study	Comparators	Pats/eyes	Other harms: description	N(%)	Other harms: description	N (%)	Other harms: description	N (%)	Other harms: description	N (%)
	DS with MMC	18	shallow anterior chamber	2 (6.7)	Shallow anterior chamber	1 (5.6)				
Kozobolis, 2002[53]	PT with limbal flap	30 (eyes)	shallow anterior chamber	3 (10)	capsule opacification	8 (26.7)				
	PT with fornix flap	30 (eyes)	posterior capsule opacification	23 (38.3)	capsule opacification	6 (20)				
Shingleton, 2002[110]	PI	60	posterior capsule opacification	24 (42.1)	Capsulotomy	15 (25)				
	No PI	57	subconjunctival hemorrhage	4 (10)	Capsulotomy	7 (12.3)				
Das, 2002[29]	Conventional trab	40 (eyes)	subconjunctival hemorrhage	7 (17.5)						
	SIT	40 (eyes)	subconjunctival hemorrhagic suffusion	6 (27.3)	Bleb leak	2 (5)				
Quaranta. 2000[72]	Trab with sulodexide	22 (eyes)	subconjunctival hemorrhagic suffusion	1 (5.3)						
	Trabeculectomy with 5-FU	19 (eyes)	early conjunctival leak	5 (17.2)						
el Sayyad, 1999[34]	Fornix-based flap	29 (eyes)	Shallow anterior chamber	3 (10.4)	Dellen	2 (6.9)				
	Limbal-based flap	29 (eyes)	persistent bleb leak	4 (20)	late bleb leak	2 (6.9)				
Singh, 1998[88]	Trab with 5-FU (1st trial)	20		1 (2.3)	Flat anterior chamber	2 (10)				
	Trab with 5-FU (2nd trial)	37	flat anterior chamber	1 (2.3)						
	Trab with MMC	44			bleb encapsulation	1 (2.3)				
Tressler, 1996[92]	Subconjunctival MMC	12 (eyes)	flat anterior chamber	1 (8.3)						

Study	Comparators	Pats/eyes	Other harms: description	N(%)	Other harms: description	N (%)	Other harms: description	N (%)	Other harms: description	N (%)
	Intrascleral MMC	12 (eyes)	leakage	4 (20)						
Sanders, 1993[79]	Nasal trab	20	leakage	1 (5)	shallow AC	3 (15)				
	Superior trab	20	Leakage	2 (10)	shallow AC	2 (10)				
	Temporal trab	20			shallow AC	3 (15)				
Jay, 1989[46]	Conventional therapy	53 (eyes)								
	Trab	46 (eyes)								
Shuster, 1984[87]	Limbus-based flap	18 (eyes)			Peripheral anterior synechiae	3 (16.7)				
	Fornix-based flap	19 (eyes)	Shallow AC	5 (33.3)	Peripheral anterior synechiae	1 (5.3)				
Cillino, 2008[28]	Trab	15 (eyes)	Shallow AC	4 (26.7)	Flat AC	1 (6.7)				
	Trab+MMC	15 (eyes)	Shallow AC	2 (13.3)	Flat AC	1 (6.7)				
	Trab+E-PTFE implant	15 (eyes)	shallow AC	2 (13.3)	Flat AC	0				
	Trab+E-PTFE implant+MMC	15 (eyes)			Flat AC	1 (6.7)				
Tang 2011[90]	SLT half of conventional laser energy	39 patients, 39 eyes	Redness	8 (20.5)						
	SLT conventional	35 patients, 35 eyes	Redness	11 (31.4)	Peripheral anterior synechiae	1 (2.9)	Transient IOP spike	3 (8.6)	Mild pain	4 (11.4)

Evidence Table 20. KQ3 and KQ4 medical vs. surgical

Study	Origin	Follow up	Inclusion Criteria	Exclusion	N patients/ eyes	Mean age	Mean IOP	Comparators	Specifications	Notes
Tuulonen 1989[93]	Eur	16 m laser, 18.3m medication	NA	NA	19 pat 20 pat	69.6 68.1	29.4 28.3	Laser Trabeculoplasty Vs Medical (Timolol 0.5% Acetazolamide 250mg Pilocarpine 2%)	360 degrees, 0.7-0.95 Watt, 0.1 s, 50 micron spot size	Patients were randomized to laser or medical treatment and followed up. Additional treatment was added as required: medical, laser or trabeculectomy. Pilocarpine and Acetazolamide added to regime if IOP > 22 mmHg or disease progression
Lai 2004[55]	China	5 years	POAG or OHT, IOP >21 mmHg	laser trabeculoplasty, intraocular surgery disturbing the aqueous outflow, ocular inflammation,.	64 eyes, 32 patients	52	26.2 26.8	selective laser trabeculoplasty vs β-blocker, pilocarpine, dorzolamide and latanopros	360°, initial laser energy was set at 0.8 mJ.	

Evidence Table 21. KQ2

Study	Patients included	Patient characteristics	Comparators	Number of patients	Study Design, Risk of bias	Outcomes	Results
CIGTS 2001[115 116]	POAG, PXF, pigmentary Glaucoma	-age range 35-64 -55% white, 38% black -mean vertical C/D ratio 0.69	Trabeculectomy (with or without 5-fluorouracil), if treatment failed ALT, then sequence of medications, then repeating trabeculectomy with antifibrotic agents, then repeating medications vs. Medications, starting with topical beta-blocker followed by other topical agents (up to three), then alternative topical and/or oral medications. If treatment failed ALT, then trabeculectomy (with or without 5-fluorouracil), repeating medication, repeating trabeculectomy with antifibrotic agents, repeating medication	607 patients	RCT 1. Low 2. low 3. unclear 4. low 5. low	-Visual Activities Questionnaire Glaucoma (VAQ), - Symptom and health problem check list (frequency and bothersomeness) - Glaucoma Health Perceptions Index -Fear of blindness	- Total VAQ: No statistically significant differences. On VAQ acuity subscale, adjusted for baseline variables, primary surgery was associated more dysfunction than initial medical treatment (p = 0.02). - Symptom and health problem check list : Overall decrease in both groups. 12 symptoms were more reported in the surgical group and 7 symptoms were more reported in the medical group Surgical patients reporting 22% more symptom bothersomeness related to visual function -No statistically significant differences on the Glaucoma Health Perceptions Index -Fear of blindness decreased in both groups and was not associated with a specific treatment
Javitt 2000[45]	POAG, OHT	-mean age 58 -56% white, 39% black	Brimonidine tartrate 0.2% twice daily vs Timolol maleate 0.05% twice daily For 4 months	219 patients	RCT 1. low 2. low 3. low 4. high 5. high	-Short Form-36 Health Survey (SF-36)	no statistically significant changes in QOL
EMGT 2005[36]	POAG, NTG, PXF	-mean age 68 -mean visual acuity 0.9	No treatment vs. Betaxolol 5mg/ml twice daily and ALT, Latanoprost if IOP exceeds 25mmHg	255 patients	RCT 1. low 2. low 3. low 4. high 5. low	-Swedish translation of the NEI VFQ-25	Treatment was not associated with change in QOL.
Konstas 2003[52]	PXF with OHT, PXF	-mean age 70 -average visual acuity 20/40	Latanoprost 0.005% once daily vs. Timolol maleate/Dorzolamide fixed combination twice daily Each for 2 months	54 patients	Randomized cross-over trial 1. unclear 2. unclear 3. low 4. high 5. unclear	-Preference for one treatment arm	80 % preferred lanatanoprost vs. 20% Timolol/Dorzolamide (mostly because of convenience)

Study	Patients included	Patient characteristics	Comparators	Number of patients	Study Design, Risk of bias	Outcomes	Results
Schenker 1999[81]	POAH and OHT	-mean age 59 -70 % white, 24% black	Timolol Gel once daily vs. Timolol Solution twice daily Each for 6 weeks	202 patients	Randomized cross-over trial 1. unclear 2. unclear 3. low 4. low 5. high	-Antiglaucoma patient-preference questionnaire (includes: satisfaction, compliance)	-71% preferred timolol gel vs. 29% timolol solution (mostly because of frequency of usage) -there was no statistically significant difference for satisfaction -compliance was statistically significant higher with timolol gel
Solish 2004[89]	POAG, OHT, PXF and pigmentary Glaucoma	-Mean age 64 -65% white, 25% black -45% had visual field defects	0.5% Timolol maleate/ 2% Dorzolamide fixed combination twice daily vs 0.5% Timolol maleate and 0.2% Brimonidine twice daily For 6 months	492 patients	RCT 1. unclear 2. unclear 3. low 4. low 5. high	-Convenience -Satisfaction (On a 7 point scale)	Both treatments were convenient for >80% of patients and satisfied > 82% of the patients. Dorzolamide/timolol fixed combination was better than Brimonidine+ Timolol, regarding convenience but this did not reach statistical significance.
Simmons 2002[117]	POAG, OHT, PXF	-Mean age 65 -66% white, 24% black	0.2% Brimonidine Vs Latanoprost 0.005% For 3 months	115 patients	RCT 1. unclear 2. unclear 3. low 4. low 5. high	-Glaucoma disability index	Patients in the latanoprost group were more likely to report negative quality-of-life variables than patients in the brimonidine group
Cantor 2001[118]	POAG, OHT, PXF	-Mean age 59 -77% white, 17% black	Brimonidine Vs Betaxolol For 1 month	159 patients	RCT 1. unclear 2. unclear 3. low 4. low 5. high	-Glaucoma disability index	Mean scores on the GDI did not change significantly from baseline in either treatment group,
Javitt 2000[119]	POAG, OHT	-Mean age 61 -82% white, 15% black	Brimonidine Vs Betaxolol For 4 months	188 patients	RCT 1. low 2. unclear 3. low 4. low 5. high	-Glaucoma disability index	There were no significant between-group differences in the incidence of adverse events or in the quality of life summary scores.

Abbreviations: PXF= Pseudoexfoliative Glaucoma; NTG= Normal tension Glaucoma; ALT=Argon Laser Trabeculoplasty; NEI VFQ-25= National Eye Institute Visual Function Questionnaire. Risk of Bias: 1. Sequence Generation 2.Allocation Concealment 3.Blinding of Participants, Personnel, and Outcome Assessors 4.Incomplete Outcome Data 5.Pharmaceutical Support

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Appendix D. Excluded Articles

- "[A new beta blocking agent in the treatment of chronic open-angle glaucoma: timolol maleate]
  Foreign language
- "[Sclera-covered filter operation]. Fortschr Ophthalmol 87 ; 84 Suppl : S106-47 .
  It is not a RCT and has less than 100 patients
- "[Trabeculotomy]. Fortschr Ophthalmol 87 ; 84 Suppl : S148-76 .
  It is a case series
- "Aalto-Korte, K. Contact allergy to dorzolamide eyedrops. Contact Dermatitis 98 ;39 (4): 206 .
  It is a case series
- "Abelson, M. B, Netland, P. A, and Chapin, M. J. Switching patients with glaucoma or ocular hypertension from dual therapy to monotherapy: evaluation of brimonidine as a model (Structured abstract). Advances in Therapy 2001 ;18 (6): 282-297 .
  Data not abstractable
- "Abelson, M. B., Netland, P. A., and Chapin, M. J. Switching patients with glaucoma or ocular hypertension from dual therapy to monotherapy: evaluation of brimonidine as a model
  Unique comparators
- "Abraham, S. V. and Teller, J. J. Influence of various miotics on cataract formation. Br J Ophthalmol 69 ;53 (12): 833-8 .
  Does not address any key questions (see below for questions), **It is not a RCT and has less than 100 patients**
- "Abramov, V. G. and Vakurin, E. A. [Results of trabeculectomy in primary open-angle glaucoma]
  Foreign language
- "Abramov, V. G., Vakurin, E. A., and Chirkin, V. E. [Filtering variants of trabeculectomy in open-angle glaucoma]
  Foreign language
- "Abramov, V. G., Vakurin, E. A., Il'in, V. P., and Shiriaeva, N. V. [Late results of trabeculectomy in open-angle glaucoma]
  Foreign language
- "Abu El-Asrar, A. M. and Al-Mezaine, H. S. Advances in the treatment of diabetic retinopathy
  Systematic review
- "Accorinti, M., Ciapparoni, V., Pirraglia, M. P., and Pivetti-Pezzi, P. Treatment of severe ocular hypotony in AIDS patients with cytomegalovirus retinitis and cidofovir-associated uveitis
  Medical KQ 3 only
- "Adachi, M., Shirato, S., Kaburagi, T., and Suzuki, Y. [Ten-year results of argon laser trabeculoplasty]
  Foreign language
- "Adamsons, I. A., Polis, A., Ostrov, C. S., and Boyle, J. E. Two-year safety study of dorzolamide as monotherapy and with timolol and pilocarpine. Dorzolamide Safety Study Group. J Glaucoma 98 ;7 (6): 395-401 .
  Other (specify):pilocarpine
- "Adamsons, I. Irreversible corneal decompensation in patients treated with topical dorzolamide. Am J Ophthalmol 99 ;128 (6): 774-6 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Adamsons, I., Anderrson, K. W., Strohmaier, K. M., and Clineschmidt, C. M. Three month results of a clinical trial comparing 0.5% timolol/2.0% MK-507 combination to concomitant use of 0.5% timolol and 2.0% MK-507
  Meeting abstract
- "Adamsons, I., Boyle, J., and Ghosh, K. A Randomized Trial Comparing the Dorzolamide/Timolol Combination to Monotherapy with Timolol or Dorzolamide
  Meeting abstract
- "Adamsons, I., Clineschmidt, C., Polis, A., Taylor, J., Shedden, A., and Laibovitz, R. The efficacy and safety of dorzolamide as adjunctive therapy to timolol maleate gellan solution in patients with elevated intraocular pressure. Additivity Study Group
  Medical KQ 3 or KQ 3 and KQ 6 only

- "Adamsons, I., Clineschmidt, C., et al. The efficacy and safety of dorzolamide as adjunctive therapy to timolol maleate gellan solution in patients with elevated intraocular pressure
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Adefule-Ositelu, A. O., Adegbehingbe, B. O., Adefule, A. K., Adegbehingbe, O. O., Samaila, E., and Oladigbolu, K. Efficacy of Garcinia kola 0.5% Aqueous Eye Drops in Patients with Primary Open-Angle Glaucoma or Ocular Hypertension. Middle East Afr J Ophthalmol 2010 ;17 (1): 88-93 .
  Other (specify):not FDA approved, **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Adil, S. E, El Sayyad, F. F, Helal, M. H, El-Maghraby, M. A, and El-Hamzawey, H. Trabeculectomy in black population: results from saudi arabia
  Meeting abstract
- "Agarwai, H. C., Sood, N. N., and Dayal, Y. Timolol in open angle glaucoma. Indian J Ophthalmol 81 ;29 (1): 9-11 .
  It is not a RCT and has less than 100 patients
- "Agarwal, H. C., Anuradha, V. K., Titiyal, J. S., and Gupta, V. Effect of intraoperative intracameral 2% hydroxypropyl methylcellulose viscoelastic during trabeculectomy. Ophthalmic Surg Lasers Imaging 2005 ;36 (4): 280-5 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Agarwal, H. C., Elankumaran, P., Gupta, V., and Titiyal, J. S. Comparison of subscleral partial thickness sclerectomy plus trabeculotomy with trabeculectomy for primary open angle glaucoma. Asian J. Ophthalmol. 2005 ;7 (3): 96-100 .
  It is not a RCT and has less than 100 patients
- "Agarwal, H. C., Poovali, S., Sihota, R., and Dada, T. Comparative evaluation of diode laser trabeculoplasty vs frequency doubled Nd : YAG laser trabeculoplasty in primary open angle glaucoma. Eye (Lond) 2006 ;
- 20 (12): 1352-6 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Agarwal, H. C., Saigal, D., and Sihota, R. Assessing the role of subconjunctival versus intrascleral application of mitomycin C in high-risk trabeculectomies. Indian J Ophthalmol 2001 ;49 (2): 91-5 .
  OAG can't be analyzed separately
- "Agarwal, R. and Agarwal, P. Future target molecules in antiglaucoma therapy: tgf-Beta may have a role to play
  Systematic review
- "Agbeja-Baiyeroju, A. M., Omoruyi, M., and Owoaje, E. T. Effectiveness of trabeculectomy on glaucoma patients in Ibadan. Afr J Med Med Sci 2001 ;30 (1-2): 39-42 .
  Data not abstractable
- "Aggarwal, S. P. and Hendeles, S. Risk of sudden visual loss following trabeculectomy in advanced primary open-angle glaucoma. Br J Ophthalmol 86 ;70 (2): 97-9 .
  It is not a RCT and has less than 100 patients
- "Aguinaga Ontoso, I., Guillen Grima, F., Aguinaga Ontoso, E., and Fernandez, L. R. Does medical treatment of mild intraocular hypertension prevent glaucoma? (Structured abstract). European Journal of Epidemiology 97 ;13 (1): 19-23 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Ah-Fat, F. G. and Canning, C. R. A comparison of the efficacy of Holmium laser sclerostomy ab externo versus trabeculectomy in the treatment of glaucoma. EYE 94 ;8 (4): 402-405 .
  OAG can't be analyzed separately
- "Ahmad Lone, I., Rizvi, A., Sajjad Ahmad, S., and Ahmad Unto, R. Comparison of latanoprost and dorzolamide in patients with open angle glaucoma
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Ahmad, S. Cardiopulmonary effects of timolol eyedrops. Lancet 79 ; 2 (8150): 1028 .
  It is a case series
- "Ai, H., Yang, X.-G., Wang, R.-S., Tian, B.-Y., Xue, X.-H., and Guo, B. Comparative analysis of the clinical outcomes of non-penetrating trabecular surgery and trabeculectomy in treatment of primary open angle glaucoma
  Foreign language
- "Airaksinen, P. J. The long-term hypotensive effect of timolol maleate compared with the effect of pilocarpine in simple and capsular glaucoma. Acta Ophthalmol (Copenh) 79 ;57 (3): 425-34 .
  Does not address any key questions
- "Airaksinen, P. J., Valkonen, R., Stenborg, T., Takki, K., Klemetti, A., Kontkanen, M., and Oskala, P. A double-masked study of timolol and pilocarpine combined. Am J Ophthalmol 87 ;104 (6): 587-90 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Airaksinen, P. J., Valle, O., Takki, K. K., and Klemetti, A. Timolol treatment of chronic open-angle glaucoma and ocular hypertension. A 2.5-year multicenter study. Graefes Arch Clin Exp Ophthalmol 82 ;219 (2): 68-71 .

Other (specify):Inadequate control

- "Ajit, R. R., Fenerty, C. H., and Henson, D. B. Patterns and rate of adherence to glaucoma therapy using an electronic dosing aid. Eye 2010 ; 24 (8): 1338-1343 .

OAG can't be analyzed separately

- "Akafo, S. K., Thompson, J. R., and Rosenthal, A. R. A cross-over trial comparing once daily levobunolol with once and twice daily timolol

Medical KQ 3 or KQ 3 and KQ 6 only

- "Akarsu, C., Onol, M., and Hasanreisoglu, B. Postoperative 5-fluorouracil versus intraoperative mitomycin C in high-risk glaucoma filtering surgery: extended follow up. Clin Experiment Ophthalmol 2003 ;31 (3): 199-205 .

Other (specify):Average age below 50

- "Akingbehin, T. and Villada, J. R. Metipranolol-induced adverse reactions: II. Loss of intraocular pressure control. Eye (Lond) 92 ;
- 6 (Pt 3) : 280-3 .

Does not address any key questions

- "Akingbehin, T., Villada, J. R., and Walley, T. Metipranolol-induced adverse reactions: I. The rechallenge study. Eye (Lond) 92 ;6 (Pt 3) : 277-9 .

Does not address any key questions

- "Akman, A., Cetinkaya, A., Akova, Y. A., and Ertan, A. Comparison of additional intraocular pressure-lowering effects latanoprost vs brimonidine in primary open-angle glaucoma patients with intraocular pressure uncontrolled by timolol-dorzolamide combination

Medical KQ 3 or KQ 3 and KQ 6 only

- "Akman, A., Cetinkaya, A., Akova, Y. A., and Ertan, A. Comparison of additional intraocular pressure-lowering effects of latanoprost vs brimonidine in primary open-angle glaucoma patients with intraocular pressure uncontrolled by timolol-dorzolamide combination

Medical KQ 3 only

- "Akopian, V. S. and Kazakova, E. L. [Effectiveness of repeat laser trabeculoplasty in open-angle glaucoma]

Foreign language

- "Alagoz, G., Bayer, A., Boran, C., Serin, D., Kukner, A., and Elcioglu, M. Comparison of ocular surface side effects of topical travoprost and bimatoprost

med RCT included only for KQ 6

- "Alagoz, G., Gurel, K., Bayer, A., Serin, D., Celebi, S., and Kukner, S. A comparative study of bimatoprost and travoprost: effect on intraocular pressure and ocular circulation in newly diagnosed glaucoma patients

Medical KQ 3 or KQ 3 and KQ 6 only

- "Albert, D. M., Gangnon, R. E., Zimbric, M. L., Damico, C. M., Fisher, M. R., Gleiser, J., Grossniklaus, H. E., and Green, W. R. A study of iridectomy histopathologic features of latanoprost- and non-latanoprost-treated patients. Arch Ophthalmol 2004 ;122 (11): 1680-5 .

OAG can't be analyzed separately

- "Alberta Heritage Foundation for Medical Research. AquaFlow(R) (Structured abstract)

Meeting abstract

- "Albracht, D. C., LeBlanc, R. P., Cruz, A. M., Lamping, K. A., Siegel, L. I., Stern, K. L., Kelley, E. P., and Stoecker, J. F. A double-masked comparison of betaxolol and dipivefrin for the treatment of increased intraocular pressure. Am J Ophthalmol 93 ; 116 (3): 307-13 .

Does not address any key questions

- "Albritton, A. E., Sharpe, E. D., Day, D. G., Beischel, C. J., Rhodes, J. S., Stewart, J. A., and Stewart, W. C. Brimonidine Purite 0.15% versus Dorzolamide 2% Each Given Twice Daily to Reduce the Intraocular Pressure in Patients with Open-angle Glaucoma or Ocular Hypertension

Meeting abstract

- "Alegre N·±ez, Juan R, GarcÆa -lvarez, Hernbn, Hernbndez Pe±a, Eduardo, and OrtÆz Berm·dez, Osmany. TrabeculectomÆa con 5-fluorouracilo transoperatorio

Foreign language

- "Alekseev, B. N., Basov, G. V., and Mostovoi, E. N. [The late results of a trabeculoretraction operation]

Foreign language

- "Alemu, B. Trabeculectomy: complications and success in IOP control. Ethiop Med J 97 ;35 (1): 1-11 .
- **OAG can't be analyzed separately**
- "Ali, F. S. and Akpek, E. K. Glaucoma and dry eye. Ophthalmology 2009 ;116 (6): 1232 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Alimgil, M. L. and Benian, O. The effect of dorzolamide on intraocular pressure and ocular pulse amplitude: Adjunctive therapy to beta-blockers as a substitute for pilocarpine or as a second-line therapeutic agent in patients with open-angle glaucoma. East. J. Med. 2002 ;7 (1): 1-5 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Alimgil, M. L., Erda, S., and Benian, O. [The additive effect of dipivefrin in patients with wide angle glaucoma treated with long-term beta-blocker therapy in comparison with clonidine]. Klin Monbl Augenheilkd 94 ; 205 (2): 114-6 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Allaire, C., Trinquand, C., Nordmann, J. P., Dascotte, J. C., George, J. L., Lesure, P., Rouland, J. F., Khaitrine, L., and Sirbat, D. [Hypotensive action of 0.5% carteolol versus 0.1% timolol in patients with intraocular hypertension]
  Foreign language
- "Allen, M. Y, Keole, N. S, Shin, D. H, Juzych, M. S, Song, M. S., Parrow, K. A, Swendris, R. P, and O'Grady, J. M. Comparative study of subconjunctival versus subscleral flap mitomycin C (MMC) versus no adjunctive MMC in primary glaucoma triple procedure (PGTP)
  Meeting abstract
- "Allen, R. C., Hertzmark, E., Walker, A. M., and Epstein, D. L. A double-masked comparison of betaxolol vs timolol in the treatment of open-angle glaucoma
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Allen, R. C., Robin, A. L., Long, D., Novack, G. D., Lue, J. C., and Kaplan, G. A combination of levobunolol and dipivefrin for the treatment of glaucoma. Arch Ophthalmol 88 ;106 (7): 904-7 .
  Other (specify):not FDA approved, not used"
- "Alm, A. and Stjernschantz, J. Effects on intraocular pressure and side effects of 0.005% latanoprost applied once daily, evening or morning. A comparison with timolol. Scandinavian Latanoprost Study Group
  Duplicate 8422
- "Alm, A. and Stjernschantz, J. Effects on intraocular pressure and side effects of 0.005% latanoprost applied once daily, evening or morning: A comparison with timolol
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Alm, A. and Stjernschantz, J. Effects on IOP and Side-Effects of 0.005% Latanoprost Once Daily, Evening or Morning: A Comparison with Timolol. ‡
  Meeting abstract
- "Alm, A. and Widengard, I. Latanoprost: experience of 2-year treatment in Scandinavia
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Alm, A. Can NSAIDs and prostaglandin analogues be combined?. Br J Ophthalmol 2006 ;90 (3): 259-60 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Alm, A. Comparative phase III clinical trial of latanoprost and timolol in patients with elevated intraocular pressure
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Alm, A., Camras, C. B., and Watson, P. G. Phase III latanoprost studies in Scandinavia, the United Kingdom and the United States. Surv Ophthalmol 97 ;41 Suppl 2 : S105-10 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Alm, A., Grunden, J. W., and Kwok, K. K. Five-year, multicenter safety study of fixed-combination latanoprost/timolol (Xalacom) for open-angle glaucoma and ocular hypertension. J Glaucoma 2011 ;.
  Other (specify):Not an approved medication in the US
- "Alm, A., Villumsen, J., Tornquist, P., Mandahl, A., Airaksinen, J., Tuulonen, A., Marsk, A., Resul, B., and Stjernschantz, J. Intraocular pressure-reducing effect of PhXA41 in patients with increased eye pressure. A one-month study. Ophthalmology 93 ;100 (9): 1312-6; discussion 1316-7 .
  Does not address any key questions
- "Alm, A., Widengard, I., Kjellgren, D., Söderström, M., Friström, B., Jeijl, A., and Stjernschantz, J. ONCE DAILY APPLICATION OF LATANOPROST CAUSES A MAINTAINED REDUCTION OF INTRAOCULAR PRESSURE IN GLAUCOMA PATIENTS TREATED WITH TIMOLOL
  Meeting abstract
- "Almeida, Homero G. de. Tratamento prqvio com colÆrio de aspirina na trabeculoplastia com laser de argónio
  Foreign language

- "Almeida, Homero Gusmåo de and Figueiredo, Carlos Lucas de. Encapsulamento da bolsa filtrante p£s-trabeculectomia: estudo retrospectivo de quatro anos
  Foreign language
- "Al-Mobarak, F. and Khan, A. O. Two-year survival of Ahmed valve implantation in the first 2 years of life with and without intraoperative mitomycin-C. Ophthalmology 2009 ;116 (10): 1862-5 .
  No subjects with open-angle glaucoma
- "Almodin, Juliana, Pedroso, Eduardo Cavalheiro, Cvintal, Tadeu, and Almodin, Flavia. ComparagPo press£rica e visual entre a facoesclerectomia profunda nPo penetrante e a facotrabeculectomia: phacoemulsification with non penetrating deep sclerectomy and phacoemulsification with trabeculectomy: Intraocular pressure and visual results from combined surgery
  Foreign language
- "Alonso, M. A., Duch, S., Cadarso, L., Palomar, A., and De La Camara, J. Effect of Levo Moprolol 0.9% drops on intraocular pressure: Application in ocular hypertension and open angle glaucoma: Efecto levo moprolol colirio al 0.9% sobre la presion intraocular: Aplicacion en la hipertension ocular y en el glaucoma cronico simple
  Foreign language
- "Alonso, M. A., Duch, S., Cadarso, L., Palomar, A., and De, L. C. J. Effect of Levo Moprolol 0.9% drops on intraocular pressure: Application in ocular hypertension and open angle glaucoma
  Duplicate
- "Alpar, J. J. Sodium hyaluronate (Healon) in glaucoma filtering procedures. Ophthalmic Surg 86 ;17 (11): 724-30 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Altan, C., Ozturker, C., Bayraktar, S., Eren, H., Ozturker, Z. K., and Yilmaz, O. F. Post-trabeculectomy choroidal detachment: not an adverse prognostic sign for either visual acuity or surgical success. Eur J Ophthalmol 2008 ;18 (5): 771-7 .
  It is a case series
- "Altangerel, U., Moster, M. R, Lopes, J. F, Tong, M. G, Alvim, H., and Fontanarosa, J. Healon5 Subtenon Under the Bleb in Trabeculectomy Surgery: A Randomized Clinical Trial
  Meeting abstract
- "Altman, B., Craven, E. R, Shams, N. B K, Haque, R., Kapik, B., and Peloso, C. Safety of the docosanoid unoprostone isopropyl 0.15% when used adjunctively with brimonidine tartrate 0.2% or dorzolamide HCL 2.0% in patients with primary open-angle glaucoma or ocular hypertension
  Meeting abstract
- "Alvarado, J. A., Hollander, D. A., Juster, R. P., and Lee, L. C. Ahmed valve implantation with adjunctive mitomycin C and 5-fluorouracil: long-term outcomes. Am J Ophthalmol 2008 ;146 (2): 276-284 .
  Data not abstractable
- "Alvi, N. P., Cantor, L. B., Hoop, J. S., Sanders, S. P., Bhavnani, V. D., and Brizendine, E. J. LONG TERM COMPARISON OF 0.1 VERSUS 0.2 MG/CC OF MITOMYCIN C IN PRIMARY TRABFCULECIOMY
  Meeting abstract
- "Alward, W. L M and Lewis, R. A. TRABECULECTOMY VS. THERMOSCLEROSTOMY: A TEN-YEAR FOLLOW-UP
  Meeting abstract
- "Alward, W. L. Additive efficacy of unoprostone isopropyl 0.12% (rescula) to latanoprost 0.005%. Am J Ophthalmol 2001 ;132 (3): 449-51
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Alward, W. L. Medical management of glaucoma. N Engl J Med 98 ; 339 (18): 1298-307 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Alwitry, A., Abedin, A., Patel, V., Moodie, J., Rotchford, A., and King, A. J. Primary low-risk trabeculectomy augmented with low-dose mitomycin-C
  Systematic review
- "Alwitry, A., Moodie, J., Rotchford, A., Abedin, A., Patel, V., and King, A. J. Predictive value of early IOP in mitomycin-C augmented trabeculectomy. J Glaucoma 2007 ;16 (7): 616-21 .
  OAG can't be analyzed separately
- "Ambresin, A., Shaarawy, T., and Mermoud, A. Deep sclerectomy with collagen implant in one eye compared with trabeculectomy in the other eye of the same patient. J Glaucoma 2002 ;11 (3): 214-20 .
  It is not a RCT and has less than 100 patients
- "Amissah-Arthur, K. N., Rashid, A., and Quhill, F. A reply to Short-term effect of intravitreal anti-VEGFs delivery on intraocular pressure. Br J Ophthalmol 2010 ;94 (3): 393 .
  No subjects with open-angle glaucoma, **No original data (e.g., systematic review, narrative review, editorial, letter)**

- "Amorim Filho, Walter Gomes, Moreira, Josq Belmiro de Castro, and Rehder, Jose Ricardo Carvalho Lima. Controle da pressåo intra-ocular com pilocarpina a 4% nas formas gel e colÆrio
  Foreign language
- "Anand, A., Negi, S., Khokhar, S., Kumar, H., Gupta, S. K., Murthy, G. V., and Sharma, T. K. Role of early trabeculectomy in primary open-angle glaucoma in the developing world. Eye (Lond) 2007 ;21 (1): 40-5 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Anand, N., Arora, S., and Clowes, M. Mitomycin C augmented glaucoma surgery: evolution of filtering bleb avascularity, transconjunctival oozing, and leaks. Br J Ophthalmol 2006 ;90 (2): 175-80 .
  Does not address any key questions
- "Anand, N., Kumar, A., and Gupta, A. Primary phakic deep sclerectomy augmented with mitomycin C: long-term outcomes. J Glaucoma 2011 ; 20: 21-7 .
  OAG can't be analyzed separately
- "Anand, N., Menage, M. J., and Bailey, C. Phacoemulsification trabeculectomy compared to other methods of combined cataract and glaucoma surgery. Acta Ophthalmol Scand 97 ;75 (6): 705-10 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Anand, N., Mielke, C., and Dawda, V. K. Trabeculectomy outcomes in advanced glaucoma in Nigeria
  Duplicate
- "Anand, N., Mielke, C., and Dawda, V. K. Trabulectomy outcomes in advanced glaucoma in Nigeria. Eye (Lond) 2001 ;15 (Pt 3): 274-8 .
  Other (specify):does not state that these are POAG
- "Anand, S. and Anand, N. Combined phacoemulsification and deep sclerectomy (PDS) with intraoperative mitomycin C (MMC) augmentation. Eye 2008 ;22 (8): 1040-1049 .
  OAG can't be analyzed separately
- "Andermann, C., Mialhe, D., and Arne, J. L. Ocular hypotensive effects of a new long acting pilocarpine salt. Clinical results by repeated administration:
  Foreign language
- "Andermann, C., Mialhe, D., Arne, J. L., Vende, D., and Bec, P. [Effect on pressure after instillation of a drop of depot-pilocarpine. Clinical results of its medium-term action]
  Foreign language
- "Anderson, D. R., Drance, S. M., and Schulzer, M. Factors that predict the benefit of lowering intraocular pressure in normal tension glaucoma
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Andreanos, D., Georgopoulos, G. T., Vergados, J., Papaconstantinou, D., Liokis, N., and Theodossiadis, P. Clinical evaluation of the effect of mitomycin-C in re-operation for primary open angle glaucoma
  Included in Wilkins 2010
- "Andreasson, S. and Jensen, K. M. Effect of pindolol on intraocular pressure in glaucoma: pilot study and a randomised comparison with timolol. Br J Ophthalmol 83 ;67 (4): 228-30 .
  Other (specify):Pindolol not an intervention of interest
- "Andreic, V., Miljkovic, A., and Babic, N. A comparison of 180 degrees of treatment with diode laser trabeculoplasty in primary open-angle glaucoma and exfoliation glaucoma: a short-term study of 22 patients. Curr Eye Res 2009 ;34 (3): 202-6 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Ang, G. S. and Wells, A. P. Goldmann applanation tonometry and dynamic contour tonometry after treatment with prostaglandin analog/prostamide. J Glaucoma 2010 ;19 (5): 346; author reply 347 .
  It is not a RCT and has less than 100 patients
- "Ang, G. S., Chan, K. C., Poostchi, A., Nicholas, S., Birchall, W., Wakely, L., and Wells, A. P. Comparison of standard trabeculectomy versus microtrabeculectomy as a surgical treatment for glaucoma: a randomised clinical trial. Clin Experiment Ophthalmol 2011 ;

  OAG can't be analyzed separately
- "Ang, G. S., Kersey, J. P., Shepstone, L., and Broadway, D. C. The effect of travoprost on daytime intraocular pressure in normal tension glaucoma: a randomised controlled trial
  Unique comparators
- "Angelo-Nielsen, K. Timolol topically and diabetes mellitus. JAMA 80 ; 244 (20): 2263 .
  It is a case series
- "Anghel, G. and Anghel, A. C. [Opinions about quality of life in glaucoma patients with medications in Romania]
  Foreign language
- "Anglade, E. and Dreyer, E. THE EFFECT OF MITOMYCIN C AND 5-FLUOROURACIL ON CORNEAL ENDOTHELIUM IN TRABECULECTOMY SURGERY

Meeting abstract

- "Anmarkrud, N., Bergaust, B., Bulie, T., and Sand, A. B. Argon laser trabeculoplasty--5 years experience from a local eye department. Acta Ophthalmol Suppl 87 ;182 : 34-6 .

Does not address any key questions

- "Ansari, H. and Kempen, J. H. Proof of concept for combined insertion of fluocinolone acetonide and glaucoma drainage implants for eyes with uveitis and glaucoma. Am J Ophthalmol 2010 ;149 (5): 699-700 .

No original data (e.g., systematic review, narrative review, editorial, letter), No subjects with open-angle glaucoma

- "Antohi I, Chiseli&#355, &#259, D, Cionca D, Gherman C, Mo&#355, oc I, and Gentimir M. [The role of iridectomy in glaucoma surgery]

Foreign language

- "Antohi, I., Chiselita, D., Cionca, D., Gherman, C., Motoc, I., and Gentimir, M. [The role of iridectomy in glaucoma surgery]

Foreign language

- "Aquino, M. V., Lat-Luna, M. M. L., and Flores, J. V. P. D. Comparison of outcomes and predictors of trabeculectomy using high-dose or low-dose mitomycin C. Asian J. Ophthalmol. 2004 ;6 (2): 2-5 .

Data not abstractable

- "Araie M, Shirato S, Yamazaki Y, Kitazawa Y, Ohashi Y, and Nipradilol-Timolol Study Group. Visual field loss in patients with normal-tension glaucoma under topical nipradilol or timolol: subgroup and subfield analyses of the nipradilol-timolol study. Japanese journal of ophthalmology 2010 ;54 (4): 278-85 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Araie, M. A three-year comparative, prospective and randomized study between 0.005% Latanoprost and 0.5% Timolol in Japanese Normal Tension Glaucoma patients

Meeting abstract

- "Araie, M., Azuma, I., and Kitazawa, Y. Influence of topical betaxolol and timolol on visual field in japanese open-angle glaucoma (oag) patients

Meeting abstract

- "Araie, M., Azuma, I., and Kitazawa, Y. Influence of topical betaxolol and timolol on visual field in Japanese open-angle glaucoma patients

Medical KQ 3 or KQ 3 and KQ 6 only

- "Araie, M., Kitazawa, Y., Azuma, I., Shirato, S., Hamanaka, T., Tomita, G., and Origasa, H. The efficacy and safety of dose escalation of dorzolamide used in combination with other topical antiglaucoma agents. J Ocul Pharmacol Ther 2003 ;19 (6): 517-25 .

It is not a RCT and has less than 100 patients

- "Araie, M., Shirato, S., Yamazaki, Y., Kitazawa, Y., and Ohashi, Y. Clinical efficacy of topical nipradilol and timolol on visual field performance in normal-tension glaucoma: a multicenter, randomized, double-masked comparative study. Jpn J Ophthalmol 2008 ; 52 (4): 255-64 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Araie, M., Shirato, S., Yamazaki, Y., Kitazawa, Y., and Ohashi, Y. Visual field loss in patients with normal-tension glaucoma under topical nipradilol or timolol: subgroup and subfield analyses of the nipradilol-timolol study. Jpn J Ophthalmol 2010 ;54 (4): 278-85 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Araie, M., Shoji, N., Shirato, S., and Nakano, Y. Postoperative subconjunctival 5-fluorouracil injections and success probability of trabeculectomy in Japanese: results of 5-year follow-up. Jpn J Ophthalmol 92 ;36 (2): 158-68 .

OAG can't be analyzed separately

- "Araujo, S. V., Bond, J. B., Wilson, R. P., Moster, M. R., Schmidt, C. M. Jr, and Spaeth, G. L. Long term effect of apraclonidine. Br J Ophthalmol 95 ;79 (12): 1098-101 .

Data not abstractable

- "Araujo, S. V., Spaeth, G. L., Roth, S. M., and Starita, R. J. A ten-year follow-up on a prospective, randomized trial of postoperative corticosteroids after trabeculectomy. Ophthalmology 95 ;102 (12): 1753-9

Data not abstractable

- "Arcieri, E. S., Arcieri, R. S., Pereira, A. C., Andreo, E. G., Finotti, I. G., and Sa Filho, W. F. Comparing the fixed combination brimonidine-timolol versus fixed combination dorzolamide-timolol in patients with elevated intraocular pressure

Medical KQ 3 or KQ 3 and KQ 6 only

- "Arcieri, E. S., Pereira, A. C. A., Andreo, E. G. V., Finotti, I. G. A., Arcieri, R. S., and Sa Filho, W. F. Fixed Combination Brimonidine-Timolol (Combigan®) versus Fixed Combination Dorzolamide-Timolol (Cosopt®) Each Given Twice Daily to Reduce Intraocular Pressure in Subjects With Open Angle Glaucoma or Ocular Hypertension

Meeting abstract

- "Arcieri, E. S., Pierre Filho, P. T., Wakamatsu, T. H., and Costa, V. P. The effects of prostaglandin analogues on the blood aqueous barrier and corneal thickness of phakic patients with primary open-angle glaucoma and ocular hypertension
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Ardjomand, N., Ardjomand, N., and Komericki, P. Efficacy of timolol hydrogel 0.1% in patients with primary open angle glaucoma and ocular hypertension: Wirkung von timolol hydrogel 0.1% bei patienten mit primarem offenwinkelglaukom und okularer hypertension
  Foreign language
- "Arend, K. O. and Raber, T. Observational study results in glaucoma patients undergoing a regimen replacement to fixed combination travoprost 0.004%/timolol 0.5% in Germany. J Ocul Pharmacol Ther 2008 ;24 (4): 414-20 .
  OAG can't be analyzed separately
- "Arend, O., Harris, A., Remky, A., Wenzel, M., and Redbrake, C. [Dorzolamide and retinal microcirculation in glaucoma with normal intraocular pressure]
- **Meeting abstract**
- "Arend, O., Kaup, M., Plange, N., Remky, A., and Redbrake, C. [The intraocular pressure reducing effect by modification of non-penetrating sclerectomy with viscocanalostomy by a combination with amnion-implant and/or 5-Fluorouracil application in patients with glaucoma]
- **Meeting abstract**
- "Arend, O., Plange, N., Remky, A., and Redbrake, C. Influence on Intraocular Pressure Following Deep Non Pentrating Sclerectomy and Viscocanalostomy in Combination With Amnion Implant and/or 5 Fluorourcil Application in Glaucoma Patients
- **Meeting abstract**
- "Arend, O., Wolter, P., Huber, K., Harris, A., and Remky, A. Retinal Circulation after Timolol, Latanoprost or Dorzolamide Application in Newly Diagnosed Glaucoma Patients
- **Meeting abstract**
- "Arias-Puente, A., Batuelos, J., Garcia-Saenz, C., Ragai-Kamel, N., and Gili, P. EFFICACY OF DEEP NON-PENETRATING SCLERECTOMY IN THE SURGICAL TREATMENT OF PRIMARY OPEN ANGLE GLAUCOMA
- **Meeting abstract**
- "Arici, M. K., Sayici, M., Toker, M., Erdogan, H., and Topalkara, A. A short term study of the additive effect of timolol and brimonidine on intraocular pressure. Eye (Lond) 2002 ;16 (1): 39-43 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Arieta, Carlos Eduardo Leite, Barbosa, Katia Borgia, Rocha, Eduardo Melani, Castro, Rosane Silvestre de, and Jose, Newton Kara. Pilocarpina a 2 por cento na prevengåo da elevagåo da pressåo intra-ocular pela aplicagåo de Neodymium Yag Laser em capsulotomia posterior
  Foreign language
- "Arnavielle, S., Lafontaine, P. O., Bidot, S., Creuzot-Garcher, C., D'Athis, P., and Bron, A. M. Corneal endothelial cell changes after trabeculectomy and deep sclerectomy. J Glaucoma 2007 ;16 (3): 324-8 .
  It is not a RCT and has less than 100 patients
- "Arnold, P. N. No-stitch phacotrabeculectomy. J Cataract Refract Surg 96 ;22 (2): 253-60 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Arranz-Marquez, E. and Teus, M. A. Effect of age on the development of a latanoprost-induced increase in iris pigmentation. Ophthalmology 2007; 114 (7): 1255-8 .
  It is not a RCT and has less than 100 patients
- "Arrata, M., Massin, M., and Sfeir, T. [A single dose of maleate of timolol given orally: the effect on the ocular pressure (author's transl)]
  Foreign language
- "Arrico, L., Taverniti, L., Donati, S., and Recupero, S. M. A retrospective study on the effects of laser trabeculoplasty in open-angle glaucoma: a 10-year follow-up. Acta Ophthalmol Scand Suppl 2000 ;(232): 57-8 .
  It is a case series
- "Artigas, Alejandro. Implantes de drenaje en Glaucoma
  Foreign language
- "Atanassov, M. A. Surgical treatment of glaucomas by trabeculectomy--indications and early results. Folia Med (Plovdiv) 2009 ;51 (4): 25-8 .
  It is not a RCT and has less than 100 patients, **Data not abstractable**
- "Atmaca, L. S. and Simsek, T. Efficacy of argon laser trabeculoplasty in primary open-angle and pseudoexfoliative glaucoma: Long-term follow-up. Ann. Ophthalmol. 2001 ;33 (3): 216-220 .
  It is a case series

- "Attanasio, A., Baglio, S., Quatrana, M., and Bartorelli, L. Accelerated idioventricular rhythm associated to ophthalmic timolol/dorzolamide solution. Int J Cardiol 2004 ;95 (2-3): 343-5 .

  It is a case series
- "Aung, T., Chew, P. T., Oen, F. T., Chan, Y. H., Thean, L. H., Yip, L., Lim, B. A., Soh, J., and Seah, S. K. Additive effect of unoprostone and latanoprost in patients with elevated intraocular pressure. Br J Ophthalmol 2002 ;86 (1): 75-9 .

  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Aung, T., Chew, P. T., Yip, C. C., Chan, Y. H., See, J. L., Khng, C. G., Hoh, S. T., Ng, L. H., and Lee, H. M. A randomized double-masked crossover study comparing latanoprost 0.005% with unoprostone 0.12% in patients with primary open-angle glaucoma and ocular hypertension. Am J Ophthalmol 2001 ;131 (5): 636-42 .

  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Auw-Hädrich, C., Bömer, T. G., and Funk, J. LIMBUS-BASED VERSUS FORNIX-BASED FLAP IN TRABECULECTOMY: LONG-TERM RESULTS AFTER 6 - 9 YEARS

  Meeting abstract
- "Auw-Haedrich, C., Funk, J., and Boemer, T. G. Long-term results after filtering surgery with limbal-based and fornix- based conjunctival flaps. Ophthalmic Surgery and Lasers 98 ;29 (7): 575-580 .

  Data not abstractable
- "Avakian, A., Renier, S. A., and Butler, P. J. Adverse effects of latanoprost on patients with medically resistant glaucoma. Arch Ophthalmol 98 ;116 (5): 679-80 .

  It is a case series
- AvaliagPo das alteragões anatómicas e funcionais ap£s a trabeculectomia

  Foreign language
- "Avunduk, A. M., Sari, A., Akyol, N., Ozturk, O., Kapicioglu, Z., Erdol, H., and Imamoglu, H. I. The one-month effects of topical betaxolol, dorzolamide and apraclonidine on ocular blood flow velocities in patients with newly diagnosed primary open-angle glaucoma. Ophthalmologica 2001 ;215 (5): 361-5 .

  Does not address any key questions
- "Aykan, U., Bilge, A. H., Akin, T., Certel, I., and Bayer, A. Laser suture lysis or releasable sutures after trabeculectomy. J Glaucoma 2007 ; 16 (2): 240-5 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Az£car Gabe, Ver nica, Burgos L., Ivette, and Andonie D., Paola. TrabeculectomÆa: una retrospectiva de seguimiento de 150 casos

  Foreign language
- "Aziz, S., McConnachie, A., and Montgomery, D. M. I. Initial experience of the Ahmed valved implant in the management of refractory glaucoma [27]. Eye 2007 ;21 (2): 278-279 .

  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Azuara-Blanco, A., Katz, L. J., Spaeth, G. L., Wilson, R. P., Moster, M. R., and Flartey, K. J. Effect of latanoprost on intraocular pressure in patients with glaucoma on maximal tolerated medical treatment. Br J Ophthalmol 97 ;81 (12): 1116 .

  OAG can't be analyzed separately
- "Azuara-Blanco, A., Spaeth, G. L., and Augsburger, J. J. Oral prednisone in guarded filtration procedures supplemented with antimetabolites. Ophthalmic surgery and lasers 99 ;30 (2): 126-32 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Babic, N., Andreic, V., Miljkovic, A., Canadanovic, V., and Barisic, S. [Adjunctive therapy with brinzolamide in patients on travoprost treatment]

  Foreign language
- "Babighian S, Caretti L, Tavolato M, Cian R, and Galan A. Excimer laser trabeculotomy vs 180 degrees selective laser trabeculoplasty in primary open-angle glaucoma. A 2-year randomized, controlled trial. Eye (London, England) 2010 ;24 (4): 632-8 .

  Other (specify):not FDA approved"
- "Babighian, S. R., Tavolato, M., and Galan, A. Comparison of Excimer Laser Trabeculotomy (ELT) versus Selective Laser Trabeculoplasty (SLT) in the Treatment of Primary Open-Angle Glaucoma. 18 Months of Follow-Up

  Meeting abstract
- "Babushkin, A. E. [The influence of the fixation of the scleral flap on the hypotensive effect of trabeculectomy]

  Foreign language
- "Bacharach, J., Delgado, M. F., and Iwach, A. G. Comparison of the efficacy of the fixed-combination timolol/dorzolamide versus concomitant administration of timolol and dorzolamide. J Ocul Pharmacol Ther 2003 ;
- 19 (2): 93-6 .

It is not a RCT and has less than 100 patients

- "Bacharach, J., Varma, R., Schenker, H., Caprioli, J., Liu, C. C., and Batoosingh, A. L. Masked, Randomized, Parallel Comparison of IOP-Lowering Efficacy after Switching to Bimatoprost 0.03% vs Continuing with Latanoprost 0.005%

Meeting abstract

- "Baez, K. A. and Spaeth, G. L. Argon laser trabeculoplasty controls one third of patients with progressive, uncontrolled open-angle glaucoma for five years. Trans Am Ophthalmol Soc 91 ;89 : 47-56; discussion 56-8 .

OAG can't be analyzed separately

- "Baez, K. A., Ulbig, M. W., McHugh, D., Holz, F. W., and Spaeth, G. L. Long-term results of ab externo neodymium:YAG cyclophotocoagulation. Ger J Ophthalmol 94 ;3 (6): 395-9 .

Data not abstractable

- "Bafa, M., Georgopoulos, G., Mihas, C., Stavrakas, P., Papaconstantinou, D., and Vergados, I. The effect of prostaglandin analogues on central corneal thickness of patients with chronic open-angle glaucoma: a 2-year study on 129 eyes. Acta Ophthalmol 2009 ;

Does not address any key questions

- "Bagli, E., Gartzios, C., Asproudis, I., and Kitsos, G. Comparison of one-site versus two-site phacotrabeculectomy without the use of antimetabolites intraoperatively in patients with pseudoexfoliation glaucoma and primary open-angle glaucoma

Included in Gdih 2011

- "Baiza-Duran, L. M., Alvarez-Delgado, J., et al. The efficacy and safety of two fixed combinations: timolol-dorzolamide-brimonidine versus timolol-dorzolamide. A prospective, randomized, double-masked, multi-center, 6-month clinical trial

Unique comparators

- "Bakutkin, V. V. and Saprykin, P. I. [The efficacy of optimized sinusotrabeculectomy in primary open-angle glaucoma based on the late results data]. Oftalmol Zh 90 ;(7): 414-6 .

Does not address any key questions

- "Balazsi, A. G., Saheb, N. E., Kasner, O. P., Overbury, O., and Faubert, J. THE EFFECTS OF TIMOLOL MALEATE ON STATIC VISUAL FIELDS, TEMPORAL MODULATION FIELDS, AND SPATIAL CONTRAST SENSITIVITY IN EARLY GLAUCOMA

Meeting abstract

- "Balazsil, A. G., Collin, C., Kasner, O. P., Overbury, O., Saheh, N. E., and Toussignant, P. THE EFFECT OF LEVOBUNOLOL ON VISUAL SENSITIVITY: A RANDOMIZED DOUBLE-MASKED CLINICAL TRIAL

Meeting abstract

- "Banitt, M., Juzych, M. S., Chopra, V., Hughes, B. A., and Kim, C. The effect of the timing of scleral flap suture release on the safety and long-term success of phacotrabeculectomy. Am J Ophthalmol 2006 ;141 (4): 742-4 .

Does not address any key questions

- "Bansal, A. and Ramanathan, U. S. Sudden lowering of intraocular pressure may cause retinal bleeding by three different mechanisms. Br J Ophthalmol 2008 ;92 (8): 1158-9 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Barad, P., Carlson, D. W., and Alward, W. L. A RANDOMIZED STUDY OF MITOMYCIN AUGMENTATION IN COMBINED PHACOEMULSIFICATION AND TRABECULECTOMY

Meeting abstract

- "Barber, B. L. and Santanello, N. C. Relating spontaneous adverse experience reports to scores on a questionnaire querying tolerability

Excluded drug

- "Barnebey, H. and Kwok, S. Y. Patients' acceptance of a switch from dorzolamide to brinzolamide for the treatment of glaucoma in a clinical practice setting. Clin Ther 2000 ;22 (10): 1204-12 .

Other (specify):Not a RCT

- "Barnebey, H. LONG-TERM EFFICACY OF BRIMONIDINE ON I0P LOWERING

Meeting abstract

- "Barnebey, H. S, Pettigrew, S. C, Mallick, S., Andrew, R. M, Sullivan, E. K, Wells, D. T, Landry, T. A, Bergamini, M. V W, Robertson, S. M, and Travoprost 0.004%/Timolol 0.5% Study Group. Three Month Comparison of the Safety and Efficacy of Travoprost 0.004%/Timolol 0.5% Ophthalmic Solution to TRAVATAN® and Timolol 0.5%

Meeting abstract

- "Barnebey, H. S., Mallick, S., Andrew, R. M., Wells, D. T., Landry, T. A., and Bergamini, M. V. W. Six Week Comparison Safety and Efficacy of Travoprost 0.004%/Timolol 0.5% Ophthalmic Solution to TRAVATAN® and Timolol 0.5%

Meeting abstract

- "Barnebey, H. S., Orengo-Nania, S., Flowers, B. E., Samples, J., Mallick, S., Landry, T. A., and Bergamini, M. V. The safety and efficacy of

travoprost 0.004%/timolol 0.5% fixed combination ophthalmic solution. Am J Ophthalmol 2005 ;140 (1): 1-7 .

Does not address any key questions

- "Barnebey, H., Mallick, S., Andrew, R. M., Wells, D., Landry, T. A., Bergamini, M. V. A., Wax, M. B., and Robertson, S. M. Efficacy of Extravan (Travoprost 0.004%/Timolol 0.5% Ophthalmic Solution) Compared to Either Travatan or Timolol 0.5% Alone

Meeting abstract

- "Barnes, E. A., Murdoch, I. E., Subramaniam, S., Cahill, A., Kehoe, B., and Behrend, M. Neodymium:yttrium-aluminum-garnet capsulotomy and intraocular pressure in pseudophakic patients with glaucoma. Ophthalmology 2004 ;111 (7): 1393-7 .

Data not abstractable

- "Barnes, R. M., Mora, J. S., and Best, S. J. Beta radiation as an adjunct to low-risk trabeculectomy

Kirwan 2009

- "Barnes, S. D., Campagna, J. A., Dirks, M. S., and Doe, E. A. Control of intraocular pressure elevations after argon laser trabeculoplasty: comparison of brimonidine 0.2% to apraclonidine 1.0%. Ophthalmology 99 ;106 (10): 2033-7 .

Does not address any key questions

- "Barnes, S. D., Dirks, M. S., Doe, E. A., Campagna, J. A., and Zimmerman, T. CONTROL OF INTRAOCULAR PRESSURE SPIKES AFTER ARGON LASER TRABECULOPLASTY: BRIMNONIDINE 0.2% VS. APRACLONIDINE 1.0%

Meeting abstract

- "Barnett, E. M., Fantin, A., Wilson, B. S., Kass, M. A., and Gordon, M. O. The Incidence of retinal vein occlusion in the ocular hypertension treatment study

Systematic review

- "Barraquer, C. Double-blind trial of timolol against pilocarpine in glaucoma: ESTUDIO DOBLE CIEGO TIMOLOL-PILOCARPINA

Foreign language

- "Barreiro, Jefferson, Pereira, Telma, Lima, Vagner Loduca, and Assis, Carlos Augusto Moya. Alteragões oculares ap£s capsulotomia posterior com nd: yag laser: estudo comparativo com e sem uso de colÆrios timolol 0, 5: e dexametasona 0, 1

Foreign language

- "Barretto, Caroline Amorim, RWgo, PatrÆcia, Santos, Rodrigo Almeida Vieira, Toscano, Daniela, Brandt, Carlos Teixeira, and Dantas, Ronaldo Rodrigues. FungPo pulmonar em portadores de esquistossomose mansõnica hepatoesplWnica, usubrios de colÆrio de timolol a 0,5por cento

Foreign language

- "Barrisbana4flaxCraven, E. R., Sherwood, M. B., and DuBiner, H. B. Twelve-Month Randomized Comparison of Fixed Combination Brimonidine 0.2%/Timolol 0.5% With Each Component as Monotherapy

Meeting abstract

- "Bartkowska-Orlowska, M. and Pecoldowa, K. [Experiences with timolol use in cases of glaucoma (author's transl)]

Foreign language

- "Bartlett, J. D. and Evans, D. W. Contrast Sensitivity Improvements in Brimonidine-Treated Primary Open-Angle Glaucoma Patients Suggest a Neuroprotective Mechanism

Meeting abstract

- "Bartlett, J. D., Boan, K., Corliss, D., and Gaddie, I. B. Efficacy of silicone punctal plugs as adjuncts to topical pharmacotherapy of glaucoma--a pilot study. Punctal Plugs in Glaucoma Study Group. J Am Optom Assoc 96 ;67 (11): 664-8 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Bartlett, J., Olivier, M., Richardson, T., Whitaker, R., Greenidge, K., and Pensy, D. CENTRAL NERVOUS SYSTEM EFFECTS OF CARTEOLOL HYDROCHLORIDE AND TIMOLOL MALEATE IN BLACK WOMEN

Meeting abstract

- "Bartlett, J., Than, T., and Bergamini, M. EFFICACY AND SAFETY OF TRAVOPROST COMPARED TO LATANOPROST AND TIMOLOL IN PATIENTS WITH OPEN-ANGLE GLAUCOMA (OAG) OR OCULAR HYPERTENSION (OH)

Meeting abstract

- "Barton K, Gedde SJ, Budenz DL, Feuer WJ, Schiffman J, and Ahmed Baerveldt Comparison Study Group. The Ahmed Baerveldt Comparison Study methodology, baseline patient characteristics, and intraoperative complications. Ophthalmology 2011 ;118 (3): 435-42 .

OAG can't be analyzed separately

- "Barton, K. Bleb dysesthesia. J Glaucoma 2003 ;12 (3): 281-4 .

Does not address any key questions

- "Barton, K., Franks, W. A, Vunce, C., Lauande-Pimentel, R., Maurino, V., and Pavesio, C. E. Long-term outcome of MMC vs 5FU trabeculectomy in uveitic glaucoma

Meeting abstract

- "Barton, K., Gedde, S. J., Budenz, D. L., Feuer, W. J., and Schiffman, J. The Ahmed Baerveldt Comparison Study Methodology, Baseline Patient Characteristics, and Intraoperative Complications. Ophthalmology 2010 ;
- **OAG can't be analyzed separately**
- "Barton, K., Gedde, S. J., Budenz, D. L., Feuer, W. J., and Schiffman, J. The Ahmed Baerveldt Comparison Study methodology, baseline patient characteristics, and intraoperative complications. Ophthalmology 2011 ; 118: 435-42 .

OAG can't be analyzed separately

- "Batchelor, E. D., O'Day, D. M., Shand, D. G., and Wood, A. J. Interaction of topical and oral timolol in glaucoma. Ophthalmology 79 ; 86 (1): 60-5 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Bateman, D. N, Clark, R., Azuara-Blanco, A., Bain, M., and Forrest, J. The effects of new topical treatments on management of glaucoma in Scotland: an examination of ophthalmological health care (Brief record). British Journal of Ophthalmology 2002 ;86 (5): 551-554 .

Does not address any key questions

- "Bateman, D. N., Clark, R., Azuara-Blanco, A., Bain, M., and Forrest, J. The impact of new drugs on management of glaucoma in Scotland: observational study. BMJ 2001 ;323 (7326): 1401-2 .

Does not address any key questions

- "Batra, J. D., Patnaik, B., Singh, G., Kalsi, R., Jain, B. S., and Agarwal, D. P. An investigation of the mechanism of function of trabeculectomy (operation). Indian J Ophthalmol 81 ;29 (3): 173-6 .

Does not address any key questions

- "Batterbury, M. and Wishart, P. K. Is high initial aqueous outflow of benefit in trabeculectomy?. EYE 93 ;7 (1): 109-112 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Battista, R., Yan, D. B., and DBYAN Medicine Professional Corportation. Comparison of 24-Hour Post-Dose Efficacy of Travoprost and Latanoprost When Morning-Dosed in Open-Angle Glaucoma

Meeting abstract

- "Bauchiero, L., Demarie, A., Belli, L., and Brogliatti, B. Deep sclerectomy and viscocanalostomy: critical revision of the results obtained during the learning curve. Acta Ophthalmol Scand Suppl 2002 ;236 : 64-6 .

It is not a RCT and has less than 100 patients

- "Baudouin, C., Rouland, J. F., Nordmann, J. P., Bron, A., and Pelen, F. [Efficacy of first- or second-line latanoprost on intraocular pressure and ocular symptoms in patients with open-angle glaucoma or ocular hypertension]

Foreign language

- "Baumert, S., Pillunat, L. E., Meitinger, C., and Lang, G. K. EFFECT OF LASER TRABECULOPLASTY AND TRABECULECOTMY ON OCULAR HEMODYNAMICS IN PRIMARY OPEN ANGLE GLAUCOMA

Meeting abstract

- "Bayer, A. U., Erb, C., Ferrari, F., Knorr, M., and Thiel, H. J. The Tubingen Glaucoma Study. Glaucoma filtering surgery--a retrospective long-term follow-up of 254 eyes with glaucoma. Ger J Ophthalmol 95 ; 4 (5): 289-93 .

Data not abstractable

- "Bayer, A., Erdem, U., Mumcuoglu, T., and Akyol, M. Two-site phacotrabeculectomy versus bimanual microincision cataract surgery combined with trabeculectomy. Eur J Ophthalmol 2009 ;19 (1): 46-54 .
- **Other (specify):Control group is not an intervention of interest**
- "Bayer, A., Henderer, J. D., Kwak, T., Myers, J., Fontanarosa, J., and Spaeth, G. L. Clinical predictors of latanoprost treatment effect. J Glaucoma 2005 ;14 (4): 260-3 .
- **It is a case series**
- "Bayer, A., Weiler, W., Oeverhaus, U., Skrotzki, F. E., and Stewart, W. C. Two-year follow-up of latanoprost 0.005% monotherapy after changing from previous glaucoma therapies. J Ocul Pharmacol Ther 2004 ;20 (6): 470-8 .

Data not abstractable

- "Bazarov, K. h. B. [Effectiveness of trabeculectomy]

Foreign language

- "Beano, F., Orgul, S., Stumpfig, D., Gugleta, K., and Flammer, J. An evaluation of the effect of unoprostone isopropyl 0.15% on ocular hemodynamics in normal-tension glaucoma patients. Graefes Arch Clin Exp Ophthalmol 2001 ;239 (2): 81-6 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Bearn, P. E. Disappearance of staghorn calculi following withdrawal of treatment with acetazolamide. Br J Urol 89 ;63 (3): 329 .

It is a case series

- "Beatty, S., Kheterpal, S., Eagling, E. M., and O'Neill, E. C. Day-case trabeculectomies: safety and efficacy. Acta Ophthalmol Scand 96 ;
- 74 (2): 132-4 .
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  Foreign language
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  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Bechetoille, A., Denis, P., Nordmann, J. P., Sellem, E., and Valtot, F. [Chronic open-angle glaucoma]
  Foreign language
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  Duplicate "
- "Beehler, C. C., Stewart, W. C., Macdonald, D. K., Croyle, T. A., Ostrov, C. S., Rosanelli, E. G., Crandall, A. S., Iacono, T. L., Lue, J. C., and Kelley, E. P. A Comparison of the Ocular Hypotensive Efficacy of Twice-Daily 0.25% Levobunolol to 0.5% Timolol in Patients Previously Treated with 0.5% Timolol
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- "Benedict, W. L. and Shami, M. Impending macular hole associated with topical pilocarpine. Am J Ophthalmol 92 ;114 (6): 765-6 .
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Excluded drug

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Does not address any key questions

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Does not address any key questions

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No original data (e.g., systematic review, narrative review, editorial, letter)

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Medical KQ 3 or KQ 3 and KQ 6 only

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Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

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It is not a RCT and has less than 100 patients

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Foreign language

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Foreign language

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OAG can't be analyzed separately

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It is not a RCT and has less than 100 patients

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Meeting abstract

- "Bhistikul, R. B. and Dreyer, E. B. A PROSPECTIVE ANALYSIS OF ANTERIOR SEGMENT CHANGES AT ONE YEAR AFTER M1TOMYCIN C OR 5-Fluorouracil SUPPLEMENTED TRABECULECTOMY

Meeting abstract

- "Bhojwani, S. C. and Jones, D. K. Comparative study of aqueous and oily pilocarpine in the production of ocular hypotension. Br J Ophthalmol 81 ;
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Other (specify): Assessment of statistical method not effectiveness"

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Systematic review

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Other (specify):adherence rate"

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Meeting abstract

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Foreign language

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It is not a RCT and has less than 100 patients

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Does not address any key questions

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Medical KQ 3 or KQ 3 and KQ 6 only

- "Bischoff, P. [Experiences with timolol in treatment of glaucoma (author's transl)]. Klin Monbl Augenheilkd 78 ;173 (2): 202-7 .

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Duplicate "

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  Data not abstractable
- "Blondeau, P. Sodium hyaluronate in trabeculectomy: a retrospective study. Can J Ophthalmol 84 ;19 (7): 306-9 .
  Other (specify): Not an intervention of interest"
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  It is not a RCT and has less than 100 patients
- "Bloom, H. R., Cech, J. M., Eston, A. B., Finegan, J. T., Gingold, M. P., Meyer, L., Varr, W. F., Weinberg, D. A., Wilson, C., and Zalta, A. H. Additive effect of betaxolol and epinephrine in primary open angle glaucoma. Arch Ophthalmol 87 ;105 (10): 1317-8 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Bloom, P. A, Noureddin, B. N, Sharma, K., Hitchings, R. A, and Khaw, P. T. A Matched Comparison Between Tube Surgery, Nd:YAG and Diode Laser Cyclophotocoagulation in the Management of Refractory Glaucoma
  Meeting abstract
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  It is a case series
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- "Bluestein, E. and Stewart, W. TIGHT VERSUS LOOSE SCLERAL FLAP SUTURE CLOSURE IN TRABECULECTOMY SURGERY
  Meeting abstract
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- "Blumetti, B., Brodell, R. T., Helms, S. E., Brodell, L. P., and Bredle, D. L. Contact dermatitis to levobunolol eyedrops superimposed on IgE-mediated rhinoconjunctivitis. Ann Allergy Asthma Immunol 2006 ;97 (6): 817-8 .

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- "Boger III, W. P., Steinert, R., Puliafito, C., and Langston p., D. Long-term experience with timolol ophthalmic solution in patients with open-angle glaucoma

  Letter to the editor "
- "Boger III, W. P., Steinert, R., Puliafito, C., and Pavan Langston, D. Timolol and pilocarpine ophthalmic solutions in therapy of open angle glaucoma: a double blind clinical study. INVEST.OPHTHAL.VISUAL SCI. 77 ;16 (sup): 109-110 .

  Other (specify):pilocarpine
- "Boger, W. P. 3rd, Steinert, R. F., Puliafito, C. A., and Pavan-Langston, D. Clinical trial comparing timolol ophthalmic solution to pilocarpine in open-angle glaucoma

  Excluded drug
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  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Bojic, L., Bagatin, J., Ivanisevic, M., Hozo, I., Racic, G., and Karelovic, D. Influence of betaxolol and timolol on the venous tone in glaucoma patients

  Medical KQ 3 only
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  Other (specify): Not a drug currently used"
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  Data not abstractable
- "Bonanomi, M. T, Sunaga, A. H, and Suzanna J·nior, R. Cirurgia filtrante no glaucoma agudo primario. Resultados cirurgicos

  Foreign language
- "Bonomi, L., Marchini, G., de Franco, I., and Perfetti, S. Prospective study of the lens changes after trabeculectomy. Dev Ophthalmol 89 ;17 : 97-100

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  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Bonomi, L., Perfetti, S., Bellucci, R., Massa, F., and Noya, E. Ocular hypotensive action of labetalol in rabbit and human eyes. Albrecht Von Graefes Arch Klin Exp Ophthalmol 81 ;217 (3): 175-81 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Boozman, F. W. 3rd, Carriker, R., Foerster, R., Allen, R. C., Novack, G. D., and Batoosingh, A. L. Long-term evaluation of 0.25% levobunolol and timolol for therapy for elevated intraocular pressure
  Unique comparators
- "Borggrefe, J., Grehn, F., and Lieb, W. E. COMBINED CATARACT - GLAUCOMA SURGERY:A PROSPECTIVE RANDOMIZED COMPARISON OF TWO TECHNIQUES
  Meeting abstract
- "Borggrefe, J., Lieb, W., and Grehn, F. A prospective randomized comparison of two techniques of combined cataract-glaucoma surgery. Graefes Arch Clin Exp Ophthalmol 99 ;237 (11): 887-92 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Bosem, M. E., Lusky, M., and Weinreb, R. N. Short-term effects of levobunolol on ocular pulsatile flow. Am J Ophthalmol 92 ;114 (3): 280-6
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- "Botz, N. and Heider, W. Long-term influence of pre-, intra-, and postoperative factors on the intraocular pressure in combined cataract and glaucoma surgery: Untersuchung des einflusses pra-, intra- und postoperativer faktoren auf die langfristige drucksenkende wirkung bei kombinierter katarakt- und glaukomoperation. Ophthalmologe 2004 ; 101 (12): 1202-1208 .
  It is a case series
- "Bourgeois, H. [Epidemiologic and tonometric results of a multicenter study of 5,872 patients with ocular hypertension or open-angle glaucoma treated with betaxolol]
  Foreign language
- "Bourgeois, H. Results of a large epidemiological multicenter study conducted on 5,872 patients with intraocular hypertension or open angle chronic glaucoma and treated with betaxolol:
  Foreign language
- "Bournias, T. and Lai, J. Comparison of Brimonidine Purite 0.15% vs. Dorzolamide 2% and Brinzolamide 1 % as Adjunctive Therapy to Hypotensive Lipids
  Meeting abstract
- "Bournias, T. E and Abraham, C. Pressure-Lowering Efficacy of Bimatoprost and Latanoprost: Effect of Baseline Mean Diurnal IOP
  Meeting abstract
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  Medical KQ 3 only
- "Bournias, T. E., Lee, D., Gross, R., and Mattox, C. Ocular hypotensive efficacy of bimatoprost when used as a replacement for latanoprost in the treatment of glaucoma and ocular hypertension. J Ocul Pharmacol Ther 2003 ;19 (3): 193-203 .
- **Other (specify):**study design does not match KQ (KQ3)"
- "Boyle, J. E., Ghosh, K., Gieser, D. K., and Adamsons, I. A. A randomized trial comparing the dorzolamide-timolol combination given twice daily to monotherapy with timolol and dorzolamide
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Boyle, J. E., Ghosh, K., Gieser, D. K., and Adamsons, I. A. A randomized trial comparing the dorzolamide-timolol combination given twice daily to monotherapy with timolol and dorzolamide. Dorzolamide-Timolol Study Group
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Boyle, J., Connor, J., Polis, A., and Adamsons, I. THE LONG-TERM SAFETY OF TRUSOPT AS MONOTHERAPY AND ADJUNCTIVE THERAPY WITH TIMOLOL AND/OR PILOCARPINE
- **Meeting abstract**
- "Boyle, J., Reines, S., Strohmaier, K., Snyder, E., and Adamsons, I. A CLINICAL TRIAL COMPARING PATIENT PREFERENCE AND IMPACT ON DAILY LIFE OF TRUSOPT AND PILOCARPINE
  Meeting abstract
- "Bradbury, J. A., Rennie, I. G., and Parsons, M. A. Adrenaline dacryolith: detection by ultrasound examination of the nasolacrimal duct. Br J Ophthalmol 88 ;72 (12): 935-7 .
  It is a case series
- "Brancato, R., Carassa, F., and Trabucchi, G. DIODE vs. ARGON LASER TRABECULOPLASTY: A CONTROLLED CLINICAL TRIAL
  Meeting abstract
- "Brancato, R., Carassa, R., and Trabucchi, G. Diode laser compared with argon laser for trabeculoplasty
  Rolim de Moura 2009
- "Brancato, R., Menchini, U., Pece, A., Bandello, F., Serini, P., and Fantaguzzi, S. [Laser trabeculoplasty: argon laser or krypton laser?]
  Foreign language

- "Brandt, J. D. Phase III, 3-Month Comparison of Timolol with AGN-192024: A New Ocular Hypotensive Lipid (HTL) for Glaucoma Management

  Meeting abstract
- "Brandt, J. D., Cantor, L. B., Katz, L. J., Batoosingh, A. L., Chou, C., and Bossowska, I. Bimatoprost/timolol fixed combination: a 3-month double-masked, randomized parallel comparison to its individual components in patients with glaucoma or ocular hypertension. J Glaucoma 2008 ;17 (3): 211-6 .

  OAG can't be analyzed separately
- "Brandt, J. D., VanDenburgh, A. M., Chen, K., and Whitcup, S. M. Comparison of once- or twice-daily bimatoprost with twice-daily timolol in patients with elevated IOP : a 3-month clinical trial

  Medical KQ 3 or KQ 3 and KQ 6 only
- "Brasil, M. V., Rockwood, E. J., and Smith, S. D. Comparison of silicone and polypropylene Ahmed Glaucoma Valve implants. J Glaucoma 2007 ; 16 (1): 36-41 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Bregeat, P., Hamard, H., Couderc, J. L., Lebuisson, D. A., and Lefrancois, A. [Cataract and trabeculectomy. Indications. Short term results]

  Foreign language
- "Breusegem, C., Fieuws, S., Zeyen, T., and Stalmans, I. The effect of trabeculectomy on ocular pulse amplitude. Invest Ophthalmol Vis Sci 2010 ;51 (1): 231-5 .

  It is not a RCT and has less than 100 patients, **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Breusegem, C., Spielberg, L., Van Ginderdeuren, R., Vandewalle, E., Renier, C., Van de Veire, S., Fieuws, S., Zeyen, T., and Stalmans, I. Preoperative nonsteroidal anti-inflammatory drug or steroid and outcomes after trabeculectomy: a randomized controlled trial. Ophthalmology 2010 ;117 (7): 1324-30 .

  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Breusegem, C., Spielberg, L., Van Ginderdeuren, R., Vandewalle, E., Renier, C., Van de Veire, S., Fieuws, S., Zeyen, T., and Stalmans, I. Preoperative nonsteroidal anti-inflammatory drug or steroid and outcomes after trabeculectomy: a randomized controlled trial

  Systematic review
- "Briggs, M. C. and Jay, J. L. Age over 46 years does not affect the pressure lowering effect of trabeculectomy in primary open angle glaucoma. Br J Ophthalmol 99 ;83 (3): 280-4 .

  It is a case series
- "Brinchmann-Hansen, O. and Anmarkrud, N. Pilocarpine medication in open-angle glaucoma. A study using pilocarpine eyedrops and an ocular therapeutic system. Acta Ophthalmol (Copenh) 79 ;57 (1): 55-62 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Brincker, P. and Kessing, S. V. Limbus-based versus fornix-based conjunctival flap in glaucoma filtering surgery. Acta Ophthalmol (Copenh) 92 ;70 (5): 641-4 .

  Data not abstractable
- "Brinzolamide--a new topical carbonic anhydrase inhibitor for glaucoma. Med Lett Drugs Ther 98 ;40 (1036): 95-6 .

  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Britman, N. A. Cardiac effects of topical timolol. N Engl J Med 79 ;
- 300 (10): 566 .

  It is a case series
- "Britt, M. T., LaBree, L. D., Lloyd, M. A., Minckler, D. S., Heuer, D. K., Baerveldt, G., and Varma, R. Randomized clinical trial of the 350-mm2 versus the 500-mm2 Baerveldt implant: longer term results: is bigger better?. Ophthalmology 99 ;106 (12): 2312-8 .

  Animal or in vitro data
- "Brittain, C. J., Saxena, R., and Waldock, A. Prospective comparative switch study from timolol 0.5% and latanoprost 0.005% to bimatoprost 0.03%. Adv Ther 2006 ;23 (1): 68-73 .

  Does not address any key questions
- "Broadway, D. C., Bloom, P. A., Bunce, C., Thiagarajan, M., and Khaw, P. T. Needle revision of failing and failed trabeculectomy blebs with adjunctive 5-fluorouracil: survival analysis. Ophthalmology 2004 ;111 (4): 665-73 .

  Does not address any key questions
- "Broadway, D. C., Grierson, I., and Hitchings, R. A. Local effects of previous conjunctival incisional surgery and the subsequent outcome of filtration surgery. Am J Ophthalmol 98 ;125 (6): 805-18 .

  Other (specify):Mean age under 50

- "Broadway, D. C., Grierson, I., O'Brien, C., and Hitchings, R. A. Adverse effects of topical antiglaucoma medication. II. The outcome of filtration surgery. Arch Ophthalmol 94 ;112 (11): 1446-54 .
  OAG can't be analyzed separately
- "Broadway, D. C., Iester, M., Schulzer, M., and Douglas, G. R. Survival analysis for success of Molteno tube implants. Br J Ophthalmol 2001 ;85 (6): 689-95 .
  Data not abstractable
- "Broadway, D. C., Salmon, J., Migdal, C. S., Franks, W. A., Barton, K., and Khaw, P. T. ADJUNCTIVE ANTI-TG Fß2 HUMAN MONOCLONAL ANTIBODY AS A NOVEL AGENT TO PREVENT SCARRING FOLLOWING PHACOTRABECULECTOMY
  Meeting abstract
- "Broadway, D., Grierson, I., and Hitchings, R. Adverse effects of topical antiglaucomatous medications on the conjunctiva. Br J Ophthalmol 93 ;
- 77 (9): 590-6 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Broadway, D., Grierson, I., and Hitchings, R. Racial differences in the results of glaucoma filtration surgery: are racial differences in the conjunctival cell profile important?. Br J Ophthalmol 94 ;78 (6): 466-75 .
  It is not a RCT and has less than 100 patients
- "Broadway, D., Miglior, S., and Myers, J. S. Fluctuating intraocular pressure. J Glaucoma 2005 ;14 (3): 249-51 .
  It is a case series
- "Brogliatti, B., Rolle, T., Vizzeri, G. M., and Cipullo, D. Comparison of the efficacy on intraocular pressure and retinal blood flow of a beta-blocker (timolol maleate) against the fixed association of a topical carbonic anhydrase (dorzolamide) and a beta-blocker (timolol maleate). Acta Ophthalmol Scand Suppl 2000 ; (232): 47-9 .
  Other (specify):kq 1 and 3 other trial
- "Bron, A. [Comparison of latanoprost monotherapy with timolol-dorzolamide combination in patients with open-angle glaucoma or ocular hypertension]
  Foreign language
- "Bron, A. M., Denis, P., Nordmann, J. P., Rouland, J. F., Sellem, E., and Johansson, M. Additive IOP-reducing effect of latanoprost in patients insufficiently controlled on timolol
  Medical KQ 3 only
- "Bron, A. M., Garcher, C. P., Sirbat, D., Allaire, C. M., Lablache-Combier, M. J., and Trinquand, C. J. Comparison of two fixed beta-blocker-pilocarpine combinations. The Carteolol-Pilocarpine Study Group
  Duplicate "
- "Bron, A. M., Garcher, C. P., Sirbat, D., Allaire, C. M., Lablache-Combier, M. J., and Trinquand, C. J. M. Comparison of two fixed beta-blocker-pilocarpine combinations
  Duplicate "
- "Bron, A. M., Lippa, E. A., Hofmann, H. M., Feicht, B. I., Royer, J. G., Brunner-Ferber, F. L., Panebianco, D. L., and Von Denffer, H. A. MK-927: a topically effective carbonic anhydrase inhibitor in patients. Arch Ophthalmol 89 ;107 (8): 1143-6 .
  Does not address any key questions
- "Bron, A., Chiambaretta, F., Pouliquen, P., Rigal, D., and Rouland, J. F. [Efficacy and safety of substituting a twice-daily regimen of timolol with a single daily instillation of nonpreserved beta-blocker in patients with chronic glaucoma or ocular hypertension]
  Foreign language
- "Bron, A., Chiambaretta, F., Pouliquen, P., Rigal, D., and Rouland, J.-F. Efficacy and safety of substituting a twice-daily regimen of timolol with a single daily instillation of nonpreserved beta-blocker in patients with chronic glaucoma or ocular hypertension: Interet de la substitution d'un traitement journalier de 2 instillations de timolol par 1 instillation quotidienne de betabloquant non conserve chez des patients presentant un glaucome chronique ou une hypertonie oculaire
  Duplicate "
- "Bron, A., Velasque, L., Rebica, H., Pouliquen, P., Elena, P. P., and Rouland, J. F. [Comparison of once-daily nonpreserved timolol and timolol maleate gel-forming solution associated with latanoprost]
  Foreign language
- "Bron, A., Velasque, L., Rebica, H., Pouliquen, P., Elena, P.-P., and Rouland, J.-F. Comparison of once-daily nonpreserved timolol and timolol maleate gel-forming solution associated with latanoprost: Comparaison du timolol sans conservateur et du timolol a delivrance prolongee donnes une fois par jour en association a du latanoprost
  Duplicate "
- "Bronner, A., Annonier, P., Gerhard, J. P., Flament, J., and Simony, N. [Late results of trabeculectomy in chronic simple glaucoma. Apropos of

the operations performed at the Ophthalmologic Clinic of Strasbourg from 1975 to 1981]

Foreign language

- "Brooks, A. M. and Gillies, W. E. Design and results of trabeculectomy operation for use with 5-fluorouracil. Ophthalmic Surg 92 ;23 (4): 242-5 .

Data not abstractable

- "Brooks, A. M. and Gillies, W. E. Laser trabeculoplasty--argon or diode?. Aust N Z J Ophthalmol 93 ; 21 (3): 161-4 .

Data not abstractable

- "Brooks, A. M. V., Elder, J., McNab, A. A., McCombe, M. F., Madhok, P., and Gillies, W. E. Preventing a high rise in intraocular pressure after laser trabeculoplasty. AUST. NEW ZEALAND J. OPHTHALMOL. 87 ; 15 (2): 113-117 .

OAG can't be analyzed separately

- "Brooks, A. M., West, R. H., and Gillies, W. E. Argon laser trabeculoplasty five years on. Aust N Z J Ophthalmol 88 ;16 (4): 343-51 .

It is a case series

- "Brown, H. S., Meltzer, G., Merrill, R. C., Fisher, M., Ferre, C., and Place, V. A. Visual effects of pilocarpine in glaucoma comparative study of administration by eyedrops or by ocular therapeutic systems. Arch Ophthalmol 76 ;94 (10): 1716-9 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Bruno, C. A., Radenbaugh, P. A., Trzcinka, A., Kim, D. S., John, D. A., Lutz, D., Cantor, L. B., Niziol, L. M., Musch, D. C., and Moroi, S. E. Effect of Amniotic Membrane onTrabeculectomy Outcome in a Prospective, Randomized Pilot Study of Patients at High Risk for Filtration Failure

Meeting abstract

- "Bryant, J. Laser trabeculoplasty as primary therapy for glaucoma (Structured abstract)

Abstract only

- "Bucci, M. G. Intraocular pressure-lowering effects of latanoprost monotherapy versus latanoprost or pilocarpine in combination with timolol: a randomized, observer-masked multicenter study in patients with open-angle glaucoma. Italian Latanoprost Study Group
- **Excluded drug**
- "Bucci, M. G., Centofanti, M., Oddone, F., Parravano, M., Balacco Gabrieli, C., Pecori-Giraldi, J., Librando, A., Paone, E., and Bores, L. D. Pilot study to evaluate the efficacy and safety of pneumatic trabeculoplasty in glaucoma and ocular hypertension. Eur J Ophthalmol 2005 ;15 (3): 347-52 .
- **Other (specify):No control**
- "Bucci, M. G., Cichetti, M. P., and D'Andrea, D. Ocular hypotensive effects of timolol/dapiprazole vs timolol/pilocarpine in glaucoma patients. Glaucoma 88 ;10 : 141-3 .

Does not address any key questions

- "Bucci, M. G., Quaranta, L., Quaranta, C. A., Nascimbeni, G., Semeraro, F., Quaranta, M., Braga, O., Cassamali, M., and Manni, G. L. INVESTIGATION ON THE ADDICTIVE EFFECT OF TIMOLOL AND METIPRANOLOL

Meeting abstract

- "Buchan, J. C., Siddiqui, S., and Gilmour, D. Once daily drop regimes help reduce involuntary non-compliance. Graefes Arch Clin Exp Ophthalmol 2007 ;245 (2): 327-8 .

It is not a RCT and has less than 100 patients

- "Budenz DL, Barton K, Feuer WJ, Schiffman J, Costa VP, Godfrey DG, Buys YM, and Ahmed Baerveldt Comparison Study Group. Treatment outcomes in the Ahmed Baerveldt Comparison Study after 1 year of follow-up. Ophthalmology 2011 ;118 (3): 443-52 .

No subjects with open-angle glaucoma

- "Budenz, D. L. A clinician's guide to the assessment and management of nonadherence in glaucoma

Systematic review

- "Budenz, D. L., Barton, K., Feuer, W. J., Schiffman, J., Costa, V. P., Godfrey, D. G., and Buys, Y. M. Treatment Outcomes in the Ahmed Baerveldt Comparison Study after 1 Year of Follow-up. Ophthalmology 2010 ;

No subjects with open-angle glaucoma

- "Budenz, D. L., Barton, K., Feuer, W. J., Schiffman, J., Costa, V. P., Godfrey, D. G., and Buys, Y. M. Treatment outcomes in the Ahmed Baerveldt Comparison Study after 1 year of follow-up. Ophthalmology 2011 ;118 443-52 .

No subjects with open-angle glaucoma

- "Budenz, D. L., Gedde, S. J., Schiffman, J. C., Feuer, W. J., Herndon, L. W., Brandt, J. D., and Tube versus Trabeculectomy Study Group. Surgical Complications in the Tube versus Trabeculectomy (TVT) Study during the First Three Years of Follow-Up
- **Meeting abstract**

- "Budenz, D. L., Pyfer, M., Singh, K., Gordon, J., Piltz-Seymour, J., and Keates, E. U. Comparison of phacotrabeculectomy with 5-fluorouracil, mitomycin-C, and without antifibrotic agents. Ophthalmic Surg Lasers 99 ;30 (5): 367-74 .
  It is not a RCT and has less than 100 patients
- "Bunce, C. and Hitchings, R. Medical vs surgical therapy in preventing visual field loss. Ophthalmology 2003 ;110 (2): 249; author reply 249-50 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Bunin, A. I. a., Ermakova, V. N., and Gurtovaia, E. E. [Hypersecretory glaucoma]
  Foreign language
- "Buquicchio, R., Foti, C., Cassano, N., Ventura, M., and Vena, G. A. Allergic contact dermatitis from timolol complicating choroidal melanoma-related glaucoma. Eur J Dermatol 2009 ;19 (1): 74-5 .
  Does not address any key questions
- "Burchfield, J. C., Kolker, A. E., and Cook, S. G. Endophthalmitis following trabeculectomy with releasable sutures. Arch Ophthalmol 96 ;
- 114 (6): 766 .
  It is a case series
- "Burggraf, G. W. and Munt, P. W. Topical timolol therapy and cardiopulmonary function. Can J Ophthalmol 80 ;15 (4): 159-60 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Buys, Y. M. and Trope, G. E. Prospective study of sub-Tenon's versus retrobulbar anesthesia for inpatient and day-surgery trabeculectomy. Ophthalmology 93 ;100 (10): 1585-9 .
  Does not address any key questions
- "Buys, Y. M., Chipman, M. L., Zack, B., Rootman, D. S., Slomovic, A. R., and Trope, G. E. Prospective randomized comparison of one- versus two-site Phacotrabeculectomy two-year results. Ophthalmology 2008 ;115 (7): 1130-1133.e1 .
  OAG can't be analyzed separately
- "Buys, Y. M., Zack, B., Chipman, M., Trope, G. E., Rootman, D. S., and Slomovic, A. R. Prospective Randomized Comparison of One- Versus Two-Site Phacotrabeculectomy. Two Year Data
  Meeting abstract
- "Buys, Y. M., Zack, B., Slomovic, A. R., Rootman, D. S., and Trope, G. E. Prospective Randomized Comparison of One- versus Two-Site Phacotrabeculectomy, Two Year Results
  Meeting abstract
- "Buzarovska, K. B., Jordanova, V. D., Vukosavljevic, M., and Dzajkovska, E. [Visual acuty after trabeculectomy]
  Foreign language
- "Buzek, J. [Effect of drugs, used in the conservative treatment of glaucoma, on immediate adaptation]
  Foreign language
- "Bylsma, S. S. Trabeculectomy with antimetabolites vs nonpenetrating deep sclerectomy with collagen implant: new randomized protocol
  Meeting abstract
- "Caca, I., Simsek, H., Unlu, K., Ari, S., and Keklikci, U. A comparison of latanoprost monotherapy with a combination therapy of timolol/dorzolamide in patients with primary open-angle glaucoma. Ann Ophthalmol (Skokie) 2006 ;38 (2): 111-5 .
  Other (specify): No concurrent control"
- "Cackett, P., Vallance, J., Cobb, C., Devlin, H., Simpson, A., and Sanders, R. South-East Scotland trabeculectomy survey. Eye (Lond) 2007 ;21 (1): 46-51 .
  It is a case series
- "Cai, Y., Fu, P., Wu, J. A., and Li, M. Y. A randomized parallel-group study comparing latanoprost treatment with timolol in patients with open angle glaucoma or ocular hypertension
  Meeting abstract
- "Calenda, E. and Tourrel, F. Sinoatrial block induced by timolol eyedrops. Can J Ophthalmol 2007 ;42 (1): 149 .
  It is a case series
- "Calissendorff, B. M. and Hamberg-Nystrom, H. Pressure control in glaucoma patients after cataract surgery with intraocular lens. Eur J Ophthalmol 92 ;2 (4): 163-8 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Calissendorff, B., Maren, N., Wettrell, K., and Ostberg, A. Timolol versus pilocarpine separately or combined with acetazolamide-effects on intraocular pressure. Acta Ophthalmol (Copenh) 80 ;58 (4): 624-31 .
  Other (specify):pilocarpine
- "Calugaru, D. and Calugaru, M. [Bimatoprost therapy in glaucoma]
  Systematic review
- "Calugaru, D. and Calugaru, M. [Monotherapy with lipid structural derivatives in glaucoma]
  Systematic review

- "Cameli, N., Vicenzi, C., and Tosti, A. Allergic contact conjunctivitis due to timolol in eyedrops. Contact Dermatitis 91 ;25 (2): 129-30 .
  It is a case series
- "Campagna, P., Macri, A., Rolando, M., and Calabria, G. Chronic topical eye preservative-free beta-blocker therapy effect on the ocular surface in glaucomatous patients. Acta Ophthalmol Scand Suppl 97 ;(224): 53 .
  It is not a RCT and has less than 100 patients
- "Campbell, S. H., Hickey-Dwyer, M., and Harding, S. P. Double-masked three-period crossover investigation of timolol in control of raised intraocular pressure
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Camras, C. B and United States Latanoprost-Brimonidine Study Group. Efficary and Safety of Latanoprost or Brimonidine in Patients with Ocular Hypertension or Primary Open Angle Glaucoma
  Meeting abstract
- "Camras, C. B, Wax, M., Ritch, R., Weinre, R. N, Robin, A. L, and Higginbotham, E. J. Latanoprost. A Potent Ocular Hypotensive Prostaglandin Analog, Increases Pigmentation in Peripherally Hypopigmented Irides
  Meeting abstract
- "Camras, C. B. and Hedman, K. Rate of response to latanoprost or timolol in patients with ocular hypertension or glaucoma
  Medical KQ 3 only
- "Camras, C. B. and Sheu, W. P. Latanoprost or brimonidine as treatment for elevated intraocular pressure: multicenter trial in the United States
  Medical KQ 3 only
- "Camras, C. B. and The Brinzolamid Primary Therapy Study Group. A TRIPLE-MASKED. PRIMARY THERAPY STUDY OF THE EFFICACY AND SAFETY OF BID AND TID-DOSED BRINZOLAMIDE 1% COMPARED TO TID-DOSED DORZOlAMIDE 2% AND BID-DOSED TIMOLOL 0.5%
  Meeting abstract
- "Camras, C. B. and the United States Latanoprost Study Group. RATE OF RESPONSE TO LATANOPROST OR TIMOLOL IN PATIENTS WITH OCULAR HYPERTENSION OR GLAUCOMA
  Meeting abstract
- "Camras, C. B. Brimonidine and latanoprost as adjunctive therapy. Ophthalmology 2003 ;110 (1): 6-8; author reply 8-9 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Camras, C. B. Brimonidine and latanoprost as adjunctive therapy. Ophthalmology 2004 ;111 (2): 410-1 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Camras, C. B. CME and anterior uveitis with latanoprost use. Ophthalmology 98 ;105 (11): 1978-81 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Camras, C. B. Comparison of latanoprost and timolol in patients with ocular hypertension and glaucoma: a six-month masked, multicenter trial in the United States. The United States Latanoprost Study Group
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Camras, C. B., Alm, A., Watson, P., and Stjernschantz, J. Latanoprost, a prostaglandin analog, for glaucoma therapy. Efficacy and safety after 1 year of treatment in 198 patients. Latanoprost Study Groups. Ophthalmology 96 ;103 (11): 1916-24 .
  Other (specify):Study design does not match KQ
- "Camras, C. B., Schumer, R. A., Marsk, A., Lustgarten, J. S., Serle, J. B., Stjernschantz, J., Bito, L. Z., and Podos, S. M. Intraocular pressure reduction with PhXA34, a new prostaglandin analogue, in patients with ocular hypertension. Arch Ophthalmol 92 ;110 (12): 1733-8 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Camras, C. B., Wax, M. B., Ritch, R., Weinreb, R., Robin, A. L., Higginbotham, E. J., Lustgarten, J., Stewart, W. C., Sherwood, M., Krupin, T., Wilensky, J., Cioffi, G. A., Katz, L. J., Schumer, R. A., Kaufman, P. L., Minckler, D., Zimmerman, T., and Stjernschantz, J. Latanoprost treatment for glaucoma: effects of treating for 1 year and of switching from timolol. United States Latanoprost Study Group
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Camras, C. B., Wax, M. B., Ritch, R., Weinreb, R., Robin, A. L., Higginbotham, E. J., Lustgarten, J., Stewart, W. C., Sherwood, M., Krupin, T., Wilensky, J., Cioffi, G. A., Katz, L. J., Schumer, R. A., Kaufman, P. L., Minckler, D., Zimmerman, T., and Stjernschantz, J. Latanoprost treatment for glaucoma: Effects of treating for 1 year and of switching from timolol
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Canadian Glaucoma Study Group. Canadian Glaucoma Study: 1. Study design, baseline characteristics, and preliminary analyses. Canadian journal of ophthalmology. Journal canadien d'ophtalmologie 2006 ;

41 (5): 566-75 .

Does not address any key questions

- "Cankaya, A. B., Teberik, P., and Acaroglu, G. Alterations in anterior chamber depth in primary open-angle glaucoma patients during latanoprost therapy. Acta Ophthalmol 2009 ;

It is not a RCT and has less than 100 patients, **Does not address any key questions**

- "Cantor, L. B and AGN 192024 Study Groups, 1. & 2. 6-Month comparison of AGN 192024 once-daily and twice-daily with timolol twicedaily in patients with elevated IOP

Meeting abstract

- "Cantor, L. B, Hoop, J., Morgan, L., and Bimatoprost-Travoprost Study Group. IOP-Lowering Efficacy of Bimatoprost 0.03% and Travoprost 0.004% in Patients With Glaucoma or Ocular Hypertension

Meeting abstract

- "Cantor, L. B. COMPARISON OF BRIMONIDINE 0.2% VERSUS BETAXOLOL 0.25% FOR CONTROL OF INTRAOCULAR PRESSURE

Meeting abstract

- "Cantor, L. B., Alvi, N. P., Hoop, J. S., Katz, L. J., Flartey, K., Brizendine, E. I., and Bhavnani, V. D. COMPARISON OF ONCE DAILY LEVOBUNOLOL 0.5%. VERSUS TIMOLOL XE O.5% FOR THE CONTROL OF INTRAOCULAR PRESSURE AND PATIENT COMFORT

Meeting abstract

- "Cantor, L. B., Boeglin, R. J., Kramer, D. M., and Phillips, C. A. THE EFFECT OF TOPICAL FLURBIPROFEN ON TRABECULECTOMY

Meeting abstract

- "Cantor, L. B., Hoop, J., Katz, L. J., and Flartey, K. Comparison of the clinical success and quality-of-life impact of brimonidine 0.2% and betaxolol 0.25 % suspension in patients with elevated intraocular pressure

Medical KQ 3 only

- "Cantor, L. B., Hoop, J., Katz, L. J., Flartey, K., and Alphagan/Betaxolol Clinical Success Study Group. Comparison of the clinical success and quality-of-life impact of brimonidine 0.2% and betaxolol 0.25 % suspension in patients with elevated intraocular pressure

Medical KQ 3 or KQ 3 and KQ 6 only

- "Cantor, L. B., Hoop, J., Morgan, L., Wudunn, D., and Catoira, Y. Intraocular pressure-lowering efficacy of bimatoprost 0.03% and travoprost 0.004% in patients with glaucoma or ocular hypertension

Medical KQ 3 or KQ 3 and KQ 6 only

- "Cantor, L. B., Katz, L. J., Flartey, K. J., Spaeth, G. L., WuDunn, D., Hoop, J. S., Lakhani, V., and Alvi, N. P. COMPARISON OF THE EFFECT OF ALPHAGAN 0.2% VERSUS TRUSOPT 2.0% IN COMBINATION WITH BETA-BLOCKERS

Meeting abstract

- "Cantor, L. B., Liu, C. C., Batoosingh, A. L., and Hollander, D. A. Safety and tolerability of brimonidine purite 0.1% and brimonidine purite 0.15%: a meta-analysis of two phase 3 studies

Systematic review

- "Cantor, L. B., Phillips, C. A., Kramer, D., Boeglin, R. J., Manatunga, A., and Holleman, E. Effect of topical flurbiprofen on trabeculectomy. J Glaucoma 95 ;4 (2): 98-102 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Cantor, L. B., Safyan, E., Liu, C. C., and Batoosingh, A. L. Brimonidine-purite 0.1% versus brimonidine-purite 0.15% twice daily in glaucoma or ocular hypertension: a 12-month randomized trial

Unique comparators

- "Cantor, L. B., WuDunn, D., Alvi, N. P., Hoop, J. S., Katz, L. J., Flartey, K., and Brizendine, E. J. COMPARISON OF TWICE DAILY BETAXOLOL 0.25% VERSUS BRIMONIDINE 0.2% FOR THE CONTROL OF INTRAOCULAR PRESSURE

Meeting abstract

- "Cantor, L. B., WuDunn, D., Cortes, A., Hoop, J., and Knotts, S. Ocular hypotensive efficacy of bimatoprost 0.03% and travoprost 0.004% in patients with glaucoma or ocular hypertension

Medical KQ 3 or KQ 3 and KQ 6 only

- "Cantor, L., Burgoyne, J., Sanders, S., Bhavnani, V., Hoop, J., and Brizendine, E. The effect of mitomycin C on Molteno implant surgery: a 1-year randomized, masked, prospective study. J Glaucoma 98 ;7 (4): 240-6 .

OAG can't be analyzed separately

- "Caporossi, A., Balestrazzi, A., Malandrini, A., Tosi, G. M., Caporossi, T., Frezzotti, P., and Lomurno, L. A randomized prospective study comparing trabeculectomy with and without the use of a new removable suture. Int Ophthalmol 2009 ;29 (5): 359-65 .

OAG can't be analyzed separately

- "Caprioli, J. and Coleman, A. L. Intraocular pressure fluctuation a risk factor for visual field progression at low intraocular pressures in the

advanced glaucoma intervention study. Ophthalmology 2008 ;115 (7): 1123-1129.e3 .

Does not address any key questions

- "Caprioli, J. The treatment of normal-tension glaucoma. Am J Ophthalmol 98 ;126 (4): 578-81 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Caprioli, J., Park, H. J., and Weitzman, M. Temporal corneal phacoemulsification combined with superior trabeculectomy: a controlled study. Trans Am Ophthalmol Soc 96 ;94 : 451-63; discussion 463-8 .

It is not a RCT and has less than 100 patients

- "Carassa, R. G, Bettin, P., Fiori, M., and Brancato, R. Viscocanalostomy vs. trabeculectomy: evaluation of postoperative visual field evolution

Meeting abstract

- "Carassa, R. G., Bettin, P., and Brancato, R. Viscocanalostomy: a pilot study. Acta Ophthalmol Scand Suppl 98 ; (227): 51-2 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Carassa, R. G., Bettin, P., Fiori, M., and Brancato, R. Viscocanalostomy versus trabeculectomy in white adults affected by open-angle glaucoma: a 2-year randomized, controlled trial

Cheng 2009 and Chai 2010

- "Carassa, R. G., Bettin, P., Fiori, M., and Brancato, R. Viscocanalostomy vs Trabeculectomy.. Three Years After

Meeting abstract

- "Carassa, R. G., Bettin, P., Fiori, M., Sannace, C., and Brancato, R. Viscocanalostomy vs. trabeculectomy: a 12-month randomized prospective trial

Meeting abstract

- "Cardascia, N., Vetrugno, M., Trabucco, T., Cantatore, F., and Sborgia, C. Effects of travoprost eye drops on intraocular pressure and pulsatile ocular blood flow: A 180-day, randomized, double-masked comparison with latanoprost eye drops in patients with open-angle glaucoma

Medical KQ 3 or KQ 3 and KQ 6 only

- "Carenini, B. B., Brogliatti, B., Spinelli, D., Orzalesi, N., Gandolfo, E., Bonomi, L., Brusini, P., Guerra, R., Salvi, G., Fiore, P., Balestrazzi, E., Boccassini, S., Bucci, M., Montrone, F., Esposito, G., Gelso, P., and Ferreri, G. Latanoprost in monotherapy compared with Timolol and Dorzolamide in association as hypotensive agents in primary open-angle glaucoma and ocular hypertension. An open, randomized, multicentric, Italian study. Acta Ophthalmol. Scand. Suppl. 99 ;77 (229): 53 .

Data not abstractable

- "Carlson, D. W., Alward, W. L., Barad, J. P., Zimmerman, M. B., and Carney, B. L. A randomized study of mitomycin augmentation in combined phacoemulsification and trabeculectomy. Ophthalmology 97 ;104 (4): 719-24 .

It is combined cataract/glaucoma surgery study published before April 2000

- "Carlsson, A. M., Chauhan, B. C., Lee, A. A., and Leblanc, R. P. Intraocular pressure and progression of glaucomatous visual field loss

Medical KQ 3 or KQ 3 and KQ 6 only

- "Carlsson, A. M., Chauhan, B. C., Lee, A. A., and LeBlanc, R. P. The effect of brimonidine tartrate on retinal blood flow in patients with ocular hypertension

Medical KQ 3 or KQ 3 and KQ 6 only

- "Carlsson, A. M., Chauhan, B. C., Lee, A. A., and Leblanc, R. P. The effect of brimonidine tartrate on retinal blood flow in patients with ocular hypertension

KQ 3 and KQ 6 medical "

- "Caronia, R. M., Liebmann, J. M., Friedman, R., Cohen, H., and Ritch, R. Trabeculectomy at the inferior limbus. Arch Ophthalmol 96 ;114 (4): 387-91 .

OAG can't be analyzed separately

- "Carpineto, P., Ciancaglini, M., Zuppardi, E., Doronzo, E., and Mastropasqua, L. The role of the uveoscleral outflow in the management of pigmentary glaucoma: a 24-month study comparing latanoprost with timolol

Medical KQ 3 only

- "Carrasco Font, C., Arias Puente, A., Garcia Saenz, M. C., and Villarejo Diaz-Maroto, I. [Efficiency of brimonidine 0.2% and dorzolamide 2% as adjunctive therapy to beta-blockers]. Arch Soc Esp Oftalmol 2004 ; 79 (4): 163-8 .

It is not a RCT and has less than 100 patients

- "Carstocea, B., Gafencu, O., Armegioiu, M., Ionita, N., Postaliu, D., Paiu, M., and Stanca, H. [Difficulties in cataract surgery of patient with old glaucoma]

Foreign language

- "Casiraghi, J. F., Moussalli, M. A., and Lavena, P. I. [Perimetric changes after surgery in advanced glaucoma]

Foreign language

- "Cassels-Brown, A., Diggory, P., and Vail, A. TIMOLOL OR BETAXOLOL FOR ELDERLY NEW GLAUCOMA PATIENTS

Meeting abstract

- "Cassidy, H. Clinical evaluation of timolol maleate in glaucoma [abstract]

Meeting Abstact

- "Casson, R. J., Liu, L., Graham, S. L., Morgan, W. H., Grigg, J. R., Galanopoulos, A., Crawford, A., and House, P. H. Efficacy and safety of bimatoprost as replacement for latanoprost in patients with glaucoma or ocular hypertension: a uniocular switch study

Medical KQ 3 or KQ 3 and KQ 6 only

- "Castanheira, Vera Regina Cardoso. Trabeculectomia em glaucoma em fase final

Foreign language

- "Castro, Pedro, Durbn, Nieves, and Aizp·rua, Ricardo. CirugÆa con y sin mitomicina C en glaucoma primario de bngulo abierto: control de la presi£n intraocular y complicaciones

Foreign language

- "Cates, C. A. and Jeffrey, M. N. Granulomatous anterior uveitis associated with 0.2% topical brimonidine. Eye (Lond) 2003 ;17 (5): 670-1 .

It is a case series

- "Catoira, Y. M, Harris, A., Siesky, B., Cantor, L., Kagemann, L., Garzozi, H., Lusky, M., and P Tsai, P. Intraocular Pressure Correlates with Visual Function in Primary Open Angle Glaucoma Patients

Meeting abstract

- "Cellini, M, Baldi, A, Tagliavini, and M. Comparative efficacy of timolol and betaxolol in the treatment of open angle glaucoma. Annali De Ottamologica E Clinica Oculista 88 ;114 : 267-72 .

Other (specify):non-english

- "Cellini, M., Profazio, V., Possati, G. L., Toscano, F. M., Mangiafico, P., and Santiago, L. Effect of 5-fluorouracil and mitomycin con ocular hydrodynamic: EFFETTO DEL 5-FLUOROURACILE E DELLA MITOMICINA C SULL'IDRODINAMICA OCULARE

Foreign language

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Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Centofanti, M., Gregorio, A. D., Manni, G. L., Pasisi, V., and Bucci, M. G. COMPARATIVE ACUTE EFFECTS OF 0.2% BRIMONIDINE VERSUS 2% DORZOLAMIDE COMBINED TO BETA BLOCKERS IN OCULAR HYPERTENSION

Meeting abstract

- "Centofanti, M., Manni, G. L., Napoli, D., and Bucci, M. G. Comparative effects of intraocular pressure between systemic and topical carbonic anhydrase inhibitors: a clinical masked, cross-over study. Pharmacol Res 97 ;35 (5): 481-5 .

Other (specify):Study design does not match KQ

- "Centofanti, M., Manni, G. L., Napoli, D., and Bucci, M. G. Comparative effects on intraocular pressure between systemic and topical carbonic anhydrase inhibitors: A clinical masked, cross-over study. PHARMACOL. RES. 97 ;35 (5): 481-485 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Centofanti, M., Manni, G., Gregori, D., Cocco, F., Lorenzano, D., and Bucci, M. G. Comparative acute effects of brimonidine 0.2% versus dorzolamide 2% combined with beta-blockers in glaucoma. Graefes Arch Clin Exp Ophthalmol 2000 ;238 (4): 302-5 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Centofanti, M., Oddone, F., Chimenti, S., Tanga, L., Citarella, L., and Manni, G. Prevention of dermatologic side effects of bimatoprost 0.03% topical therapy. Am J Ophthalmol 2006 ;142 (6): 1059-60 .

Does not address any key questions

- "Centofanti, M., Oddone, F., Gandolfi, S., Hommer, A., Boehm, A., Tanga, L., Sangermani, C., Sportelli, V., Haustein, M., Manni, G., and Rossetti, L. Comparison of Travoprost and Bimatoprost plus timolol fixed combinations in open-angle glaucoma patients previously treated with latanoprost plus timolol fixed combination

Non-FDA-approved drug combination

- "Centofanti, M., Oddone, F., Vetrugno, M., Manni, G., Fogagnolo, P., Tanga, L., Ferreri, P., and Rossetti, L. Efficacy of the fixed combinations of bimatoprost or latanoprost plus timolol in patients uncontrolled with prostaglandin monotherapy: a multicenter, randomized, investigator-masked, clinical study. Eur J Ophthalmol 2009 ;19 (1): 66-71 .

Other (specify):Neither drug is fda-approved

- "Chadha, V., Cruickshank, I., Swingler, R., and Sanders, R. Advanced glaucomatous visual loss and oral steroids. BMJ 2008 ;337 : a670 .

  It is a case series
- "Chagnon, A., Bonnefoy, C., Mandirac, and Ourgaud, M. [3 years' use of timolol in chronic open-angle glaucoma]

  Foreign language
- "Chai, C. and Loon, S. C. Meta-analysis of viscocanalostomy versus trabeculectomy in uncontrolled glaucoma

  Systematic review
- "Chakib, A., Ouarrach, N., Haloui, M., Elbelhadji, M., and Amraoui, A. [Viscocanalostomy: preliminary clinical results]

  Foreign language
- "Chan, K., Testa, M., and McCluskey, P. Ocular comfort of combination glaucoma therapies: brimonidine 0.2%/timolol 0.5% compared with dorzolamide 2%/timolol 0.5%. J Ocul Pharmacol Ther 2007 ;23 (4): 372-6 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Chandrasekaran, S., Cumming, R. G., Rochtchina, E., and Mitchell, P. Associations between elevated intraocular pressure and glaucoma, use of glaucoma medications, and 5-year incident cataract: The Blue Mountains Eye Study. Ophthalmology 2006 ;113 (3): 417-424 .

  OAG can't be analyzed separately
- "Chang, L., Thiagarajan, M., Moseley, M., Woodruff, S., Bentley, C., Khaw, P. T., and Bloom, P. Intraocular pressure outcome in primary 5FU phacotrabeculectomies compared with 5FU trabeculectomies. J Glaucoma 2006 ;15 (6): 475-81 .

  It is not a RCT and has less than 100 patients
- "Charap, A. D., Shin, D. H., Petursson, G., Cinotti, D., Wortham, E. 4th, Brown, R. H., Silverstone, D. E., Atkins, J. M., Eto, C. Y., Lue, J. C., and et, a. l. Effect of varying drop size on the efficacy and safety of a topical beta blocker. Ann Ophthalmol 89 ;21 (9): 351-7 .

  No subjects with open-angle glaucoma
- "Charleux, J. and Villa, J. [Triple procedure: operation of glaucoma, cataract and intra-ocular lens implantation. Review of 120 cases]. Ophtalmologie 87 ;1 (3): 365-7 .

  It is combined cataract/glaucoma surgery study published before April 2000
- "Charron, R. C. and Feldman, F. Acetazolamide therapy with renal complications. Can J Ophthalmol 74 ;9 (3): 282-4 .

  It is a case series
- "Chatterjee, S. and Ansari, M. W. Microsurgical trabeculectomy in Ghana. Br J Ophthalmol 72 ;56 (10): 783-7 .

  It is not a RCT and has less than 100 patients
- "Chaudhry, I. A., Pasha, M. A., O'Connor, D. J., Weitzman, M. L., and Caprioli, J. Randomized, controlled study of low-dose 5-fluorouracil in primary trabeculectomy. Am J Ophthalmol 2000 ;130 (6): 700-3 .

  OAG can't be analyzed separately
- "Chauhan, B. C., Drance, S. M., and Douglas, G. R. The effect of long-term intraocular pressure reduction on the differential light sensitivity in glaucoma suspects. Invest Ophthalmol Vis Sci 88 ;29 (10): 1478-85 .

  Does not address any key questions
- "Chauhan, B. C., Drance, S. M., and Douglas, G. R. The time-course of intraocular pressure in timolol-treated and untreated glaucoma suspects

  Medical KQ 3 or KQ 3 and KQ 6 only
- "Chauhan, B. C., Nicolela, M. T., and Artes, P. H. Incidence and rates of visual field progression after longitudinally measured optic disc change in glaucoma

  Systematic review
- "Chauhan, D. C., Carlsson, A., Lee, A., and LeBlanc, R. P. EFFECT OF BRIMONIDINE TARTRATE ON RETINAL BLOOD FLOW IN OCULAR HYPERTENSION

  Meeting abstract
- "Cheetham, J. K., Tang-Liu, D., Yu, A., VanDenburgh, A., Acheampong, A., and Yu, D. Long-term Systemic Exposure Of Lumigan In Patients With Glaucoma Or Ocular Hypertension

  Meeting abstract
- "Chen, C. W., Huang, H. T., Bair, J. S., and Lee, C. C. Trabeculectomy with simultaneous topical application of mitomycin-C in refractory glaucoma. J Ocul Pharmacol 90 ;6 (3): 175-82 .

  Data not abstractable
- "Chen, E., Golchin, S., and Blomdahl, S. A comparison between 90 degrees and 180 degrees selective laser trabeculoplasty. J Glaucoma 2004 ;13 (1): 62-5 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Chen, H., Ge, J., Liu, X., and Lu, F. [The clinical analysis of 260 combined surgery of glaucoma and cataract]

  Foreign language

- "Chen, H., Zhang, S. X., Liu, L., Lin, D., Tang, X., Sun, L., Wang, T., Wang, H., and Wang, N. L. [Intermediate-term and long-term clinical evaluation of the Ahmed glaucoma valve implantation]
  Foreign language
- "Chen, M. J., Chou, J. C., Hsu, W. M., and Liu, J. H. The efficacy and safety of brimonidine 0.2% compared with timolol 0.5% in glaucoma: a randomized clinical trial on Taiwanese patients
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Chen, M. J., Lin, S. C., and Chen, M. J. Effect of a YAG laser iridotomy on intraocular pressure in pigmentary glaucoma. Br J Ophthalmol 2002 ;
- 86 (12): 1443-4 .
  It is a case series
- "Chen, P. C, Schuman, J. S, Mattox, C., Weiss, H. S, Krug, J. H Jr, Gross, F. J, Coleman, A. L, and Zonderman, J. A Randomized Prospective Clinical Trial Comparing Surface-Modified with Standard Krupin Valves with Disk
  Meeting abstract
- "Chen, P. C., Schuman, J. S., Mattox, C., Zondermann, J., Weiss, H. S., Krug, J. H., Gross, F. J., and Coleman, A. L. A RANDOMIZED PROSPECTIVE CLINICAL TRIAL COMPARING SURFACE MODIFIED TO STANDARD KRUPIN VALVES WITH DISK
  Meeting abstract
- "Chen, P. P. Blindness in patients with treated open-angle glaucoma. Ophthalmology 2003 ;110 (4): 726-733 .
  Does not address any key questions
- "Chen, P. P., Musch, D. C., and Niziol, L. M. The Effect of Early Posttrabeculectomy Intraocular Pressure Spike in the Collaborative Initial Glaucoma Treatment Study. J Glaucoma 2010 ;
  Other (specify): No control group, **Does not address any key questions (see below for questions)**, **Does not address any key questions (see below for questions)**"
- "Chen, P. P., Weaver, Y. K., Budenz, D. L., Feuer, W. J., and Parrish, R. K. 2nd. Trabeculectomy function after cataract extraction. Ophthalmology 98 ;105 (10): 1928-35 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Chen, S. Y., Kuang, G. P., Xie, L. L., Zhu, J. D., Tan, X. L., and Wu, Z. Q. [Application of releasable suture in combined phacoemulsification and trabeculectomy]
  Foreign language
- "Chen, T. C., Ang, R. T., Grosskreutz, C. L., Pasquale, L. R., and Fan, J. T. Brimonidine 0.2% versus apraclonidine 0.5% for prevention of intraocular pressure elevations after anterior segment laser surgery. Ophthalmology 2001 ;108 (6): 1033-8 .
  Does not address any key questions
- "Chen, T. C., Pasquale, L. R., Walton, D. S., and Grosskreutz, C. L. Diode laser transscleral cyclophotocoagulation. Int Ophthalmol Clin 99 ;
- 39 (1): 169-76 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Chen, Y. F., Yang, C. H., and Hung, P. T. A six-week, parallel, randomized, double-blind study comparing the efficacy and safety of the 0.5% timolol/2.0% MK-507 combination b.i.d. to the concomitant administration of 0.5% timolol b.i.d. and 2.0% MK-507 b.i.d. J Ocul Pharmacol Ther 2003 ;19 (5): 417-23 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Cheng, J. W., Cai, J. P., and Wei, R. L. Meta-analysis of medical intervention for normal tension glaucoma
  Systematic review
- "Cheng, J. W., Cai, J. P., Li, Y., and Wei, R. L. A meta-analysis of topical prostaglandin analogs in the treatment of chronic angle-closure glaucoma
  Systematic review
- "Cheng, J. W., Li, Y., and Wei, R. L. Systematic review of intraocular pressure-lowering effects of adjunctive medications added to latanoprost
  Systematic review
- "Cheng, J. W., Xi, G. L., Wei, R. L., Cai, J. P., and Li, Y. Efficacy and tolerability of latanoprost compared to dorzolamide combined with timolol in the treatment of patients with elevated intraocular pressure: a meta-analysis of randomized, controlled trials
  Systematic review
- "Cheng, J. W., Xi, G. L., Wei, R. L., Cai, J. P., and Li, Y. Efficacy and tolerability of nonpenetrating filtering surgery in the treatment of open-angle glaucoma: a meta-analysis
  Systematic review
- "Cheng, J. W., Xi, G. L., Wei, R. L., Cai, J. P., and Li, Y. Efficacy and tolerability of nonpenetrating glaucoma surgery augmented with mitomycin C in treatment of open-angle glaucoma: a meta-analysis
  Systematic review

- "Cher, I. Transfer to timolol: selective use of a new mode of therapy. Aust J Ophthalmol 80 ;8 (2): 165-72 .
  Does not address any key questions
- "Cherkunov, B. F., Kolesnikova, M. A., and Kunin, V. D. [Immediate and long-term results of modified trabeculectomy]
  Foreign language
- "Chevrier, R. L., Assalian, A., Duperre, J., and Lesk, M. R. Apraclonidine 0.5% versus brimonidine 0.2% for the control of intraocular pressure elevation following anterior segment laser procedures. Ophthalmic Surg Lasers 99 ;30 (3): 199-204 .
  Does not address any key questions
- "Chia, W. L. and Goldberg, I. Comparison of extracapsular and phaco-emulsification cataract extraction techniques when combined with intra-ocular lens placement and trabeculectomy: short-term results. Aust N Z J Ophthalmol 98 ;26 (1): 19-27 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Chiba, T., Kashiwagi, K., Chiba, N., Ishijima, K., Furuichi, M., Kogure, S., Abe, K., and Tsukahara, S. Comparison of iridial pigmentation between latanoprost and isopropyl unoprostone: a long term prospective comparative study. Br J Ophthalmol 2003 ;87 (8): 956-9 .
  Other (specify): Unoprostone"
- "Chihara, E. and Hayashi, K. Different modes of intraocular pressure reduction after three different nonfiltering surgeries and trabeculectomy. Jpn J Ophthalmol 2011 ; 107-14 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Chihara, E., Dong, J., Ochiai, H., and Hamada, S. Effects of tranilast on filtering blebs: a pilot study. J Glaucoma 2002 ;11 (2): 127-33 .
  It is a case series
- "Chihara, E., Nishida, A., Kodo, M., Yoshimura, N., Matsumura, M., Yamamoto, M., and Tsukada, T. Trabeculotomy ab externo: an alternative treatment in adult patients with primary open-angle glaucoma
  Foreign language
- "Chihara, E., Okazaki, K., Takahashi, H., Shoji, T., Adachi, H., and Hayashi, K. Modified deep sclerectomy (D-lectomy MMC) for primary open-angle glaucoma: preliminary results. J Glaucoma 2009 ;18 (2): 132-9
  Other (specify):Study design does not match KQ
- "Chiou, S. H., Hsu, W. M., Liu, J. H., Liu, J. L., Chen, M. R., Tsai, D. C., and Chou, C. K. Comparative study of timolol gel versus timolol solution for patients with glaucoma. Zhonghua Yi Xue Za Zhi (Taipei) 2000 ; 63 (10): 737-43 .
  Other (specify):Not a comparison of interest
- "Chisalita, D. and Poiata, I. [The progression of primary operated glaucoma]
  Foreign language
- "Chisalita, D., Poiata, I., and Cozma, D. [Postoperative flat anterior chamber. The therapeutic approach]
  Foreign language
- "Chiselita, D. Non-penetrating deep sclerectomy versus trabeculectomy in primary open-angle glaucoma surgery
  Cheng 2009
- "Chiselita, D., Antohi, I., Medvichi, R., Danielescu, C., Marcu, C., Trifina, A., and Ciobanu, C. [The influence of cataract surgery on the efficacy of trabeculectomy in patients with open-angle glaucoma]
  Foreign language
- "Chiselita, D., Apatachioae, I., and Poiata, I. [The ocular hypotensive effect of the combination of latanoprost with dorzolamide]
  Foreign language
- "Chiselita, D., Poiata, I., Tiutiuca, C., Stanciu, D., and Vancea, P. P. [Primary trabeculectomy in the surgery of primary open angle glaucoma]
- **Foreign language**
- "Chiselita, D., Vancea, P. P., and Poiata, I. [The effect of chronic beta-blocker treatment on the evolution of primary open-angle glaucoma]
- **Foreign language**
- "Chiselita, D., Vancea, P. P., Bogdanici, C., and Branisteanu, D. [A comparison of the long-term results and complications of trabeculectomy]
- **Foreign language**
- "Cho, S. W., Kim, J. M., Park, K. H., and Choi, C. Y. Effects of brimonidine 0.2%-timolol 0.5% fixed-combination therapy for glaucoma. Jpn J Ophthalmol 2010 ;
- 54 (5; status =Department of Ophthalmology, Sungkyunkwan University School of Medicine, Kangbuk Samsung Hospital, Seoul, Korea.
-): 407-13 .
- **It is not a RCT and has less than 100 patients**
- "Choplin, N. and Brimonidine Study Group. VISUAL FIELD RESULTS FROM A ONE-YEAR MULTI-CENTER RANDOMIZED DOUBLE-

MASKED STUDY COMPARING BRIMONIDINE TARTRATE TO TIMOLOL MALEATE IN THE TREATMENT OF OCULAR HYPERTENSION AND GLAUCOMA

- **Meeting abstract**
- "Choplin, N. T. and Monroe, J. F. Surgically-induced astigmatism in combined ECCE with filtering procedures compared to ECCE alone. Ophthalmic Surg 92 ;
- 23 (2): 81-4 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Choplin, N. T. RESPONSE TO EPINEPHRINE IN PATIENTS FAILING TO RESPOND TO DIPIVALYL-EPINEPHRINE
- **Meeting abstract**
- "Choplin, N. T., Dirks, M. S., Tepedino, M., Batoosingh, A., Bernstein, P., Whitcup, S. M., and Bimatoprost/Lantanoprost Study Group. Comparison of Clinically Relevant Response Rates to Bimatoprost and Latanoprost in Patients with Ocular Hypertension or Glaucoma

- **Meeting abstract**
- "Choplin, N. T., Ulrich, G. G., and Riffenburgh, R. H. ANALYSIS OF OBSERVED DIFFERENCES IN INDIVIDUAL RESPONSES TO METIPRANOLOL 0.3% AND TIMOLOL 0.5% IN LOWERING INTRAOCULAR PRESSURE (IOP) IN OPEN ANGLE GLAUCOMA AND OCULAR HYPERTENSION
- **Meeting abstract**
- "Choplin, N., Bernstein, P., Batoosingh, A. L., and Whitcup, S. M. A randomized, investigator-masked comparison of diurnal responder rates with bimatoprost and latanoprost in the lowering of intraocular pressure. Surv Ophthalmol 2004 ;
- 49 Suppl 1 : S19-25 .
- **Does not address any key questions**
- "Chou, S. Y., Chou, C. K., Kuang, T. M., and Hsu, W. M. Incidence and severity of iris pigmentation on latanoprost-treated glaucoma eyes. Eye (Lond) 2005 ;
- 19 (7): 784-7 .
- **It is a case series**
- "Chou, S.-Y., Chou, C.-K., Kuang, T.-M., and Hsu, W.-M. Incidence and severity of iris pigmentation on latonoprost-treated glaucoma eyes. Eye 2005 ;
- 19 (7): 784-787 .
- **It is a case series**
- "Choudhary, A. and Wishart, P. K. Non-penetrating glaucoma surgery augmented with mitomycin C or 5-fluorouracil in eyes at high risk of failure of filtration surgery: long-term results. Clin Experiment Ophthalmol 2007 ;
- 35 (4): 340-7 .
- **It is not a RCT and has less than 100 patients**
- "Choudhri, S., Wand, M., and Shields, M. B. A comparison of dorzolamide-timolol combination versus the concomitant drugs. Am J Ophthalmol 2000 ;
- 130 (6): 832-3 .
- **It is not a RCT and has less than 100 patients**
- "Christ, T. and Kessler, C. SINGLE COMBINATION OR SEPARATE SOLUTIONS IN GLAUCOMA TREATMENT ?
- **Meeting abstract**
- "Christ, T. Glaucoma-combined therapy: KOMBINATIONSTHERAPIE DES GLAUKOMS. SPEKTRUM AUGENHEILKD. 94 ;
- 8 (5): 227-230 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Christakis, C. and Mangouritsas, N. Comparative studies of the pressure-lowering effect of timolol and phospholine iodide: VERGLEICHSUNTERSUCHUNGEN MIT TIMOLOL UND PHOSPHOLINE-JODID BEI APHAKIEGLAUKOM

- **Duplicate** "
- "Chung, A. N., Aung, T., Wang, J. C., and Chew, P. T. Surgical outcomes of combined phacoemulsification and glaucoma drainage implant surgery for Asian patients with refractory glaucoma with cataract. Am J Ophthalmol 2004 ;
- 137 (2): 294-300 .
- **It is not a RCT and has less than 100 patients**

- "Chung, P. Y., Schuman, J. S., Netland, P. A., Lloyd-Muhammad, R. A., and Jacobs, D. S. Five-year results of a randomized, prospective, clinical trial of diode vs argon laser trabeculoplasty for open-angle glaucoma
- **Rolim de Moura 2009**
- "Churkin, V. E., Abramov, V. G., and Vakurin, E. A. [Longitudinal observations of patients with open-angle glaucoma following trabeculectomy]
- **Foreign language**
- "Ciancaglini, M., Carpineto, P., Agnifili, L., Nubile, M., Fasanella, V., Mattei, P. A., and Mastropasqua, L. Conjunctival characteristics in primary open-angle glaucoma and modifications induced by trabeculectomy with mitomycin C: an in vivo confocal microscopy study. Br J Ophthalmol 2009 ;
- 93 (9): 1204-9 .
- **It is not a RCT and has less than 100 patients**
- "Ciancaglini, M., Carpineto, P., Agnifili, L., Nubile, M., Toto, L., and Mastropasqua, L. A 12-week study evaluating the efficacy of bimatoprost 0.03% in patients with pseudoexfoliative and open-angle glaucoma. Eur J Ophthalmol 2009 ;
- 19 (4): 594-600 .
- **It is not a RCT and has less than 100 patients**
- "Ciappetta, R., Frezzotti, P., Nuti, A., Traversi, C., and Frezzotti, R. ADDITIVITY OF LATANOPROST AND PILOCARPINE TO TIMOLOL IN POAG PATIENTS
- **Meeting abstract**
- "Cillino, S., Di Pace, F., Casuccio, A., and Lodato, G. Deep sclerectomy versus punch trabeculectomy: effect of low-dosage mitomycin C
- **Cheng 2009**
- "Cillino, S., Di Pace, F., Casuccio, A., Calvaruso, L., Morreale, D., Vadala, M., and Lodato, G. Deep sclerectomy versus punch trabeculectomy with or without phacoemulsification: a randomized clinical trial
- **Chang 2010**
- "Cillino, S., Di Pace, F., Casuccio, A., Cillino, G., and Lodato, G. Deep sclerectomy versus trabeculectomy with low-dosage mitomycin C: four-year follow-up
- **Cheng 2009**
- "Cillino, S., Zeppa, L., Di Pace, F., Casuccio, A., Morreale, D., Bocchetta, F., and Lodato, G. E-PTFE (Gore-Tex) implant with or without low-dosage mitomycin-C as an adjuvant in penetrating glaucoma surgery: 2 year randomized clinical trial
- **Duplicate** of 7849 "
- "Cimino, L. and Gandolfi, S. A. DEEP SCLERECTOMY WITHOUT ABSORBABLE IMPLANT AND WITH UNSUTURED SUPERFICIAL FLAP: PROSPECTIVE RANDOMIZED CLINICAL - TRIAL vs. TRABECULECTOMY WITH RELEASABLE SUTURES
- **Meeting abstract**
- "Cinotti, A., Cinotti, D., Grant, W., Jacobs, I., Galin, M., Silverstone, D., Shin, D., Esters, J., Lee, J., Bouchey, R., and et, a. l. Levobunolol vs timolol for open-angle glaucoma and ocular hypertension
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Cioffi, G. A., Latina, M. A., and Schwartz, G. F. Argon versus selective laser trabeculoplasty. J Glaucoma 2004 ;
- 13 (2): 174-7 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Clark, J. B., Brooks, A. M., Harper, C. A., Mantzioros, N., and Gillies, W. E. A comparison of the efficacy of betaxolol and timolol in ocular hypertension with or without adrenaline. Aust N Z J Ophthalmol 89 ;
- 17 (2): 173-7 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Clearkin, L. Adverse effects of topical antiglaucoma medication. Arch Ophthalmol 95 ;113 (7): 849-50 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Clergeau, G. and Pechereau, A. [Value of timoptol in primary open-angle glaucoma patients over 60. Comments on 100 cases]
- **Foreign language**
- "Clineschmidt, C. M. and Shedden, A. H. THREE MONTH, PARALLEL, RANDOMIZED, DOUBLE-MASKED, PLACEBOCONTROLLED, MULTICENTER STUDY OF THE EFFECT OF ADDING TRUSOPT® TO 0.5% TIMOPTIC-XETM IN PATIENTS WITH ELEVATED IOP
- **Meeting abstract**

- "Clineschmidt, C. M., Snyder, E., and Adamsons, I. A Randomized Trial Comparing the Dorzolamide/Timolol Combination to Monotherapy with Timolol or Dorzolamide In Patients Inadequately Controlled on Timolol Alone
- **Meeting abstract**
- "Clineschmidt, C. M., Strahlman, J. R., Anderson, K., and the Timolol/Mk 07 Combination Study Group. COMPARISON OF A FIXED COMBINATION OF DORZOLAMIDE AND TIMOLOL (BID) TO CONCOMITANT ADMINISTRATION OF DORZOLAMIDE (TID) PLUS TIMOLOL (BID) IN PATENTS WITH OPEN-ANGLE GLAUCOMA FOR THREE MONTHS
- **Meeting abstract**
- "Clineschmidt, C. M., Williams, R. D., Snyder, E., and Adamsons, I. A. A randomized trial in patients inadequately controlled with timolol alone comparing the dorzolamide-timolol combination to monotherapy with timolol or dorzolamide
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Clineschmidt, C. M., Williams, R. D., Snyder, E., and Adamsons, I. A. A randomized trial in patients inadequately controlled with timolol alone comparing the dorzolamide-timolol combination to monotherapy with timolol or dorzolamide. Dorzolamide-Timolol Combination Study Group
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Cohen, A. M., Prialnik, M., Ben-Nissan, D. S., and Savir, H. Methazolamide-associated temporary leukopenia and thrombocytopenia. DICP 89 ;
- 23 (1): 58-9 .
- **It is a case series**
- "Cohen, J. S and Greff, L. Efficacy and Safety of Long-Term Bimatoprost Treatment in Glaucoma and Ocular Hypertension
- **Meeting abstract**
- "Cohen, J. S., Greff, L. J., Novack, G. D., and Wind, B. E. A placebo-controlled, double-masked evaluation of mitomycin C in combined glaucoma and cataract procedures. Ophthalmology 96 ;
- 103 (11): 1934-42 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Cohen, J. S., Gross, R. L., Cheetham, J. K., VanDenburgh, A. M., Bernstein, P., and Whitcup, S. M. Two-year double-masked comparison of bimatoprost with timolol in patients with glaucoma or ocular hypertension
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Cohen, J. S., Gross, R. L., Sherwood, M. B., Cheetham, J. K., VanDenburgh, A., Bernstein, P., and Whitcup, S. M. 2-Year Comparison of Bimatoprost with Timolol in Patients with Glaucoma or Ocular Hypertension
- **Meeting abstract**
- "Cohen, J. S., Novack, G. D., and Li, Z. L. The role of mitomycin treatment duration and previous intraocular surgery on the success of trabeculectomy surgery. J Glaucoma 97 ;6 (1): 3-9 .
- **OAG can't be analyzed separately**
- "Cohen, J. S., Novack, G. D., and Zink, J. M. Intraocular pressure and visual field damage as risk factors for visual field progression in filtering surgery. Ophthalmic Surg Lasers Imaging 2010 ;
- 41 (4): 452-8 .
- **Data not abstractable**
- "Cohen, J., Brandt, J., Cheetham, J., Bernstein, P., and Whitcup, S. M. Comparing Bimatoprost to Timolol in Patients With Glaucoma or Ocular Hypertension: Results After Two Years
- **Meeting abstract**
- "Cohen, Ralph, Almeida, Geraldo Vicente de, and Rehder, Jose Ricardo C. L. Eficbcia e seguranga do carteolol a 2 por cento no tratamento da hipertensåo ocular crónica
- **Foreign language**
- "Cohen, Ralph, Mandia Junior, Carmo, and Almeida, Geraldo Vicente de. Betaxolol a 0,25 por cento suspensåo iónica x betaxolol a 0,5 por cento: estudo comparativo
- **Foreign language**
- "Coleman, A. L, Vandenburgh, A. M, and Whitcup, S. M. A 3-month comparison of bimatoprost (a prostamide) with timolol/dorzolamide in patients with glaucoma or ocular hypertension
- **Meeting abstract**
- "Coleman, A. L., Lerner, F., Bernstein, P., and Whitcup, S. M. A 3-month randomized controlled trial of bimatoprost (LUMIGAN) versus combined timolol and dorzolamide (Cosopt) in patients with glaucoma or ocular hypertension. Ophthalmology 2003 ;110 (12): 2362-8 .

- **Animal or in vitro data**
- "Coleman, A. L., Lerner, F., Bernstein, P., and Whitcup, S. M. A 3-month randomized controlled trial of bimatoprost (LUMIGAN) versus combined timolol and dorzolamide (Cosopt) in patients with glaucoma or ocular hypertension. Ophthalmology 2003 ;110 (12): 2362-8 .
- **Data not abstractable**
- "Coleman, A. L., Mosaed, S., and Kamal, D. Medical therapy in pregnancy. J Glaucoma 2005 ;14 (5): 414-6 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Collignon, P. Cardiovascular and pulmonary effects of beta-blocking agents: implications for their use in ophthalmology. Surv Ophthalmol 89 ;
- 33 Suppl : 455-6; discussion 459-60 .
- **Does not address any key questions**
- "Collignon-Brach, J. and Weekers, R. [Timolol (author's transl)]

- **Foreign language**
- "Collignon-Brach, J. Early visual field changes with beta-blocking agents. Surv Ophthalmol 89 ;33 Suppl : 429-30; discussion 435-6 .
- **Data not abstractable**
- "Collignon-Brach, J. Long-term effect of ophthalmic beta-adrenoceptor antagonists on intraocular pressure and retinal sensitivity in primary open-angle glaucoma
- **Vass-2007**
- "Collignon-Brach, J. Longterm effect of topical beta-blockers on intraocular pressure and visual field sensitivity in ocular hypertension and chronic open-angle glaucoma
- **Vass-2007**
- "Colvin Trucco, Ricardo. CirugÆa combinada: extracapsular, implante de lente intraocular y trabeculectomÆa
- **Foreign language**
- "Colvin Trucco, Ricardo. CirugÆa combinada: facoemulsificaci£n, lente intraocular y trabeculectomÆa
- **Foreign language**
- "Comparison of glaucomatous progression between untreated patients with normal-tension glaucoma and patients with therapeutically reduced intraocular pressures. Collaborative Normal-Tension Glaucoma Study Group. Am J Ophthalmol 98 ;
- 126 (4): 487-97 .
- **Does not address any key questions (see below for questions) Does not address any key questions**
- "Comparison of latanoprost, bimatoprost, and travoprost
- **Medical KQ 3 or KQ 3 and KQ 6 only Medical KQ 3 or KQ 3 and KQ 6 only**
- "Congdon, N. and Friedman, D. The INGOTT Indian Glaucoma Trial
- **Meeting abstract**
- "Connor, J., Strahlman, E. R., Lippa, E. A., Tipping, R., Hutzelmann, J., and Dorzolamide/Timolol/Placebo Comparison Study Group. A PLACEBO-CONTROLLED CLINICAL TRIAL OF 0.7% DORZOLAMIDE (MK-507) AND TIMOLOL
- **Meeting abstract**
- "Connor, M. A., Knape, R. M., Oltmanns, M. H., and Smith, M. F. Trainee glaucoma surgery: experience with trabeculectomy and glaucoma drainage devices. Ophthalmic Surg Lasers Imaging 2010 ;
- 41 (5): 523-31 .
- **OAG can't be analyzed separately**, **Does not address any key questions**
- "Constad, W. H., Fiore, P., Samson, C., and Cinotti, A. A. Use of an angiotensin converting enzyme inhibitor in ocular hypertension and primary open-angle glaucoma. Am J Ophthalmol 88 ;
- 105 (6): 674-7 .
- **Other (specify):not FDA approved**"
- "Corbel, M. [Tolerance for timolol maleate]
- **Foreign language**
- "Coronel, Mariano. Diatermia transescleral en el manejo del glaucoma neovascular
- **Foreign language**
- Correlagåo entre os achados a biomicroscopia ultra-sónica de bolhas filtrantes com ou sem mitomicina C com a pressåo intra-ocular. 1999. Foreign language
- "Costa, V. P, Comegno, P. C, Malta, R. F, Vasconcelos, J., Gullo, R. M, Bernardi, L., and Kara-José, N. Low Dose Intraoperative Mitomycin C (MMC) in Primary Trabeculectomy
- **Meeting abstract**
- "Costa, V. P., Azuara-Blanco, A., Netland, P. A., Lesk, M. R., and Arcieri, E. S. Efficacy and safety of adjunctive mitomycin C during Ahmed

Glaucoma Valve implantation: a prospective randomized clinical trial. Ophthalmology 2004 ;

- 111 (6): 1071-6 .
- **Animal or in vitro data**
- "Costa, V. P., Comegno, P. E., Vasconcelos, J. P., Malta, R. F., and Jose, N. K. Low-dose mitomycin C trabeculectomy in patients with advanced glaucoma. J Glaucoma 96 ;5 (3): 193-9 .
- **Other (specify):**Includes angle-closure glaucoma"
- "Costa, V. P., Smith, M., Spaeth, G. L., Gandham, S., and Markovitz, B. Loss of visual acuity after trabeculectomy. Ophthalmology 93 ;
- 100 (5): 599-612 .
- **Data not abstractable**
- "Costa, V. P., Wilson, R. P., Moster, M. R., Schmidt, C. M., and Gandham, S. Hypotony maculopathy following the use of topical mitomycin C in glaucoma filtration surgery. Ophthalmic Surg 93 ;24 (6): 389-94 .
- **It is a case series**
- "Costa, Vital Paulino, Soriano, Danilo Sone, and Carvalho, Celso Antonio de. Efeitos a curto prazo da apraclonidina 1 sobre a pressåo intraocular de pacientes com glaucoma crónico de Gngulo aberto
- **Foreign language**
- "Costa, Vital Paulino, Vasconcellos, Josq Paulo, Comegno, Paulo E. C, and Josq, Newton Kara. O uso da mitomicina C em cirurgia combinada. Arq. bras. oftalmol 99 ;
- 62 (5): 577-80 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Costagliola, C., Campa, C., Perri, P., Parmeggiani, F., Romano, M. R., and Incorvaia, C. Topical and oral ketorolac administration increases the intraocular pressure-lowering effect of latanoprost. Curr Eye Res 2008 ;
- 33 (5): 477-82 .
- **It is not a RCT and has less than 100 patients**
- "Costagliola, C., Parmeggiani, F., Antinozzi, P. P., Caccavale, A., Cotticelli, L., and Sebastiani, A. The influence of diclofenac ophthalmic solution on the intraocular pressure-lowering effect of topical 0.5% timolol and 0.005% latanoprost in primary open-angle glaucoma patients
- **Excluded drug**
- "Costagliola, C., Parmeggiani, F., Caccavale, A., and Sebastiani, A. Nimesulide oral administration increases the intraocular pressure-lowering effect of latanoprost in patients with primary open-angle glaucoma. Am J Ophthalmol 2006 ;
- 141 (2): 379-81 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Costagliola, C., Parmeggiani, F., Ciancaglini, M., D'Oronzo, E., Mastropasqua, L., and Sebastiani, A. Ocular perfusion pressure and visual field indice modifications induced by alpha-agonist compound (clonidine 0.125%, apraclonidine 1.0% and brimonidine 0.2%) topical administration. An acute study on primary open-angle glaucoma patients. Ophthalmologica 2003 ;
- 217 (1): 39-44 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Costagliola, C., Parmeggiani, F., Virgili, G., Lamberti, G., Incorvaia, C., Perri, P., Campa, C., and Sebastiani, A. Circadian changes of intraocular pressure and ocular perfusion pressure after timolol or latanoprost in Caucasians with normal-tension glaucoma. Graefes Arch Clin Exp Ophthalmol 2008 ;
- 246 (3): 389-96 .
- **Other (specify):**applies to KQ3 but not RCT"
- "Costagliola, C., Prete, A. D., Incorvaia, C., Fusco, R., Parmeggiani, F., and Di Giovanni, A. Ocular surface changes induced by topical application of latanoprost and timolol: a short-term study in glaucomatous patients with and without allergic conjunctivitis. Graefes Arch Clin Exp Ophthalmol 2001 ;
- 239 (11): 809-14 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Cotran, P. R and Roh, S. One-site vs. two-site combined phacoemulsification and trabeculectomy
- **Meeting abstract**
- "Cotran, P. R and Roh, S. Phacotrabeculectomy: Comparison of One-site and Two-site Surgery With 3 Year Follow-up
- **Meeting abstract**

- "Cotran, P. R. and Roh, S. One-site vs. Two-site Phacotrabeculectomy: Results After One Year of Follow-up
- **Meeting abstract**
- "Cotran, P. R., Roh, S., and McGwin, G. Randomized comparison of 1-Site and 2-Site phacotrabeculectomy with 3-year follow-up
- **Included in Gdih 2011**
- "Coulangeon, L. M., Sole, M., Menerath, J. M., and Sole, P. [Aqueous humor flow measured by fluorophotometry. A comparative study of the effect of various beta-blocker eyedrops in patients with ocular hypertension]
- **Foreign language**
- "Coviltir, V., Grigoras, O., Zorila, C., and Mircea, D. [Comparative results of nonpenetrante profound sclerectomy converted in trabeculectomy with standard trabeculectomy]
- **Foreign language**
- "Craven, E. R., Goni Francisco, G., and Chou, C. Efficacy and Safety of the IOP-Lowering Fixed Combination Brimonidine 0.2%/Timolol 0.5%
- **Meeting abstract**
- "Craven, E. R., Liu, C. C., Batoosingh, A., Schiffman, R. M., and Whitcup, S. M. A randomized, controlled comparison of macroscopic conjunctival hyperemia in patients treated with bimatoprost 0.01% or vehicle who were previously controlled on latanoprost. Clin Ophthalmol 2010 ;
- 4; status =Glaucoma Consultants of Colorado, Denver, CO, USA. ercraven@glaucdocs.com : 1433-40 .
- **OAG can't be analyzed separately**
- "Craven, E. R., Walters, T. R., Williams, R., Chou, C., Cheetham, J. K., and Schiffman, R. Brimonidine and timolol fixed-combination therapy versus monotherapy: a 3-month randomized trial in patients with glaucoma or ocular hypertension
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Crichton, A. BRIMONIDINE TARTRATE 0.2% COMPARED WITH TIMOLOL 0.5% ADMINISTERED TWICE-DAILY IN PATIENTS WITH OPEN-ANGLE GLAUCOMA OR OCULAR HYPERTENSION

- **Meeting abstract**
- "Crick, R. P., Newson, R. B., Shipley, M. J., Blackmore, H., and Bulpitt, C. J. The progress of the visual field in chronic simple glaucoma and ocular hypertension treated topically with pilocarpine or with timolol. Eye (Lond) 90 ;
- 4 (Pt 4) : 563-71 .
- **Other (specify):pilocarpine**
- "Crick, R. P., Vogel, R., Reynolds, P. M., Mills, K. B., and Sass, W. The effect of topical treatment by timolol versus pilocarpine on visual field progression in chronic simple glaucoma. Journal of Glaucoma 93 ;
- 2 (A): S12-S14 .
- **Data not abstractable**
- "Cronemberger, Sebastiåo, Calixto, Nassin, and Soares, Jose Francisco. Estudo comparativo do efeito do timolol, do betaxolol e do levobunolol sobre a curva dibria de pressåo intra-ocular de pacientes glaucomatosos
- **Foreign language**
- "Cucea, R. [Filtering surgery in primary hypertensive glaucoma]
- **Foreign language**
- "Curran, M. P. Bimatoprost: a review of its use in open-angle glaucoma and ocular hypertension. Drugs Aging 2009 ;
- 26 (12): 1049-71 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Cvenkel, B., Stewart, J. A., Nelson, L. A., and Stewart, W. C. Dorzolamide/timolol fixed combination versus latanoprost/timolol fixed combination in patients with primary open-angle glaucoma or ocular hypertension. Curr Eye Res 2008 ;
- 33 (2): 163-8 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Cvetkovic, D., Parunovic, A., and Kontic, D. [Conjunctival changes in long-term topical drug therapy of glaucoma]
- **Foreign language**
- "Cyriac, I. C., Samuel, F., Katz, L. J., and Smith, M. INFLUENCE OF SCLERAL CAUTERY ON SUCCESS OF TRABECULECTOMY
- **Meeting abstract**
- "Czechowicz-Janicka, K., Staszkiewicz, J., Strzalkowska, M., Krajewska, M., Popiolek, B., and Christman, A. [The influence of 0.85% RS-timolol and 0.5% S-timolol on intraocular pressure and systemic arterial blood pressure, heart rate, ECG, expiratory capacity in patients with ocular hypertension and primary open-angle glaucoma]

- **Foreign language**
- "Dabrowska, J. [Side effects of antiglaucomatous drugs]
- **Foreign language**
- "Dahan, E., Ravinet, E., Ben-Simon, G. J., and Mermoud, A. Comparison of the efficacy and longevity of nonpenetrating glaucoma surgery with and without a new, nonabsorbable hydrophilic implant. Ophthalmic Surg Lasers Imaging 2003 ;
- 34 (6): 457-63 .
- **It is not a RCT and has less than 100 patients**
- "Dahlen, K., Epstein, D. L., Grant, W. M., Hutchinson, B. T., Prien, E. L. Jr, and Krall, J. M. A repeated dose-response study of methazolamide in glaucoma. Arch Ophthalmol 78 ;96 (12): 2214-8 .
- **It is not a RCT and has less than 100 patients**
- "Dallas, N. L., Sponsel, W. E., and Hobley, A. J. A comparative evaluation of timolol maleate and pilocarpine in the treatment of chronic open angle glaucoma. Eye (Lond) 88 ;2 (Pt 3) : 243-9 .
- **Other (specify):pilocarpine**
- "Damji, K. F., Bovell, A. M., Hodge, W. G., Rock, W., Shah, K., Buhrmann, R., and Pan, Y. I. Selective laser trabeculoplasty versus argon laser trabeculoplasty: results from a 1-year randomised clinical trial. Br J Ophthalmol 2006 ;
- 90 (12): 1490-4 .
- **OAG can't be analyzed separately**
- "Damji, K. F., Shah, K. C., Rock, W. J., Bains, H. S., and Hodge, W. G. Selective laser trabeculoplasty v argon laser trabeculoplasty: a prospective randomised clinical trial. Br J Ophthalmol 99 ;83 (6): 718-22 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Dancheva, L. D. and Zhukova, V. N. [Remote results in the treatment of the initial stage of glaucoma with miotics]
- **Foreign language**
- "D'Andrea, A., D'Andrea, D., and Ferreri, G. Clinical use of a topical carbonic anhydrase inhibitor in patients affected by chronic simple glaucoma
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "D'Andrea, A., De Natale, R., and Mancini, A. The metipranolol 0.3% in the therapy of glaucoma
- **Foreign language**
- "Danias, J. and Podos, S. M. Comparison of glaucomatous progression between untreated patients with normal-tension glaucoma and patients with therapeutically reduced intraocular pressures. The effectiveness of intraocular pressure reduction in the treatment of normal-tension glaucoma. Am J Ophthalmol 99 ;
- 127 (5): 623-5 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Danielescu, C. [Management of pseudoexfoliative glaucoma in a tertiary center in Romania]
- **Foreign language**
- "Dansby-Kelly, A. F. Preparation for the use of mitomycin C in a trabeculectomy procedure. Insight 2010 ;35 (1): 8-9 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Das, J. C., Chaudhuri, Z., Sharma, P., and Bhomaj, S. The Ahmed Glaucoma Valve in refractory glaucoma: experiences in Indian eyes. Eye (Lond) 2005 ;
- 19 (2): 183-90 .
- **Data not abstractable**
- "Dasgupta, S., Oates, V., Bookhart, B. K., Vaziri, B., Schwartz, G. F., and Mozaffari, E. Population-based persistency rates for topical glaucoma medications measured with pharmacy claims data. Am J Manag Care 2002 ;
- 8 (10 Suppl): S255-61 .
- **OAG can't be analyzed separately**
- "Dashevsky, A. V., Lanzl, I. M., and Kotliar, K. E. Non-penetrating intracanalicular partial trabeculectomy via the ostia of Schlemm's canal. Graefes Arch Clin Exp Ophthalmol 2011 ;
- 249 (4; status =Private Eye Clinic, Munich, Germany.): 565-73 .
- **Other (specify):Not one of our accepted surgeries**
- "Dastur, Y. K. The role of early trabeculectomy in the control of chronic simple glaucoma. J Postgrad Med 94 ;40 (2): 74-7 .
- **It is not a RCT and has less than 100 patients**
- "Dastur, Y. K., Dasgupta, S., Chitale, A., Firke, P., Patel, J., Sethi, S., and Patwardhan, V. The role of initial 5-fluorouracil trabeculectomy in primary glaucoma. J Postgrad Med 94 ;40 (4): 197-201 .

- **Does not address any key questions**
- "Dausch, D., Michelson, W., and Lorenz, E. D. [Long-term study of the pressure-lowering effect of Timolol (author's transl)]. Klin Monbl Augenheilkd 79 ;
- 174 (1): 127-35 .
- **It is not a RCT and has less than 100 patients**
- "David, R., Foerster, R. J., Ober, M., Cohen, J. S., Kelley, E. P., Lue, J. C., and Novack, G. D. Glaucoma treatment with once-daily levobunolol
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "David, R., Livingston, D. G., and Luntz, M. H. Ocular hypertension--a long-term follow-up of treated and untreated patients. Br J Ophthalmol 77 ;
- 61 (11): 668-74 .
- **It is not a RCT and has less than 100 patients**
- "David, R., Ober, M., Masi, R., Elman, J., Novack, G. D., Sears, M. L., and Batoosingh, A. L. Treatment of elevated intraocular pressure with concurrent levobunolol and pilocarpine. Can J Ophthalmol 87 ;
- 22 (4): 208-11 .
- **Other (specify):all had pilo**
- "David, R., Zangwill, L., Briscoe, D., Dagan, M., Yagev, R., and Yassur, Y. Diurnal intraocular pressure variations: an analysis of 690 diurnal curves. Br J Ophthalmol 76 (5): 280-3 .
- **Does not address any key questions**
- "Davidson, S. I. and Akingbehin, T. Compliance in ophthalmology. Trans Ophthalmol Soc U K 80 ;100 (Pt 2): 286-90 .
- **Does not address any key questions**
- "Davidson, S. I. Systemic effects of eye drops. Trans Ophthalmol Soc U K 74 ;
- 94 (2): 487-95 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Davis, A. R., Diggory, P., and Seward, H. C. Prevalence of chronic hypokalaemia amongst elderly patients using acetozolamide and diuretics. Eye (Lond) 95 ;
- 9 (Pt 3) : 381-2 .
- **It is not a RCT and has less than 100 patients**
- "Day, D. G, Schacknow, P. N, Sharpe, E. D, Ellyn, J. C, Kulze, J. C, Threlkeld, A. B, Jones, E. D, Brown, R. H, Jenkins, J. N, and Stewart, W. C. A persistency and economic analysis of latanoprost, bimatoprost, or beta-blockers in patients with open-angle glaucoma or ocular hypertension (Structured abstract). Journal of Ocular Pharmacology and Therapeutics 2004 ;
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- **Does not address any key questions**
- "Day, D. G. and Hollander, D. A. Brimonidine purite 0.1% versus brinzolamide 1% as adjunctive therapy to latanoprost in patients with glaucoma or ocular hypertension. Curr Med Res Opin 2008 ;
- 24 (5): 1435-42 .
- **OAG can't be analyzed separately**
- "Day, D. G., Schacknow, P. N., Sharpe, E. D., Ellyn, J. C., Kulze, J. C. 3rd, Threlkeld, A. B., Jones, E. D., Brown, R. H., Jenkins, J. N., and Stewart, W. C. A persistency and economic analysis of latanoprost, bimatoprost, or beta-blockers in patients with open-angle glaucoma or ocular hypertension
  Unique comparators
- "Day, D. G., Schacknow, P. N., Wand, M., Sharpe, E. D., Stewart, J. A., Leech, J., and Stewart, W. C. Timolol 0.5%/dorzolamide 2% fixed combination vs timolol maleate 0.5% and unoprostone 0.15% given twice daily to patients with primary open-angle glaucoma or ocular hypertension. Am J Ophthalmol 2003 ;135 (2): 138-43 .
  Other (specify):unoprostone"
- "Day, D. G., Sharpe, E. D., Atkinson, M. J., Stewart, J. A., and Stewart, W. C. The clinical validity of the treatment satisfaction survey for intraocular pressure in ocular hypertensive and glaucoma patients. Eye (Lond) 2006 ;20 (5): 583-90 .
- **Does not address any key questions**
- "Day, D. G., Sharpe, E. D., Beischel, C. J., Jenkins, J. N., Stewart, J. A., and Stewart, W. C. Safety and efficacy of bimatoprost 0.03% versus timolol maleate 0.5%/dorzolamide 2% fixed combination
  Unique comparators
- "Dayanir, V., Ozcura, F., Kir, E., Topaloglu, A., Ozkan, S. B., and Aktunc, T. Medical control of intraocular pressure after phacoemulsification. J Cataract Refract Surg 2005 ;31 (3): 484-8 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "de Barros, D. S., Da Silva, R. S., Siam, G. A., Gheith, M. E., Nunes, C. M., Lankaranian, D., Tittler, E. H., Myers, J. S., and Spaeth, G. L. Should

an iridectomy be routinely performed as a part of trabeculectomy? Two surgeons' clinical experience. Eye (Lond) 2009 ;23 (2): 362-7 .

It is not a RCT and has less than 100 patients

- "DE CARVALHO CA, LAWRENCE, C., and STONE, H. H. Acetazolamide (diamox) therapy in chronic glaucoma; a three-year follow-up study. AMA Arch Ophthalmol 58 ;59 (6): 840-9 .

It is not a RCT and has less than 100 patients

- "De Carvalho, C. A., Betinjane, A. J., Atanes, M., and Helal Jr., J. Effects of pilocarpine oculosert system on pupillary diameter, visual acuity, refraction and intra ocular pressure: EFEITOS DO SISTEMA OCUSERT PILOCARPINA (P 20 E P 40) SOBRE O DIAMETRO PUPILAR, ACUIDADE VISUAL, REFRACAO E PRESSAO INTRA OCULAR

Foreign language

- "de Galleani, B. [Evaluation of three concentrations of beta-blocker eyedrops. Criteria for choosing and efficacy]. Ophtalmologie 89 ;
- 3 (3): 220-2 .

Does not address any key questions

- "de Grood, P. M. and Gimbrere, J. S. [Life-threatening status asthmaticus following use of timolol-containing eye drops (Timoptol)]

Foreign language

- "De Jong, L. A. Ex-PRESSTM Positioned Under a Scleral Flap, Trabeculectomy and ExPRESSTM Positioned Under Conjunctiva in Patients With Open Angle Glaucoma. A Prospective Comparison Randomized 3-Arms Study

Meeting abstract

- "De Negri, Pescosolido, N., Vitangeli, M. C., and Bucci, M. G. The combination of adrenalin and oxprenolol in the treatment of glaucoma: L'ASSOCIAZIONE ADRENALINA-OXPRENOLOLO NELLA TERAPIA DEL GLAUCOMA

Foreign language

- "De Popa, D. P., Andreescu, G., and Albu, C. [Tearing in a patient with glaucoma]

Foreign language

- "De Vivero, C., Lanigan, L. P, Wormald, R., Migdal, C. S, and Hitchings, R. A. Long-Term Success Rates of Trabeculectomy as Initial Therapy Compared With Trabeculectomy After Initial Medical Treatment

Meeting abstract

- "DeBry, P. W., Perkins, T. W., Heatley, G., Kaufman, P., and Brumback, L. C. Incidence of late-onset bleb-related complications following trabeculectomy with mitomycin. Arch Ophthalmol 2002 ;120 (3): 297-300 .

Other (specify):case series

- "D'Eliseo, D., Pastena, B., Longanesi, L., Grisanti, F., and Negrini, V. Comparison of deep sclerectomy with implant and combined glaucoma surgery

Hondur-2008

- "Delorme, E., Vial, T., Rabilloud, M., de Carlan, H., and Evreux, J. C. [Retroperitoneal fibrosis with eye-drops containing timolol]. J Urol (Paris) 90 ;96 (8): 449-51 .

It is not a RCT and has less than 100 patients

- "Demailly Ph., Lehner, M. A., and Etienne, R. Result of a medium-term double blind study comparing timolol maleate and epinephrine in 120 patients with chronic open angle glaucoma: RESULTAT D'UNE ETUDE A MOYEN TERME EN DOUBLE AVEUGLE COMPARANT LE MALEATE DE TIMOLOL A L'EPINEPHRINE SUR 120 PATIENTS PORTEURS D'UN GLAUCOME CHRONIQUE A ANGLE OUVERT

Foreign language

- "Demailly Ph., Lehner, M. A., and Pigot, C. Timolol maleate: its long term affects in treatment of chronic open angle glaucoma: LE MALEATE DE TIMOLOL: RESULTAT DE SON ACTION A LONG TERME DANS LE TRAITEMENT DU GLAUCOME CHRONIQUE PRIMITIF A ANGLE OUVERT

Foreign language

- "Demailly, P. and Kretz, G. Daunorubicin versus 5-fluoro-uracil in surgical treatment of primary open angle glaucoma: a prospective study. Int Ophthalmol 92 ;16 (4-5): 367-70 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Demailly, P. and Lecherpie, F. [Metipranolol 0.1%: effect of a single dose on the nycthemeral pressure curve in an eye with chronic primary open-angle glaucoma]. J Fr Ophtalmol 87 ;10 (6-7): 447-9 .

Other (specify):not a true 24hour study

- "Demailly, P. and Moulin, F. [Argon laser trabecular photocoagulation in the treatment of primary open-angle glaucoma]. Annee Ther Clin Ophtalmol 88 ;39 : 131-40; discussion 141-53 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Demailly, P. h., Lehner, M. A., and Duperre, J. A new beta-blocker in the treatment of chronic open angle glaucoma, timolol maleate. The effect on

ocular tension of a single drop. UN NOUVEAU BETA-BLOQUANT DANS LE TRAITEMENT DU GLAUCOME CHRONIQUE A ANGLE OUVERT: LE MALEATE DE TIMOLOL. EFFET TENSIONNEL DE L'INSTILLATION D'UNE GOUTTE

Foreign language

- "Demailly, P., Allaire, C., Bron, V., and Trinquand, C. Effectiveness and Tolerance of beta-Blocker/Pilocarpine Combination Eye Drops in Primary Open-Angle Glaucoma and High Intraocular Pressure. J Glaucoma 95 ;4 (4): 235-41 .

  Other (specify):not FDA approved"
- "Demailly, P., Aubrier, G., and Abadie, P. [Timolol and functional perimetric prognosis of primary open-angle glaucoma]

  Foreign language
- "Demailly, P., Gruber, D., and Kretz, G. [Treatment of chronic primary open-angle glaucoma. Long-term functional results]. J Fr Ophtalmol 89 ;
- 12 (8-9): 527-34 .

  It is a case series
- "Demailly, P., Jeanteur-Lunel, M. N., Berkani, M., Ecoffet, M., Kopel, J., Kretz, G., and Lavat, P. [Non-penetrating deep sclerectomy combined with a collagen implant in primary open-angle glaucoma. Medium-term retrospective results]

  Foreign language
- "Demailly, P., Kretz, G., and Gruber, D. [Trabeculectomy and trabeculo-retraction in the treatment of chronic primary open-angle glaucoma. Long-term tonometric results]. J Fr Ophtalmol 89 ;12 (8-9): 535-42 .

  It is not a RCT and has less than 100 patients
- "Demailly, P., Lavat, P., Kretz, G., and Jeanteur-Lunel, M. N. Non-penetrating deep sclerectomy (NPDS) with or without collagen device (CD) in primary open-angle glaucoma: middle-term retrospective study. Int Ophthalmol 96-97 ;20 (1-3): 131-40 .

  Other (specify):and the prospective part does not report harms"
- "Demailly, P., Lehner, M. A., and Duperre, J. [A new beta-blocking agent in the treatment of chronic glaucoma: timolol maleate]

  Foreign language
- "Demailly, P., Lehner, M. A., and Duperre, J. [A new beta-blocking agent in the treatment of chronic open-angle glaucoma: timolol maleate. Effect of instillation of 1 drop on the intraocular pressure]

  Foreign language
- "Demailly, P., Lehner, M. A., and Pigot, C. [Timolol maleate: results of its long-term action in the treatment of chronic primary open-angle glaucoma]

  Foreign language
- "Demailly, P., Lehrer, M., and Kretz, G. [Argon laser trabeculoretraction in chronic open-angle glaucoma with normal pressure. A prospective study on the tonometric and perimetric effect]

  Foreign language
- "Demailly, P., Pigot, C., and Arrata, M. [Effect of daily instillations of timolol on the nycthemeral tension in subjects with chronic open-angle glaucoma (author's transl)]

  Foreign language
- "Demailly, P., Valtot, F., Kopel, J., and Ecoffet, M. [Results 1 year after trabeculoretraction by 360 degree argon laser in the treatment of open-angle glaucoma]. J Fr Ophtalmol 85 ;8 (1): 11-8 .

  OAG can't be analyzed separately
- "Demailly, Philippe, Berkani, M, Jeanteur Lunel, M. N, and Zogheib, R. Non penetrating deep scleroctomy (N.P.D.S.) with or without collagen device (C.D) in primary open-angle glaucoma: middle-term retrospective study

  Foreign language
- "Demailly, Philippe, Kretz, G, and Zogheib, R. Argon laser trabeculoplasty: long term results. Arch. chil. oftalmol 97 ;54 (2): 111-3 .

  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Demeter, S. and Hailey, D. Non-penetrating glaucoma surgery using AquaFlow(TM) collagen implants (Structured abstract)

  Duplicate "
- "Denis, P., Andrew, R., Wells, D., and Friren, B. A comparison of morning and evening instillation of a combination travoprost 0.004%/timolol 0.5% ophthalmic solution. Eur J Ophthalmol 2006 ;16 (3): 407-15 .

  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Denis, P., Demailly, P., and Saraux, H. [Clinical evaluation of betaxolol in ophthalmic suspension with or without preservative agent in patients with glaucoma or ocular hypertension]. J Fr Ophtalmol 93 ;16 (5): 297-303 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Denis, P., Lafuma, A., Jeanbat, V., Laurendeau, C., and Berdeaux, G. Intraocular pressure control with latanoprost/timolol and travoprost/timolol fixed combinations : a retrospective, multicentre, cross-sectional study. Clin Drug Investig 2008 ;28 (12): 767-76 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Denis, P., Launois, R., Devaux, M., and Berdeaux, G. Comparison of diurnal intraocular pressure control by latanoprost versus travoprost : results of an observational survey. Clin Drug Investig 2006 ;26 (12): 703-14 .
  Other (specify): Study design not good for KQ (KQ3 -24h study)"
- "Denis, P., Le Pen, C., Umuhire, D., and Berdeaux, G. Treatment carryover impacts on effectiveness of intraocular pressure lowering agents, estimated by a discrete event simulation model. Eur J Ophthalmol 2008 ;18 (1): 44-51 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Denk, P. O., Dieter, M., and Knorr, M. [Prognostic value of anterior chamber hemorrhage following glaucoma filtering surgery]. Klin Monbl Augenheilkd 99 ;214 (3): 156-9 .
  Data not abstractable
- "Derick, R. J., Evans, J., and Baker, N. D. Combined phacoemulsification and trabeculectomy versus trabeculectomy alone: a comparison study using mitomycin-C. Ophthalmic Surg Lasers 98 ;29 (9): 707-13 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Derick, R. J., Robin, A. L., Tielsch, J., Wexler, J. L., Kelley, E. P., Stoecker, J. F., Novack, G. D., and Coleman, A. L. Once-daily versus twice-daily levobunolol (0.5%) therapy. A crossover study
  Unique comparators
- "Derick, R. J., Robin, A. L., Walters, T. R., Barnebey, H. S., Choplin, N., Schuman, J., Kelley, E. P., Chen, K., and Stoecker, J. F. Brimonidine tartrate: a one-month dose response study
  Unique comparators
- "Derick, R. J., Walters, T. R., Robin, A. L., Barnebey, H. S., Choplin, N. T., Kelley, E. P., and Stoecker, J. F. BRIMONIDINE TARTRATE: A ONE MONTH DOSE RESPONSE STUDY
  Meeting abstract
- "D'Ermo, F. and Bonomi, L. Trabeculectomy. Results in the treatment of glaucomas. Ophthalmologica 73 ;166 (4): 311-20 .
  OAG can't be analyzed separately
- "Desai, R. U., Pekmezci, M., Tam, D., Song, J., and Lin, S. C. Resident-performed Ahmed(trademark) glaucoma valve surgery
  Duplicate of 170 "
- "Desvignes, P. [Results of medical treatment in chronic open angle glaucoma]
  Foreign language
- "Detry-Morel, M. and De Hoste, F. [Treatment of glaucoma with carbonic anhydrase inhibitors in eyewash: medium term retrospective experience with dorzolamide]
  Foreign language
- "Detry-Morel, M. and Dutrieux, C. [Treatment of glaucoma with brimonidine (Alphagan 0.2%)]
  Foreign language
- "Detry-Morel, M. and Dutrieux, C. Experience with topical brimonidine (Alphagan(registered trademark) 0,2%) in the treatment of glaucomas: Traitement des glaucomes par la brimonidine (Alphagan(registered trademark) 0,2 %)
  Foreign language
- "Detry-Morel, M. and Kallay, O. Jr. [Role of argon laser trabeculoplasty in the treatment of open-angle glaucoma: a 7-year retrospective experience]. Bull Soc Belge Ophtalmol 90 ;239 : 119-29 .
  It is a case series
- "Detry-Morel, M. Non penetrating deep sclerectomy (NPDS) with SKGEL implant and/or 5-fluorouracile (5-FU). Bull Soc Belge Ophtalmol 2001 ;(280): 23-32 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Detry-Morel, M., Muschart, F., and Pourjavan, S. Micropulse diode laser (810 nm) versus argon laser trabeculoplasty in the treatment of open-angle glaucoma: comparative short-term safety and efficacy profile. Bull Soc Belge Ophtalmol 2008 ; (308): 21-8 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Devloo, S., Deghislage, C., Van Malderen, L., Goethals, M., and Zeyen, T. Non-penetrating deep sclerectomy without or with autologous scleral implant in open-angle glaucoma: medium-term results. Graefes Arch Clin Exp Ophthalmol 2005 ;243 (12): 1206-12 .
  It is not a RCT and has less than 100 patients

- "Devonport, H. and Manners, T. D. Comparison of viscocanalostomy with trabeculectomy in the management of chronic open angle glaucoma
  Meeting abstract
- "Di Staso, S., Taverniti, L., Genitti, G., Marangolo, L., Aiello, A., Giuffre, L., and Balestrazzi, E. Combined phacoemulsification and deep sclerectomy vs phacoemulsification and trabeculectomy. Acta Ophthalmol Scand Suppl 2000 ;(232): 59-60 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Di Tizio, A., Catone, E., and Glorialanza, G. Our results in the treatment of open angle glaucoma with timolol maleate: NOSTRI RISULTATI NEL TRATTAMENTO DEL GLAUCOMA AD ANGOLO APERTO CON IL TIMOLOLO MALEATO
  Foreign language
- "Di Tizio, A., Mutolo, A., and Glorialanza, G. Epinephrine-oxprenolol association in the treatment of open angle glaucoma: ASSOCIAZIONE ADRENALINA E OXPRENOLOLO NELLA TERAPIA DEL GLAUCOMA AD ANGOLO APERTO
  Foreign language
- "Diafas, S., G Day, D., Stewart, J. A., and Stewart, W. C. The use of dorzolamide versus other hypotensive agents to prevent glaucomatous progression
  Unique comparators
- "Dickens, C. J., Nguyen, N., Mora, J. S., Iwach, A. G., Gaffney, M. M., Wong, P. C., and Tran, H. Long-term results of noncontact transscleral neodymium:YAG cyclophotocoagulation. Ophthalmology 95 ;102 (12): 1777-81 .
  Data not abstractable
- "Dickstein, K., Hapnes, R., and Aarsland, T. Comparison of aqueous and gellan ophthalmic timolol with placebo on the 24-hour heart rate response in patients on treatment for glaucoma. Am J Ophthalmol 2001 ;132 (5): 626-32 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Dienstbier, E., Ruzickova, E., and Cepelik, J. [Metipranolol in the treatment of glaucoma. Introductory clinical study (author's transl)]
  Foreign language
- "Diestelhorst, M. and Almegard, B. Comparison of two fixed combinations of latanoprost and timolol in open-angle glaucoma. Graefes Arch Clin Exp Ophthalmol 98 ;236 (8): 577-81 .
  Other (specify):not FDA approved"
- "Diestelhorst, M. and German Latanoprost Study Group. COMPARISON OF FIXED-RATIO COMBINATIONS OF LATANOPROST AND TIMOLOL. A RANDOMISED, DOUBLE-MASKED MULTICENTRE STUDY IN GLAUCOMA PATIENTS WITH TIMOLOL AND LATANOPROST AS CONTROLS
  Meeting abstract
- "Diestelhorst, M. and Krieglstein, G. K. The effect of betablockers with and without ISA on tonographic outflow facility. Int Ophthalmol 89 ; 13 (1-2): 63-5 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Diestelhorst, M. and Larsson, L. I. A 12 week study comparing the fixed combination of latanoprost and timolol with the concomitant use of the individual components in patients with open angle glaucoma and ocular hypertension
  Non-FDA-approved drug combination
- "Diestelhorst, M. and Larsson, L. I. A 12-week, randomized, double-masked, multicenter study of the fixed combination of latanoprost and timolol in the evening versus the individual components. Ophthalmology 2006 ;113 (1): 70-6 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Diestelhorst, M. The additive intraocular pressure-lowering effect of latanoprost 0.005% daily once and pilocarpine 2% t.i.d. in patients with open-angle glaucoma or ocular hypertension. a 6-month, randomized, multicenter study. German Latanoprost Study Group
  Excluded drug
- "Diestelhorst, M. The additive intraocular pressure-lowering effect of latanoprost 0.005% daily once and pilocarpine 2% t.i.d. in patients with open-angle glaucoma or ocular hypertension. A 6-month, randomized, multicenter study. Graefe's Arch. Clin. Exp. Ophthalmol. 2000 ; 238 (5): 433-439 .
  Other (specify):pilocarpine
- "Diestelhorst, M., Bechetoille, A., Lippa, E., Brunner-Ferber, F., and Krieglstein, G. K. [Stereospecificity of lowering intraocular pressure using a locally administered carbonic anhydrase inhibitor]. Fortschr Ophthalmol 90 ;87 (2): 131-3 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Diestelhorst, M., Khalili, M. A., and Krieglstein, G. K. Trabeculectomy: retrospective follow-up of 700 eyes.Int Ophthalmol 98-99 ;22 (4): 211-20 .
  OAG can't be analyzed separately
- "Diestelhorst, M., Roters, S., and Krieglstein, G. K. THE EFFECT OF LATANOPROST (PHXA41) ON THE INTRAOCULAR PRESSURE AND AQUEOUS HUMOR PROTEIN CONCENTRATION A RANDOMIZED, DOUBLE MASKED COMPARISON OF 50 µg/ml vs 15 µg/ml WITH TIMOLOL 0.5% AS CONTROL
  Meeting abstract
- "Diestelhorst, M., Roters, S., and Krieglstein, G. K. The effect of latanoprost 0.005% once daily versus 0.0015% twice daily on intraocular pressure and aqueous humour protein concentration in glaucoma patients. A randomized, double-masked comparison with timolol 0.5%
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Diestelhorst, M., Schaefer, C. P., Beusterien, K. M., Plante, K. M., Fain, J. M., Mozaffari, E., and Dhawan, R. Persistency and clinical outcomes associated with latanoprost and beta-blocker monotherapy: evidence from a European retrospective cohort study
  Medical KQ 3 only
- "Diggory, P. and Franks, W. Glaucoma: systemic side effects of topical medical therapy--a common and under recognized problem. J R Soc Med 94 ;87 (10): 575-6 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Diggory, P., Cassels-Brown, A., and Fernandez, C. Topical beta-blockade with intrinsic sympathomimetic activity offers no advantage for the respiratory and cardiovascular function of elderly people. Age Ageing 96 ;25 (6): 424-8 .
  No subjects with open-angle glaucoma
- "Diggory, P., Cassels-Brown, A., Vail, A., Abbey, L., and Hillman, J. S. Changing from Timolol to the Cardioselective Betaxolo Improves Lung Function and Exercise Tolerance in the Elderly
  Meeting abstract
- "Diggory, P., Heyworth, P., Chau, G., McKenzie, S., and Sharma, A. Unsuspected bronchospasm in association with topical timolol--a common problem in elderly people: can we easily identify those affected and do cardioselective agents lead to improvement?. Age Ageing 94 ;23 (1): 17-21 .
  Data not abstractable
- "Diggory, P., Heyworth, P., Chau, G., McKenzie, S., Sharma, A., and Luke, I. Improved lung function tests on changing from topical timolol: non-selective beta-blockade impairs lung function tests in elderly patients. Eye (Lond) 93 ;7 (Pt 5) : 661-3 .
  It is not a RCT and has less than 100 patients
- "Ding, Q., Tan, R., Zheng, C., and Xu, W. [Comparative analysis of the formation of functional filtration bleb in different incision of conjunctiva flap after trabeculectomy]
  Foreign language
- "Dinslage, S., Diestelhorst, M., and Krieglstein, G. K. [A new transdermal alternative for pilocarpine in the treatment of glaucoma]
  Meeting abstract
- "Dinslage, S., Diestelhorst, M., Hille, T., and Otto, K. A new transdermal delivery system for pilocarpine in glaucoma treatment. Ger J Ophthalmol 96 ;5 (5): 275-80 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Dirks, M. and 6-Month Bimatoprost-Latanoprost Study Group. Comparison of IOP-Lowering Efficacy of Bimatoprost and Latanoprost in Patients with Glaucoma or Ocular Hypertension: A Six-month Randomized Clinical Trial
  Meeting abstract
- "Dirks, M. and Briminodine Study Group. LONG-TERM SAFETY AND IOP-LOWERING EFFICACY OF BRIMONIDINE TARTRATE 0.2% IN GLAUCOMA AND OCULAR HYPERTENSION
  Meeting abstract
- "Dirks, M. and John, W. G. Evaluation of Glaucoma Medication Safety, Efficacy and Patient-Reported Outcomes after 12 Months
  Meeting abstract
- "Dirks, M. S., Girkin, C. A., Tello, C., Choplin, N. T., Batoosingh, A., Bernstein, P., Whitcup, S., and Bimatoprost/Latanoprost Study Group. Comparing the IOP-Lowering Efficacy of Bimatoprost and Latanoprost Within Separate Glaucoma or Ocular Hypertension Patient Subsets
  Meeting abstract
- "Dirks, M. S., Johnson-Pratt, L., Polis, A., DeLucca, P., Kolodny, A., Fletcher, C., Cassel, D., Boyle, D., and Skobieranda, F. A Comparison of Efficacy, Tolerability, and Patient-Reported Measures Between Cosopt® and the Concomitant Administration of Alphagan® and Timolol
  Meeting abstract

- "Dirks, M., Conner, C., and Barnes, S. D. A COST MINIMIZATION ANALYSIS COMPARING BRIMONIDINE TO APRACLONIDINE IN IOP CONTROL FOLLOWING ALT
  Meeting abstract
- "Dirks, M., Noecker, R., Williams, R., and Earl, M. A Comparison of the IOP Lowering Efficacy of Bimatoprost and Latanoprost in the Treatment of Normal Tension Glaucoma
  Meeting abstract
- "Dobler, A. and Pederson, J. MITOMYCIN VS. 5-FLUOROURACIL IN GLAUCOMA FILTERING SURGERY
  Meeting abstract
- "Dobromyslov, A. N., Alekseev, V. N., and Zagorul'ko, A. M. [The expediency of peripheral iridectomy in the surgical treatment of open-angle glaucoma]
  Foreign language
- "Doherty, M. D., Wride, N. K., Birch, M. K., and Figueiredo, F. C. Choroidal detachment in association with topical dorzolamide: is hypotony always the cause?. Clin Experiment Ophthalmol 2009 ;37 (7): 750-2 .
  It is a case series
- "Doi, L. M, Melo, L. A S Jr, and Prata, J. A Jr. EFFECTS ON INTRAOCULAR PRESSURE IN PRIMARY OPEN-ANGLE GLAUCOMA AFTER COMBINED THERAPY WITH LATANOPROST AND BIMATOPROST: A RANDOMIZED CLINICAL TRIAL
  Meeting abstract
- "Doi, L. M., Melo, L. A. Jr, and Prata, J. A. Jr. Effects of the combination of bimatoprost and latanoprost on intraocular pressure in primary open angle glaucoma: a randomised clinical trial
  Unique comparators
- "Domingo Gordo, B., Urcelay Segura, J. L., Acero Pena, A., Luezas Morcuende, J. J., and Arrevola Velasco, L. [Dorzolamide: hypotensive efficacy in combination with beta-blockers. Long-term results]
  Foreign language
- "Domingo Regany, E., Quilis Salcedo, M., and Massague Camins, C. [Timolol: adverse cardiorespiratory effects]
  Foreign language
- "Dong, D. Q., Chen, G., and Hou, X. W. [Clinical observation of the combination of phacoemulsification and trabeculectomy]
  Foreign language
- "Donohue, E. K. and Wilensky, J. T. Trusopt, a topical carbonic anhydrase inhibitor. J Glaucoma 96 ;5 (1): 68-74 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- Donoso R. ,Armas R. ,Charlín R. ,Eggers A. ,Schweikart A. ,Varela H., López, J. P. Randomized prospective study of single intraoperatory exposure A 5-FU in primary trabeculectomy in open angle glaucoma. Archivos Chilenos de Oftalmología 1998; 55(2): 17-25.
  Other (specify): Non-english
- "Donoso R., Rodrigo, Monsalve, Rudy, Monsalve, Pablo, Armas, Rodolfo, CharlÆn, Raimundo, Eggers Koster, Andrqs, Khaw, Peng, Schhweikart, Adolfo, Varela, Hernbn, and Wilkins, Marck. 5-Fluorouracilo intraoperatorio en trabeculectomÆa primaria
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  Foreign language
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  Foreign language
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  Does not address any key questions
- "Dorner, G. T., Rainer, G., Garhofer, G., Findl, O., Georgopoulos, M., Polak, K., Petternel, V., Vass, C., Pfleger, T., and Schmetterer, L. Changing antiglaucoma therapy from timolol to betaxolol: Effect on optic disk blood flow
  Meeting abstract
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- "Douglas, G. R. and Wijsman, K. Effects of laser trabeculoplasty on intraocular pressure in the medically untreated eye. Canadian journal of ophthalmology. Journal canadien d'ophtalmologie 87 ;22 (3): 157-60 .
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- "Downes, S. M., Mission, G. P., Jones, H. S., and O'Neill, E. C. The predictive value of post-operative intraocular pressures following trabeculectomy. Eye (Lond) 94 ;8 (Pt 4) : 394-7 .
  Does not address any key questions
- "Draeger, J., Haselmann, G., and Weber, B. [The influence of pilocarpine upon the aqueous humour dynamics using ocusert with continuous delivery rate (author's transl)]. Klin Monbl Augenheilkd 75 ; 167 (4): 527-33 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Draeger, J., Haselmann, G., and Weber, B. The influence of pilocarpine upon the aqueous humour dynamics using ocusert with continuous delivery rate: DER EINFLUSS VON PILOCARPIN AUF DIE KAMMERWASSERDYNAMIK BEI VERWENDUNG VON MEDIKAMENTENTRAGERN MIT KONTINUIERLICHER ABGABERATE
  Duplicate "
- "Drake, M. V., Wilson, M. R., Harris, D., and Goodwin, L. Levobunolol compared to dipivefrin in African American patients with open angle glaucoma. J Ocul Pharmacol 93 ;9 (2): 91-5 .
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- "Drance, S. M. A comparison of the effects of betaxolol, timolol, and pilocarpine on visual function in patients with open-angle glaucoma. J Glaucoma 98 ;7 (4): 247-52 .
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- "Drance, S. M., Crichton, A., and Mills, R. P. Ocular Perfusion Pressure in Normal Tension Glaucoma Patients After Latanoprost or Timolol Treatment
  Meeting abstract
- "Drance, S. M., Douglas, G. R., Wijsman, K. J., and Schulzer, M. Adrenergic and adrenolytic effects on intraocular pressure. Graefes Arch Clin Exp Ophthalmol 91 ;229 (1): 50-1 .
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- "Duan, X., Jiang, Y., and Mo, X. [Long-term follow-up study on Hunan aqueous drainage implantation for refractory glaucoma]
  Foreign language
- "Duan, X., Jiang, Y., and Qing, G. [Long-term follow-up study on Hunan aqueous drainage implantation combined with mitomycin C for refractory glaucoma]
  Foreign language
- "DuBiner, H. B and Shapiro, A. M. Efficacy and Tolerability of Brimonidine vs. Latanoprost as First-Line Therapy for Glaucoma or Ocular Hypertension
  Meeting abstract
- "DuBiner, H. B, Kothe, A. C, Sharma, V., Mallick, S., Andrew, R. M., Sullivan, E. K, Weiner, A. L, DeSantis, L. M, Krueger, S., Bergamini, M. V W, and Study Group. A comparison of the diurnal IOP-lowering efficacy of levobetaxolol 0.5% vs. brimonidine 0.2% in patients with open-angle glaucoma or ocular hypertension
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- "Dubiner, H. B., Gross, R., Ochsner, K., Peace, J., Smith, S., Walters, T., Weiss, M., and Dickerson, J. TRAVATAN®Z AND TRAVATAN® PROVIDE SIMILAR LONG-LASTING IOP-LOWERING EFFICACY
  Meeting abstract
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Medical KQ 3 or KQ 3 and KQ 6 only

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Medical KQ 3 or KQ 3 and KQ 6 only

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Non-FDA-approved drug combination

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Meeting abstract

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It is not a RCT and has less than 100 patients

- "Ducousso, F., Coulon, P., Kovalski, J. L., Barach, D., Ballion, J. C., Bazin, S., Roques, J. C., and Verin, P. [Combined cataract-glaucoma operations. Extracapsular extraction and trabeculectomy versus phacoemulsification and trabeculectomy]. J Fr Ophtalmol 94 ;17 (8-9): 475-85 .

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Medical KQ 3 or KQ 3 and KQ 6 only

- "Duff, G. R., Watt, A. H., and Graham, P. A. A comparison of the effects of oral nadolol and topical timolol on intraocular pressure, blood pressure, and heart rate. Br J Ophthalmol 87 ;71 (9): 698-700 .

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- "Duff, G., Graham, P., and Watt, A. Comparison of ocular and cardiovascular effects of oral nadolol and topical timolol in patients at risk of glaucoma. [abstract]. British Journal of Pharmacology 86 ;89 : 711P .

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Other (specify):not FDA approved combination"

- "Dunn, M. Timolol-induced bronchospasm. JAMA 82 ;247 (1): 27-8 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Durante, A., Aurilia, P., Guarnaccia, G., and Boles Carenini, B. The hypotensive efficacy of dorzolamide HCL-timolol maleate 0.50% vs concomitant use of the two drugs

Medical KQ 3 only

- "Duzman, E., Ober, M., Scharrer, A., and Leopold, I. H. A clinical evaluation of the effects of topically applied levobunolol and timolol on increased intraocular pressure

Medical KQ 3 or KQ 3 and KQ 6 only

- "Duzman, E., Quinn, C. A., Warman, A., and Warman, R. One-month crossover trial comparing the intraocular pressure control of 3.4% Piloplex twice daily with 2.0% pilocarpine four times daily. Acta Ophthalmol (Copenh) 82 ;60 (4): 613-21 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Easty, D. L., Nemeth-Wasmer, G., Vounatsos, J. P., Girard, B., Besnainou, N., Pouliquen, P., Delval, L., and Rouland, J. F. Comparison of a non-preserved 0.1% T-Gel eye gel (single dose unit) with a preserved 0.1% T-Gel eye gel (multidose) in ocular hypertension and glaucomatous patients

Medical KQ 3 or KQ 3 and KQ 6 only

- "Eckhardt, B. and Hutz, W. [Revision suture in covered goniotrepanation]. Ophthalmologe 93 ;90 (6): 578-80 .

It is a case series

- "Ecoffet, M. and Demailly Ph. Middle-term double blind study in the treatment of chronic open angle glaucoma: Comparison between Metipranolol and Timolol: RESULTATS D'UNE ETUDE A MOYEN TERME A DOUBLE INSU COMPARANT LE METIPRANOLOL AU TIMOLOL DANS LE TRAITEMENT DU GLAUCOME PRIMITIF A ANGLE OUVERT

Foreign language

- "Ecoffet, M. and Demailly, P. [Mid-term results of a double-blind study comparing metipranolol to timolol in the treatment of primary open-angle glaucoma]. J Fr Ophtalmol 87 ;10 (6-7): 451-4 .

It is not a RCT and has less than 100 patients

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Advanced Glaucoma Intervention Study (AGIS): 13. Comparison of treatment outcomes within race: 10-year results. Ophthalmology 2004 ;111 (4): 651-64 .

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  Other (specify):Study design does not match KQ
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- "Egbert, P. R., Williams, A. S., Singh, K., Dadzie, P., and Egbert, T. B. A prospective trial of intraoperative fluorouracil during trabeculectomy in a black population. Am J Ophthalmol 93 ;116 (5): 612-6 .

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- "Eggers Koster, Andrqs and Kychenthal B., Andrqs. acotrabeculectomÆa

  Foreign language
- "Egorov, E. A. and Khiva, S. A. [Effectiveness of timolol maleate in hypotensive therapy of glaucoma]

  Foreign language
- "Egorov, E. A. and Shmeleva, I. A. [Results of the clinical study of a new adrenergic beta blocker levobunolol hydrochloride in healthy subjects and in patients with glaucoma]

  Foreign language
- "Egorov, E. A., Tsibaneva, E. V., and Egorov, A. E. [Efficacy of pilocarpine and timolol maleate combination in therapy of glaucoma]

  Foreign language
- "Egorov, E. and Ropo, A. Adjunctive use of tafluprost with timolol provides additive effects for reduction of intraocular pressure in patients with glaucoma

  Duplicate "
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- "Egorov, V. V., Sorokin, E. L., and Smoliakova, G. P. [Differentiated approaches to the treatment of nonstabilized primary open-angle glaucoma with normalized intraocular pressure considering its pathogenic features]

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- "Ehrnrooth, P., Lehto, I., Puska, P., and Laatikainen, L. Effects of early postoperative complications and the location of trephined block on long-term intraocular pressure control after trabeculectomy. Graefes Arch Clin Exp Ophthalmol 2003 ;241 (10): 803-8 .

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  Other (specify): No control group"
- "Ehrnrooth, P., Puska, P., Lehto, I., and Laatikainen, L. Progression of visual field defects and visual loss in trabeculectomized eyes. Graefes Arch Clin Exp Ophthalmol 2005 ;243 (8): 741-7 .

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- "Eid, T. M. Combined viscocanalostomy-trabeculectomy for management of far-advanced glaucoma: evaluation of the early postoperative course. Ophthalmic Surg Lasers Imaging 2008 ;39 (5): 358-66 .

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  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Eisenberg, D. L. Additive efficacy of unoprostone isopropyl 0.12% (rescula) to latanoprost 0.005%. Am J Ophthalmol 2001 ;132 (3): 448-9 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Eisenberg, D. Latanoprost versus bimatoprost. Ophthalmology 2003 ; 110 (9): 1861-2; author reply 1862 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Eisenberg, D. Randomized clinical trial comparing intraocular pressure-lowering efficacy of bimatoprost and latanoprost in patients with ocular hypertension or glaucoma. Am J Ophthalmol 2003 ;136 (1): 217; author reply 217-8 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "El Sayyad, F. F, El-Tal, M., Salah, A., ElKholify, H., El-Husseiny, M., and Saleh, M. F. A randomized clinical trial of adjunctive intraoperative 5-fu in bilateral primary open angle glaucoma (poag): 5-year results
  Meeting abstract
- "El Sayyad, F. F, Helal, M. H, El-Kholify, H., Khalil, M., and El Maghraby, A. Non-Penetrating Deep Sclerectomy versus Trabeculectomy in Bilateral Primary Open-Angle Glaucoma (POAG)
- **Meeting abstract**
- "El Sayyad, F. F., Helal, M., El-Hamzawey, H., and El-Maghraby, M. A. Superior Mitomycin (MMC) Filter Combined with Temporal Clear Corneal Phacoemulsification (TCC Phaco) and Foldable IOL
- **Meeting abstract**
- "El Sayyad, F., Belmekki, M., Helal, M., Khalil, M., El-Hamzawey, H., and Hisham, M. Simultaneous subconjunctival and subscleral mitomycin-C application in trabeculectomy. Ophthalmology 2000 ;
- 107 (2): 298-301; discussion 302 .
- **Other (specify):Not a comparison of interest**
- "El Sayyad, F., Elsharif, Z., Helal, M., Balajonda, M. N G, and EI-Maghraby, A. Fornix-Based vs. Limbal-Based Tenon's Flap in Bilateral Trabeculectomy in Primary Open-Angle Glaucoma (POAG),
- **Meeting abstract**
- "El Sayyad, F., Helal, M. M, Elsherif, Z., and EI-Maghraby, A. Single Plate Molteno Implant Combined with Mitomycin C (MMC) Trabeculectomy in Difficult Glaucomas
- **Meeting abstract**
- "El Sayyad, F., Helal, M., El Sherif, Z., and El-Maghraby, M. A. Trabeculectomy With Adjunctive Intraoperative 5-Fluorouracil (5-FU) in Primary Open-Angle Glaucoma (POAG)
- **Meeting abstract**
- "El Sayyad, F., Helal, M., El-Kholify, H., Khalil, M., and El-Maghraby, A. Nonpenetrating deep sclerectomy versus trabeculectomy in bilateral primary open-angle glaucoma
- **Cheng 2009**
- "el Sayyad, F., Helal, M., el-Maghraby, A., Khalil, M., and el-Hamzawey, H. One-site versus 2-site phacotrabeculectomy: a randomized study. J Cataract Refract Surg 99 ;25 (1): 77-82 .
- **It is not a RCT and has less than 100 patients**
- "El Sayyad, F., Helal, M., El-Maghraby, M. A, and Elsherif, Z. Glaucoma Drainage Implant Versus Trabeculectomy With Adjunctive Intraoperative Mitomycin-C (MMC) in High-Risk Glaucoma Patients
- **Meeting abstract**
- "El Sayyad, F., Helal, M., Elsherif, Z., and El-Maghraby, A. FORNIX-BASED VERSUS LIMBAL-BASED TENON'S FLAP IN BILATERAL TRABECULECTOMY
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- "El Sayyad, F., Helal, M., Elsherif, Z., and El-Maghraby, A. Molteno implant versus trabeculectomy with adjunctive intraoperative mitomycin-C in high-risk glaucoma patients. J. GLAUCOMA 95 ;4 (2): 80-85 .
- **OAG can't be analyzed separately**
- "Eldaly, M. A. Pneumatic trabecular bypass (PTB): pilot study
  Systematic review
- "Elena, P. P., Rouland, J. F., Morel-Mandrino, P., and Polzer, H. THERAPEUTIC EQUIVALENCE OF A TIMOLOL 0.1% HYDROGEL (T-GEL 0.1%) QD AND AQUEOUS TIMOLOL 0.5% BID IN REDUCING THE IOP OF GLAUCOMATOUS PATIENTS
- **Meeting abstract**
- "Eliezer, R. N, Coen, R., Umbelino, C. C, Pinheiro, R. K, Mandia, C., Kasarara, N., Almeida, G. V d, Malta, R. F S, and Malta, R. F S. Use of

Amniotic Membrane in Trabeculectomy for the Treatment of Glaucoma - A Pilot Study

- **Meeting abstract**
- "Ellis, P. P. Urinary calculi with methazolamide therapy. Doc Ophthalmol 73 ;34 (1): 137-42 .
- **It is a case series**
- "Ellis, P. P., Price, P. K., Kelmenson, R., and Rendi, M. A. Effectiveness of generic acetazolamide. Arch Ophthalmol 82 ;
- 100 (12): 1920-22 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Elman, J., Caprioli, J., Rosanelli, E. G. Jr, Shields, R., Mead, A., Sears, M., and Petillo, J. Celiprolol versus timolol and placebo: a two week double-blind comparison. J Ocul Pharmacol 87 ;3 (1): 5-10 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Elsas, T., Johnsen, H., and Brevik, T. A. The immediate pressure response to primary laser trabeculoplasty--a comparison of one- and two-stage treatment. Acta Ophthalmol (Copenh) 89 ;67 (6): 664-8 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Elsas, T., Johnsen, H., Stang, O., and Fygd, O. Pressure increase following primary laser trabeculoplasty. Effect on the visual field. Acta Ophthalmologica 94 ;72 (3): 297-302 .

  It is not a RCT and has less than 100 patients
- "El-Sayyad, F. F., Helal, M. H., Khalil, M. M., and El-Maghraby, M. A. Phacotrabeculectomy versus two-stage operation: a matched study. Ophthalmic Surg Lasers 99 ;30 (4): 260-5 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "El-Sayyad, F., El-Maghraby, A., Amayam, A., and Helal, M. Fornix-Based Versus Limbal-Based Conjunctival Flap in Trabeculectomy with 5-Fluorouracil (5-FU)

  Meeting abstract
- "Emarah, A. M. and El-Helw, M. A. Anterior Lens Capsule Versus Mitomycin-C as an Adjunct to Trabeculectomy in Combined Phacotrabeculectomy. J Glaucoma 2010 ;

  OAG can't be analyzed separately
- "Emarah, M. H, El-Metwalli, N. R, Emarah, A. M, El-Serogy, H. M, and Zaki, N. S. Initial filtration surgery vs medical therapy for managing chronic simple glaucoma

  Meeting abstract
- "Emmerich, K. H. [Latanoprost-monotherapy in comparison with adjunction of timolol and dorzolamide in patients with glaucoma or ocular hypertension]

  Meeting abstract
- "Emmerich, K. H. A Comparison of Latanoprost Monotherapy to Dorzolamide Combined with Timolol in Glaucoma and Ocular Hypertension Patients

  Meeting abstract
- "Emmerich, K. H. Comparison of latanoprost monotherapy to dorzolamide combined with timolol in patients with glaucoma and ocular hypertension.A 3-month randomised study

  KQ 3 RCT
- "Englert, J. A., Cox, T. A., Allingham, R. R., and Shields, M. B. Argon vs diode laser trabeculoplasty. Am J Ophthalmol 97 ;124 (5): 627-31 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Englund, G. W. Fatal pancytopenia and acetazolamide therapy. JAMA 69 ;210 (12): 2282 .

  It is a case series
- "Epstein, D. L., Krug, J. H. Jr, Hertzmark, E., Remis, L. L., and Edelstein, D. J. A long-term clinical trial of timolol therapy versus no treatment in the management of glaucoma suspects

  Maier, 2005
- "Epstein, D. L., Krug, J. H. Jr, Hertzmark, E., Remis, L. L., and Edelstein, D. J. Early treatment study of elevated intraocular pressure (2). J Glaucoma 93 ;2 Suppl A : 3-4 .

  Data not abstractable
- "Epstein, R., Brown, S. V., Dennis, R. F., and Konowal-Allen, A. Combination of systemic acetazolamide and topical dorzolamide. Ophthalmology 98 ;105 (9): 1581-2 .

  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Erdogan, H., Toker, I., Arici, M. K., Aygen, A., and Topalkara, A. A short-term study of the additive effect of latanoprost 0.005% and brimonidine 0.2%. Jpn J Ophthalmol 2003 ;47 (5): 473-8 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Erdogan, H., Toker, M. I., Arici, M. K., and Topalkara, A. Effect of latanoprost 0.005% and brimonidine 0.2% on intraocular pressure after phacoemulsification and intraocular lens implantation surgery. Jpn J Ophthalmol 2004 ;48 (6): 600-1 .

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- "Ergin, A., Ornek, K., Gullu, R., Bulcun, E., Ekici, M., and Ekici, A. Effects of timolol and latanoprost on respiratory and cardiovascular status in elderly patients with glaucoma. J Ocul Pharmacol Ther 2009 ;25 (5): 463-6 .
- **It is not a RCT and has less than 100 patients**
- "Erichev, V. P. [Comparative evaluation of the hypotensive effectiveness of beta blockers]

Foreign language

- "Erichev, V. P. and Maichuk, I. u. F. [Experience with the use of timolol maleate in the therapy of open-angle glaucoma]

Foreign language

- "Erichev, V. P. and Maichuk, I. u. F. [Pilaren in the therapy of open-angle glaucoma]

Foreign language

- "Erichev, V. P., Abdulkadyrova, M. D., Kalinina, O. M., Shmyreva, V. F., Polutornov, A. L., Egorov, E. A., and Shmeleva, I. A. [Clinical evaluation of the hypotensive effectiveness of Betoptic preparation]

Foreign language

- "Erichev, V. P., Salminen, L., and Maichuk, I. u. F. [Ocular hypotensive effect of low doses of timolol]

Foreign language

- "Erkin, E. F., Celik, P., Kayikcioglu, O., Deveci, H. M., and Sakar, A. Effects of latanoprost and betaxolol on cardiovascular and respiratory status of newly diagnosed glaucoma patients

Unique comparators

- "Ermakova, V. N. [A clinico-pharmacological study of an ophthalmic drug form of proxodolol]

Foreign language

- "Ermakova, V. N. [Results of the use of Thymoptik (timolol) in the treatment of primary glaucoma]

Foreign language

- "Ermakova, V. N., Iuzhakov, S. D., Mashkovskii, M. D., and Kolomoitseva, E. M. [Proxodolol, a new domestic preparation for lowering intraocular pressure in glaucoma]

Foreign language

- "Ermakova, V. N., Malinina, S. L., and Abdulkadyrova, M. Z. h. [Comparative evaluation of the tolerability of proxofelin and clofelin and their effects on the eye in patients with glaucoma]

Foreign language

- "Ershkovich, I. G. [Trabeculectomy in open-angle glaucoma]

Foreign language

- "Eschstruth, P. and Schmidt, J. [External trabeculecomy (ETE): an alternative? A retrospective comparison with goniotrepanation]

Foreign language

- "Eschstruth, P. and Schmidt, J. External trabeculecomy (ETE): An alternative? A retrospective comparison with goniotrepanation: Externe trabekulektomie (ETE): Eine alternative? Eine retrospektive studie zur goniotrepanation

Duplicate "

- Estudio ultrabiomecroscopico en ablacion trabecular con laser y su relacion con la apariencia de la ampolla conjuntival y la presion intraocular Foreign language
- Estudo do efeito da trabeculoplastia na redugPo de medicamentos hipotensores oculares utilizados em pacientes glaucomatosos. 2003. Foreign language
- "Evans, D. W., Bartlett, J., Houde, B., and Than, T. Effect of Latanoprost Therapy on Contrast Sensitivity in Glaucoma Patients

Meeting abstract

- "Eyawo, O., Nachega, J., Lefebvre, P., Meyer, D., Rachlis, B., Lee, C. W., Kelly, S., and Mills, E. Efficacy and safety of prostaglandin analogues in patients with predominantly primary open-angle glaucoma or ocular hypertension: a meta-analysis

Systematic review

- "Facio, A. C., Reis, A. S., Vidal, K. S., de Moraes, C. G., Suzuki, R., Hatanaka, M., and Susanna, R. A comparison of bimatoprost 0.03% versus the fixed-combination of latanoprost 0.005% and timolol 0.5% in adult patients with elevated intraocular pressure: an eight-week, randomized, open-label trial. J Ocul Pharmacol Ther 2009 ;25 (5): 447-51 .

Other (specify):not FDA approved"

- "Fama, F. and Santamaria, S. Comparison of the ocular effects of three beta-blockers: Timolol, carteolol, and betaxolol. ANN. OPHTHALMOL. GLAUCOMA 96 ;28 (5): 317-320 .
  Other (specify): Mean age less than 50"
- "Fang, A., Xu, M., Li, Y., and Ye, L. [Microtrebeculectomy in glaucoma]
- **Foreign language**
- "Fanous, S. and Brouillette, G. Combined trabeculectomy and cataract extraction: modified technique. Can J Ophthalmol 83 ;18 (6): 274-7 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Faridi, U. A., Saleh, T. A., Ewings, P., Venkateswaran, M., Cadman, D. H., Samarasinghe, R. A., Vodden, J., and Claridge, K. G. Comparative study of three prostaglandin analogues in the treatment of newly diagnosed cases of ocular hypertension, open-angle and normal tension glaucoma
- **Medical KQ 3 only**
- "Faulkner, W. Miotic effect of alphagan P. J Cataract Refract Surg 2003 ;
- 29 (3): 423 .
- **It is a case series**
- "Fechtner, R. D., Airaksinen, P. J., Getson, A. J., Lines, C. R., and Adamsons, I. A. Efficacy and tolerability of the dorzolamide 2%/timolol 0.5% combination (COSOPT(trademark)) versus latanoprost 0.005% (XALATAN(trademark)) in the treatment of ocular hypertension or glaucoma: Results from two randomized clinical trials
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Fechtner, R. D., Airaksinen, P. J., Getson, A. J., Lines, C. R., and Adamsons, I. A. Efficacy and tolerability of the dorzolamide 2%/timolol 0.5% combination (COSOPT) versus 0.005% (XALATAN) in the treatment of ocular hypertension or glaucoma: results from two randomized clinical trials
- **Medical KQ 3 only**
- "Fechtner, R. D., Godfrey, D. G., Budenz, D., Stewart, J. A., Stewart, W. C., and Jasek, M. C. Prevalence of ocular surface complaints in patients with glaucoma using topical intraocular pressure-lowering medications. Cornea 2010 ;29 (6): 618-21 .
- **Data not abstractable**
- "Fechtner, R. D., Harasymowycz, P., Nixon, D. R., Vold, S. D., Zaman, F., Williams, J. M., and Hollander, D. A. Twelve-week, randomized, multicenter study comparing a fixed combination of brimonidine-timolol with timolol as therapy adjunctive to latanoprost. Clin Ophthalmol 2011 ;
- 5; status =Glaucoma Division, University of Medicine and Dentistry New Jersey, Newark, NJ, USA;: 945-53 .
- **OAG can't be analyzed separately**
- "Feghali, J. G, Klussmann, K. G, and Viti, A. J. Effect of the Tightness of Scleral Flap Closure on the Outcome of Trabeculectomy and Its Complications
- **Meeting abstract**
- "Feghali, J. G. and Kaufman, P. L. Decreased intraocular pressure in the hypertensive human eye with betaxolol, a beta 1-adrenergic antagonist
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Feghali, J. G., Kaufman, P. L., Radius, R. L., and Mandell, A. I. A comparison of betaxolol and timolol in open angle glaucoma and ocular hypertension
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Feibel, R. M. High incidence of topical allergic reactions to 1% apraclonidine. Arch Ophthalmol 95 ;
- 113 (12): 1579-80 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Feibel, R. M. Monocular drug trial. Ophthalmology 2010 ;
- 117 (5): 1048; author reply 1048 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Feiler-Ofry, V., Godel, V., and Lazar, M. Nail pigmentation following timolol maleate therapy. Ophthalmologica 81 ;
- 182 (3): 153-6 .
- **It is a case series**
- "Feldman, R. M. A Comparison of Fixed Combination of Latanoprost and Timolol with Fixed Combination of Dorzolamide and Timolol (COSOPT) in Patients With Elevated Intraocular Pressure: A Three-month Masked Evaluator, Phase IIIb, Multicenter Study in the United States (XALCOM vs. COSOPT)
- **Meeting abstract**
- "Feldman, R. M., Prager, T. C., Baker, L., Chuang, A. Z., and Additivity Study Group. Additivity of Brinzolamide vs. Brimonidine 0.15% to Travoprost 0.004%

- **Meeting abstract**
- "Feldman, R. M., Stewart, R. H., Stewart, W. C., Jia, G., Gergich, K., Smugar, S. S., and Galet, V. A. 24-Hour Diurnal IO P Lowering Efficacy of 2% Dorzolamide/0.5% Timolol Maleate Combination phthalmic Solution in Open Angle Glaucoma or Ocular Hypertension
- **Meeting abstract**
- "Feldman, R. M., Stewart, R. H., Stewart, W. C., Jia, G., Gergich, K., Smugar, S. S., and Galet, V. A. 24-hour Diurnal IOP Lowering Efficacy of 2% Dorzolamide/0.5% Timolol Maleate Combination Ophthalmic Solution in Open Angle Glaucoma or Ocular Hypertension
- **Meeting abstract**
- "Feldman, R. M., Stewart, R. H., Stewart, W. C., Jia, G., Smugar, S. S., and Galet, V. A. 24-hour control of intraocular pressure with 2% dorzolamide/0.5% timolol fixed-combination ophthalmic solution in open-angle glaucoma
- **Unique comparators**
- "Feldman, R. M., Tanna, A. P., Gross, R. L., Chuang, A. Z., Baker, L., Reynolds, A., and Prager, T. C. Comparison of the ocular hypotensive efficacy of adjunctive brimonidine 0.15% or brinzolamide 1% in combination with travoprost 0.004%
- **Medical KQ 3 only**
- "Feldman, Robert M. Actualizaci£n sobre la combinaci£n de latanoprost y timolol, en proporci£n fija, para el tratamiento de glaucoma de bngulo abierto y la hipertensi£n ocular
- **Foreign language**
- "Fellenbaum, P. S. Six-month randomized clinical trial comparing intraocular pressure-lowering efficacy of bimatoprost and latanoprost in patients with ocular hypertension or glaucoma. Am J Ophthalmol 2003 ;
- 136 (2): 392; author reply 392-3 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Fellman, R. and Budenz, D. Malignant glaucoma. J Glaucoma 99 ;
- 8 (2): 149-53 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Fellman, R. L. and Travoprost Study Group. TRAVOPROST IS SUPERIOR TO TIMOLOL IN LOWERING IOP IN PATIENTS WITH OPEN-ANGLE GLAUCOMA OR OCULAR HYPERTENSION
- **Meeting abstract**
- "Fellman, R. L., Starita, R. J., Spaeth, G. L., and Poryzees, E. M. ALT: argon laser trabeculoplasty following failed trabeculectomy. J Ophthalmic Nurs Technol 86 ;5 (2): 65-8 .
- **It is not a RCT and has less than 100 patients**
- "Fellman, R. L., Sullivan, E. K., Ratliff, M., Silver, L. H., Whitson, J. T., Turner, F. D., Weiner, A. L., and Davis, A. A. Comparison of travoprost 0.0015% and 0.004% with timolol 0.5% in patients with elevated intraocular pressure: a 6-month, masked, multicenter trial
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Feltgen, N., Mueller, H., Ott, B., Frenz, M., and Funk, J. Endoscopically controlled erbium:YAG goniopuncture versus trabeculectomy: effect on intraocular pressure in combination with cataract surgery. Graefes Arch Clin Exp Ophthalmol 2003 ;241 (2): 94-100 .
- **Other (specify):**comparison of 2 case series"
- "Feng, J.-H., Song, W.-L., and Zhao, C.-Y. Mitomycin C and sodium hyaluronate in tabeculectomy
- **Foreign language**
- "Feng, Y. [Trabeculectomy combined with mitomycin C and removed suture in glaucoma]
- **Foreign language**
- "Feng, Z. [Remote results of trabeculectomy (author's transl)]
- **Foreign language**
- "Fenton, R. M., Rubin, B. I., de Smet, M. D., Whitcup, S. M., and Nussenblatt, R. B. A PROSPECTIVE STUDY OF 5-FU TRABECULECTOMY VS SINGLE PLATE MOLTENO IMPLANT IN PATIENTS WITH PANUVEITIS COMPLICATED BY GLAUCOMA REFRACTORY TO PRIOR THERAPY
- **Meeting abstract**
- "Ferguson, J. G. Jr and Macdonald, R. Jr. Trabeculectomy in blacks: a two-year follow-up. Ophthalmic Surg 77 ;8 (6): 41-3 .
- **It is not a RCT and has less than 100 patients**
- "Fernandez, S., Pardinas, N., Laliena, J. L., Pablo, L., Diaz, S., Perez, S., and Honrubia, F. M. [Long-term tensional results after trabeculectomy. A comparative study among types of glaucoma and previous medical treatment]. Arch Soc Esp Oftalmol 2009 ;84 (7): 345-51 .
- **Other (specify):**only patients without surgical failure, It is a case series"

- "Fernandez-Barrientos, Y., Garcia-Feijoo, J., Martinez-de-la-Casa, J. M., Pablo, L. E., Fernandez-Perez, C., and Garcia Sanchez, J. Fluorophotometric study of the effect of the glaukos trabecular microbypass stent on aqueous humor dynamics. Invest Ophthalmol Vis Sci 2010 ;51 (7): 3327-32 .
- **Other (specify):**unique comparator, **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Fernandez-Vozmediano, J. M., Blasi, N. A., Romero-Cabrera, M. A., and Carrascosa-Cerquero, A. Allergic contact dermatitis to timolol. Contact Dermatitis 86 ;14 (4): 252 .
- **It is a case series**
- "Ferri, M., Parmeggiani, F., Gasparrini, E., Gavioli, I., Peruz, G., Maciga, C., and Costagliola, C. Topical administration of apraclonidine 0.1% and brimonidine 0.2% in patients affected by primary open-angle glaucoma: Effects on ocular perfusion pressure and visual field parameters: Somministrazione topica di apraclonidina 0.1% e brimonidina 0.2% in pazienti affetti da glaucoma primario ad angolo aperto: Effetti sulla pressione di perfusione oculare e sugli indici perimetrici

- **Foreign language**
- "Ferry, A. P. and Lichtig, M. Gouty arthritis as a complication of acetazolamide (Diamox) therapy for glaucoma. Can J Ophthalmol 69 ;4 (2): 145-7 .
- **It is a case series**
- "Feuerhake, C., Buchholz, P., and Kimmich, F. Efficacy, tolerability and safety of the fixed combination of bimatoprost 0.03% and timolol 0.5% in a broad patient population: multicenter, open-label observational study. Curr Med Res Opin 2009 ;25 (4): 1037-43 .
- **Other (specify):**No control group"
- "Figueiredo, Carlos Rubens de and Figueiredo, Bruno Pimentel de. Fluxo sangnÆneo ocular em hipotensores oculares t£picos: estudo prospectivo
- **Foreign language**
- "Figueiredo, Carlos Rubens de, Suzuki J·nior, EmÆlio Rintaro, Ribeiro, Breno Barreto, Figueiredo, Bruno Pimentel de, Batista, Wagner Duarte, and Agostini Netto, JoPo. Efeito do Bimatoprost, Latanoprost, Travoprost e Unoprostona na pressPo intra-ocular e no fluxo sangnÆneo ocular
- **Foreign language**
- "Figueroa, AndreÆna and Chocr£n, Isaac. Evoluci£n postoperatoria de la cirugÆa filtrante en el Hospital Universitario de Caracas
- **Foreign language**
- "Figurska, M. and Rekas, M. [Effect of local abnormalities and systemic disorders on phacotrabeculectomy and the post-operative period]
- **Foreign language**
- "Fiore, P. M., Jacobs, I. H., and Goldberg, D. B. Drug-induced pemphigoid. A spectrum of diseases. Arch Ophthalmol 87 ;
- 105 (12): 1660-3 .
- **It is a case series**
- "Fiscella, R. G. Persistency with glaucoma medication. Am J Ophthalmol 2004 ;138 (6): 1093-4; author reply 1094 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Five-year follow-up of the Fluorouracil Filtering Surgery Study. The Fluorouracil Filtering Surgery Study Group
  Wormald 2009
- "Flach, A. J. Efficacy of apraclonidine ophthalmic solution (iopidine) in presumed silicon oil-induced glaucoma and primary open-angle glaucoma. Surv Ophthalmol 95 ;40 (1): 84-5 .
- **It is not a RCT and has less than 100 patients**
- "Flad, M., Paetzold, J., Krapp, E., Denk, P. O., Vonthein, R., and Schiefer, U. Follow-up of Visual Field Defects with Fundus-oriented Perimetry (FOP) - a Comparative Pilot Study in Glaucoma Patients with and without Topical Brimonidine Therapy
- **Meeting abstract**
- "Flamm, C. and Wiegand, W. [Intraocular pressure after cyclophotocoagulation with the diode laser]. Ophthalmologe 2004 ;101 (3): 263-7 .
- **It is a case series**
- "Flamm, C. and Wiegand, W. Intraocular pressure after cyclophotocoagulation with the diode laser: Tensionsverlauf nach Zyklophotokoagulation mit dem Diodenlaser. Ophthalmologe 2004 ;101 (3): 263-267 .
- **It is a case series**
- "Flammer, J. and Drance, S. M. Effect of acetazolamide on the differential threshold. Arch Ophthalmol 83 ;101 (9): 1378-80 .

- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Flammer, J. and Drance, S. M. Reversibility of a glaucomatous visual field defect after acetazolamide therapy. Can J Ophthalmol 83 ;18 (3): 139-41 .
- **It is not a RCT and has less than 100 patients**
- "Flammer, J., Collignon-Brach, J., Demailly, P., and Graves, S. A. [A long-term study of the visual fields in patients treated with betaxolol and timolol]
- **Foreign language**
- "Flammer, J., Robert, Y., and Gloor, B. Influence of pindolol and timolol treatment on the visual fields of glaucoma patients. J Ocul Pharmacol 86 ;
- 2 (4): 305-11 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Fledelius, H. C. Central vein thrombosis and topical dipivalyl epinephrine. Acta Ophthalmol (Copenh) 90 ;68 (4): 491-2 .
- **Does not address any key questions**
- "Florez, A., Roson, E., Conde, A., Gonzalez, B., Garcia-Doval, I., de la Torre, C., and Cruces, M. Toxic epidermal necrolysis secondary to timolol, dorzolamide, and latanoprost eyedrops. J Am Acad Dermatol 2005 ;53 (5): 909-11 .

  It is a case series
- "Fluorouracil filtering surgery study one-year follow-up. Am J Ophthalmol 90 ;109 (5): 613-6 .
- No original data (e.g., systematic review, narrative review, editorial, letter)

  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Flury, H., Tournoux, A., and Martenet, A. C. [Tolerance and pharmacologic effectiveness of antiglaucoma eyedrops]. Klin Monbl Augenheilkd 86 ;188 (6): 573-5 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Fogagnolo, P., Rossetti, L., Marchini, G., Marraffa, M., Rolando, M., Ciancaglini, M., Calabria, G., Mastropasqua, L., and Orzalesi, N. The effect of pneumatic trabeculoplasty on intraocular pressure: the results of a 6-month, open-label, multicenter study. Eur J Ophthalmol 2008 ;18 (6): 922-8 .

- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Follmann, P. and Turi, E. [Glaucoma and the dry eye syndrome]. Klin Monbl Augenheilkd 80 ;176 (1): 147-52 .
- **Data not abstractable**
- "Fong, D. S., Frederick, A. R. Jr, Richter, C. U., and Jakobiec, F. A. Adrenochrome deposit. Arch Ophthalmol 93 ;111 (8): 1142-3 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Fontana, H., Nouri-Mahdavi, K., Lumba, J., Ralli, M., and Caprioli, J. Trabeculectomy with mitomycin C: outcomes and risk factors for failure in phakic open-angle glaucoma. Ophthalmology 2006 ;113 (6): 930-6 .
- **It is a case series**
- "Fontana, L., Viswanathan, A. C., Poinooswamy, D., Hitchings, R. A., and Scullica, L. Surgery for normal tension glaucoma. Target intraocular pressure and visual field progression. Acta Ophthalmol Scand Suppl 97 ;(224): 43-4 .

  Does not address any key questions
- "Francis, B. A. A Multi-Site Evaluation of a Fixed Combination Therapy of Dorzolamide-Timolol (Cosopt®) Compared with Concomitant Administration of a Topical Beta-Blocker and Dorzolamide

  Meeting abstract
- "Francis, B. A., Du, L. T., Berke, S., Ehrenhaus, M., and Minckler, D. S. Comparing the fixed combination dorzolamide-timolol (Cosopt) to concomitant administration of 2% dorzolamide (Trusopt) and 0.5% timolol -- a randomized controlled trial and a replacement study

  Medical KQ 3 or KQ 3 and KQ 6 only
- "Francis, B. A., Kawji, Vo, N. T., Dustin, L., and Chopra, V. Endoscopic Cyclophotocoagulation (ECP) in the Management of Uncontrolled Glaucoma With Prior Aqueous Tube Shunt. J Glaucoma 2010 ;

  It is not a RCT and has less than 100 patients
- "Francis, B. A., Minckler, D., Dustin, L., Kawji, S., Yeh, J., Sit, A., Mosaed, S., and Johnstone, M. Combined cataract extraction and trabeculotomy by the internal approach for coexisting cataract and open-angle glaucoma: initial results. J Cataract Refract Surg 2008 ;34 (7): 1096-103 .

  Does not address any key questions
- "Francois, J., Goes, F., and Stockmans, L. [Acute glaucoma after pilocarpine instillation]

Foreign language

- "Francois, J., Goes, F., and Stockmans, L. [Acute glaucoma secondary to instillation of pilocarpine]

Foreign language

- "Francois, J., Goes, F., and Zagorski, Z. Comparative ultrasonographic study of the effect of pilocarpine 2% and Ocusert P 20 on the eye components. Am J Ophthalmol 78 ;86 (2): 233-8 .

Other (specify): Mean age below 50"

- "Franks, W. A., Renard, J. P., Cunliffe, I. A., and Rojanapongpun, P. A 6-week, double-masked, paralle-group study of the efficacy and safety of travoprost 0.004% compared with latanoprost 0:005%/timolol 0.5% in patients with primary open-angle glaucoma or ocular hypertension. Clin. Ther. 2006 ;28 (3): 332-339 .
- **Other (specify):**uses not FDA approved drug"
- "Franks, W. A., Renard, J. P., Cunliffe, I. A., and Rojanapongpun, P. A 6-week, double-masked, parallel-group study of the efficacy and safety of travoprost 0.004% compared with latanoprost 0:005%/timolol 0.5% in patients with primary open-angle glaucoma or ocular hypertension. Clin Ther 2006 ;28 (3): 332-9 .
- **Other (specify):**not approved combi"
- "Fraser, S. Trabeculectomy and antimetabolites. Br J Ophthalmol 2004 ;
- 88 (7): 855-6 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Fraunfelder, F. T. and Fraunfelder, F. W. Short-term use of carbonic anhydrase inhibitors and hematologic side effects. Arch Ophthalmol 92 ;
- 110 (4): 446-7 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Fraunfelder, F. T. Ocular beta-blockers and systemic effects. Arch Intern Med 86 ;146 (6): 1073-4 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Fraunfelder, F. T., Shell, J. W., and Herbst, S. F. Effect of pilocarpine ocular therapeutic systems on diurnal control of intraocular pressure. Ann Ophthalmol 76 ;8 (9): 1031-9 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "French, D. D. and Margo, C. E. Glaucoma medications and mortality: a retrospective cohort study. Ann Epidemiol 2010 ;
- 20 (12; status =V.A. Center of Excellence on Implementing Evidence Based Practice, Regenstrief Institute Inc., Department of General Internal Medicine and Geriatrics, Indiana University School of Medicine, Indianapolis, USA. Dustin.French2@va.gov): 917-23 .
- **OAG can't be analyzed separately**
- "Frenkel, R. E., Noecker, R. J., and Craven, E. R. Evaluation of circadian control of intraocular pressure after a single drop of bimatoprost 0.03% or travoprost 0.004%. Curr Med Res Opin 2008 ;
- 24 (4): 919-23 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Freudenthal, J. and Yan, D. Comparison of Efficacy and Tolerability in an InvestigatorMasked Switch From Cosopt to Combigan in the Treatment of Primary Open-Angle Glaucoma
- **Meeting abstract**
- "Freyler, H., Novack, G. D., Menapace, R., Skorpik, C., Mordaunt, J., and Batoosingh, A. L. [Comparison of the effectiveness and safety of levobunolol and timolol in ocular hypertension and chronic open-angle glaucoma]. Klin Monbl Augenheilkd 88 ;193 (3): 257-60 .
- **It is not a RCT and has less than 100 patients**
- "Frezzotti, P., Ciappetta, R., Nuti, A., Traversi, C., and Frezzotti, R. 2% IBOPAMINE EYE DROPS IN THE TREATMENT OF TRANSIENT OCULAR HYPOTONY AFTER TRABECULECTOMY IN PRIMARY OPEN-ANGLE GLAUCOMA AND CHRONIC ANGLE-CLOSURE GLAUCOMA
- **Meeting abstract**
- "Frezzotti, P., Mittica, V., Martone, G., Motolese, I., Lomurno, L., Peruzzi, S., and Motolese, E. Longterm follow-up of diode laser transscleral cyclophotocoagulation in the treatment of refractory glaucoma. Acta Ophthalmol. 2010 ;
- 88 (1): 150-155 .
- **OAG can't be analyzed separately**
- "Friederich, R. L. The pilocarpine Ocusert: a new drug delivery system. Ann Ophthalmol 74 ;6 (12): 1279-84 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**

- "Friedland, B. R., Mallonee, J., and Anderson, D. R. Short-term dose response characteristics of acetazolamide in man. Arch Ophthalmol 77 ;
- 95 (10): 1809-12 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Friedman, D. S., Okeke, C. O., Jampel, H. D., Ying, G. S., Plyler, R. J., Jiang, Y., and Quigley, H. A. Risk factors for poor adherence to eyedrops in electronically monitored patients with glaucoma

  Systematic review
- "Fristrom, B. A 6-month, randomized, double-masked comparison of latanoprost with timolol in patients with open angle glaucoma or ocular hypertension

  Medical KQ 3 or KQ 3 and KQ 6 only
- "Fristrom, B. and Nilsson, S. E. A double masked comparison of the intraocular pressure reducing effect of latanoprost 0.005% and 0.001% administered once daily in open angle glaucoma and ocular hypertension

  Unique comparators
- "Fristrom, B. and Nilsson, S. E. Interaction of PhXA41, a new prostaglandin analogue, with pilocarpine. A study on patients with elevated intraocular pressure. Arch Ophthalmol 93 ;111 (5): 662-5 .

  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Fristrom, B. and Uusitalo, H. A randomized, 36-month, post-marketing efficacy and tolerability study in Sweden and Finland of latanoprost versus non-prostaglandin therapy in patients with glaucoma or ocular hypertension. Acta Ophthalmol 2010 ;88 (1): 37-43 .

  Other (specify): Control group poorly described"
- "Fuchsjager-Mayrl, G., Georgopoulos, M., Hommer, A., Weigert, G., Pemp, B., Vass, C., Garhofer, G., and Schmetterer, L. Effect of dorzolamide and timolol on ocular pressure: blood flow relationship in patients with primary open-angle glaucoma and ocular hypertension. Invest Ophthalmol Vis Sci 2010 ;51 (3): 1289-96 .

  Does not address any key questions
- "Fuchsjager-Mayrl, G., Rainer, G., Georgopoulos, M., Buehl, W., Vass, C., Kircher, K., and Schmetterer, L. Dorzolamide increases ocular blood flow in patients with open angle glaucoma and ocular hypertension

  Meeting abstract
- "Fukuchi, T., Suda, K., Nakatsue, T., Hara, H., and Abe, H. Midterm results and the problems of nonpenetrating lamellar trabeculectomy with mitomycin C for Japanese glaucoma patients. Jpn J Ophthalmol 2007 ;51 (1): 34-40 .

  It is not a RCT and has less than 100 patients
- "Fukuchi, T., Ueda, J., Yaoeda, K., Suda, K., Seki, M., and Abe, H. Comparison of fornix- and limbus-based conjunctival flaps in mitomycin C trabeculectomy with laser suture lysis in Japanese glaucoma patients. Jpn J Ophthalmol 2006 ;50 (4): 338-44 .

  It is not a RCT and has less than 100 patients
- "Fukuchi, T., Ueda, J., Yaoeda, K., Suda, K., Seki, M., and Abe, H. The outcome of mitomycin C trabeculectomy and laser suture lysis depends on postoperative management. Jpn J Ophthalmol 2006 ;50 (5): 455-9 .

  Does not address any key questions
- "Funk, J. and Frank, A. [Long-term reduction of intraocular pressure by goniotrepanation or laser trabeculoplasty]

  Duplicate 8421 "
- "Funk, J. and Frank, A. Long term IOP reduction after goniotrephination or lasertrabeculoplasty: LANGFRISTIGE AUGENDRUCKSENKUNG DURCH GONIOTREPANATION ODER LASERTRABEKULOPLASTIK

  Foreign language
- "Funnell, C. L., Clowes, M., and Anand, N. Combined cataract and glaucoma surgery with mitomycin C: phacoemulsification-trabeculectomy compared to phacoemulsification-deep sclerectomy. Br J Ophthalmol 2005 ;89 (6): 694-8 .

  OAG can't be analyzed separately
- "G£mez Toledo, patricio. La microcirculaci£n ocular estudiada con eco Doppler color en pacientes con glaucoma y los efectos de dorzolamida timolol en el flujo

  Foreign language
- "Gaasterland, D. E., Ederer, F., et al. The Advanced Glaucoma Intervention Study (AGIS): 7. The relationship between control of intraocular pressure and visual field deterioration. Am. J. Ophthalmol. 2000 ;130 (4): 429-440 .

  OAG can't be analyzed separately
- "Gafencu, O., Carstocea, B., and Ionita, M. [Prostaglandin esters--new directions in the treatment of glaucoma]

  Foreign language
- "Gagliano, C., Ortisi, E., Pulvirenti, L., Reibaldi, M., Scollo, D., Amato, R., Avitabile, T., and Longo, A. Ocular Hypotensive Effect of Oral

Palmitoyl-ethanolamide: A Clinical Trial. Invest Ophthalmol Vis Sci 2011 ;: 6096-100 .

Other (specify):drug not available in US"

- "Galassi, F. and Giambene, B. Deep sclerectomy with SkGel implant: 5-year results. J Glaucoma 2008 ;17 (1): 52-6 .

Does not address any key questions

- "Gale, A. E. The safety of topical beta-blockers in glaucoma treatment. Med J Aust 96 ;165 (3): 175 .

It is a case series

- "Gallardo Vallejo, Guadalupe and Montor Pacheco, Angqlica MarÆa. Control postoperatorio de la presi£n intraocular en cirugÆa combinada de catarata y glaucoma con tqcnica habitual vs esclerotomÆa

Foreign language

- "Gallego-Pinazo, R., Lopez-Sanchez, E., and Marin-Montiel, J. [Postoperative outcomes after combined glaucoma surgery. Comparison of ex-press miniature implant with standard trabeculectomy]. Arch Soc Esp Oftalmol 2009 ;84 (6): 293-7 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Gallenga, P. E., Mastropasqua, L., Carpineto, P., Ciancaglini, M., and Zuppardi, E. Delayed postoperative use of 5-fluorouracil in primary open angle glaucoma. Acta Ophthalmol Scand Suppl 97 ; (224): 45-6 .

Data not abstractable

- "Galloway, G. D., Eke, T., and Broadway, D. C. Periocular cutaneous pigmentary changes associated with bimatoprost use. Arch Ophthalmol 2005 ;123 (11): 1609-10 .

It is a case series

- "GalvPo Neto, Paulo, Figueiredo, Carlos Rubens de, Suzuki J·nior, EmÆlio Rintaro, Figueiredo, Bruno Pimentel de, and Batista, Wagner Duarte. Efeito dos beta-bloqueadores na pressPo intra-ocular e fluxo sangnÆneo ocular pulsbtil

Foreign language

- "GalvPo-Neto, Paulo, Rocha J·nior, Fabiano Saulo, Ribeiro, Breno Barreto, Silva, FelÆcio Arist teles da, Figueiredo, Carlos Rubens, and Batista, Wagner Duarte. Volume da gota dos anblogos das prostaglandinas

Foreign language

- "Gamero, G., Robison, M., Harmon, H., Goldsmith, R., Fechtner, R., and Zimmerman, T. THE DURATION OF ACTION OF DORZOLAMIDE 2% WITH CONCOMITANT USE OF A TOPICAL BETA ADRENERGIC ANTAGONIST

Meeting abstract

- "Gamm, E. G. [Cause of the appearance of diacarb side effects]

Foreign language

- "Gandol, S. A., Cimino, L., and Chetta, A. INCIDENCE OF BRONCHIAL HYPER REACTIVITY IN GLAUCOMATOUS SUBJECTS UPON LONGTERM USE OF TOPICAL BETA BLOCKERS

Meeting abstract

- "Gandolfi, S. A, Quaranta, L., Ungaro, N., Cimino, L., Sangermani, C., Tardini, M., and Bettelli, S. Deep Sclerectomy vs Trabeculectomy in Open Angle Glaucoma. 7-Year Prospective Randomised Clinical Trial

Meeting abstract

- "Gandolfi, S. A, Sangermani, C., Cimino, L., Ungaro, N., Tardini, M., Viswanathan, A., and Hitchings, R. IS THERE A NON IOP-RELATED EFFECT OF BRIMONIDINE ON VISUAL FIELD PROGRESSIOIN IN HUMAN GLAUCOMA?

Meeting abstract

- "Gandolfi, S. A. and Cimino, L. Deep sclerectomy without absorbable implants and with unsutured scleral flap: pospective, randomized 2-year clinical trial vs trabeculectomy with releasable sutures

Meeting abstract

- "Gandolfi, S. A. and Cimino, L. Effect of 0.03% Bimatoprost on Patients Non-responders to 0.005% Latanoprost: A Cross-over Study

Meeting abstract

- "Gandolfi, S. A. and Cimino, L. Effect of bimatoprost on patients with primary open-angle glaucoma or ocular hypertension who are nonresponders to latanoprost

Medical KQ 3 only

- "Gandolfi, S. A. and Vecchi, M. 5-fluorouracil in combined trabeculectomy and clear-cornea phacoemulsification with posterior chamber intraocular lens implantation. A one-year randomized, controlled clinical trial. Ophthalmology 97 ;104 (2): 181-6 .

It is combined cataract/glaucoma surgery study published before April 2000

- "Gandolfi, S. A. and Vecchi, M. Serial administration of adrenergic antagonist and agonist (""pulsatile therapy"") reduces the incidence of long-term drift to timolol in humans. Invest Ophthalmol Vis Sci 96 ;37 (4): 684-8 .

Data not abstractable

- "Gandolfi, S. A. Improvement of visual field indices after surgical reduction of intraocular pressure. Ophthalmic Surg 95 ;26 (2): 121-6 .

It is not a RCT and has less than 100 patients

- "Gandolfi, S. A., Cimino, L., and Vecchi, M. Improvement of spatial contrast sensitivity threshold after surgical reduction of intraocular pressure in unilateral high-tension glaucoma. Acta Ophthalmol Scand Suppl 97 ;(224): 40 .

It is not a RCT and has less than 100 patients

- "Gandolfi, S. A., David, R., and Brimonidine Additive Study Group. ADDITIVE EFFECT OF BRIMONIDINE 0.2% BID OR PILOCARPINE 2.0% TID IN PATIENTS UNCONTROLLED ON BETA-BLOCKER MONOTHERAPY

Meeting abstract

- "Gandolfi, S. A., Rossetti, L., Cimino, L., Mora, P., Tardini, M., and Orzalesi, N. Replacing maximum-tolerated medications with latanoprost versus adding latanoprost to maximum-tolerated medications: a two-center randomized prospective trial

Excluded drug

- "Gandolfi, S., Paredes, T., Goldberg, I., Coote, M., Wells, A., Volksone, L., Pillai, M. R., Stalmans, I., and Denis, P. Comparison of a travoprost BAK-free formulation preserved with polyquaternium-1 with BAK-preserved travoprost in ocular hypertension or open-angle glaucoma. Eur J Ophthalmol 2011 ;

Other (specify): Does not report a mean age and 54.7% under age 65"

- "Gandolfi, S., Simmons, S. T., Sturm, R., Chen, K., and VanDenburgh, A. M. Three-month comparison of bimatoprost and latanoprost in patients with glaucoma and ocular hypertension

Medical KQ 3 or KQ 3 and KQ 6 only

- "Gandolfi, S., Traverso, C. F., Bron, A., Sellem, E., Kaplan-Messas, A., and Belkin, M. Short-term results of a miniature draining implant for glaucoma in combined surgery with phacoemulsification. Acta Ophthalmol Scand Suppl 2002 ;236 : 66 .

It is not a RCT and has less than 100 patients

- "Gao, W., Chui, W., Liu, S. Y, Chen, X. H, Zhang, G. R, and et, a. l. A clinical comparative study of human amniotic membrane with mitomycin C applied in glaucoma trabeculectomy

Foreign language

- "Garadi, R., Silver, L., Landry, T., Turner, F. D., and Travoprost Study Group. TRAVOPROST: A NEW ONCE-DAILY DOSED PROSTAGLANDIN FOR THE REDUCTION OF ELEVATED INTRAOCULAR PRESSURE

Meeting abstract

- "GarcÆa Gonzblez, Frank, Sede±o Cruz, Ibis, Alema±y Gonzblez, Jaime, and Peralta Fernbndez, Jorge Orlando. Terapia combinada con timolol/dorzolamida versus timolol/pilocarpina en el glaucoma primario de bngulo abierto

Foreign language

- "Garcia Sanchez, J. Efficacy and side effects of latanoprost monotherapy compared to adding dorzolamide to timolol in patients with glaucoma and ocular hypertension--a three-month randomised study. Spanish Latanoprost Study Group

Medical KQ 3 or KQ 3 and KQ 6 only

- "Garcia, F., Blanco, J., Juste, S., Garces, M. M., Alonso, L., Marcos, M. L., Carretero, P., and Perez, R. Contact dermatitis due to levobunolol in eyedrops. Contact Dermatitis 97 ;36 (4): 230 .

It is a case series

- "Garcia-Feijoo, J., Martinez-de-la-Casa, J. M., Castillo, A., Mendez, C., Fernandez-Vidal, A., and Garcia-Sanchez, J. Circadian IOP-lowering efficacy of travoprost 0.004% ophthalmic solution compared to latanoprost 0.005%. Curr Med Res Opin 2006 ;22 (9): 1689-97 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Garcia-Feijoo, J., Saenz-Frances, F., Martinez-de-la-Casa, J. M., Mendez-Hernandez, C., Fernandez-Vidal, A., Calvo-Gonzalez, C., and Garcia-Sanchez, J. Comparison of ocular hypotensive actions of fixed combinations of brimonidine/timolol and dorzolamide/timolol

Medical KQ 3 only

- "Garcia-Perez, J. L., Puerto-Hernandez, B., Rebolleda Fernandez, G., Munoz-Negrete, F. J., and Gonzalez-Gordaliza, C. [Evaluation of the effect of bimatoprost/timolol fixed combination on ocular blood flow in patients with ocular hypertension using colour Doppler imaging. Preliminary study]

Foreign language

- "Garcia-Sanchez, J. and Xalacom Study Group. Efficacy and Safety of the Fixed Combination Latanoprost/Timolol versus the Unfixed Combination Brimonidine/Timolol in Patients with Elevated Intraocular Pressure: A 6-month, Masked-evaluator Study

Meeting abstract

- "Garcia-Sanchez, J., Rouland, J. F., Spiegel, D., Pajic, B., Cunliffe, I., Traverso, C., and Landry, J. A comparison of the fixed combination of latanoprost and timolol with the unfixed combination of brimonidine and

timolol in patients with elevated intraocular pressure. A six month, evaluator masked, multicentre study in Europe

Non-FDA-approved drug combination

- "Gareis, O., Wagner, P., and Lang, G. K. [Results after combined phacoemulsification and trabeculectomy by scleral tunnel incision and goniotrepanation alone]. Klin Monbl Augenheilkd 97 ;211 (6): 359-62 .

It is not a RCT and has less than 100 patients

- "Garrett, M. A., Harris, A., Kagemann, L., Cantor, L. B., Garzozi, H. J., and Marino, A. SUBSTITUTION OF COSOPT TREATMENT FOR TIMOLOL TREATMENT HASTENS ARTERIOVENOUS PASSAGE IN GLAUCOMA PATIENTS

Meeting abstract

- "Garrison, L., Roth, A., Rundle, H., and Christensen, R. E. A clinical comparison of three carbonic anhydrase inhibitors. Trans Pac Coast Otoophthalmol Soc Annu Meet 67 ;51 : 137-45 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Gartaganis, S. P., Katsimpris, J. M., Feretis, D., and Koliopoulos, J. X. Intraocular pressure variations after Neodymium:YAG iridotomy using topical 2% dorzolamide. Annals of Ophthalmology-Glaucoma 2000 ;32 (3): 240-244 .

No subjects with open-angle glaucoma

- "Garty, N., Lusky, M., Zalish, M., Rachmie, R., Greenbaum, A., Desatnik, H., Neumann, R., Howes, J. F., and Melamed, S. PILOCARPINE IN SUBMICRON EMULSION FORMULATION FOR TREATMENT OF OCULAR HYPERTENSION: A PHASE II CLINICAL TRIAL

Meeting abstract

- "Garty, N., Melamed, S., Ticho, U., Zalish, M., Howes, J. F., Rachmiel, R., Greenbaum, A., and Neumann, R. ADAPROLOL: A SITE ACTIVE â-BLOCKER FOR THE TREATMENT OF GLAUCOMA; A TWO WEEK CLINICAL TRIAL

Meeting abstract

- "Garudadri, C. S., Rao, H. L., and Senthil, S. Three-year follow-up of the tube versus trabeculectomy study. Am J Ophthalmol 2010 ;149 (4): 685-6; author reply 686-7 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Garzozi, H., Harris, A., Kagemann, L., Jonescu-Cuypers, C. P., Rotenstreich, Y., Siesky, B., Cantor, L. B, McCranor, L., and McNulty, L. Comparison of dorzolamide and latanoprost in normal-tension glaucoma: effects on IOP and retinal hemodynamics

Meeting abstract

- "Gasper, J. R., Stewart, J. A., Leland, T., and Stewart, W. C. EFFICACY AND SAFETY OF BETIMOL™ (TIMOLOL HEMIHYDRATE SOLUTION) GIVEN ONCE DAILY VERSUS TIMOPTIC-XE™ GIVEN ONCE DAILY IN THE TREATMENT OF ELEVATED INTRAOCULAR PRESSURE

Meeting abstract

- "Gayton, J. L., Van der Karr, M. A., and Sanders, V. Combined cataract and glaucoma procedures using temporal cataract surgery. J Cataract Refract Surg 96 ;22 (10): 1485-91 .

It is combined cataract/glaucoma surgery study published before April 2000

- "Gayton, J. L., Van Der Karr, M., and Sanders, V. Combined cataract and glaucoma surgery: trabeculectomy versus endoscopic laser cycloablation. J Cataract Refract Surg 99 ;25 (9): 1214-9 .

It is combined cataract/glaucoma surgery study published before April 2000

- "Gdih, G. A., Yuen, D., Yan, P., Sheng, L., Jin, Y. P., and Buys, Y. M. Meta-analysis of 1- versus 2-Site Phacotrabeculectomy

Systematic review

- "Gebhardt, D. O. Self-administration of eye drops. a patient's view. Am J Ophthalmol 2003 ;136 (4): 778; author reply 778 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Gedde, S. J., Herndon, L. W., Brandt, J. D., Budenz, D. L., Feuer, W. J., and Schiffman, J. C. Surgical complications in the Tube Versus Trabeculectomy Study during the first year of follow-up. Am J Ophthalmol 2007 ;143 (1): 23-31 .

Data not abstractable

- "Gedde, S. J., Schiffman, J. C., Feuer, W. J., Herndon, L. W., Brandt, J. D., and Budenz, D. L. Three-year follow-up of the tube versus trabeculectomy study. Am J Ophthalmol 2009 ;148 (5): 670-84 .

Data not abstractable

- "Gedde, S. J., Schiffman, J. C., Feuer, W. J., Herndon, L. W., Brandt, J. D., and Budenz, D. L. Treatment Outcomes in the Tube versus Trabeculectomy (TVT) Study after Three Years of Follow-Up

Meeting abstract

- "Gedde, S. J., Schiffman, J. C., Feuer, W. J., Herndon, L. W., Brandt, J. D., and Budenz, D. L. Treatment outcomes in the tube versus trabeculectomy study after one year of follow-up. Am J Ophthalmol 2007 ;143 (1): 9-22 .
  OAG can't be analyzed separately
- "Geijssen, H. C. and Greve, E. L. Prevention of hypotony after trabeculectomies with mitomycin. Doc Ophthalmol 93 ;85 (1): 45-9 .
  It is not a RCT and has less than 100 patients
- "Gelfand, Y. A. and Wolpert, M. Effects of topical indomethacin pretreatment on argon laser trabeculoplasty: a randomised, double-masked study on black South Africans. The British journal of ophthalmology 85 ;69 (9): 668-72 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Genead, M. A., Fishman, G. A., and Walia, S. Efficacy of sustained topical dorzolamide therapy for cystic macular lesions in patients with X-linked retinoschisis
  Systematic review
- "George, M. K., Emerson, J. W., Cheema, S. A., McGlynn, R., Ford, B. A., Martone, J. F., Shields, M. B., and Wand, M. Evaluation of a modified protocol for selective laser trabeculoplasty. J Glaucoma 2008 ;17 (3): 197-202 .
  Other (specify):Study design does not match KQ
- "Georgiadis, N., Boboridis, K., Halvatzis, N., Ziakas, N., and Moschou, V. Low-dose tissue plasminogen activator in the management of anterior chamber fibrin formation. J Cataract Refract Surg 2003 ;29 (4): 729-32 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Georgopoulos, G. T, Papaconstantinou, D. S, Patsea, L. E, Andreanos, D. G, Vergados, J., Chalkiadakis, J., and Theodossiadis, G. P. Laser iridotomy versus low dose pilocarpine treatment in patients with pigmentary glaucoma
  Meeting abstract
- "Georgopoulos, G. T., Chalkiadakis, J., Livir-Rallatos, G., Theodossiadis, P. G., and Theodossiadis, G. P. Combined clear cornea phacoemulsification and trabecular aspiration in the treatment of pseudoexfoliative glaucoma associated with cataract. Graefes Arch Clin Exp Ophthalmol 2000 ;238 (10): 816-21 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Georgopoulos, G. T., Livir-Rallatos, G., Papaconstantinou, D. S., Patsea, E. E., Chalkiadakis, J., and Theodossiadis, G. P. A COMPARATIVE STUDY OF COMBINED CLEAR CORNEA PHACOEMULSIFICATION AND TRABECULAR ASPIRATION VS PHACOEMULSIFICATION ALONE IN THE TREATMENT OF PSEUDOEXFOLIATIVE GLAUCOMA ASSOCIATED WITH CATARACT
  Meeting abstract
- "Georgopoulos, G. T., Papaconstantinou, D. S., Chalkiadakis, I., Patsea, E. S., Maragos, A., Iliakis, E., Andreanos, D. G., and Moschos, M. Long Term Results of Trabecular Aspiration in the Treatment of Pseudoexfoliative Glaucoma
  Meeting abstract
- "Gerber, S. L., Cantor, L. B., and Sponsel, W. E. A comparison of postoperative complications from pressure-ridge Molteno implants versus Molteno implants with suture ligation. Ophthalmic Surg Lasers 97 ;28 (11): 905-10 .
  OAG can't be analyzed separately
- "Gerkowicz, K. and Toczolowski, J. [Cataract cryoextraction combined with trabeculectomy]
  Foreign language
- "Gerstenberger, A. and Marquardt, R. [Goblet cell density modified by pilocarpine]. Fortschr Ophthalmol 86 ;83 (1): 46-50 .
  Does not address any key questions
- "Geyer, O., Lazar, M., Novack, G. D., Lue, J. C., and Duzman, E. Levobunolol compared with timolol for the control of elevated intraocular pressure
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Geyer, O., Lazar, M., Novack, G. D., Shen, D., and Eto, C. Y. Levobunolol compared with timolol: a four-year study
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Geyer, O., Loewenstein, A., and Lazar, M. Glaucoma masked by systemic medications. Arch Intern Med 91 ;151 (6): 1236 .
  It is a case series
- "Geyer, O., Neudorfer, M., and Lazar, M. Recurrent choroidal detachment following timolol therapy in previously filtered eye. Choroidal detachment post filtering surgery. Acta Ophthalmol (Copenh) 92 ;70 (5): 702-3 .
  It is a case series
- "Geyer, O., Rothkoff, L., and Lazar, M. Efficacy of adding dipivefrin to a beta-blocker. Ophthalmology 90 ;97 (10): 1245-6 .

Does not address any key questions

- "Geyer, O., Rothkoff, L., and Lazar, M. Timolol-pilocarpine combined vs timolol and pilocarpine given separately (I)

Meeting abstract

- "Geyer, O., Rothkoff, L., and Lazar, M. Timolol-pilocarpine combined vs timolol and pilocarpine given separately. Am J Ophthalmol 90 ;109 (1): 111 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Gharagozloo, N. Z. and Brubaker, R. F. Effect of apraclonidine in long-term timolol users. Ophthalmology 91 ;98 (10): 1543-6 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Gharagozloo, N. Z., Will, N., and Brubaker, R. F. EFFECT OF APRACLONIDINE IN CHRONIC TIMOLOL USERS

Meeting abstract

- "Ghauri, R. R., Liu, E., Feldman, R. M., Chang, A. Z., and Arevelo, B. H. COMPARING THE EFFICACY OF PREDNISOLONE ACETATE TO LOTEPREDNOL ETABONATE AFTER PRIMARY TRABECULECTOMY

Meeting abstract

- "Ghiaroni, Almir, Daher, Leila, Jateni, Valqria, and Villani, EugWnia. Faco-trabeculectomia com LIOs dobrbveis: resultados a longo prazo

Foreign language

- "Gianoli, F. and Mermoud, A. [Cataract-glaucoma combined surgery: comparison between phacoemulsification combined with deep sclerectomy, or trabeculectomy]

Duplicate "

- "Gianoli, F. and Mermoud, A. Combined surgery: Comparison between phacoemulsification associated with deep sclerectomy or with trabeculectomy: Chirurgie combinee cataracte-glaucome: Comparaison entre phacoemulsification associee a une sclerectomie profonde, ou a une trabeculectomie

Foreign language

- "Gianoli, F., Schnyder, C. C., Bovey, E., and Mermoud, A. Combined surgery for cataract and glaucoma: phacoemulsification and deep sclerectomy compared with phacoemulsification and trabeculectomy. J Cataract Refract Surg 99 ;25 (3): 340-6 .

It is not a RCT and has less than 100 patients

- "Gilles, W. E., West, R. H., and Cebon, L. A trial of Timoptol (timolol maleate) in a clinical situation. Aust J Ophthalmol 80 ;8 (2): 173-5 .

Data not abstractable

- "Gillies, M. C., Brooks, A. M., Young, S., Gillies, B., Simpson, J. M., and Goldberg, I. A randomized phase II trial of interferon-alpha2b versus 5-fluorouracil after trabeculectomy. Aust N Z J Ophthalmol 99 ;27 (1): 37-44 .

It is combined cataract/glaucoma surgery study published before April 2000

- "Gillies, M. C., McAllister, I. L., Zhu, M., Wong, W., Louis, D., Arnold, J. J., and Wong, T. Y. Pretreatment with intravitreal triamcinolone before laser for diabetic macular edema: 6-month results of a randomized, placebo-controlled trial. Investigative ophthalmology & visual science 2010 ;51 (5): 2322-8 .

No subjects with open-angle glaucoma

- "Gillies, W. E. and Brooks, A. M. A clinical trial of MK-507, Trusopt, for raised intraocular pressure--the Australian experience

Medical KQ 3 or KQ 3 and KQ 6 only

- "Gillies, W. E. and Brooks, A. M. A trial of dorzolamide for glaucoma. Ophthalmic Surg Lasers 98 ;29 (9): 728-32 .

Data not abstractable

- "Gillies, W. E. and West, R. H. Timolol maleate and intra-ocular pressure in low-tension glaucoma. Aust J Ophthalmol 82 ;10 (3): 183-5 .

OAG can't be analyzed separately

- "Gillies, W. E. and West, R. H. Timolol maleate and intraocular pressure in low-tension glaucoma. Trans Ophthalmol Soc N Z 81 ;33 : 33-5 .

Does not address any key questions

- "Gillies, W. E., West, R. H., and Cebon, L. Timoptol--three years on. A study of timolol maleate drops over a longer period. Aust J Ophthalmol 83 ;11 (3): 155-7 .

OAG can't be analyzed separately

- "Gilmour, D. F., Manners, T. D., Devonport, H., Varga, Z., Solebo, A. L., and Miles, J. Viscocanalostomy versus trabeculectomy for primary open angle glaucoma: 4-year prospective randomized clinical trial

Chai 2010

- "Gimbel, H. V. Small Incision Trabeculectomy Combined With Phacoemulsification and Intraocular Lens Implantation

Meeting abstract

- "Gimbel, H. V., Meyer, D., DeBroff, B. M., Roux, C. W., and Ferensowicz, M. Intraocular pressure response to combined

phacoemulsification and trabeculotomy ab externo versus phacoemulsification alone in primary open-angle glaucoma. J Cataract Refract Surg 95 ;21 (6): 653-60 .

It is combined cataract/glaucoma surgery study published before April 2000

- "Gimbel, H. V., Penno, E. E., and Ferensowicz, M. Combined cataract surgery, intraocular lens implantation, and viscocanalostomy. J Cataract Refract Surg 99 ;25 (10): 1370-5 .

It is combined cataract/glaucoma surgery study published before April 2000

- "Girma, T., Courtright, P., Mengistu, F., Tamirat, T., and Birhanu, Z. A placebo controlled double blind clinical trial of mitomycin C in primary trabeculectomy in Ethiopian patients. Ethiop Med J 2006 ;44 (3): 253-6 .

Data not abstractable

- "Giuffrida, S., Longo, A., Amico, V., Cro, M. G., and Uva, M. G. Efficacy of a New Formulation of Timolol 0.5% in Sodium Hyaluronate Vehicle Administered Once Daily

Meeting abstract

- "Giul'alieva, D. T. and Kasimova, M. D. [Results of sinusotrabeculectomy in glaucoma]

Foreign language

- Glaucoma e catarata: resultados da facoemulsificagåo combinada a trabeculectomia e mitomicina-C. 2000

Foreign language

- "Glaucoma laser trial. Ophthalmology 91 ;98 (6): 841-3 .

Does not address any key questions (see below for questions) No original data (e.g., systematic review, narrative review, editorial, letter),

Does not address any key questions

- "Gliushko, D. G., Kornienko, V. V., and Sobko, E. G. [The late results of sinusotrabeculectomy in initial open-angle glaucoma]

Foreign language

- "Gloor, B. and Tholen, H. On the problematic nature of laser trabeculoplasty in the course of primary open-angle glaucoma. LASERS LIGHT OPHTHALMOL. 91 4 (1): 1-6 .

It is not a RCT and has less than 100 patients

- "Gloor, B., Niederer, W., and Daicker, B. [Trabeculectomy: surgical technique, results, indications (author's transl)]. Klin Monbl Augenheilkd 77 ;170 (2): 241-8 .

It is a case series

- "Glover, B. K., Lee, D., Shin, D. H., Kim, C., Abreu, M. M., and Hughes, B. A. THE EFFECT OF ADJUNCTIVE TRABECULECTOMY ON MOLTENO DRAINAGE TUBE IMPLANTATION IN RECALCITRANT GLAUCOMA CASES

Meeting abstract

- "Godfrey, D. A., Peplinski, L. S., Stewart, J. A., and Stewart, W. C. A comfort comparison of travoprost BAK-free 0.004% versus latanoprost 0.005% in patients with primary open-angle glaucoma or ocular hypertension. Clin Ophthalmol 2009 ;3 : 189-94 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Goela, A., Damji, K. F., Daneshvar, H., and Gilberg, S. M. Delayed, recurrent hypotonous maculopathy following aqueous suppressant therapy in pseudophakia. Can J Ophthalmol 99 ;34 (7): 395-7 .

It is a case series

- "Goethals, M. and Missotten, L. Long term trial of timolol in different forms of glaucoma. Bull Soc Belge Ophtalmol 77 ;179 : 95-101 .

Does not address any key questions

- "Goethals, M. Ten-year follow-up of timolol-treated open-angle glaucoma. Surv Ophthalmol 89 ;33 Suppl : 463-4; discussion 471-2 .
- **It is not a RCT and has less than 100 patients**
- "Goldberg, I. 5-Fluorouracil and filtering surgery. Aust N Z J Ophthalmol 91 ;
- 19 (3): 173 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Goldberg, I. and Ritch, R. Mietz H, Krieglstein GK: Postoperative application of mitomycin C improves the complete success rate of primary trabeculectomy: a prospective, randomized trial. Graefes Arch Clin Exp Ophthalmol 2006; 244: 1429-1436. Graefes Arch Clin Exp Ophthalmol 2007 ;
- 245 (8): 1241; author reply 1243 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Goldberg, I. and Ritch, R. Mietz H, Krieglstein GK: Postoperative application of mitomycin C improves the complete success rate of primary trabeculectomy: A prospective, randomized trial. Graefes Arch Clin Exp Ophthalmol 2006;244:1429-1436 [3]. Graefe's Arch. Clin. Exp. Ophthalmol. 2007 ;245 (8): 1241 .

- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Goldberg, I. Comparison of tropical travoprost eye drops given once daily and timolol 0.5% given twice daily in patients with open-angle glaucoma or ocular hypertension. J. Glaucoma 2001;10:414-22. J Glaucoma 2002 ;
- 11 (3): 275 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Goldberg, I. Pilocarpine-Ocuserts(registered trademark): An extended clinical trial. AUST. J. OPHTHALMOL. 78 ;6 (2): 83-85 .
- **It is not a RCT and has less than 100 patients**
- "Goldberg, I., Ashburn, F. S. Jr, Kass, M. A., and Becker, B. Efficacy and patient acceptance of pilocarpine gel. Am J Ophthalmol 79 ;88 (5): 843-6 .
- **Other (specify):pilocarpine**
- "Goldberg, I., Ashburn, F. S., Kass, M. A., and Becker, B. New broad spectrum anti-glaucoma drop. Med J Aust 79 ;1 (9): 396 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Goldberg, I., Crowston, J. G., Jasek, M. C., Stewart, J. A., and Stewart, W. C. Intraocular Pressure-lowering Efficacy of Brinzolamide When Added to Travoprost/Timolol Fixed Combination as Adjunctive Therapy. J Glaucoma 2010 ;
- **Data not abstractable**
- "Goldberg, I., Crowston, J. G., Jasek, M. C., Stewart, J. A., and Stewart, W. C. Intraocular Pressure-lowering Efficacy of Brinzolamide When Added to Travoprost/Timolol Fixed Combination as Adjunctive Therapy. J Glaucoma 2010 ;
- **Other (specify):**Combination not included"
- "Goldberg, I., Cunha-Vaz, J., Jakobsen, J. E., Nordmann, J. P., Trost, E., and Sullivan, E. K. Comparison of topical travoprost eye drops given once daily and timolol 0.5% given twice daily in patients with open-angle glaucoma or ocular hypertension
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Goldberg, I., Li, X. Y., Selaru, P., and Paggiarino, D. A 5-year, randomized, open-label safety study of latanoprost and usual care in patients with open-angle glaucoma or ocular hypertension
- **Unique comparators**
- "Goldenberg-Cohen, N., Bahar, I., Ostashinski, M., Lusky, M., Weinberger, D., and Gaton, D. D. Cyclocryotherapy versus transscleral diode laser cyclophotocoagulation for uncontrolled intraocular pressure. Ophthalmic Surg Lasers Imaging 2005 ;36 (4): 272-9 .
- **Data not abstractable**
- "Goldenfeld, M., Krupin, T., Ruderman, J. M., Wong, P. C., Rosenberg, L. F., Ritch, R., Liebmann, J. M., and Gieser, D. K. 5-Fluorouracil in initial trabeculectomy. A prospective, randomized, multicenter study
- **Wormald 2009**
- "Goldenfeld, M., Wong, P., Ruderman, J., Rosenberg, L., Krupin, T., Geiser, D., Liebmann, J., and Ritch, R. 5-FLUOROURACIL (5-FU) IN PRIMARY TRABECULECTOMY: A PROSPECTIVE, RANDOMIZED STUDY
- **Meeting abstract**
- "Goni, F. J. 12-week study comparing the fixed combination of brimonidine and timolol with concomitant use of the individual components in patients with glaucoma and ocular hypertension
- **Unique comparators**
- "Gonzalez, J. R., Baiza-Duran, L., Quintana-Hau, J., Tornero-Montano, R., Castaneda-Hernandez, G., Ortiz, M., Alarcon-Oceguera, F., Beltran-Loustaunau, M., Cortez-Gastelum, M., Garciduenas-Mejia, J., Gomez-Bastar, P., Jimenez-Roman, J., Korder-Ortega, V., Paczka-Zapata, J., Torres-Segura, M., and Velasco-Gallegos, G. Comparison of the stability, efficacy, and adverse effect profile of the innovator 0.005% latanoprost ophthalmic solution and a novel cyclodextrin-containing formulation
- **Unique comparators**
- "Gonzblez Bouchon, J, Varas C., A, Gonzblez M., I, and Gonzblez G., M. TrabeculoesclerectomÆa profunda no perforante con mitocina C, sin implante: evaluaci£n prospectiva de 69 casos
- **Foreign language**
- "Gonzblez Bouchon, Josq D, Gonzblez G., Mariana, Gonzblez, Isabel M, Varas C., Alejandra, and Montecino, M. Isabel. TrabeculoesclerectomÆa profunda no perforante versus trabeculectomÆa en glaucoma cr£nico de bngulo abierto
- **Foreign language**
- "Gonzblez Bouchon, Josq Domingo, Gonzblez Gblvez, Mariana, Gonzblez Mathiesen, Isabel, Barra Pantoja, Carmen, Carrasco Zunino,

Francisca, Cazenave, Paulette, Grant, Valeria, Barra, Rosa, Pradenas, Ivonne, and Moroni, Magaly. Citostbticos en la cirugÆa del glaucoma de mal pron£stico, distintas dosis de 5 fluorouracilo, mitomicina C: estudio en 100 casos

- **Foreign language**
- "Gos, R. [Timolol in the treatment of glaucoma (author's transl)]
- **Foreign language**
- "Gosiengfiao, D. H., Latina, M. A., Tumbocon, J. A., and Frenkel, R. E. A Crossover Study to Evaluate the Effect of Topical Dorzolamide and Brimonidine on Ocular Blood Flow in Patients with Primary Open Angle Glaucoma Using the Heidelberg Retinal Flowmeter
- **Meeting abstract**
- "Goulas, M. T., Shin, D. H., Kim, C., Eliassi-Rad, Schulz, L., Juzych, M. S., Glover, B. K., and Cha, S. C. COMPARISON OF LONG-TERM OUTCOME OF SELECTIVE LASER TRABECULOPLASTY VS ARGON LASER TRABECULOPLASTY IN CHRONIC OPEN ANGLE GLAUCOMA PATIENTS WITH AND WITHOUT PREVIOUS ALT
- **Meeting abstract**
- "Goulet, R. J. 3rd, Phan, A. D., Cantor, L. B., and WuDunn, D. Efficacy of the Ahmed S2 glaucoma valve compared with the Baerveldt 250-mm2 glaucoma implant. Ophthalmology 2008 ;
- 115 (7): 1141-7 .
- **OAG can't be analyzed separately**
- "Gouws, P. Combination products in clinical practice: Canadian experience. Eur. J. Ophthalmol. 2007 ;
- 17 (SUPPL. 5): S15-S17 .
- **Does not address any key questions**
- "Goyal S, Beltran-Agullo L, Rashid S, Shah SP, Nath R, Obi A, and Lim KS. Effect of primary selective laser trabeculoplasty on tonographic outflow facility: a randomised clinical trial. The British journal of ophthalmology 2010 ;
- 94 (11): 1443-7 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Goyal, S., Beltran-Agullo, L., Rashid, S., Shah, S. P., Nath, R., Obi, A., and Lim, K. S. Effect of primary selective laser trabeculoplasty on tonographic outflow facility: a randomised clinical trial
- **Systematic review**
- "Goyal, S., Beltran-Agullo, L., Rashid, S., Shah, S. P., Nath, R., Obi, A., and Lim, K. S. Effect of primary selective laser trabeculoplasty on tonographic outflow facility: a randomised clinical trial. Br J Ophthalmol 2010 ;
- 94 (11): 1443-7 ."Goyal, S., Beltran-Agullo, L., Rashid, S., Shah, S. P., Nath, R., Obi, A., and Lim, K. S. Effect of primary selective laser trabeculoplasty on tonographic outflow facility: a randomised clinical trial. Br J Ophthalmol 2010 ;
- 94 (11; status =Department of Ophthalmology, St Thomas' Hospital, London, UK. shenglim@gmail.com): 1443-7 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Gracner, T., Naji, M., Hudovernik, M., Gracner, B., and Pahor, D. [Predictive factors of successful selective laser trabeculoplasty in open-angle glaucoma]. Klin Monbl Augenheilkd 2007 ;224 (12): 922-6 .
- **It is a case series**
- "Gramer, E., Gramer, G., and Buscher, A. EFFICACY OF MONO- AND COMBINATION THERAPY WITH BRIMONIDINE 0.2% AND FREQUENCY OF CARDIAC DISEASE AND FAMILY HISTORY OF GLAUCOMA IN THE GLAUCOMAS. A PROSPECTIVE STUDY
- **Meeting abstract**
- "Granstrom, K. O. [Side-effects with the Diamox therapy of glaucoma]
- **Foreign language**
- "Granstrom, P. A. and Norell, S. Visual ability and drug regimen: relation to compliance with glaucoma therapy. Acta Ophthalmol (Copenh) 83 ;
- 61 (2): 206-19 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Granstrom, P. A. Progression of visual field defects in glaucoma. Relation to compliance with pilocarpine therapy. Arch Ophthalmol 85 ;
- 103 (4): 529-31 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Grayson, D. k., Chi, T., Liebmann, J. M., and Ritch, R. SUPERIOR VERSUS INFERIOR ANGLE TREATMENT IN ARGON LASER TRABECULOPLASTY
- **Meeting abstract**

- "Grayson, D. K., Ritch, R., Camras, C., Lustgarten, J. S., and Podos, S. M. Influence of treatment protocol on the long-term efficacy of argon laser trabeculoplasty. Journal of Glaucoma 93 ;2 (1): 7-12 .
- **Data not abstractable**
- "Grayson, D., Chi, T., Liebmann, J., and Ritch, R. Initial argon laser trabeculoplasty to the inferior vs superior half of trabecular meshwork. Arch Ophthalmol 94 ;
- 112 (4): 446-7 .
- **Does not address any key questions**
- "Greenfield, D. S., Liebmann, J. M., Jee, J., and Ritch, R. Late-onset bleb leaks after glaucoma filtering surgery. Arch Ophthalmol 98 ;
- 116 (4): 443-7 .
- **Does not address any key questions**
- "Greff, L., Johnson-Pratt, L., Skobieranda, F., Polis, A., Delucca, P., Kolodny, A., Fletcher, C., and Cassel, D. Comparison of ocular hypotensive effect of cosopt vs concomitant alphagan and timolol
- **Meeting abstract**
- "Grehn, F., Hollo, G., Khaw, P., Overton, B., Wilson, R., Vogel, R., and Smith, Z. Factors affecting the outcome of trabeculectomy: an analysis based on combined data from two phase III studies of an antibody to transforming growth factor beta2, CAT-152. Ophthalmology 2007 ;
- 114 (10): 1831-8 .
- **Does not address any key questions**
- "Grieshaber, M. C., Pienaar, A., Olivier, J., and Stegmann, R. Canaloplasty for primary open-angle glaucoma: long-term outcome. Br J Ophthalmol 2010 ;
- 94 (11): 1478-82 .
- **It is not a RCT and has less than 100 patients**
- "Grieshaber, M. C., Pienaar, A., Olivier, J., and Stegmann, R. Canaloplasty for primary open-angle glaucoma: long-term outcome. Br J Ophthalmol 2010 ;
- 94 (11; status =Department of Ophthalmology, Medical University of Southern Africa, MEDUNSA, Pretoria, South Africa. mgrieshaber@uhbs.ch): 1478-82 .
- **It is not a RCT and has less than 100 patients**
- "Grieshaber, M. C., Pienaar, A., Olivier, J., and Stegmann, R. Comparing two tensioning suture sizes for 360 degrees viscocanalostomy (canaloplasty): a randomised controlled trial. Eye (Lond) 2010 ;
- 24 (7): 1220-6 .
- Does not include treatment for open-angle glaucoma (medical, surgical or combined; See addendum for list of interventions), **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Grignolo, F. M., Gallo, R., Tonini, L., Rabbione, M. M., and Fea, A. M. Advanced flap trabeculectomy. Acta Ophthalmol Scand Suppl 2002 ;
- 236 : 60-1 .
- **It is not a RCT and has less than 100 patients**
- "Grinich, N. P., Van Buskirk, E. M., and Samples, J. R. Three-year efficacy of argon laser trabeculoplasty. Ophthalmology 87 ;
- 94 (7): 858-61 .
- **Data not abstractable**
- "Gross, R. L., Peace, J. H., Smith, S. E., Walters, T. R., Dubiner, H. B., Weiss, M. J., and Ochsner, K. I. Duration of IOP reduction with travoprost BAK-free solution. J Glaucoma 2008 ;
- 17 (3): 217-22 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Gross, R. L., Pinyero, A., and Orengo-Nania, S. Clinical experience with apraclonidine 0.5%. J Glaucoma 97 ;
- 6 (5): 298-302 .
- **Other (specify):**Apraclonidine"
- "Gross, R., Piltz, J., Shin, D. H., Kass, M. A., and Gordon, M. O. The Contralateral Effect of Topical Beta-blockers on Intraocular Pressure in theOcular Hypertension Treatment Study

- **Meeting abstract**
- "Gross, Ronald L. Glaucoma: Therapy - New advances in medical management
- **Foreign language**
- "Grueb, M., Rohrbach, J. M., Bartz-Schmidt, K. U., and Schlote, T. Transscleral diode laser cyclophotocoagulation as primary and secondary surgical treatment in primary open-angle and pseudoexfoliatve glaucoma. Graefe's Arch. Clin. Exp. Ophthalmol. 2006 ;
- 244 (10): 1293-1299 .
- **It is not a RCT and has less than 100 patients**

- "Gudmundsdottir, E., Stefansson, E., Bjarnadottir, G., Sigurjonsdottir, J. F., Gudmundsdottir, G., Masson, M., and Loftsson, T. Methazolamide 1% in cyclodextrin solution lowers IOP in human ocular hypertension. Invest Ophthalmol Vis Sci 2000 ;41 (11): 3552-4 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Guedes, R. A. and Guedes, V. M. [Nonpenetrating deep sclerectomy in Brazil: a 3-year retrospective study]
- **Foreign language**
- "Guedes, R. A., Guedes, V. M., and Chaoubah, A. Does phacoemulsification affect the long-term success of non-penetrating deep sclerectomy?. Ophthalmic Surg Lasers Imaging 2010 ;41 (2): 228-35 .
- **Other (specify):**study design does not match KQ (3)"
- "Guedes, Ricardo Augusto Paletta and Guedes, Vanessa Maria Paletta. Resultados press£ricos da esclerectomia profunda nPo penetrante no tratamento do glaucoma primbrio de Gngulo aberto
- **Foreign language**
- "Guggenbach, M., Mojon, D. S., and Bohnke, M. Evaluation of phacotrabeculectomy versus trabeculectomy alone. Ophthalmologica 99 ;
- 213 (6): 367-70 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Guglielminetti, E., Barabino, S., Monaco, M., Mantero, S., and Rolando, M. HLA-DR expression in conjunctival cells after latanoprost. J Ocul Pharmacol Ther 2002 ;
- 18 (1): 1-9 .
- **Does not address any key questions**
- "Gulkilik, G., Kocabora, S., Engin, G., Taskapili, M., Yilmazli, C., and Kucuksahin, H. Sodium hyaluronate in trabeculectomy: effect on early complications. Clin Experiment Ophthalmol 2006 ;
- 34 (5): 421-4 .
- **Data not abstractable**
- "Gunawardena, K. A., Crame, N., Mertz, B., and Shams, N. Safety of unoprostone isopropyl 0.15% ophthalmic solution in patients with mild to moderate asthma. Ophthalmologica 2003 ;
- 217 (2): 129-36 .
- **No subjects with open-angle glaucoma**
- "Gunning, F. P., Greve, E. L., Bron, A. M., Bosc, J. M., Royer, J. G., George, J. L., Lesure, P., and Sirbat, D. Two topical carbonic anhydrase inhibitors sezolamide and dorzolamide in Gelrite vehicle: a multiple-dose efficacy study. Graefes Arch Clin Exp Ophthalmol 93 ;
- 231 (7): 384-8 .
- **Does not address any key questions**
- "Guo, W.-Y., Zhu, Y.-F., Jin, X.-H., Meng, F.-R., Song, Y.-L., Qian, S.-H., and Sun, X.-H. Non-penetrating trabecular surgery with T-Flux implant in primary open-angle glaucoma
- **Foreign language**
- "Gupta, N. and Weinreb, R. N. Diode laser transscleral cyclophotocoagulation. J Glaucoma 97 ;
- 6 (6): 426-9 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Gyasi, M., Amoaku, W., Debrah, O., Awini, E., and Abugri, P. Outcome of trabeculectomies without adjunctive antimetabolites. Ghana Med J 2006 ;
- 40 (2): 39-44 .
- **It is a case series**
- "Ha, S.-P., Fan, W.-Y., and Yang, Q.-L. A comparative study between biotic amniotic membrane and mitomycin C applied in refractory glaucoma trabeculectomy
- **Foreign language**
- "Halberg, G. P., Kelly, S. E., and Morrone, M. Drug delivery systems for topical ophthalmic medication. Ann Ophthalmol 75 ;
- 7 (9): 1199-1204, 1207-9 .
- **It is not a RCT and has less than 100 patients**
- "Hall, J. A., WuDunn, D., Cantor, L. B., Palanca-Capistrano, A. M., Hoop, J., and Morgan, L. Long Term Outcomes of Intraoperative 5-Fluorouracil versus Intraoperative Mitomycin C in Primary Trabeculectomy Surgery
- **Meeting abstract**
- "Halper, L. K., Johnson-Pratt, L., Dobbins, T., and Hartenbaum, D. A comparison of the efficacy and tolerability of 0.5% timolol maleate ophthalmic gel-forming solution QD and 0.5% levobunolol hydrochloride BID in patients with ocular hypertension or open-angle glaucoma. J Ocul Pharmacol Ther 2002 ;18 (2): 105-13 .
- **Data not abstractable**

- "Halpern, M. T., Covert, D. W., and Robin, A. L. Projected impact of travoprost versus both timolol and latanoprost on visual field deficit progression and costs among black glaucoma subjects. Trans Am Ophthalmol Soc 2002 ;100 : 109-17; discussion 117-8 .
- **Does not address any key questions**
- "Hamacher, T. and Spiegel, D. [Safety and effectiveness of latanoprost (Xalatan) versus fixed combination of dorzolamide and timolol (Cosopt) in patients with open-angel glaucoma]
- **Meeting abstract**
- "Hamacher, T., Airaksinen, J., Saarela, V., Liinamaa, M. J., Richter, U., and Ropo, A. Efficacy and safety levels of preserved and preservative-free tafluprost are equivalent in patients with glaucoma or ocular hypertension: results from a pharmacodynamics analysis. Acta Ophthalmol Suppl (Oxf) 2008 ;242 : 14-9 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Hamacher, T., Schinzel, M., Scholzel-Klatt, A., Neff, H. M., Maier, H., Schlaffer, G., Beausencourt, E., Jutte, M., Scholz, R., Lorger, C., and Stewart, W. C. Short term efficacy and safety in glaucoma patients changed to the latanoprost 0.005%/timolol maleate 0.5% fixed combination from monotherapies and adjunctive therapies. Br J Ophthalmol 2004 ;88 (10): 1295-8 .
- **It is a case series**
- "Hamard, P., Plaza, L., Kopel, J., Quesnot, S., and Hamard, H. [Deep nonpenetrating sclerectomy and open angle glaucoma. Intermediate results from the first operated patients]. J Fr Ophtalmol 99 ;22 (1): 25-31 .
- **It is not a RCT and has less than 100 patients**
- "Hamard, P., Plaza, L., Kopel, J., Quesnot, S., and Hamard, H. Non penetrating deep sclerectomy and open-angle glaucoma: Mid-term results: Sclerectomie profonde non perforante (SPNP) et glaucome a angle ouvert: Resultats a moyen terme des premiers patients operes
- **Foreign language**
- "Haneda, M., Shirato, S., Maruyama, K., and Ohno, Y. Comparison of the additive effects of nipradilol and carteolol to latanoprost in open-angle glaucoma. Jpn J Ophthalmol 2006 ;50 (1): 33-7 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Hansen, A. C. Compliance with topical pilocarpine treatment. Am J Ophthalmol 86 ;102 (4): 547 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Hara, T. [Increased iris pigmentation after use of latanoprost in Japanese brown eyes]
- **Foreign language**
- "Harasymowycz, P. J., Papamatheakis, D. G., Ennis, M., Brady, M., and Gordon, K. D. Relationship between travoprost and central corneal thickness in ocular hypertension and open-angle glaucoma. Cornea 2007 ;
- 26 (1): 34-41 .
- **It is a case series**
- "Harasymowycz, P., Hutnik, C. M., Nicolela, M., and Stewart, W. C. Latanoprost versus timolol gel-forming solution once daily in primary open-angle glaucoma or ocular hypertension
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Harbick, K. H., Sidoti, P. A., Budenz, D. L., Venkatraman, A., Bruther, M., Grayson, D. K., Ko, A., and Yi, G. N. Outcomes of inferonasal Baerveldt glaucoma drainage implant surgery. J Glaucoma 2006 ;15 (1): 7-12 .
- **It is a case series**
- "Harju, M. Intraocular pressure and progression in exfoliative eyes with ocular hypertension or glaucoma. Acta Ophthalmol Scand 2000 ;78 (6): 699-702 .
- **Does not address any key questions**
- "Harkonen, M. [Bradycardia of an elderly patient caused by Timolol therapy in ocular hypertension]
- **Foreign language**
- "Harris, A., Arend, O., Chung, H. S., Kagemann, L., Cantor, L., and Martin, B. A comparative study of betaxolol and dorzolamide effect on ocular circulation in normal-tension glaucoma patients. Ophthalmology 2000 ;107 (3): 430-4 .
- **It is not a RCT and has less than 100 patients**
- "Harris, A., Arend, O., Kagemann, L., Garrett, M., Chung, H. S., and Martin, B. Dorzolamide, visual function and ocular hemodynamics in normal-tension glaucoma. J Ocul Pharmacol Ther 99 ;15 (3): 189-97 .
- **Data not abstractable**

- "Harris, A., Caldemeyer, K. S., Mansberger, S. L., and Martin, B. J. (alpha)-Adrenergic agonists' effects on ocular hemodynamics. J. GLAUCOMA 95 ;4 (SUPPL. 1): S19-S23 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Harris, A., Jonescu-Cuypers, C. P., Kagemann, L., Nowacki, E. A., Garzozi, H., Cole, C., and Martin, B. Effect of dorzolamide timolol combination versus timolol 0.5% on ocular bloodflow in patients with primary open-angle glaucoma. Am J Ophthalmol 2001 ;132 (4): 490-5 .
- **It is not a RCT and has less than 100 patients**
- "Harris, A., Migliardi, R., Rechtman, E., Cole, C. N., Yee, A. B., and Garzozi, H. J. Comparative analysis of the effects of dorzolamide and latanoprost on ocular hemodynamics in normal tension glaucoma patients. Eur J Ophthalmol 2003 ;13 (1): 24-31 .
- **Data not abstractable**
- "Harris, A., Siesky, B., Shoshani, Y., and Januleviciene, I. Predictors for visual field progression. Acta Ophthalmol 2010 ;88 (5): 504-5 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Harris, L. S. and Galin, M. A. Dose response analysis of pilocarpine-induced ocular hypotension. Arch Ophthalmol 70 ;84 (5): 605-8 .
- **It is not a RCT and has less than 100 patients**
- "Harris, L. S. and Galin, M. A. Effect of ocular pigmentation on hypotensive response to pilocarpine. Am J Ophthalmol 71 ;72 (5): 923-5 .
  Does not address any key questions
- "Harris, L. S. and Kahanowicz, Y. Pump infusion of pilocarpine. Ophthalmologica 75 ;171 (2): 157-64 .
  It is not a RCT and has less than 100 patients
- "Harris, L. S., Greenstein, S. H., and Bloom, A. F. Respiratory difficulties with betaxolol. Am J Ophthalmol 86 ;102 (2): 274-5 .
  It is not a RCT and has less than 100 patients
- "Hartenbaum, D. The efficacy of dorzolamide, a topical carbonic anhydrase inhibitor, in combination with timolol in the treatment of patients with open-angle glaucoma and ocular hypertension. Clin Ther 96 ;18 (3): 460-5 .
  Data not abstractable
- "Hartenbaum, D., Maloney, S., Vaccarelli, L., Liss, C., Wilson, H., and Gormley, G. J. Comparison of dorzolamide and pilocarpine as adjunctive therapy in patients with open-angle glaucoma and ocular hypertension
  Excluded drugs "
- "Hasegawa, E., Matsuo, N., Sarada, K., and Miyagawa, K. [Timolol ophthalmic solution for the treatment of glaucoma (author's transl)]
- **Foreign language**
- "Hashimot, M., Okinami, S., and Ohkuma, M. Trabeculectomy: A follow up study
  Duplicate "
- "Hashimoto, M., Okinami, S., and Ohkuma, M. [Trabeculectomy: a follow up study (author's transl)]
  Foreign language
- "Hashimoto, Y., Aragane, Y., and Kawada, A. Allergic contact dermatitis due to levobunolol in an ophthalmic preparation. J Dermatol 2006 ;33 (7): 507-9 .
  It is a case series
- "Haskjold, E. [Acetazolamide in new formulation forms. A randomized cross-over comparison of Glaupax retard capsules and Diamox Sustex]
  Foreign language
- "Haskjold, E. New acetazolamide formulation. A randomized cross-over comparison of Glaupax retard capsules and Diamox Sustets
  Foreign language
- "Hass, I. and Drance, S. M. Comparison between pilocarpine and timolol on diurnal pressures in open-angle glaucoma. Arch Ophthalmol 80 ;98 (3): 480-1 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Hatanaka M, Reis A, Sano ME, and Susanna R. Additive intraocular pressure reduction effect of fixed combination of maleate timolol 0.5%/dorzolamide 2% (Cosopt) on monotherapy with latanoprost (Xalatan) in patients with elevated intraocular pressure: a prospective, 4-week, open-label, randomized, controlled clinical trial. Journal of glaucoma 2010 ;19 (5): 331-5 .
- **Data not abstractable**
- "Hatanaka, M., Grigera, D. E., Barbosa, W. L., Jordao, M., and Susanna, R. Jr. An eight-week, multicentric, randomized, interventional, open-label, phase 4, parallel comparison of the efficacy and tolerability of the fixed combination of timolol maleate 0.5%/brimonidine tartrate 0.2% versus fixed combination of timolol maleate 0.5%/dorzolamide 2% in patients with elevated intraocular pressure
- **Medical KQ 3 or KQ 3 and KQ 6 only**

- "Hatanaka, M., Reis, A., Sano, M. E., and Susanna, R. Jr. Additive intraocular pressure reduction effect of fixed combination of maleate timolol 0.5%/dorzolamide 2% (Cosopt) on monotherapy with latanoprost (Xalatan) in patients with elevated intraocular pressure: a prospective, 4-week, open-label, randomized, controlled clinical trial

  Medical KQ 3 only
- "Hattat, N., Caldag, M., and Surel, Z. A double-blind comparison study of local timolol and pindolol in the treatment of primary open angle glaucoma
- **Foreign language**
- "Haverkamp, F., Wuensch, S., Fuchs, M., and Stewart, W. C. Intraocular pressure, safety and quality of life in glaucoma patients switching to latanoprost from adjunctive and monotherapy treatments. Eur J Ophthalmol 2004 ;14 (5): 407-15 .
- **OAG can't be analyzed separately**
- "HAYES and Inc. Selective laser trabeculoplasty (SLT) using the Selecta 7000 (Lumenis Inc.) for treatment of primary open-angle glaucoma and ocular hypertension (Structured abstract)
- **Meeting abstract**
- "Hayes, L. P., Stewart, C. J., Kim, I., and Mohr, J. A. Timolol side effects and inadvertent overdosing. J Am Geriatr Soc 89 ;37 (3): 261-2 .
- **It is a case series**
- "Hayreh, S. S., Podhajsky, P., and Zimmerman, M. B. Beta-blocker eyedrops and nocturnal arterial hypotension. Am J Ophthalmol 99 ;
- 128 (3): 301-9 .
- **It is a case series**
- "Hazelton, J. R., Whitson, J. T., Henry, C., Terry, S., Hughes, B., and Lee, D. A. Comparison of the Intraocular Pressure Effect and Safety of Dorzolamide 2% Versus Brimonidine 0.2%, Each Given Three Times Daily for Six Weeks in Patients With Primary Open-Angle Glaucoma or Ocular Hypertension
- **Meeting abstract**
- "Hedman, K. and Alm, A. A pooled-data analysis of three randomized, double-masked, six-month clinical studies comparing the intraocular pressure reducing effect of latanoprost and timolol. Eur J Ophthalmol 2000 ;
- 10 (2): 95-104 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Hedman, K. and Larsson, L. I. The effect of latanoprost compared with timolol in African-American, Asian, Caucasian, and Mexican open-angle glaucoma or ocular hypertensive patients. Surv Ophthalmol 2002 ;
- 47 Suppl 1 : S77-89 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Hedman, K., Alm, A., and Gross, R. L. Pooled-data analysis of three randomized, double-masked, six-month studies comparing intraocular pressure-reducing effects of latanoprost and timolol in patients with ocular hypertension

  Medical KQ 3 only
- "Hedman, K., Asenblad, N. G., Alm, A., Watson, P. G., and Mandahl, A. Intraocular Pressure of Latanoprost and Timolol in the Phase III Clinical Trials in Scandinavia, UK, and USA
- **Meeting abstract**
- "Hedman, K., Watson, P. G., and Alm, A. The effect of latanoprost on intraocular pressure during 2 years of treatment. Surv. Ophthalmol. 2002 47 (4 SUPPL. 1): S65-S76 .

  Other (specify): No control group"
- "Heier, J. S., Steinert, R. F., and Frederick, A. R. Jr. Cystoid macular edema associated with latanoprost use. Arch Ophthalmol 98 ;116 (5): 680-2 .

  It is a case series
- "Heijl, A. One- and two-session laser trabeculoplasty. A randomized, prospective study. Acta ophthalmologica 84 ;62 (5): 715-24 .
- **It is not a RCT and has less than 100 patients**
- "Heijl, A., Leske, M. C., Bengtsson, B., Hyman, L., Bengtsson, B., and Hussein, M. Reduction of intraocular pressure and glaucoma progression: results from the Early Manifest Glaucoma Trial

  EMGT-Maier
- "Heijl, A., Peters, D., Leske, M. C., and Bengtsson, B. Effects of Argon Laser Trabeculoplasty in the Early Manifest Glaucoma Trial. Am J Ophthalmol 2011 ;
- **Other (specify):**not RCT and doesn't do harms"
- "Heijl, A., Strahlman, E., Sverrisson, T., Brinchman-Hansen, O., Puustjarvi, T., and Tipping, R. A comparison of dorzolamide and timolol in patients with pseudoexfoliation and glaucoma or ocular hypertension

- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Heilmann, K. [A report on Ocusert (author's transl)]. Klin Monbl Augenheilkd 75 ;167 (4): 534-42 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Heilmann, K. [A report on ocusert (author's transl)]. Klin Monbl Augenheilkd 77 ;170 (1): 109-19 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Heilmann, K. A report on Ocusert: OCUSERT, EIN NEUARTIGES MEDIKAMENTENTRAGERSYSTEM FUR DIE GLAUKOMBEHANDLUNG. 3. MITTEILUNG
- **Duplicate** "
- "Heilmann, K. and Sinz, U. [A report on Ocusert (author's transl)]. Klin Monbl Augenheilkd 74 ;165 (3): 519-24 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Heilmann, K. and Sinz, U. A report on Ocusert. I: OCUSERT, EIN NEUARTIGES MEDIKAMENTENTRAGERSYSTEM FUR DIE GLAUKOMBEHANDLUNG. I. MITTEILUNG
- **Foreign language**
- "Heimann, K. and Kyrieleis, E. [Retinal detachment from miotic therapy]
- **Foreign language**
- "Heinrich, P. [Miotics and retinal detachment (author's transl)]
- **Foreign language**
- "Heinz, C., Koch, J. M., Zurek-Imhoff, B., and Heiligenhaus, A. Prevalence of uveitic secondary glaucoma and success of nonsurgical treatment in adults and children in a tertiary referral center. Ocul Immunol Inflamm 2009 ;17 (4): 243-8 .
- **No subjects with open-angle glaucoma**, **It is a case series**
- "Helal, M. H, El Sayyad, F. F, and El-Hamzawey, H. Manual Small-Incision Mini Nuc Technique for Extracapsular Cataract Extraction (MNT ECCE) and Trabeculectomy Versus Phacotrabeculectomy
- **Meeting abstract**
- "Helton, J. and Storrs, F. J. Pilocarpine allergic contact and photocontact dermatitis. Contact Dermatitis 91 ;25 (2): 133-4 .
- **It is a case series**
- "Henderer, J. D., Heeg, M. C., Myers, J. S., Moster, M. R., Schmidt, C. R., Katz, L. J., and Spaeth, G. L. LONG-TERM EFFECTS OF DIGITAL OCULAR COMPRESSION IN THE LATE POST-OPERATIVE PERIOD
- **Meeting abstract**
- "Henderer, J., Heeg, M., Moster, M., Myers, J., Schmidt, C. Jr, Katz, L. J., Spaeth, G., and Steinmann, W. A RANDOMIZED TRIAL OF THE LONG-TERM EFFECTS OF DIGITAL OCULAR COMPRESSION [N THE LATE POST-OPERATIVE PERIOD
- **Meeting abstract**
- "Henderson, H. W., Ezra, E., and Murdoch, I. E. Early postoperative trabeculectomy leakage: incidence, time course, severity, and impact on surgical outcome. Br J Ophthalmol 2004 ;88 (5): 626-9 .
- **Does not address any key questions**
- "Hennig, J. [A comparative trial between pilocarpine drops and ocusert-pilocarpine]. Klin Monbl Augenheilkd 76 ;169 (1): 112-5 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Hennis, H. L. and Stewart, W. C. The use of 5-fluorouracil in patients following combined trabeculectomy and cataract extraction. Ophthalmic Surg 91 ;
- 22 (8): 451-4 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Henry, J. C., Kessler, T. L., Mallick, S., Wells, D. T., Hua, S., Landry, T. A., Bergamini, M. V. W., Krueger, D. S., and Travoprost/Timolol Study Group. Comparison of the Safety and IOP-Lowering Efficacy of Travoprost 0.004%/Timolol 0.5% Fixed Combination to the Concomitant Administration of Xalatan® and Timolol 0.5%
- **Meeting abstract**
- "Hepsen, I. F. and Ozkaya, E. 24-h IOP control with latanoprost, travoprost, and bimatoprost in subjects with exfoliation syndrome and ocular hypertension. Eye (Lond) 2007 ;21 (4): 453-8 .
- **Data not abstractable**
- "Herbort, C. P., Mermoud, A., Schnyder, C., and Pittet, N. Anti-inflammatory effect of topical diclofenac after argon laser trabeculoplasty: Preliminary results of a placebo controlled study.
  Duplicate "

- "Herde, J. [On the relevance of the long-time follow-up of the cyclocryotherapy]. Ophthalmologe 99 ;96 (9): 600-4 .
  It is a case series
- "Herde, J. [Relevance of long-term follow-up of cyclocryocoagulation]. Ophthalmologe 99 ;96 (11): 772-6 .
  It is a case series
- "Hermann, M. M., Bron, A. M., Creuzot-Garcher, C. P., and Diestelhorst, M. Measurement of Adherence to Brimonidine Therapy for Glaucoma Using Electronic Monitoring
  Unique comparators
- "Herndon, L. W., Asrani, S. G., Williams, G. H., Challa, P., and Lee, P. P. Paradoxical intraocular pressure elevation after combined therapy with latanoprost and bimatoprost. Arch Ophthalmol 2002 ;120 (6): 847-9 .
  It is a case series
- "Herndon, L. W., Gedde, S. J., Brandt, J. D., Budenz, D. L., Schiffman, J. C., Feuer, W. J., and the Tube Versus Trabeculectomy Study Group. Surgical Complications in the Tube Versus Trabeculectomy (TVT) Study during the First Year of Follow-Up
  Meeting abstract
- "Herrera Hernbndez, Norma. Terapqutica en el glaucoma cr£nico de bngulo abierto
  Foreign language
- "Herretes, Samantha, Stangogiannis, Crisante, and Behrens, Ashley. +Queratitis difusa lamellar?: desafortunadamente un diagn£stico errado
  Foreign language
- "Hesse, R. J. and Swan, J. L. 2nd. Aphakic cystoid macular edema secondary to betaxolol therapy. Ophthalmic Surg 88 ;19 (8): 562-4 .
  It is a case series
- "Hesse, R. J. Risk of sudden visual loss after filtration surgery in end-stage glaucoma. Am J Ophthalmol 2006 ;141 (5): 983; author reply 983-4 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Heuring, A. H., Hutz, W. W., and Eckhardt, H. B. [Combined phacoemulsification and goniotrephination in primary open-angle glaucoma and pseudoexfoliation glaucoma - a retrospective analysis]
- **Foreign language**
- "Heuring, A. H., Hutz, W. W., and Eckhardt, H. B. Combined phacoemulsification and goniotrephination in primary open-angle glaucoma and pseudoexfoliation glaucoma - A retrospective analysis: Kombinierte Katarakt-Glaukom-Operation bei primarem chronischen offenwinkelglaukom und Pseudoexfoliationsglaukom - Eine retrospektive analyse
  Foreign language
- "Heuring, A. H., Hutz, W. W., Hoffmann, P. C., and Eckhardt, H. B. [Combined phacoemulsification and goniotrepanation in primary chronic open angle glaucoma and classical pseudoexfoliation glaucoma]. Ophthalmologe 99 ;96 (5): 312-8 .
  It is a case series
- "Hickey-Dwyer, M., Campbell, S. H., and Harding, S. Doubled-masked three-period crossover investigation of metipranolol in control of raised intraocular pressure
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Higginbotham, E. J and AGN 192024 Study Group, 1. 1 -year comparison of the new prostamide AGN 192024 with timolol for the management of glaucoma and ocular hypertension
  Meeting abstract
- "Higginbotham, E. J, Goldberg, I., Schuman, J. S, Gross, R. L, Vandenburgh, A. M, and Whitcup, S. M. One-year comparison of bimatoprost with timolol in patients with glaucoma or ocular hypertension
  Meeting abstract
- "Higginbotham, E. J., Feldman, R., Stiles, M., and Dubiner, H. Latanoprost and timolol combination therapy vs monotherapy: one-year randomized trial
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Higginbotham, E. J., Gordon, M. O., Beiser, J. A., Drake, M. V., Bennett, G. R., Wilson, M. R., and Kass, M. A. The Ocular Hypertension Treatment Study: topical medication delays or prevents primary open-angle glaucoma in African American individuals
- **Medical KQ 3 only**
- "Higginbotham, E. J., Kass, M. A., Lippa, E. A., Batenhorst, R. L., Panebianco, D. L., and Wilensky, J. T. MK-927: a topical carbonic anhydrase inhibitor. Dose response and duration of action. Arch Ophthalmol 90 ;108 (1): 65-8 .
- **Does not address any key questions**
- "Higginbotham, E. J., Olander, K. W., Kim, E. E., Grunden, J. W., Kwok, K. K., and Tressler, C. S. Fixed combination of latanoprost and timolol vs individual components for primary open-angle glaucoma or ocular

hypertension: a randomized, double-masked study. Arch Ophthalmol 2010 ;128 (2): 165-72 .

- **Other (specify):not FDA approved**"
- "Higginbotham, E. J., Olander, K. W., Kim, E. E., Grunden, J. W., Kwok, K. K., and Tressler, C. S. Fixed combination of latanoprost and timolol vs individual components for primary open-angle glaucoma or ocular hypertension: a randomized, double-masked study
- **Systematic review**
- "Higginbotham, E. J., Schuman, J. S., Goldberg, I., Gross, R. L., van Denburgh, A. M., Chen, K. and others. One year, randomizing study comparing bimatoprost and timolol in glaucoma and ocular hypertenstion. Archives of Ophthalmology 2002 ;120 : 1286-93 .
- **OAG can't be analyzed separately**
- "Higginbotham, E. J., Schuman, J. S., Goldberg, I., Gross, R. L., VanDenburgh, A. M., Chen, K., and Whitcup, S. M. One-year, randomized study comparing bimatoprost and timolol in glaucoma and ocular hypertension. Arch Ophthalmol 2002 ;120 (10): 1286-93 .
- **OAG can't be analyzed separately**
- "Higginbotham, E. J., Stevens, R. K., Musch, D. C., Karp, K. O., Lichter, P. R., Bergstrom, T. J., and Skuta, G. L. Bleb-related endophthalmitis after trabeculectomy with mitomycin C. Ophthalmology 96 ;103 (4): 650-6 .
- **OAG can't be analyzed separately**
- "Higgins, R. A. Two years' experience with laser trabeculoplasty. Aust N Z J Ophthalmol 85 ;13 (3): 237-41 .
- **OAG can't be analyzed separately**
- "Hillery, M. and Blake, J. Pilocarpine sine miosis in primary open angle glaucoma [abstract]
- **Abstract only**
- "Hillman, D., Mundorf, T., Dirks, M., Noecker, R. J., and Earl, M. Comparison of Brimonidine Purite 0.15% vs. Timolol in Patients with Glaucoma or Ocular Hypertension
- **Meeting abstract**
- "Hillman, J. S. Management of acute glaucoma with pilocarpine-soaked hydrophilic lens. Br J Ophthalmol 74 ;58 (7): 674-9 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Hinkle, D. M., Zurakowski, D., and Ayyala, R. S. A comparison of the polypropylene plate Ahmed glaucoma valve to the silicone plate Ahmed glaucoma flexible valve. Eur J Ophthalmol 2007 ;17 (5): 696-701 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Hirsch, R. and Remky, H. [Trabeculectomy. Long-term results of 247 cases (2-101/2-years-old)]. Bull Soc Belge Ophtalmol 84 ;209 : 19-36 .
- **It is a case series**
- "Hitchings, R. A. and Smith, R. J. Experience with pilocarpine Ocuserts. Trans Ophthalmol Soc U K 77 ;97 (1): 202-5 .
- **It is not a RCT and has less than 100 patients**
- "Hitchings, R. A. Beta-blockers in the treatment of chronic simple glaucoma. Br Med J (Clin Res Ed) 82 ;285 (6335): 84-5 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Ho, J. D., Hu, C. C., and Lin, H. C. Antiglaucoma medications during pregnancy and the risk of low birth weight: a population-based study. Br J Ophthalmol 2009 ;93 (10): 1283-6 .
- **Does not address any key questions**
- "Hodapp, E., Kolker, A. E., Kass, M. A., Goldberg, I., Becker, B., and Gordon, M. The effect of topical clonidine on intraocular pressure. Arch Ophthalmol 81 ;99 (7): 1208-11 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Hodes, B. Ocular hypertensive response to therapy. Arch Ophthalmol 79 ;97 (8): 1544-5 .
- **It is a case series**
- "Hodge, W., Damji, K. F, Bovell, A., and Buhrmann, R. R. Highly Successful SLT is Independent of Glaucoma Type, Previous Surgery, Medical Therapy, or Glaucoma Risk Factors
  Meeting abstract
- "Hoffmann, E., Schwenn, O., Karallus, M., Krummenauer, F., Grehn, F., and Pfeiffer, N. Long-term results of cataract surgery combined with trabeculotomy. Graefes Arch Clin Exp Ophthalmol 2002 ; 240 (1): 2-6 .
  Does not address any key questions
- "Hollo, G. and Kothy, P. Intraocular pressure reduction with travoprost/timolol fixed combination, with and without adjunctive brinzolamide, in glaucoma. Curr Med Res Opin 2008 ;24 (6): 1755-61 .

Does not address any key questions

- "Hollo, G. Argon and low energy, pulsed Nd:YAG laser trabeculoplasty. A prospective, comparative clinical and morphological study. Acta Ophthalmol Scand 96 ;74 (2): 126-31 .

It is not a RCT and has less than 100 patients

- "Hollo, G., Chiselita, D., Petkova, N., Cvenkel, B., Liehneova, I., Izgi, B., Berta, A., Szaflik, J., Turacli, E., and Stewart, W. C. The efficacy and safety of timolol maleate versus brinzolamide each given twice daily added to travoprost in patients with ocular hypertension or primary open-angle glaucoma

Medical KQ 3 only

- "Hollo, G., Konstas, A. G. P., Tsironi, S., Irkec, M., Durukan, I., Goldenfield, M., and Melamed, S. Diurnal IOP Control With Bimatoprost vs Latanoprost in Exfoliative Glaucoma: A Crossover Observer-Masked Three-Center Study

Meeting abstract

- "Hollo, G., Thelen, U., Teus, M. A., Quaranta, L., Ferkova, S., Babic, N., Misiuk-Hojlo, M., Mikropoulos, D. G., Kaluzny, B. J., Kozobolis, V., Januleviciene, I., Kothy, P., Camara, C., Russo, A., Krzyzanowska-Berkowska, P., Cieslinska, I., Stewart, J. A., Kristoffersen, M. S., Nelson, L. A., and Stewart, W. C. Long-Term Outcomes of Prostaglandin Analog Versus Timolol Maleate in Ocular Hypertensive or Primary Open-Angle Glaucoma Patients in Europe. J Ocul Pharmacol Ther 2011 **Does not address any key questions**

- "Hollo, G., Vargha, P., and Kothy, P. Influence of switching to travoprost on intraocular pressure of uncontrolled chronic open-angle glaucoma patients compliant to previously-used topical medication. Curr Med Res Opin 2005 ;21 (12): 1943-8 .

Other (specify):Study design does not match KQ

- "Holmes, K. T., Sharpe, E. D., Day, D. C., Dubiner, H., and Stewart, W. C. EFFICACY AND SAFETY OF TIMOLOL HEMIHYDRATE 0.5% SOLUTION ONCE DAILY VERSUS TIMOLOL MALEATE GEL 0.5% ONCE DAILY ADDED TO LATANOPROST 0.005%

Meeting abstract

- "Holmes, W. R. Ocusert in Christchurch. Trans Ophthalmol Soc N Z 77 ; 29 : 111-2 .

t is a case series

- "Holmin, C. Signs of activity and progression in chronic glaucoma. Acta Ophthalmol Suppl 82 ;153 : 1-40 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Holmwood, P., Chase, D., Ruderman, I., Rosenberg, L., and Krupin, T. EFFECT OF APRACLONIDINE DOSAGE ON ARGON LASER TRABECULOPLASTY (ALT) INDUCED INCREASE IN INTRAOCULAR PRESSURE (IOP)

Meeting abstract

- "Hommer, A. A double-masked, randomized, parallel comparison of a fixed combination of bimatoprost 0.03%/timolol 0.5% with non-fixed combination use in patients with glaucoma or ocular hypertension. Eur J Ophthalmol 2007 ;17 (1): 53-62 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Hommer, A. B, Mertz, B., Schwenninger, C., Yannoulis, N., Kapik, B., and The Unoprostone Study Group. Efficacy and safety of unoprostone, dorzolamide, and brimonidine in adjunctive therapy to timolol in patients with primary open-angle glaucoma and ocular hypertension

Meeting abstract

- "Hommer, A., Kapik, B., and Shams, N. Unoprostone as adjunctive therapy to timolol: a double masked randomised study versus brimonidine and dorzolamide

Excluded drug

- "Hommer, A., Nowak, A., and Huber, S. V. A multidose, double-masked, parallel active treatment controlled multicenter study of 0.25% timolol in Gelrite once daily versus 0.25% timolol solution twice

Duplicate "

- "Hommer, A., Nowak, A., and Huber-Spitzy, V. [Multicenter double-blind study with 0.25% timolol in Gelrite (TG) once daily vs. 0.25% timolol solution (TS) twice daily. German Study Group]. Ophthalmologe 95 ;
- 92 (4): 546-9 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Hommer, A., Nowak, A., and Huber-Spitzy, V. A multidose, double-masked, parallel active treatment controlled multicenter study of 0.25% timolol in Gelrite once daily versus 0.25% timolol solution twice: MULTIZENTRISCHE DOPPELBLINDSTUDIE MIT 0,25% TIMOLOL IN GELRITE (TG) 1MAL TAGLICH VS. 0,25% TIMOLOL-LOSUNG (TS) 2MAL TAGLICH

Duplicate "

- "Hommer, A., Thygesen, J., Ferreras, A., Wickstrom, J., Friis, M. M., Buchholz, P., and Walt, J. G. A European perspective on costs and cost effectiveness of ophthalmic combinations in the treatment of open-angle glaucoma (Structured abstract)
  Duplicate "
- "Hommer, A., Wickstrom, J., Friis, M. M, Steeds, C., Thygesen, J., Ferreras, A., Gouws, P., and Buchholz, P. A cost-effectiveness analysis of fixed-combination therapies in patients with open-angle glaucoma: a European perspective (Structured abstract). Current Medical Research and Opinion 2008 ;24 (4): 1057-1063 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Hong, S., Park, K., Ha, S. J., Yeom, H. Y., Seong, G. J., and Hong, Y. J. Long-term intraocular pressure control of trabeculectomy and triple procedure in primary open angle glaucoma and chronic primary angle closure glaucoma. Ophthalmologica 2007 ;221 (6): 395-401 .
  It is a case series
- "Hong, S., Seong, G. J., and Hong, Y. J. Long-term intraocular pressure fluctuation and progressive visual field deterioration in patients with glaucoma and low intraocular pressures after a triple procedure. Arch Ophthalmol 2007 ;125 (8): 1010-3 .
  Other (specify):Study design does not match KQ
- "Honjo, M., Tanihara, H., Negi, A., Hangai, M., Taniguchi, T., Honda, Y., Mizoguchi, T., Matsumura, M., and Nagata, M. Trabeculotomy ab externo, cataract extraction, and intraocular lens implantation: preliminary report. J Cataract Refract Surg 96 ;22 (5): 601-6 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Honrubia, F. M., Ferrer, E. J., Lecinena, J., Torron, C., and Gomez, M. L. Long term follow-up of the argon laser trabeculoplasty in eyes treated 180 degrees and 360 degrees of the trabeculum. Int Ophthalmol 92 ; 16 (4-5): 375-9 .
  Other (specify):Study design does not match KQ
- "Honrubia, F. M., Larsson, L. I., and Spiegel, D. A comparison of the effects on intraocular pressure of latanoprost 0.005% and the fixed combination of dorzolamide 2% and timolol 0.5% in patients with open-angle glaucoma
  Medical KQ 3 only
- "Honrubia, F., Garcia-Sanchez, J., Polo, V., de la Casa, J. M., and Soto, J. Conjunctival hyperaemia with the use of latanoprost versus other prostaglandin analogues in patients with ocular hypertension or glaucoma: a meta-analysis of randomised clinical trials
  Systematic review
- "Hooi, S. T. and Hooi, S. H. Trabeculectomy outcomes in a Malaysian general hospital. Med J Malaysia 2003 ; 58 (4): 565-78 .
  OAG can't be analyzed separately
- "Hopkins, J. J., Apel, A., Trope, G. E., and Rootman, D. S. Early intraocular pressure after phacoemulsification combined with trabeculectomy. Ophthalmic Surg Lasers 98 ; 29 (4): 273-9 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Horven, I. [Timolol Eyedrops]
  Foreign language
- "Hoste, A. M. Reduction of IOP with latanoprost. Ophthalmology 97 ; 104 (6): 895-7 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Hostyn, P., Le Rebeller, M. J., and Trinquand, C. Fixed combination of carteolol and pilocarpine eye-drops: A double-blind randomized cross-over trial versus carteolol alone on intra-ocular pressure
  Duplicate "
- "Hostyn, P., Le Rebeller, M. J., and Trinquand, C. Fixed combination of carteolol and pilocarpine eye-drops: a double-blind randomized cross-over trial versus carteolol alone on intra-ocular pressure. The Study Group. Eur J Ophthalmol 96 ;6 (1): 17-20 .
  Other (specify):Study design does not match KQ
- "Hotchkiss, M. L., Robin, A. L., Pollack, I. P., and Quigley, H. A. Nonsteroidal anti-inflammatory agents after argon laser trabeculoplasty. A trial with flurbiprofen and indomethacin. Ophthalmology 84 ;91 (8): 969-76 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Hovding, G. and Aasved, H. Timolol/pilocarpine combination eye drops in open angle glaucoma and in ocular hypertension. A controlled randomized study. Acta Ophthalmol (Copenh) 87 ;65 (5): 594-601 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Hovding, G. Fixed-ratio timolol and pilocarpine combination in the management of open-angle glaucoma: Scandinavian multicenter study. CHIBRET INT. J. OPHTHALMOL. 90 ;7 (1): 63-67 .

Other (specify):not FDA approved"

- "Hu, C. [Long-term effect of domestic timolol on patients with primary open-angle glaucoma]
- **Foreign language**
- "Hu, C. Y., Matsuo, H., Tomita, G., Suzuki, Y., Araie, M., Shirato, S., and Tanaka, S. Clinical characteristics and leakage of functioning blebs after trabeculectomy with mitomycin-C in primary glaucoma patients. Ophthalmology 2003 ;110 (2): 345-52 .
- **Does not address any key questions**
- "Huang, M. C., Netland, P. A., Coleman, A. L., Siegner, S. W., Moster, M. R., and Hill, R. A. Intermediate-term clinical experience with the Ahmed Glaucoma Valve implant. Am J Ophthalmol 99 ;127 (1): 27-33 .
- **OAG can't be analyzed separately**
- "Huang, P., Zhong, Z., Wu, L., and Liu, W. Increased iridial pigmentation in Chinese eyes after use of travoprost 0.004%. J Glaucoma 2009 ;18 (2): 153-6 .
- **It is not a RCT and has less than 100 patients**
- "Huang, Y., Wang, N.-L., Wang, B.-W., and Li, L.-J. The long term curative effect of the nonpenetrating trabecular surgery
- **Foreign language**
- "Huber, K., Wolter, P., Plange, N., Remky, A., and Arend, O. [A randomised trial to evaluate hemodynamic effects of timolol, latanoprost and dorzolamide in patients with newly diagnosed open angle glaucoma]
- **Meeting abstract**
- "Huertas A., Jeanette, Anuch J., Patricio, and Adrianzen Barreto, Rosa. Estudio comparativo entre trabeculectomÆa y sinusotrabeculectomÆa en el glaucoma primario de angulo abierto
- **Foreign language**
- "Hughes, B. A., Bacharach, J., Craven, E. R., Kaback, M. B., Mallick, S., Landry, T. A., and Bergamini, M. V. A three-month, multicenter, double-masked study of the safety and efficacy of travoprost 0.004%/timolol 0.5% ophthalmic solution compared to travoprost 0.004% ophthalmic solution and timolol 0.5% dosed concomitantly in subjects with open angle glaucoma or ocular hypertension
- **Non-FDA-approved drug combination**
- "Hughes, B. A., Juzych, M. S., Pettigrew, S. C., Sullivan, E. K., Landry, T. A., and Robertson, S. M. A Comparison of Travoprost 0.004%/Timolol 0.5% Ophthalmic Solution and the Concomitant Administration of TRAVATAN® and Timolol 0.5%
- **Meeting abstract**
- "Hugkulstone, C. E. Argon laser trabeculoplasty with standard and long duration. Acta Ophthalmol (Copenh) 90 ;68 (5): 579-81 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Hugkulstone, C. E. Primary glaucoma triple procedure. Ophthalmology 97 ;104 (8): 1208-9 .
- **Data not abstractable**
- "Hugkulstone, C. E. Standard and long duration repeat argon laser trabeculoplasty. Acta Ophthalmol (Copenh) 90 ;
- 68 (5): 575-8 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Hugkulstone, C. E. The effects of different energy levels in argon laser trabeculoplasty. Acta Ophthalmol (Copenh) 89 ;67 (3): 271-4 .
- **Data not abstractable**
- "Hugkulstone, C. E. Two-year follow-up of intra-ocular pressure control with long duration argon laser trabeculoplasty
- **Rolim de Moura 2009**
- "Hugkulstone, C. E., Smith, L. F., and Vernon, S. A. Trabeculectomy in diabetic patients with glaucoma. Eye (Lond) 93 ;7 (Pt 4) : 502-6 .
- **It is not a RCT and has less than 100 patients**
- "Hugues, F. C., Le Jeunne, C., Munera, Y., and Dufier, J. L. [Evaluation of the systemic effects of timolol maleate in eye drops]. J Fr Ophtalmol 85 ;8 (5): 389-94 .
- **It is not a RCT and has less than 100 patients**
- "Hung, P. T., Hsieh, J. W., and Chiou, G. C. Ocular hypotensive effects of N-demethylated carbachol on open angle glaucoma. Arch Ophthalmol 82 ;100 (2): 262-4 .
- **Does not address any key questions**
- "Hung, S. O. Role of sodium hyaluronate (Healonid) in triangular flap trabeculectomy. Br J Ophthalmol 85 ;69 (1): 46-50 .
- **Other (specify):**Not an intervention of interest"
- "Huo, Q., Shen, Q., Zhang, D. M., and Zhang, R. T. [Effect of pricking blood at Neiyingxiang (EX-HN 9) on the intraocular pressure of patients with primary open angle glaucoma]

- **oreign language**
- "Hurvitz, L. M. 5-FU-supplemented phacoemulsification, posterior chamber intraocular lens implantation, and trabeculectomy. Ophthalmic Surg 93 ;24 (10): 674-80 .
- **t is combined cataract/glaucoma surgery study published before April 2000**
- "Husain, R., Aung, T., Gazzard, G., Foster, P. J., Devereux, J. G., Chew, P. T., Oen, F. T., Khaw, P. T., and Seah, S. K. Effect of trabeculectomy on lens opacities in an East Asian population. Arch Ophthalmol 2006 ;124 (6): 787-92 .
- **It is a case series**
- "Hustead, J. D. Central corneal thickness. Arch Ophthalmol 98 ;116 (9): 1263 .
- **o original data (e.g., systematic review, narrative review, editorial, letter)**
- "Hutzelmann, J. E., Polis, A. B., Michael, A. J., and Adamsons, I. A. A comparison of the efficacy and tolerability of dorzolamide and acetazolamide as adjunctive therapy to timolol
- **uplicate** "
- "Hutzelmann, J. E., Polis, A. B., Michael, A. J., and Adamsons, I. A. A comparison of the efficacy and tolerability of dorzolamide and acetazolamide as adjunctive therapy to timolol. Oral to Topical CAI Study Group. Acta Ophthalmol Scand 98 ;76 (6): 717-22 .
- **ata not abstractable**
- "Hutzelmann, J., Owens, S., Shedden, A., Adamsons, I., and Vargas, E. Comparison of the safety and efficacy of the fixed combination of dorzolamide/timolol and the concomitant administration of dorzolamide and timolol: A clinical equivalence study
- **Duplicate** "
- "Hutzelmann, J., Owens, S., Shedden, A., Adamsons, I., and Vargas, E. Comparison of the safety and efficacy of the fixed combination of dorzolamide/timolol and the concomitant administration of dorzolamide and timolol: a clinical equivalence study. International Clinical Equivalence Study Group
- **edical KQ 3 or KQ 3 and KQ 6 only**
- "Hutzelmann, J., Owens, S., Shedden, A., and Adamsons, I. A STUDY COMPARING THE SAFETY AND EFFICACY OF THE FIXED COMBINATION OF DORZOLAMIDEiTIMOLOL TO THE CONCOMITANT ADMINISTRATION OF TIMOLOL AND DORZOLAMIDE
- **eeting abstract**
- "Hutzelmann, J., Snyder, E., Tipping, R., and Adamsons, I. COMPARISON OF THE IOP LOWERING EFFECT OF 2.0% DORZOLAMIDE T.I.D. (TRUSOPT*) IN PATIENTS WITH LIGHT AND DARK IRIDES
- **eeting abstract**
- "Huygens, M., Vercruysse, K., Goethals, M., and Missotten, L. Trabeculectomy: a retrospective long-term follow-up study. Bull Soc Belge Ophtalmol 90 ;238 : 125-35 .
- **ata not abstractable**
- "Hypotensive efficacy in primary open-angle glaucoma and ocular hypertension: latanoprost in monotherapy vs timolol and dorzolamide in association. Acta Ophthalmol Scand Suppl 2000 (232): 49-50 .
- **o original data (e.g., systematic review, narrative review, editorial, letter) Data not abstractable**, **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Iakovlev, A. A. and Lenkevich, M. M. [Use of pilocarpine in a polyvinyl alcohol film for the treatment of glaucoma patients]
- **oreign language**
- "Iester, M., Perdicchi, A., Venturino, G., Rolando, M., Traverso, C. E., Leonardi, E., and Calabria, G. Short-term effects of bimatoprost in glaucoma patients from an outpatient clinic. J Ocul Pharmacol Ther 2004 ;20 (5): 393-400 .
- **t is not a RCT and has less than 100 patients**
- "Ignat, F., Damian, C., Manescu, R., and Perovic, I. [Neuroprotective effect of Betoptic S-considerations after 18 months of treatment]
- **oreign language**
- "Ikeda, Y., Mori, K., Ishibashi, T., Naruse, S., Kobayashi, L., Hozono, Y., Ikushima, T., Imai, K., Nakajima, N., and Kinoshita, S. Non-Response to â-Blocker Topical Application in Normal-Tension-Glaucoma
  Meeting abstract
- "Ikeda, Y., Mori, K., Ishibashi, T., Naruse, S., Nakajima, N., and Kinoshita, S. Effects of switching from topical beta-blockers to latanoprost on intraocular pressure in patients with normal-tension glaucoma. J Ocul Pharmacol Ther 2008 ;24 (2): 230-4 .
  Does not address any key questions

- "Imamoto, N., Kim, J., Chang, F., and Kim, C. COMPARISON BETWEEN TIMOPTIC-XE QD AND TIMOLOL SOLUTION BID ON IOP AT THE 23RD HOUR
- **Meeting abstract**
- "Inaba, Z. [Long-term results of trabeculectomy in the Japanese: an analysis by life-table method]
- **Foreign language**
- "Inaba, Z. Long-term results of trabeculectomy in the Japanese: an analysis by life-table method. Jpn J Ophthalmol 82 ;
- 26 (4): 361-73 .
- **Does not address any key questions**
- "Inal, A., Bayraktar, S., Inal, B., Bayraktar, Z., and Yilmaz, O. F. Intraocular pressure control after clear corneal phacoemulsification in eyes with previous trabeculectomy: a controlled study. Acta Ophthalmol Scand 2005 ;83 (5): 554-60 .
- **It is not a RCT and has less than 100 patients**
- "Inatani, M., Iwao, K., Inoue, T., Awai, M., Muto, T., Koga, T., Ogata-Iwao, M., Hara, R., Futa, R., and Tanihara, H. Long-term relationship between intraocular pressure and visual field loss in primary open-angle glaucoma. J Glaucoma 2008 17 (4): 275-9 .
  Data not abstractable
- "Inatani, M., Tanihara, H., Muto, T., Honjo, M., Okazaki, K., Kido, N., and Honda, Y. Transient intraocular pressure elevation after trabeculotomy and its occurrence with phacoemulsification and intraocular lens implantation. Jpn J Ophthalmol 2001 ;45 (3): 288-92 .
- **Does not address any key questions**
- "Incidence of a latanoprost-induced increase in iris pigmentation in Japanese eyes. Jpn J Ophthalmol 2006 ;50 (2): 96-9 .
- **It is a case series gives an estimate of likelihood of pigmentation It is a case series**
- "Indar, A. R, Poinoosawmy, D., and Hitchings, R. A. Effect of medical treatment or surgery on intraocular pressure and ocular blood flow in normal tension glaucoma
- **Meeting abstract**
- "Ingram, C. J. and Brubaker, R. F. Effect of brinzolamide and dorzolamide on aqueous humor flow in human eyes. Am J Ophthalmol 99 ;128 (3): 292-6 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Inoue, K., Ezure, T., Wakakura, M., Inoue, J., and Tomita, G. The effect of once-daily levobunolol on intraocular pressure in normal-tension glaucoma. Jpn J Ophthalmol 2005 ;49 (1): 58-9 .
- **It is not a RCT and has less than 100 patients**
- "Inoue, K., Okugawa, K., Kato, S., Inoue, Y., Tomita, G., Oshika, T., and Amano, S. Ocular factors relevant to anti-glaucomatous eyedrop-related keratoepitheliopathy. J Glaucoma 2003 ;12 (6): 480-5 .
- **Other (specify):**Unoprostone, nipradilol, dipifrevin and outcomes not given separately"
- "Inoue, K., Wada, S. A., Wakakura, M., Inoue, J., and Tomita, G. Switching from dorzolamide to brinzolamide: effect on intraocular pressure and patient comfort. Jpn J Ophthalmol 2006 ;50 (1): 68-9 .
- **It is not a RCT and has less than 100 patients**
- "Inoue, K., Wakakura, M., Inoue, J., Matsuo, H., Hara, T., and Tomita, G. [Adverse reaction after use of latanoprost in Japanese glaucoma patients]
- **Foreign language**
- "Inoue, K., Wakakura, M., Inouye, J., and Tomita, G. Effect of levobunolol switched from timolol gel-forming solution
- **Foreign language**
- "Irak, I., Moster, M. R., and Fontanarosa, J. Intermediate-term results of Baerveldt tube shunt surgery with mitomycin C use. Ophthalmic Surg Lasers Imaging 2004 ;35 (3): 189-96 .
  OAG can't be analyzed separately
- "Isasi-Saseta, M. B., Urcelay-Segura, J. L., Zamora-Barrios, J., Ortega-Usobiaga, J., Moreno Garcia-Rubio, B., and Cortes-Valdes, C. [Trabeculectomy and phacoemulsification. One site vs. two site approach. A comparative study]
- **Foreign language**
- "Ishida, K. and Netland, P. A. Ahmed Glaucoma Valve implantation in African American and white patients. Arch Ophthalmol 2006 ;124 (6): 800-6 .
- **OAG can't be analyzed separately**
- "Ishida, K., Netland, P. A., Costa, V. P., Shiroma, L., Khan, B., and Ahmed, I. I. Comparison of polypropylene and silicone Ahmed Glaucoma Valves. Ophthalmology 2006 ;113 (8): 1320-6 .
- **OAG can't be analyzed separately**

- "Ishikawa, M. and Yoshitomi, T. Effects of brinzolamide vs timolol as an adjunctive medication to latanoprost on circadian intraocular pressure control in primary open-angle glaucoma Japanese patients. Clin. Ophthalmol. 2009 ;3 (1): 493-500 .
- **Does not address any key questions**
- "Ishikawa, S., Nakamura, Y., Nakamura, Y., Sakai, H., Sawaguchi, S., Terashima, K., Kanno, M., and Yamashita, H. Efficacy and safety of combination therapy with latanoprost after a change in therapeutic regimen from timolol to brinzolamide in Japanese adult patients with primary open-angle glaucoma and ocular hypertension: open, non-randomized 12-week study. Clin Ophthalmol 2008 ;2 (4): 703-8 .
- **It is not a RCT and has less than 100 patients**
- "Ishikawa, T., Okisaka, S., Hiwatari, S., Taketani, P., and Sugimachi, Y. [Pilocarpine, carbachol and carteolol on open-angle glaucoma and ocular hypertension (author's transl)]
- **Foreign language**
- "Iwakiri, R., Kobayashi, H., Kobayashi, K., and Okinami, S. Addition of topical bunazosin to latanoprost in multiple medical treatment for glaucoma
- **Foreign language**
- "Iwao, K., Inatani, M., and Tanihara, H. Success rates of trabeculotomy for steroid-induced glaucoma: a comparative, multicenter, retrospective cohort study. Am J Ophthalmol 2011 ;151 (6; status =Department of Ophthalmology and Visual Science, Kumamoto University Graduate School of Medical Sciences, 1-1-1 Honjo, Kumamoto, Japan.): 1047-1056.e1 .
- **No subjects with open-angle glaucoma**
- "Jacobi, P. C., Dietlein, T. S., and Krieglstein, G. K. [Cataract surgery in pseudoexfoliation glaucoma: A combination with trabeculectomy, aspiration of the trabeculum or bilateral procedure]
  Meeting abstract
- "Jacobi, P. C., Dietlein, T. S., and Krieglstein, G. K. Comparative study of trabecular aspiration vs trabeculectomy in glaucoma triple procedure to treat pseudoexfoliation glaucoma. Arch Ophthalmol 99 ;
- 117 (10): 1311-8 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Jacobi, P. C., Dietlein, T. S., and Krieglstein, G. K. The risk profile of trabecular aspiration versus trabeculectomy in glaucoma triple procedure. Graefes Arch Clin Exp Ophthalmol 2000 ;238 (7): 545-51 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Jaenen, N., Baudouin, C., Pouliquen, P., Manni, G., Figueiredo, A., and Zeyen, T. Ocular symptoms and signs with preserved and preservative-free glaucoma medications. Eur J Ophthalmol 2007 ;17 (3): 341-9 .
- **Data not abstractable**
- "Jain, S. Betaxolol-associated anterior uveitis. Eye (Lond) 94 ;8 (Pt 6) : 708-9 .
- **It is not a RCT and has less than 100 patients**
- "Jampel, H. D., Bacharach, J., Sheu, W. P., Wohl, L. G., Solish, A. M., and Christie, W. Randomized clinical trial of latanoprost and unoprostone in patients with elevated intraocular pressure. Am J Ophthalmol 2002 ;
- 134 (6): 863-71 .
- **Other (specify):**unoprostone"
- "Januleviciene, I., Ehrlich, R., Siesky, B., Nedzelskiene, I., and Harris, A. Visual function, optic nerve structure, and ocular blood flow parameters after 1 year of glaucoma treatment with fixed combinations
- **Non-FDA-approved drug combination**
- "Januleviciene, I., Ehrlich, R., Siesky, B., Nedzelskiene, I., and Harris, A. Visual function, optic nerve structure, and ocular blood flow parameters after 1 year of glaucoma treatment ith fixed combinations
- **Duplicate** "
- "Januleviciene, I., Harris, A., Kagemann, L., Siesky, B., and McCranor, L. A comparison of the effects of dorzolamide/timolol fixed combination versus latanoprost on intraocular pressure and pulsatile ocular blood flow in primary open-angle glaucoma patients
- **Medical KQ 3 only**
- "Januszewski, T., Nowakowska-Maziarz, M., and Kliszczewski, D. [Simultaneous cataract and glaucoma surgery. Selection of trabeculectomy site]
- **Foreign language**
- "Janz, N. K., Musch, D. C., Gillespie, B. W., Wren, P. A., and Niziol, L. M. Evaluating clinical change and visual function concerns in drivers and nondrivers with glaucoma. Invest Ophthalmol Vis Sci 2009 ;
- 50 (4): 1718-25 .

- **Does not address any key questions**
- "Jappe, U., Uter, W., Menezes de Padua, C. A., Herbst, R. A., and Schnuch, A. Allergic contact dermatitis due to beta-blockers in eye drops: a retrospective analysis of multicentre surveillance data 1993-2004. Acta Derm Venereol 2006 ;
- 86 (6): 509-14 .
- **Data not abstractable**
- "Jardim, A. S., Ferreira, L. G., Mendes, H., and Coutinho, D. Pilocarpine in ophthalmology: A PILOCARPINA EM OFTALMOLOGIA
- **Foreign language**
- "Javitt, J. and Goldberg, I. Comparison of the clinical success rates and quality of life effects of brimonidine tartrate 0.2% and Betaxolol 0.25% Suspension in patients with open-angle glaucoma and ocular hypertension
- **Duplicate** "
- "Javitt, J. and Goldberg, I. Comparison of the clinical success rates and quality of life effects of brimonidine tartrate 0.2% and betaxolol 0.25% suspension in patients with open-angle glaucoma and ocular hypertension. Brimonidine Outcomes Study Group II
- **Medical KQ 3 only**
- "Javitt, J. C. Clinical Effectiveness and Quality of Life Associated with Brimonidine versus Betaxalol as Monotherapy for Glaucoma and Ocular Hypertension (OHT)
- **Meeting abstract**
- "Javitt, J. C., Gaasterland, D. E., and Street, D. A. Treatment trials of glaucoma suspects. Ophthalmology 91 ;
- 98 (10): 1483-5 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Javitt, J. C., Schiffman, R. M., Atlas, W., Baum, K. J., Cookem, D. L., DuBiner, H. B., Katz, J. L., Kupin, T., Memmen, J. E., Mundorf, T. K., Nelson, E., Offenberg, H., Schenker, H. I., Sharpe, E., Stevenson, D., Stewart, W. C., Tanchel, N., and Whitaker, R. Clinical success and quality of life with brimonidine 0.2% or Timolol 0.5% used twice daily in glaucoma or ocular hypertension: A randomized clinical trial
- **Duplicate** "
- "Javitt, J. THE CLINICAL SUCCESS RATE AND QUALITY OF LIFE ASSESSMENT OF BRIMONIDINE TARTRATE 0.2% COMPARED WITH TIMOLOL 0.5%, ADMINISTERED TWICE DAILY IN PATIENTS WITH PREVIOUSLY UNTREATED OPEN-ANGLE GLAUCOMA OR OCULAR HYPERTENSION
- **Meeting abstract**
- "Jay, J. L. and Allan, D. The benefit of early trabeculectomy versus conventional management in primary open angle glaucoma relative to severity of disease. Eye (Lond) 89 ;3 (Pt 5) : 528-35 .
- **Does not address any key questions**
- "Jay, J. L. and Murray, S. B. Early trabeculectomy versus conventional management in primary open angle glaucoma. Br J Ophthalmol 88 ;
- 72 (12): 881-9 .
- **Data not abstractable**
- "Jay, J. L. Earlier trabeculectomy. Trans Ophthalmol Soc U K 83 ;
- 103 (Pt 1) : 35-8 .
- **Other (specify):**Not interested in studies comparing the ordering of interventions"
- "Jayamanne, D. G., Kostakis, A., and Phelan, P. S. The outcome of 2.3 mm incision combined phacoemulsification, trabeculectomy and lens implantation of non-foldable intraocular lenses. Eye (Lond) 97 ;11 (Pt 1) : 91-4 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Jayaprakasam, A. and Ghazi-Nouri, S. Periorbital fat atrophy - an unfamiliar side effect of prostaglandin analogues. Orbit 2010 ;
- 29 (6; status =Ophthalmology Department, Broomfield Hospital, Court Road, Chelmsford, Essex. anuradhajayaprakasam@hotmail.com): 357-9 .
- **It is a case series**
- "Jerndal, T. and Lundstrom, M. 330 trabeculectomies. A long time study (3-5 1/2 years). Acta Ophthalmol (Copenh) 80 ;58 (6): 947-56 .
- **OAG can't be analyzed separately**
- "Jerndal, T. and Lundstrom, M. 330 trabeculectomies--a follow-up study through 1/2-3 years. Acta Ophthalmol (Copenh) 77 ;
- 55 (1): 52-62 .
- **OAG can't be analyzed separately**
- "Jiang, B. and Jiang, Y. Q. [Long-term follow-up of mitomycin C in trabeculectomy]
- **Foreign language**

- "Jiang, Y.-L., Yuan, Z.-L., Zhang, W.-Z., Zhang, W.-W., and Li, Y. The clinical study on the change of corneal endothelial cells after viscocanalotomy and trabeculectomy
- **Foreign language**
- "John, K. D., Kloss, G., and Lubcke, P. [Occurrence of bronchial obstruction in asthma patients immediately following administration of timolol-containing eyedrops]. Prax Klin Pneumol 85 ;
- 39 (8): 281-3 .
- **It is a case series**
- "Johnson, D. H., Epstein, D. L., Allen, R. C., Boys-Smith, J., Campbell, D., Rosenquist, R., and Van Buskirk, E. M. A one-year multicenter clinical trial of pilocarpine gel. Am J Ophthalmol 84 ;
- 97 (6): 723-9 .
- **It is not a RCT and has less than 100 patients**
- "Johnson, D. H., Yoshikawa, K., Brubaker, R. F., and Hodge, D. O. The effect of long-term medical therapy on the outcome of filtration surgery. Am J Ophthalmol 94 ;117 (2): 139-48 .
- **OAG can't be analyzed separately**
- "Johnson, L. N. Medical vs surgical therapy in preventing visual field loss. Ophthalmology 2003 ;110 (2): 250-1 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Johnson, T. V., Fan, S., Zhan, G., Camras, C. B., and Toris, C. B. Efficacy and mechanisms of intraocular pressure reduction with latanoprost and timolol in participants with ocular hypertension: a comparison of 1 and 6 weeks of treatment. J Glaucoma 2010 ;19 (6): 356-64 .
- **It is not a RCT and has less than 100 patients**, **Data not abstractable**
- "Johnson, T. V., Toris, C. B., Fan, S., and Camras, C. B. Effects of central corneal thickness on the efficacy of topical ocular hypotensive medications. J Glaucoma 2008 ;17 (2): 89-99 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Jonas, J. B. Systemic carbonic anhydrase inhibitors have been used to reduce intraocular pressure in glaucoma patients unresponsive to other anti glaucomatous medical treatments. J Glaucoma 2001 ;
- 10 (5): 441 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Jonasson, F. Dangerous antihypertensive treatment. Br Med J 79 ;
- 2 (6199): 1218 .
- **It is a case series**
- "Jones, F. L. Jr and Ekberg, N. L. Exacerbation of asthma by timolol. N Engl J Med 79 ;301 (5): 270 .
- **It is a case series**
- "Jones, R. 3rd, Triana, M. I., Zaslow, K., and Sponsel, W. E. Uniocular drug trial. Ophthalmology 2005 ;112 (6): 1170; author reply 1170-1 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Jonescu-Cuypers, C. P, Roessler, G., Hellmich, M., and Diestelhorst, M. Comparing Efficacy of Xalacom™ and Cosopt™ on Intraocular Pressure and Optic Nerve Head Perfusion in Glaucoma Patients: A Randomized Cross-Over Trial
- **Meeting abstract**
- "Jonescu-Cuypers, C. P., Jacobi, P. C., Konen, W., and Krieglstein, G. K. [Primary viscocanalostomy versus trabeculectomy in caucasian patients with open-angel glaucoma: a prospective randomised trial]
- **Meeting abstract**
- "Jonescu-Cuypers, C., Jacobi, P., Konen, W., and Krieglstein, G. Primary viscocanalostomy versus trabeculectomy in white patients with open-angle glaucoma: A randomized clinical trial. Ophthalmology 2001 ;
- 108 (2): 254-8 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Jothi, R., Ismail, A. M., Senthamarai, R., and Pal, S. A comparative study on the efficacy, safety, and cost-effectiveness of bimatoprost/timolol and dorzolamide/timolol combinations in glaucoma patients
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Jothi, R., Ismail, A. M., Senthamarai, R., and Pal, S. A comparative study on the efficacy, safety, and cost-effectiveness of bimatoprost/timolol and dorzolamide/timolol combinations in glaucoma patients. Indian J Pharmacol 2010 ;
- 42 (6; status =RVS College of Pharmaceutical Sciences, Sulur, Coimbatore-641 402, Tamilnadu, India.): 362-5 .

- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Joyce, P. W. and Mills, K. B. A COMPARISON OF EQUIVALENT DOSAGE FORMS OF ACETAZOLAMIDE IN PRIMARY OPEN ANGLE GLAUCOMA
- **Meeting abstract**
- "Joyce, P. W. and Mills, K. B. Comparison of the effect of acetazolamide tablets and sustets on diurnal intraocular pressure in patients with chronic simple glaucoma. Br J Ophthalmol 90 ;74 (7): 413-6 .
- **It is not a RCT and has less than 100 patients**
- "Joyce, P. W. and Raj, P. S. Topical beta blockers and serum lipoproteins. Br J Ophthalmol 91 ;75 (8): 510-1 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Joyce, P. W. Taste disturbance with acetazolamide. Lancet 90 ;
- 336 (8728): 1446 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Joyce, P. W., Mills, K. B., Richardson, T., and Mawer, G. E. Equivalence of conventional and sustained release oral dosage formulations of acetazolamide in primary open angle glaucoma
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Juhas, T. [Argon laser trabeculoplasty--long-term results]
- **Foreign language**
- "Jurowski, P. and Gos, R. [Effectiveness of the combined surgical treatment for glaucoma and cataract]
- **Foreign language**
- "Juzych, M. S., Chopra, V., Banitt, M. R., Hughes, B. A., Kim, C., Goulas, M. T., and Shin, D. H. Comparison of long-term outcomes of selective laser trabeculoplasty versus argon laser trabeculoplasty in open-angle glaucoma. Ophthalmology 2004 ;111 (10): 1853-9 .
- **It is a case series**
- "Juzych, M. S., Chopra, V., Shin, D. H., Goulas, M. T., Shobit, R., Hughes, B. A., and Kim, C. Comparison of Long-term Outcome Between SLT and ALT in Chronic Open-Angle Glaucoma Patients
- **Meeting abstract**
- "Kaback, M., Geanon, J., Katz, G., Ripkin, D., and Przydryga, J. Ocular hypotensive efficacy of travoprost in patients unsuccessfully treated with latanoprost. Curr Med Res Opin 2004 ;20 (9): 1341-5 .
- **It is a case series**
- "Kaback, M., Scoper, S. V., Arzeno, G., James, J. E., Hua, S. Y., Salem, C., Dickerson, J. E., Landry, T. A., and Bergamini, M. V. Intraocular pressure-lowering efficacy of brinzolamide 1%/timolol 0.5% fixed combination compared with brinzolamide 1% and timolol 0.5%. Ophthalmology 2008 ;
- 115 (10): 1728-34, 1734.e1-2 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Kabiru, J., Bowman, R., Wood, M., and Mafwiri, M. Audit of trabeculectomy at a tertiary referral hospital in East Africa. J Glaucoma 2005 ;
- 14 (6): 432-4 .
- **It is a case series**
- "Kabuni, M., Maertens, K., and Missotten, L. [The effect of high-percent pilocarpine in the pigmented eye]

- **Foreign language**
- "Kaburaki, T., Koshino, T., Kawashima, H., Numaga, J., Tomidokoro, A., Shirato, S., and Araie, M. Initial trabeculectomy with mitomycin C in eyes with uveitic glaucoma with inactive uveitis. Eye (Lond) 2009 ;
- 23 (7): 1509-17 .
- **It is not a RCT and has less than 100 patients**
- "Kahana, A., Marcet, M. M., Albert, D. M., and Thliveris, A. T. Drug-induced cicatrising granulomatous conjunctivitis. Br J Ophthalmol 2007 ;
- 91 (5): 691-2 .

It is a case series

- "Kahook, M. Y. and Noecker, R. J. Fibrin glue-assisted glaucoma drainage device surgery. Br J Ophthalmol 2006 ;90 (12): 1486-9 .

It is not a RCT and has less than 100 patients

- "Kahook, M. Y. Bleb morphology and vascularity after trabeculectomy with intravitreal ranibizumab: a pilot study. Am J Ophthalmol 2010 ; 150 (3): 399-403.e1 .

Does not address any key questions

- "Kahook, M. Y., Lathrop, K. L., and Noecker, R. J. One-site versus two-site endoscopic cyclophotocoagulation. J Glaucoma 2007 ;16 (6): 527-30

It is not a RCT and has less than 100 patients

- "Kaiser, H. J., Flammer, J., Stumpfig, D., and Hendrickson, P. Longterm visual field follow-up of glaucoma patients treated with beta-blockers

Vass-2007

- "Kaiser, P. K., Pineda, R., Albert, D. M., and Shore, J. W. 'Black cornea' after long-term epinephrine use. Arch Ophthalmol 92 ;110 (9): 1273-5 .

It is a case series

- "Kaiserman, I., Fendyur, A., and Vinker, S. Topical beta blockers in asthmatic patients-is it safe?. Curr Eye Res 2009 ;34 (7): 517-22 .
- **Does not address any key questions**
- "Kaiya, T., Yuguchi, T., Sawaguchi, S., and Iwata, K. NON-PENETRATING LAMELLAR TRABECULAECTOMY WITH MMC APPLICATION FOR OPEN ANGLE GLAUCOMA
- **Meeting abstract**
- "Kalavala, M. and Statham, B. N. Allergic contact dermatitis from timolol and dorzolamide eye drops. Contact Dermatitis 2006 ;54 (6): 345 .

It is a case series

- "Kalenak, J., Ripkin, D., and Medendorp, S. A RANDOMIZED CONTROLLED TRIAL OF THE MOLTENO IMPLANT WITH AND WITHOUT MITOMYCIN-C

Meeting abstract

- "Kalra, B. R., Sood, N. N., and Agarwal, H. C. Hypersecretion glaucoma. Indian J Ophthalmol 84 ;32 (2): 109-11 .

No subjects with open-angle glaucoma

- "Kaluzny, J. J., Szaflik, J., Czechowicz-Janicka, K., Kaluzny, J., Orzalkiewicz, A., Zaleska, A., Krajewska, M., Stewart, J. A., Leech, J. N., and Stewart, W. C. Timolo 0.5% /dorzolamide 2% fixed combination versus timolol 0.5%/pilocarpine 2% fixed combination in primary open-angle glaucoma or ocular hypertensive patients. Acta Ophthalmol. Scand. 2003 ;81 (4): 349-354 .

Does not address any key questions

- "Kaluzny, J. J., Szaflik, J., Czechowicz-Janicka, K., Kaluzny, J., Orzalkiewicz, A., Zaleska, A., Krajewska, M., Stewart, J. A., Leech, J. N., and Stewart, W. C. Timolol 0.5%/dorzolamide 2% fixed combination versus timolol 0.5%/pilocarpine 2% fixed combination in primary open-angle glaucoma or ocular hypertensive patients. Acta Ophthalmol Scand 2003 ;81 (4): 349-54 .

Other (specify):pilocarpine

- "Kaluzny, J. J., Szaflik, J., Czechowicz-Janicka, K., Kaluzny, J., Orzalkiewicz, A., Zaleska-Zmijewska, A., Krajewska, M., Stewart, J. A., Leech, J. N., and Stewart, W. C. [Timolol 0.5%/dorzolamide 2% fixed combination versus timolol 0.5%/pilocarpine 2% fixed combination in primary open-angle glaucoma or ocular hypertensive patients]

Foreign language

- "Kaluzny, J., Sobecki, R., Czechowicz-Janicka, K., Kecik, D., Kaluzny, B. J., Stewart, J. A., and Stewart, W. C. Efficacy and safety of latanoprost versus pilocarpine/timolol maleate fixed combination in patients with primary open-angle glaucoma or ocular hypertension. Acta Ophthalmol 2008 ;86 (8): 860-5 .

Other (specify):pilocarpine

- "Kamal, D., Garway-Heath, D., Ruben, S., O'Sullivan, F., Bunce, C., Viswanathan, A., Franks, W., and Hitchings, R. Results of the betaxolol versus placebo treatment trial in ocular hypertension

Vass-2007

- "Kammer JA, Katzman B, Ackerman SL, and Hollander DA. Efficacy and tolerability of bimatoprost versus travoprost in patients previously on latanoprost: a 3-month, randomised, masked-evaluator, multicentre study. The British journal of ophthalmology 2010 ;94 (1): 74-9 .
- **OAG can't be analyzed separately**
- "Kammer, J. A., Katzman, B., Ackerman, S. L., and Hollander, D. A. Efficacy and tolerability of bimatoprost versus travoprost in patients previously on latanoprost: a 3-month, randomised, masked-evaluator, multicentre study
- **Medical KQ 3 only**
- "Kampik, A. and European Study Group. A COMPARISON OF THE EFFICACY AND SAFETY OF LATANOPROST (XALATAN®) WITH BRIMONIDINE (ALPHAGAN®) IN PATIENTS WITH OPEN ANGLE GLAUCOMA AND OCULAR HYPERTENSION
- **Meeting abstract**
- "Kampik, A., Arias-Puente, A., O'Brart, D. P., and Vuori, M. L. Intraocular pressure-lowering effects of latanoprost and brimonidine therapy in patients with open-angle glaucoma or ocular hypertension: a randomized observer-masked multicenter study
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Kandarakis, A., Soumplis, V., Karampelas, M., Panos, C., Kyriakos, N., Baxevanakis, A., and Karagiannis, D. Efficacy of brimonidine in

preventing intraocular pressure spikes following phacoemulsification in glaucoma patients. Eur J Ophthalmol 2010 ;

- 20 (6; status =1st Ophthalmology Department, Ophthalmiatrion Eye Hospital of Athens, Sina 2, Athens, Greece. artemiskandarakis@yahoo.gr): 994-9 .
- **Does not address any key questions**
- "Kang, R. X. [The intraocular pressure depressive effect of puerarin]. Zhonghua Yan Ke Za Zhi 93 ;
- 29 (6): 336-9 .
- **Does not address any key questions**
- "Kanner, E. M., Netland, P. A., Sarkisian, S. R. Jr, and Du, H. Ex-PRESS miniature glaucoma device implanted under a scleral flap alone or combined with phacoemulsification cataract surgery. J Glaucoma 2009 ;
- 18 (6): 488-91 .
- **OAG can't be analyzed separately**
- "Kano, K., Kuwayama, Y., and Mizunoya, H. [Clinical results of fornix-based trabeculectomy with a scleral tunnel]
- **Foreign language**
- "Kanzaki, T., Kato, N., Kabasawa, Y., Mizuno, N., Yuguchi, M., and Majima, A. Contact dermatitis due to the beta-blocker befunolol. Contact Dermatitis 88 ;19 (5): 388 .
- **It is a case series**
- "Kaplan-Messas, A., Cohen, Y., Blumenthal, E. Z., and Avni, I. Trabeculectomy and photo-trabeculectomy with and without peripheral iridectomy
  Duplicate "
- "Kardasis, C. T., Shin, D. H., Kim, C., Lee, C., Juzych, M. S., and Hughes, B. A. TOPICAL VERAPAMIL IN GLAUCOMA FILTERING SURGERY
- **Meeting abstract**
- "Karlik, J. S., Baker, K. S., and Dutt, R. M. COMPARISON OF LATANOPROST VERSES APRACLONIDINE AS PRETREATMENT IN EYES UNDERGOING ARGON LASER TRABECULOPLASTY
- **Meeting abstract**
- "Karlik, J. S., Barber, J. C., Humphreys, A., and Dutt, R. M. THE COMPARISON OF LATANOPROST VERSES APRACLONIDINE AS PRETREATMENT IN EYES UNDERGOING ARGON LASER TRABECULOPLASTY
- **Meeting abstract**
- "Karray, H. and Demailly, P. [Comparative study of long-term tonometry results of 2 surgical technics combining extraction of the crystalline lens and trabeculectomy]. Bull Soc Ophtalmol Fr 88 ;
- 88 (1): 59-62, 65 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Kashintseva, L. T. and Krivitskii, A. K. [The therapeutic efficacy of Arutimol in open-angle glaucoma]
- **Foreign language**
- "Kashintseva, L. T. and Teliushchenko, V. D. [Late observations on the effectiveness of a new antiglaucoma operation--""concealed"" sinusotrabeculotomy--in initial exfoliative glaucoma]
- **Foreign language**
- "Kashintseva, L. T., Mel'nik, L. S., and Salenko, S. V. [A comparative assessment of the effectiveness of sinusotrabeculotomy in different stages of open-angle glaucoma]
- **Foreign language**
- "Kashiwagi, K., Tsumura, T., and Tsukahara, S. Long-term effects of latanoprost monotherapy on intraocular pressure in Japanese glaucoma patients. J Glaucoma 2008 ;17 (8): 662-6 .
- **It is not a RCT and has less than 100 patients**
- "Kashkouli, M. B., Parvaresh, M. M., Mirzajani, H., Astaraki, A., Falavarjani, K. G., and Ahadian, A. Intraoperative mitomycin C use during filtration surgery and lacrimal drainage system obstruction. Am J Ophthalmol 2009 ;
- 147 (3): 453-457.e1 .
- **It is not a RCT and has less than 100 patients**
- "Kashkouli, M. B., Rezaee, R., Nilforoushan, N., Salimi, S., Foroutan, A., and Naseripour, M. Topical antiglaucoma medications and lacrimal drainage system obstruction. Ophthal Plast Reconstr Surg 2008 ;
- 24 (3): 172-5 .
- **OAG can't be analyzed separately**
- "Kass, M. A. Five-year follow-up study of timolol in patients at moderate risk of developing open-angle glaucoma. CHIBRET INT. J. OPHTHALMOL. 90 ;7 (1): 5-8 .
- **Other (specify):Duplicate** for RefId 9468"

- "Kass, M. A. The ocular hypertension treatment study. J. GLAUCOMA 94 ;3 (2): 97-100 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Kass, M. A. Timolol treatment prevents or delays glaucomatous visual field loss in individuals with ocular hypertension: a five-year, randomized, double-masked, clinical trial. Trans Am Ophthalmol Soc 89 ;
- 87 : 598-618 .
- **Other (specify):Duplicate** for RefId 9468"
- "Kass, M. A. Topical carbonic anhydrase inhibitors. Am J Ophthalmol 89 ;107 (3): 280-2 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Kass, M. A., Gordon, M. O., Gao, F., Heuer, D. K., Higginbotham, E. J., Johnson, C. A., Keltner, J. K., Miller, J. P., Parrish, R. K., and Wilson, M. R. Delaying treatment of ocular hypertension: the ocular hypertension treatment study. Arch Ophthalmol 2010 ;
- 128 (3): 276-87 .
- **Other (specify):Study design does not match KQ**
- "Kass, M. A., Gordon, M. O., Hoff, M. R., Parkinson, J. M., Kolker, A. E., and Hart, W. M. Topical timolol administration reduces the incidence of glaucomatous damage in ocular hypertensive individuals. A randomized, double-masked, long-term clinical trial (1)
- **Maier, 2005**
- "Kass, M. A., Gordon, M. O., Hoff, M. R., Parkinson, J. M., Kolker, A. E., Hart, W. M. Jr, and Becker, B. Topical timolol administration reduces the incidence of glaucomatous damage in ocular hypertensive individuals. A randomized, double-masked, long-term clinical trial (1). J Glaucoma 93 ;
- 2 Suppl A : 1-2 .
- **Data not abstractable**
- "Kass, M. A., Gordon, M. O., Hoff, M. R., Parkinson, J. M., Kolker, A. E., Hart, W. M. Jr, and Becker, B. Topical timolol administration reduces the incidence of glaucomatous damage in ocular hypertensive individuals. A randomized, double-masked, long-term clinical trial. Arch Ophthalmol 89 ;
- 107 (11): 1590-8 .
- **Other (specify):Duplicate** for RefId 9468"
- "Kass, M. A., Heuer, D. K., Higginbotham, E. J., Johnson, C. A., Keltner, J. L., Miller, J. P., Parrish, R. K. 2nd, Wilson, M. R., and Gordon, M. O. The Ocular Hypertension Treatment Study: a randomized trial determines that topical ocular hypotensive medication delays or prevents the onset of primary open-angle glaucoma
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Kass, M. A., Kolker, A. E., Gordon, M., Goldberg, I., Gieser, D. K., Krupin, T., and Becker, B. Acetazolamide and urolithiasis. Ophthalmology 81 ;
- 88 (3): 261-5 .
- **OAG can't be analyzed separately**
- "Kass, M. A., Korey, M., Gordon, M., and Becker, B. Timolol and acetazolamide. A study of concurrent administration
- **Unique comparators**
- "Kass, M. A., Mandell, A. I., and Goldberg, I. Dipivefrin and epinephrine treatment treatment of elevated intraocular pressure. A comparative study. ARCH. OPHTHALMOL. 79 ;97 (10): 1865-1866 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Kass, M. A., Meltzer, D. W., Gordon, M., Cooper, D., and Goldberg, J. Compliance with topical pilocarpine treatment. Am J Ophthalmol 86 ;
- 101 (5): 515-23 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Katz LJ, Cohen JS, Batoosingh AL, Felix C, Shu V, and Schiffman RM. Twelve-month, randomized, controlled trial of bimatoprost 0.01%, 0.0125%, and 0.03% in patients with glaucoma or ocular hypertension. American journal of ophthalmology 2010 ;149 (4): 661-671.e1 .
- **OAG can't be analyzed separately**
- "Katz, I. M. [Efficacy and safety of long-term maintenance treatment with timolol ophthalmic solution in chronic open-angle glaucoma (author's transl)]
- **Foreign language**
- "Katz, I. M. 5-FU trabeculectomy. Ophthalmology 92 ;99 (1): 3 .
- **Does not address any key questions**
- "Katz, J. L., Spaeth, G. L., Steinmann, W. C., Fahmy, I. A., Ali, M. A., and Gross, R. L. TOPICAL TRIFLURIDINE USE FOLLOWING FILTERING SURGERY: A RANDOMIZED PROSPECTIVE TRIAL

- **Meeting abstract**
- "Katz, L. J. and Brimonidine Outcomes Study Group. CLINICAL SUCCESS RATE AND QUALITY OF LIFE OF BRIMONIDINE 0.2% BID VERSUS TIMOLOL 0.5% BID IN NAIVE GLAUCOMA PATIENTS
- **Meeting abstract**
- "Katz, L. J. Brimonidine tartrate 0.2% Twice daily vs timolol 0.5% Twice daily: 1- year results in glaucoma patients
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Katz, L. J. Brimonidine tartrate 0.2% twice daily vs timolol 0.5% twice daily: 1-year results in glaucoma patients. Brimonidine Study Group
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Katz, L. J. Twelve-month evaluation of brimonidine-purite versus brimonidine in patients with glaucoma or ocular hypertension
- **Unique comparators**
- "Katz, L. J., Cantor, L. B., and Spaeth, G. L. Complications of surgery in glaucoma. Early and late bacterial endophthalmitis following glaucoma filtering surgery. Ophthalmology 85 ;92 (7): 959-63 .
- **It is not a RCT and has less than 100 patients**
- "Katz, L. J., Cohen, J. S., Batoosingh, A. L., Felix, C., Shu, V., and Schiffman, R. M. Twelve-month, randomized, controlled trial of bimatoprost 0.01%, 0.0125%, and 0.03% in patients with glaucoma or ocular hypertension
- **Unique comparators**
- "Katz, L., Lewis, R., Battosingh, A., and Liu, C. C. Bimatoprost/timolol Fixed Combination: A One-Year Double-Masked, Randomized Parallel Comparison to Its Individual Components in Patients With Glaucoma or Ocular Hypertension
- **Meeting abstract**
- "Kaufman, H. S. Timolol-induced vasomotor rhinitis: a new iatrogenic syndrome. Arch Ophthalmol 86 ;104 (7): 967, 970 .
- **Other (specify):**case report of harm"
- "Kaufman, P. L. The prostaglandin wars. Am J Ophthalmol 2003 ;
- 136 (4): 727-8 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Kaur, J. and Singh, G. A prospective comparison between trabeculectomy, Scheie's sclerostomy under scleral flap operation and thermal (Sub Scleral Scheie's) procedure. Indian J Ophthalmol 88 ;36 (4): 158-61 .
- **OAG can't be analyzed separately**
- "Kazakova, E. L. [Laser trabeculoplasty and the status of the crystalline lens in open-angle glaucoma]
- **Foreign language**
- "Kazakova, E. L. and Akopian, V. S. [Effect of laser therapy on visual function in primary open-angle glaucoma]
- **Foreign language**
- "Keates, E. U. and Stone, R. The effect of d-timolol on intraocular pressure in patients with ocular hypertension. Am J Ophthalmol 84 ;
- 98 (1): 73-8 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Keates, E. U. Evaluation of timolol maleate combination therapy in chronic open-angle glaucoma. Am J Ophthalmol 79 ;88 (3 Pt 2): 565-71 .
- **Does not address any key questions**
- "Keates, E. U., Friedland, B. R., Stewart, R. H., and Mandell, A. I. Carteolol hydrochloride: controlled evaluations of its ocular hypotensive efficacy relative to its vehicle, and, in combination with pilocarpine, relative to timolol. J Glaucoma 94 ;3 (4): 315-22 .
- **Other (specify):pilocarpine**
- "Kee, C. W. and Youn, D. H. The influence of miotics on the visual field. Korean J Ophthalmol 87 ;1 (1): 52-8 .
- **It is not a RCT and has less than 100 patients**
- "Keisu, M., Wiholm, B. E., Ost, A., and Mortimer, O. Acetazolamide-associated aplastic anaemia. J Intern Med 90 ;228 (6): 627-32 .
- **It is a case series**
- "Kendall, K., Mundorf, T., Nardin, G., Zimmerman, T. J., Hesse, R., and Lavin, P. Tolerability of timolol and betaxolol in patients with chronic open-angle glaucoma. Clin Ther 87 ;9 (6): 651-5 .
- **Data not abstractable**
- "Kendrick, R., Kollarits, C. R., and Khan, N. The results of ab interno laser thermal sclerostomy combined with cataract surgery versus trabeculectomy combined with cataract surgery 6 to 12 months postoperatively. Ophthalmic Surg Lasers 96 ;
- 27 (7): 583-6 .

- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Kent, A. R., Dubiner, H. B., Whitaker, R., Mundorf, T. K., Stewart, J. A., Cate, E. A., and Stewart, W. C. The efficacy and safety of diclofenac 0.1% versus prednisolone acetate 1% following trabeculectomy with adjunctive mitomycin-C. Ophthalmic Surg Lasers 98 ;29 (7): 562-9 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Kent, A. R., Vroman, D. T., Thomas, T. J., Hebert, R. L., and Crosson, C. E. Interaction of pilocarpine with latanoprost in patients with glaucoma and ocular hypertension. J Glaucoma 99 ;8 (4): 257-62 .
- **It is not a RCT and has less than 100 patients**
- "Kerstetter, J. R., Brubaker, R. F., Wilson, S. E., and Kullerstrand, L. J. Prostaglandin F2 alpha-1-isopropylester lowers intraocular pressure without decreasing aqueous humor flow. Am J Ophthalmol 88 ;
- 105 (1): 30-4 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Kessler, C. and Bishop, K. FIXED DRUG COMBINATION FOR GLAUCOMA TREATMENT
- **Meeting abstract**
- "Kessler, C. and Christ, T. Incidence of uveitis in glaucoma patients using metipranolol. J. GLAUCOMA 93 ;2 (3): 166-170 .
- **OAG can't be analyzed separately**
- "Khalili, M. A., Diestelhorst, M., and Krieglstein, G. K. [Long-term follow-up of 700 trabeculectomies]. Klin Monbl Augenheilkd 2000 ;
- 217 (1): 1-8; discussion 9 .
- **It is a case series**
- "Khalili, M. A., Diestelhorst, M., and Krieglstein, G. K. Long-term follow-up of 700 trabeculectomies: Langzeituntersuchung von 700 trabekulektomien
- **Foreign language**
- "Khan, A. M. and Jilani, F. A. Comparative results of limbal based versus fornix based conjunctival flaps for trabeculectomy. Indian J Ophthalmol 92 ;40 (2): 41-3 .
- **Data not abstractable**
- "Khatana, A., Craven, E. R., Mundorf, T. K., Liu, C. C., and Batoosingh, A. A Randomized,Controlled Comparison of Conjunctival Hyperemia in Patients Treated with Bimatoprost 0.01% or Vehicle Who Were Previously Controlled on Latanoprost
- **Meeting abstract**
- "Khaw, P. T, Grehn, F. J, and Overton, B. M. A Multicentre, Double-Masked, Randomised, Placebo-Control Study to Evaluate the Efficacy, Safety, and Tolerability of Subconjunctival Injections of 100 µG CAT-152 Human Anti-Tgfß2 Monoclonal Antibody as an Agent to Modulate Wound Healing Following First Time Trabeculectomy (Study 0102)

- **Meeting abstract**
- "Khaw, P., Grehn, F., Hollo, G., Overton, B., Wilson, R., Vogel, R., and Smith, Z. A phase III study of subconjunctival human anti-transforming growth factor beta(2) monoclonal antibody (CAT-152) to prevent scarring after first-time trabeculectomy. Ophthalmology 2007 ;114 (10): 1822-30 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Khouri, A. S., Willman, M., Fechtner, R. D., and Zimmerman, T. J. 5-Fluorouracil in primary combined glaucoma surgery. Ophthalmology 97 ;
- 104 (10): 1527-8 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Khurana, A. K., Chawla, U., Passi, N., Jyoti, Archana, and Yogesh. A comparative study of combined small-incision cataract surgery with sutureless trabeculectomy versus trabeculectomy using W-shaped incision. Nepal J Ophthalmol 2011 ;
- 3 (5; status =Regional Institute of Ophthalmology, Pt BD Sharma, Post Graduate Institute of Medical Sciences, Rohtak, Haryana, India.): 13-8 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Kim, C. Y., Hong, S., and Seong, G. J. Brimonidine 0.2% versus brimonidine Purite 0.15% in Asian ocular hypertension
- **Unique comparators**
- "Kim, D. M. and Lim, K. H. Aqueous shunts: single-plate Molteno vs ACTSEB. Acta Ophthalmol Scand 95 ;73 (3): 277-80 .
- **Data not abstractable**
- "Kim, H. J. and Cho, B. J. Long-Term Effect of Latanoprost on Central Corneal Thickness in Normal Tension Glaucoma. J Ocul Pharmacol Ther 2010 ;

- **Does not address any key questions**
- "Kim, H. K., Kim, C. Y., Lim, C. S., Lee, J. H., and Hong, Y. J. EFFECTS ON INTRAOCULAR PRESSURE AND ADVERSE EFFECTS OF LATANOPROST. A COMPARISON WITH TIMOLOL. PASE III STUDY IN KOREA
- **Meeting abstract**
- "Kim, H. Y., Egbert, P. R., and Singh, K. Long-term comparison of primary trabeculectomy with 5-fluorouracil versus mitomycin C in West Africa. J Glaucoma 2008 ;17 (7): 578-83 .
- **It is not a RCT and has less than 100 patients**
- "Kim, J. W., Jung, C. I., and Hwang, H. S. Comparative study of three phacotrabeculectomy procedures through a single incision. Korean J Ophthalmol 98 ;12 (1): 30-6 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Kim, P. and Lertsumikul, S. Cystoid macular oedema associated with brimonidine therapy. Clin Experiment Ophthalmol 2003 ;31 (2): 165-6 .
- **It is a case series**
- "Kim, Y. Y, Glover, B., Shin, D. H, Lee, D., and Fluorometholone-ALT Study Group. Effect of Topical Anti-Inflammatory Treatment on the Long-Term Outcome of Laser Trabeculoplasty
- **Meeting abstract**
- "Kim, Y. Y., Glover, B. K., Shin, D. H., Lee, D., Frenkel, R. E., and Abreu, M. M. Effect of topical anti-inflammatory treatment on the long-term outcome of laser trabeculoplasty. Fluorometholone-Laser Trabeculoplasty Study Group. Am J Ophthalmol 98 ;126 (5): 721-3 .
- **Does not address any key questions**
- "Kimal Arici, M., Topalkara, A., and Guler, C. Additive effect of latanoprost and dorzolamide in patients with elevated intraocular pressure. Int Ophthalmol 98 ;
- 22 (1): 37-42 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Kinshuck, D. Glauline (metipranolol) induced uveitis and increase in intraocular pressure. Br J Ophthalmol 91 ;75 (9): 575 .
- **It is a case series**
- "Kirkness, C. M., Steele, A. D., Ficker, L. A., and Rice, N. S. Coexistent corneal disease and glaucoma managed by either drainage surgery and subsequent keratoplasty or combined drainage surgery and penetrating keratoplasty. Br J Ophthalmol 92 ;76 (3): 146-52 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Kirwan, J. F., Cousens, S., Venter, L., Cook, C., Stulting, A., Roux, P., and Murdoch, I. Effect of beta radiation on success of glaucoma drainage surgery in South Africa: randomised controlled trial
- **Kirwan 2009**
- "Kirwan, J. F., Rennie, C., and Evans, J. R. Beta radiation for glaucoma surgery
- **Systematic review**
- "KITAZAWA Yoshiaki, AZUMA Ikuo, and ARAIE Makoto. Clinical evaluation of betaxolol hydrochloride in the treatment of primary open angle glaucoma and ocular hypertension. Multi-center double-masked study in comparison with timolol. Rinsho Hyoka (Clinical Evaluation) 89 ;17 (2): 243-274 .
- **Other (specify):**foreign language"
- "Kitazawa, Y. An open-label multicenter study on the efficacy and safety of topical use of latanoprost for 156 weeks
- **Foreign language**
- "Kitazawa, Y. and Tsuchisaka, H. Effects of timolol on corneal sensitivity and tear production. Int Ophthalmol 80 ;3 (1): 25-9 .
- **Does not address any key questions**
- "Kitazawa, Y. Multicenter double-blind comparison of carteolol and timolol in primary open-angle glaucoma and ocular hypertension. ADV. THER. 93 ;
- 10 (3): 95-131 .
- **Other (specify):**Age distributions show >5% below 40"
- "Kitazawa, Y. Phase III comparative study of MK-507 ophthalmic solution in primary open-angle glaucoma and ocular hypertension. FOLIA OPHTHALMOL. JPN. 94 ;45 (9): 1023-1033 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Kitazawa, Y. Prophylactic therapy of ocular hypertension. A prospective study. Trans Ophthalmol Soc N Z 81 ;33 : 30-2 .
- **It is not a RCT and has less than 100 patients**
- "Kitazawa, Y., Azuma, I., Iwata, K., Tsukahara, S., Shiose, Y., Araie, M., Shirato, S., Mizogami, K., Mishima, H., Futa, R., and Komemushi, S.

Dorzolamide, A Topical Carbonic Anhydrase Inhibitor: A Two-Week Dose-Response Study in Patients with Glaucoma or Ocular Hypertension. J Glaucoma 94 ;

- 3 (4): 275-279 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Kitazawa, Y., Azuma, I., Shirato, S., Tsukahara, S., Mishima, H., Mizogami, K., Ogawa, N., and Odo, S. [Phase III Clinical Study of AG-901 Ophthalmic Solution on Primary Open-Angle Glaucoma and Ocular Hypertension: A Multicenter, Double-Blind Comparison with 0.5% Timolol Maleate]. Rinsho Iyaku (Journal of Clinical Therapeutics and Medicines) 97 ;13 (11): 2975-91 .
- **Does not address any key questions**
- "Kitazawa, Y., Kawase, K., Matsushita, H., and Minobe, M. Trabeculectomy with mitomycin. A comparative study with fluorouracil. Arch Ophthalmol 91 ;
- 109 (12): 1693-8 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Kitazawa, Y., Suemori-Matsushita, H., Yamamoto, T., and Kawase, K. Low-dose and high-dose mitomycin trabeculectomy as an initial surgery in primary open-angle glaucoma. Ophthalmology 93 ;100 (11): 1624-8 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Kitazawa, Y., Taniguchi, T., Nakano, Y., Shirato, S., and Yamamoto, T. 5-Fluorouracil for trabeculectomy in glaucoma. Graefes Arch Clin Exp Ophthalmol 87 ;225 (6): 403-5 .
- **It is not a RCT and has less than 100 patients**
- "Kitazawa, Y., Tsukahara, S., Abe, H., Araie, M., and Nakashima, M. [Prolonged Ocular Hypotensive Effect of WP-934 in Primary Open-Angle Glaucoma and Ocular Hypertensive Patients]. Rinsho Iyaku (Journal of Clinical Therapeutics and Medicines) 96 ;12 (12): 2703-15 .
- **Does not address any key questions**
- "Kitnarong, N., Zhao, Y., Netland, P. A., and Kent, A. R. Efficacy of latanoprost and timolol maleate in black and white patients
- **Medical KQ 3 only**
- "Kitsos, G., Aspiotis, M., Alamanos, Y., and Psilas, K. Results of a modified non-penetrating deep sclerectomy in the treatment of open angle glaucoma with or without cataract. 2010 ;4 (1): 695-701 695-701.
- **Does not address any key questions**
- "Kjellgren, D., Douglas, G., Mikelberg, F. S., Drance, S. M., and Alm, A. The short-time effect of latanoprost on the intraocular pressure in normal pressure glaucoma. Acta Ophthalmol Scand 95 ;73 (3): 233-6 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Klein, H. Z., Lugo, M., Shields, M. B., Leon, J., and Duzman, E. A dose-response study of piloplex for duration of action. Am J Ophthalmol 85 ;
- 99 (1): 23-6 .
- **Other (specify):pilocarpine**
- "Kleinmann, G., Katz, H., Pollack, A., Schechtman, E., Rachmiel, R., and Zalish, M. Comparison of trabeculectomy with mitomycin C with or without phacoemulsification and lens implantation. Ophthalmic Surg Lasers 2002 ;33 (2): 102-8 .
- **Does not address any key questions**
- "Knapp, E. and Kossionis, P. [Comparative study of 2 percent and 4 percent pilocarpine in the treatment of simple glaucoma]. Klin Monbl Augenheilkd 68 ;153 (3): 391-3 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Kobayashi, H. and Kobayashi, K. Viscocanalostomy vs. Trabeculectomy with Mitomycin: A Randomized Comparison of Safety and 10P-lowering Effect
- **Meeting abstract**
- "Kobayashi, H., Iwakiri, R., Kobayashi, K., and Okinami, S. [Hypotensive effect of unoprostone as adjunct to latanoprost during multiple drug therapy for glaucoma]
- **Foreign language**
- "Kobayashi, H., Kobayashi, K., and Okinami, S. A comparison of intraocular pressure-lowering effect of prostaglandin F2 -alpha analogues, latanoprost, and unoprostone isopropyl. J Glaucoma 2001 ;
- 10 (6): 487-92 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**

- "Kobayashi, H., Kobayashi, K., and Okinami, S. A comparison of the intraocular pressure-lowering effect and safety of viscocanalostomy and trabeculectomy with mitomycin C in bilateral open-angle glaucoma
- **Cheng 2009 and Chai 2010**
- "Kobayashi, H., Kobayashi, K., and Okinami, S. Efficacy of bunazosin hydrochloride 0.01% as adjunctive therapy of latanoprost or timolol. J Glaucoma 2004 ;13 (1): 73-80 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Kobelt, G., Jonsson, L., Gerdtham, U., and Krieglstein, G. K. Direct costs of glaucoma management following initiation of medical therapy. A simulation model based on an observational study of glaucoma treatment in Germany. Graefes Arch Clin Exp Ophthalmol 98 ;236 (11): 811-21 .
- **Does not address any key questions**
- "Kobzeva, V. I., Kolotkova, A. I., and Golovachev, I. u. F. Clinical characteristics and results of conservative treatment of glaucoma with pseudoexfoliations]
- **Foreign language**
- "Kodjikian, L., Durand, B., Burillon, C., Rouberol, F., Grange, J. D., and Renaudier, P. Acetazolamide-induced thrombocytopenia. Arch Ophthalmol 2004 ;122 (10): 1543-4 .
- **It is a case series**
- "Koeller, A. U., Pillunat, L. E., Mueller, M. F., Mollenhauer, K. A., and Boehm, A. G. Comparison of Different Topical Beta blockers With Regard to Their Effect on Ocular Hemodynamics and Optic Nerve Head Blood Flow in Glaucoma Patients
  Meeting abstract
- "Koeller, A. U., Pillunat, L. E., Schmidt, J., Boehm, A. G., and Allmeier, H. J. EFFECT OF DIFFERENT BETA-BLOCKERS ON OCULAR HEMODYNAMICS, HYDRODYNAMICS AND OPTC NERVE HEAD BLOOD FLOW IN GLAUCOMA PATIENTS
- **Meeting abstract**
- "Koerber, N. J. Canaloplasty in One Eye Compared With Viscocanalostomy in the Contralateral Eye in Patients With Bilateral Open-angle Glaucoma. J Glaucoma 2011 ;
- **It is a case series**
- "Kohler, U. and Schmoger, E. [Follow-up of cases of suspected glaucoma (author's transl)]. Klin Monbl Augenheilkd 75 ;
- 166 (1): 11-7 .
- **Does not address any key questions**
- "Kolesnikova, L. N. [Formation of the pathway for outflow of intraocular fluid after trabeculectomy]
- **Foreign language**
- "Kolker, A. E., Kass, M. A., and Rait, J. L. Trabeculectomy with releasable sutures. Arch Ophthalmol 94 ;112 (1): 62-6 .
- **Does not address any key questions**
- "Kolker, A. E., Kass, M. A., and Rait, J. L. Trabeculectomy with releasable sutures. Trans Am Ophthalmol Soc 93 ;
- 91 : 131-41; discussion 141-5 .
- **Other (specify):Not a comparison of interest**
- "Koller, T. L. F., Sturmer, J., and Gloor, B. Risk factors for trabeculectomy failure: Risikofaktoren fur das versagen einer trabekulektomie
- **Duplicate** "
- "Koller, T. L., Sturmer, J., and Gloor, B. [Risk factors for trabeculectomy failure]
- **Foreign language**
- "Koller, T., Sturmer, J., Reme, C. H., Gloor, B., and Fellman, R. Membrane formation in the chamber angle after failure argon laser trabeculoplasty: Analysis of risk factors. Evid.-Based Eye Care 2001 ;
- 2 (2): 104-105 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Konstas, A. G P, Holmes, K. T, and Stewart, W. C. A compariosn of the efficacy and safety of latanoprost 0.005% every evening versus timolol/dorzolamide fixed combination twice daily
  Meeting abstract
- "Konstas, A. G. P., Lake, S., Maltezos, T., Holmes, K. T., and Stweart, W. C. LATANOPROST COMPARED TO PILOCARPINE AS THIRD LINE THERAPY IN EXFOLIATION GLAUCOMA
- **Meeting abstract**
- "Konstas, A. G. P., Mantziris, D. A., Maltezos, A., Cate, E. A., and Stewart, W. C. Comparison of 24 hour control with Timoptic(registered trademark) 0.5% and Timoptic-XE(TM) 0.5% in exfoliation and primary open-angle glaucoma. Acta Ophthalmol. Scand. 99 ;
- 77 (5): 541-543 .

- **It is not a RCT and has less than 100 patients**
- "Konstas, A. G., Banyai, L., Blask, K. D., Vath, J., Kozobolis, V. P., Trub, P. R., Tsironi, S., Maloutas, S., Teus, M. A., and Stewart, W. C. Intraocular pressure and safety in glaucoma patients switching to latanoprost/timolol maleate fixed combination from mono- and adjunctive therapies
- **Excluded drug**
- "Konstas, A. G., Boboridis, K., Tzetzi, D., Kallinderis, K., Jenkins, J. N., and Stewart, W. C. Twenty-four-hour control with latanoprost-timolol-fixed combination therapy vs latanoprost therapy. Arch Ophthalmol 2005 ;123 (7): 898-902 .
- **Does not address any key questions**
- "Konstas, A. G., Hollo, G., Astakhov, Y. S., Teus, M. A., Akopov, E. L., Jenkins, J. N., and Stewart, W. C. Factors associated with long-term progression or stability in exfoliation glaucoma. Arch Ophthalmol 2004 ;
- 122 (1): 29-33 .
- **Does not address any key questions**
- "Konstas, A. G., Hollo, G., Irkec, M., Tsironi, S., Durukan, I., Goldenfeld, M., and Melamed, S. Diurnal IOP control with bimatoprost versus latanoprost in exfoliative glaucoma: a crossover, observer-masked, three-centre study
- **Stewart 2010**
- "Konstas, A. G., Hollo, G., Mikropoulos, D., Tsironi, S., Haidich, A. B., Embeslidis, T., Georgiadou, I., Irkec, M., and Melamed, S. Twenty-four-hour intraocular pressure control with bimatoprost and the bimatoprost/timolol fixed combination administered in the morning, or evening in exfoliative glaucoma
- **Non-FDA-approved drug combination**
- "Konstas, A. G., Irkec, M. T., Teus, M. A., Cvenkel, B., Astakhov, Y. S., Sharpe, E. D., Hollo, G., Mylopoulos, N., Bozkurt, B., Pizzamiglio, C., Potyomkin, V. V., Alemu, A. M., Nasser, Q. J., Stewart, J. A., and Stewart, W. C. Mean intraocular pressure and progression based on corneal thickness in patients with ocular hypertension. Eye (Lond) 2009 ; 23 (1): 73-8 .
- **Does not address any key questions**
- "Konstas, A. G., Karabatsas, C. H., Lallos, N., Georgiadis, N., Kotsimpou, A., Stewart, J. A., and Stewart, W. C. 24-hour intraocular pressures with brimonidine purite versus dorzolamide added to latanoprost in primary open-angle glaucoma subjects. Ophthalmology 2005 ;112 (4): 603-8 .
- **Other (specify):**applies to KQ3 but not RCT"
- "Konstas, A. G., Katsimbris, J. M., Lallos, N., Boukaras, G. P., Jenkins, J. N., and Stewart, W. C. Latanoprost 0.005% versus bimatoprost 0.03% in primary open-angle glaucoma patients

  Stewart 2010
- "Konstas, A. G., Katsimpris, I. E., Kaltsos, K., Georgiadou, I., Kordelou, A., Nelson, L. A., and Stewart, W. C. Twenty-four-hour efficacy of the brimonidine/timolol fixed combination versus therapy with the unfixed components

  Unique comparators
- "Konstas, A. G., Kozobolis, V. P., Katsimpris, I. E., Boboridis, K., Koukoula, S., Jenkins, J. N., and Stewart, W. C. Efficacy and safety of latanoprost versus travoprost in exfoliative glaucoma patients

  Medical KQ 3 or KQ 3 and KQ 6 only
- "Konstas, A. G., Kozobolis, V. P., Lallos, N., Christodoulakis, E., Stewart, J. A., and Stewart, W. C. Daytime diurnal curve comparison between the fixed combinations of latanoprost 0.005%/timolol maleate 0.5% and dorzolamide 2%/timolol maleate 0.5%. Eye (Lond) 2004 ;18 (12): 1264-9

  Other (specify):applies to KQ3 but not RCT"
- "Konstas, A. G., Kozobolis, V. P., Tersis, I., Leech, J., and Stewart, W. C. The efficacy and safety of the timolol/dorzolamide fixed combination vs latanoprost in exfoliation glaucoma

  Just KQ 2 and/or 5 "
- "Konstas, A. G., Kozobolis, V. P., Tsironi, S., Makridaki, I., Efremova, R., and Stewart, W. C. Comparison of the 24-hour intraocular pressure-lowering effects of latanoprost and dorzolamide/timolol fixed combination after 2 and 6 months of treatment

  Stewart 2010
- "Konstas, A. G., Lake, S., Economou, A. I., Kaltsos, K., Jenkins, J. N., and Stewart, W. C. 24-Hour control with a latanoprost-timolol fixed combination vs timolol alone. Arch Ophthalmol 2006 ;124 (11): 1553-7 .

  Other (specify):not approved combi"
- "Konstas, A. G., Lake, S., Economou, A. I., Kaltsos, K., Jenkins, J. N., and Stewart, W. C. 24-Hour Control With the Latanoprost/Timolol Maleate Fixed Combination versus Timolol Maleate

  Meeting abstract

- "Konstas, A. G., Lake, S., Maltezos, A. C., Holmes, K. T., and Stewart, W. C. Twenty-four hour intraocular pressure reduction with latanoprost compared with pilocarpine as third-line therapy in exfoliation glaucoma
  Excluded drug
- "Konstas, A. G., Maltezos, A. C., Gandi, S., Hudgins, A. C., and Stewart, W. C. Comparison of 24-hour intraocular pressure reduction with two dosing regimens of latanoprost and timolol maleate in patients with primary open-angle glaucoma
  Stewart 2010
- "Konstas, A. G., Maltezos, A., Bufidis, T., Hudgins, A. G., and Stewart, W. C. Twenty-four hour control of intraocular pressure with dorzolamide and timolol maleate in exfoliation and primary open-angle glaucoma. Eye (Lond) 2000 ;14 (Pt 1) : 73-7 .
  It is not a RCT and has less than 100 patients
- "Konstas, A. G., Maltezos, A., Mantziris, D. A., Sine, C. S., and Stewart, W. C. The comparative ocular hypotensive effect of apraclonidine with timolol maleate in exfoliation versus primary open-angle glaucoma patients. Eye (Lond) 99 ;13 (Pt 3a) : 314-8 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Konstas, A. G., Mantziris, D. A., Cate, E. A., and Stewart, W. C. Effect of timolol on the diurnal intraocular pressure in exfoliation and primary open-angle glaucoma. Arch Ophthalmol 97 ;115 (8): 975-9 .
  Other (specify):Study design does not match KQ
- "Konstas, A. G., Mantziris, D. A., Maltezos, A., Cate, E. A., and Stewart, W. C. Comparison of 24 hour control with Timoptic 0.5% and Timoptic-XE 0.5% in exfoliation and primary open-angle glaucoma. Acta Ophthalmol Scand 99 ;77 (5): 541-3 .
  It is not a RCT and has less than 100 patients
- "Konstas, A. G., Mikropoulos, D. G., Embeslidis, T. A., Dimopoulos, A. T., Papanastasiou, A., Haidich, A. B., and Stewart, W. C. 24-h Intraocular pressure control with evening-dosed travoprost/timolol, compared with latanoprost/timolol, fixed combinations in exfoliative glaucoma
  Non-FDA-approved drug combination
- "Konstas, A. G., Mikropoulos, D., Dimopoulos, A. T., Moumtzis, G., Nelson, L. A., and Stewart, W. C. Second-line therapy with dorzolamide/timolol or latanoprost/timolol fixed combination versus adding dorzolamide/timolol fixed combination to latanoprost monotherapy
  Medical KQ 3 only
- "Konstas, A. G., Mikropoulos, D., Haidich, A. B., Ntampos, K. S., and Stewart, W. C. Twenty-four-hour intraocular pressure control with the travoprost/timolol maleate fixed combination compared with travoprost when both are dosed in the evening in primary open-angle glaucoma
  Non-FDA-approved drug combination
- "Konstas, A. G., Mikropoulos, D., Kaltsos, K., Jenkins, J. N., and Stewart, W. C. 24-hour intraocular pressure control obtained with evening- versus morning-dosed travoprost in primary open-angle glaucoma
  Unique comparators
- "Konstas, A. G., Mylopoulos, N., Karabatsas, C. H., Kozobolis, V. P., Diafas, S., Papapanos, P., Georgiadis, N., and Stewart, W. C. Diurnal intraocular pressure reduction with latanoprost 0.005% compared to timolol maleate 0.5% as monotherapy in subjects with exfoliation glaucoma
  Stewart 2010
- "Konstas, A. G., Nakos, E., Tersis, I., Lallos, N. A., Leech, J. N., and Stewart, W. C. A comparison of once-daily morning vs evening dosing of concomitant latanoprost/timolol

- **Non-FDA-approved drug combination**
- "Konstas, A. G., Papapanos, P., Tersis, I., Houliara, D., and Stewart, W. C. Twenty-four-hour diurnal curve comparison of commercially available latanoprost 0.005% versus the timolol and dorzolamide fixed combination
  Stewart 2010
- "Konstas, A. G., Pikilidou, M. I., Tsironi, S., Mikropoulos, D., Kozobolis, V. P., Sarafidis, P. A., Lasaridis, A. N., Nelson, L. A., and Stewart, W. C. 24-hour intraocular pressure and blood pressure levels with latanoprost/timolol fixed combination versus timolol. Curr Eye Res 2009 34 (5): 369-77 .
  Other (specify):not FDA approved"
- "Konstas, A. G., Stewart, W. C., Stroman, G. A., and Sine, C. S. Clinical presentation and initial treatment patterns in patients with exfoliation glaucoma versus primary open-angle glaucoma. Ophthalmic Surg Lasers 97 ;28 (2): 111-7 .
- **It is not a RCT and has less than 100 patients**
- "Konstas, A. G., Stewart, W. C., Topouzis, F., Tersis, I., Holmes, K. T., and Stangos, N. T. Brimonidine 0.2% given two or three times daily versus timolol maleate 0.5% in primary open-angle glaucoma
- **Medical KQ 3 only**

- "Konstas, A. G., Tsironi, S., Vakalis, A. N., Nasr, M. B., Nelson, L. A., and Stewart, W. C. 24-Hour Intraocular Pressure Control Obtained With Evening versus Morning Dosed Travoprost/Timolol Maleate Fixed Combination in Patients With Open-Angle Glaucoma
  Meeting abstract
- "Konstas, A. G., Tsironi, S., Vakalis, A. N., Nasr, M. B., Stewart, J. A., Nelson, L. A., and Stewart, W. C. Intraocular pressure control over 24 hours using travoprost and timolol fixed combination administered in the morning or evening in primary open-angle and exfoliative glaucoma. Acta Ophthalmol 2009 ;87 (1): 71-6 .
  Other (specify):Not a comparison of interest
- "Kooner, K. S. and Zimmerman, T. J. Management of acute elevated intraocular pressure: Part II. Treatment. Ann Ophthalmol 88 ;
- 20 (3): 87-8 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Korte, J. M., Kaila, T., and Saari, K. M. Systemic bioavailability and cardiopulmonary effects of 0.5% timolol eyedrops. Graefes Arch Clin Exp Ophthalmol 2002 ;240 (6): 430-5 .
  No subjects with open-angle glaucoma
- "Kosmin, A. S., Wishart, P. K., and Ridges, P. J. Long-term intraocular pressure control after cataract extraction with trabeculectomy: phacoemulsification versus extracapsular technique. J Cataract Refract Surg 98 ;24 (2): 249-55 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
  "Kosmin, A. S., Wishart, P. K., and Ridges, P. J. Silicone versus poly(methyl methacrylate) lenses in combined phacoemulsification and trabeculectomy. J Cataract Refract Surg 97 ;23 (1): 97-105 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Kotecha, A., Spratt, A., Bunce, C., Garway-Heath, D. F., Khaw, P. T., and Viswanathan, A. Optic disc and visual field changes after trabeculectomy. Invest Ophthalmol Vis Sci 2009 ;50 (10): 4693-9 .
  Other (specify):I can't tell what types of glaucoma the subjects had"
- "Kotecha, A., Spratt, A., Garway-Heath, D. F., Khaw, P. T., Viswanathan, A. C., and MoreFlow Study Group. The Influence of IOP on Structural and Functional Changes Following Trabeculectomy- Results From the MoreFlow Study
  Meeting abstract
- "Kotecha, A., White, E., Schlottmann, P. G., and Garway-Heath, D. F. Intraocular pressure measurement precision with the Goldmann applanation, dynamic contour, and ocular response analyzer tonometers
  Systematic review
- "Kothe, A. C., Ripp, K. M., Sharma, V., Von Tress, M. S., DeSantis, L., Bergamini, M. V. W., and Robertson, S. M. IOP-Lowering Efficacy and Safety of Travoprost DID vs. Concomitantly Dosed Travoprost and Brimonidine BID vs. Placebo BID in Patients with Open-Angle Glaucoma or Ocula Hypertension
  Meeting abstract
- "Kothy, P., Toth, M., and Hollo, G. Influence of selective laser trabeculoplasty on 24-hour diurnal intraocular pressure fluctuation in primary open-angle glaucoma: a pilot study. Ophthalmic Surg Lasers Imaging 2010 ;41 (3): 342-7 .
  It is not a RCT and has less than 100 patients
- "Kountouras, J., Zavos, C., and Chatzopoulos, D. Ocular and systemic side effects of latanoprost. Eye (Lond) 2005 ;19 (7): 804-5; author reply 805-6 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Kovacic, Z., Ivanisevic, M., Stanic, R., Bojic, L., Capkun, V., and Rogosica, V. [Additive therapy with carboanhydrase inhibitors for open angle glaucoma previously treated with timolol 0.5% drops]
  Foreign language
- "Koz, O. G., Ozsoy, A., Yarangumeli, A., Kose, S. K., and Kural, G. Comparison of the effects of travoprost, latanoprost and bimatoprost on ocular circulation: a 6-month clinical trial
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Kozobolis, V. P., Christodoulakis, E. V., Tzanakis, N., Zacharopoulos, I., and Pallikaris, I. G. Primary deep sclerectomy versus primary deep sclerectomy with the use of mitomycin C in primary open-angle glaucoma
  Cheng 2009
- "Kozobolis, V. P., Konstas, A. G. P., Makridaki, I., Efremova, R., and Stewart, W. C. 24-Hour Intraocular Pressure Evaluation of the Dorzolamide/Timolol Maleate Fixed Combination versus Latanoprost
  Meeting abstract
- "Kozuchowska, I. and Wolska-Borowska, E. [Evaluation of the results of treatment of glaucoma with timolol]
  Foreign language

- "Krasnov, M. M. and Naumidi, L. P. Contact transscleral laser cyclocoagulation in glaucoma. Ann Ophthalmol 90 ;22 (9): 354-8 .
  It is not a RCT and has less than 100 patients
- "Krasnov, M. M., Akopian, V. S., Il'ina, T. S., and Kazakova, E. L. [Laser treatment of primary open-angle glaucoma. Randomized comparative studies. Cyclotrabeculospasis and trabeculoplasty]
  Foreign language
- "Krasnov, M. M., Kraus, G., Akopian, V. S., Kazakova, E. L., and Ruzhichkova, E. [Effectiveness of laser trabeculoplasty in primary open-angle and pseudoexfoliative glaucoma]
  Foreign language
- "Krause, K., Kuchle, H. J., and Baumgart, M. [Comparative studies of pilocarpine gel and pilocarpine eyedrops]

  Foreign language
- "Krieglstein, G. K. [Adrenergic therapy of glaucoma]. Fortschr Ophthalmol 88 ;85 (2): 125-9 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Krieglstein, G. K. [Drug tolerance of glaucomatous eyes to beta-receptor blockers]. Ber Zusammenkunft Dtsch Ophthalmol Ges 78 ;(75): 357-60 .
  It is not a RCT and has less than 100 patients
- "Krieglstein, G. K. [The effect of timolol eye drops on the intraocular pressure in simple glaucoma (author's transl)]. Klin Monbl Augenheilkd 78 ;172 (5): 677-85 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Krieglstein, G. K. and Fleig, H. [Nadolol/Timolol: A comparison of two different beta blockers in cronic glaucoma]
  Foreign language
- "Krieglstein, G. K., Novack, G. D., Voepel, E., Schwarzbach, G., Lange, U., Schunck, K. P., Lue, J. C., and Glavinos, E. P. Levobunolol and metipranolol: comparative ocular hypotensive efficacy, safety, and comfort
  Unique comparators
- "Krishnan, R., Kumar, N., and Wishart, P. K. Viscocanalostomy for refractory glaucoma secondary to intravitreal triamcinolone acetonide injection. Arch Ophthalmol 2007 ;125 (9): 1284-6 .
  It is a case series
- "Krist, P., Fric, E., Al Marei, S., and Zapletalova, J. [Deep perforating trabeculectomy--results after up to six years follow-up]
  Foreign language
- "Kristinsson, A. Fatal reaction to acetazolamide. Br J Ophthalmol 67 ; 51 (5): 348-9 .
  It is a case series
- "Krivitskii, A. K. and Kozina, L. V. [The late results of the surgical treatment of glaucoma in patients with atherosclerosis and diabetes mellitus]
  Foreign language
- "Krohn, J. and Hove, V. K. Recurring iris pigment epithelial cyst induced by topical prostaglandin F2 alpha analogues. Arch Ophthalmol 2008 ; 126 (6): 867-8 .
  It is a case series
- "Kronfeld, P. C. The efficacy of combinations of ocular hypotensive drugs. A tonographic approach. Arch Ophthalmol 67 ;78 (2): 140-6 .
  Does not address any key questions
- "Krott, R., Diestelhost, M., Zollweg, M., and Krieglstein, G. K. [Dose-response relationship of trans-scleral contact cyclophotocoagulation]. Ophthalmologe 97 ;94 (4): 273-6 .
  It is a case series
- "Krug Jr., J., Chiavelli, M., Borawski, G., Devaney, M., Epstein, D., Berson, F., Latina, M., Melamed, S., Berry, I., Evans, C., Johnson, E., Joyner, M., Kittay, R., Lindenmeyer, A., McGee, R., Piva-Bowe, D., Smith, T. J., Stout, K., and Way, R. The Glaucoma Laser Trial (GLT) and glaucoma laser trial follow-up study: 7. Results
  Duplicate "
- "Kruger, A., Hille, K., Kohlhof, K., Spang, S., and Ruprecht, K. W. [Laser-Flare in combined cataract and glaucoma surgery with and without intra-operative mitomycine application]
  Meeting abstract
- "Krupin T, Liebmann JM, Greenfield DS, Ritch R, Gardiner S, and Low-Pressure Glaucoma Study Group. A randomized trial of brimonidine versus timolol in preserving visual function: results from the Low-Pressure Glaucoma Treatment Study
  Duplicate of 80144 "
- "Krupin, T. A clinical trial studying neuroprotection in low-pressure glaucoma
  Medical KQ 3 or KQ 3 and KQ 6 only

- "Krupin, T., Liebmann, J. M., Greenfield, D. S., Ritch, R., Rosenberg, L. F., Ruderman, J. M., Yang, J. W., Gonzales, L., Sherwood, M. B., Cantor, L. B., Gross, R. L., Spaeth, G. L., Katz, L. J., Myers, J. S., Dirks, M. S., Henry, J. C., Piltz-Seymour, J. R., Feitl, M. E., Grimes, S. R., and Gieser, D. The Low-Pressure Glaucoma Treatment Study (LoGTS): Study Design and Baseline Characteristics of Enrolled Patients
  Meeting abstract
- "Krupin, T., Liebmann, J. M., Greenfield, D. S., Rosenberg, L. F., Ritch, R., and Yang, J. W. The Low-pressure Glaucoma Treatment Study (LoGTS) study design and baseline characteristics of enrolled patients Baseline LoGTS: use for review update "
- "Krupin, T., Patkin, R., Kurata, F. K., Bishop, K. I., Keates, E. U., Kozart, D. M., Stone, R. A., and Werner, E. B. Argon laser trabeculoplasty in black and white patients with primary open-angle glaucoma. Ophthalmology 86 ;93 (6): 811-6 .
  Other (specify):no harms"
- "Kruse, W. [Metipranolol--a new beta-blocker]. Klin Monbl Augenheilkd 83 ;182 (6): 582-4 .
  It is not a RCT and has less than 100 patients
- "Kruse, W. Metipranolol: A new beta-blocker: METIPRANOLOL - EIN NEUER BETAREZEPTORENBLOCKER
  Duplicate "
- "Kuang, T. M., Lin, Y. C., Liu, C. J., Hsu, W. M., and Chou, C. K. Early and late endophthalmitis following trabeculectomy in a Chinese population. Eur J Ophthalmol 2008 ;18 (1): 66-70 .
  Data not abstractable
- "Kubota, M., Hara, T., Kubota, S., Hashimoto, T., and Tsuru, T. Ocular hypotensive effect of brinzolamide after switching from dorzolamide
  Foreign language
- "Kugleev, A. A., Lebekhov, P. I., and Astakhov, S. I. u. [A method of treatment of open-angle glaucoma]
  Foreign language
- "Kumar, H., Sony, P., and Gupta, V. Profound sweating episodes and latanoprost. Clin Experiment Ophthalmol 2005 ;33 (6): 675 .
  It is a case series
- "Kumar, H., Sudan, R., Sethi, H. S., and Sony, P. Timolol maleate 0.5% versus timolol maleate in gel forming solution 0.5% (Timolol GFS) in open angle glaucoma in India. Preliminary safety and efficacy study. Indian J Ophthalmol 2002 ;50 (1): 21-3 .
  It is not a RCT and has less than 100 patients
- "Kumar, R. S., Istiantoro, V. W., Hoh, S. T., Ho, C. L., Oen, F. T., and Aung, T. Efficacy and safety of a systematic switch from latanoprost to travoprost in patients with glaucoma. J Glaucoma 2007 ;16 (7): 606-9 .
  It is not a RCT and has less than 100 patients
- "Kumar, S., Pannu, B. K. S., Sawhney, R., Jain, R., and Sood, S. Comparative efficacy of gel-forming and ophthalmic solutions of 0.5% timolol in open-angle glaucoma
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Kumari, R., Badhu, B. P., and Das, H. Effectiveness of combination of permanent and releasable scleral flap sutures in trabeculectomy: a randomized clinical trial. Kathmandu Univ Med J (KUMJ) 2006 ;4 (4): 419-25 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Kupin, T. H., Juzych, M. S., Shin, D. H., Khatana, A. K., and Olivier, M. M. Adjunctive mitomycin C in primary trabeculectomy in phakic eyes. Am J Ophthalmol 95 ;119 (1): 30-9 .
  It is not a RCT and has less than 100 patients
- "Kuroda, S., Mizoguchi, T., Terauchi, H., and Nagata, M. Advanced nonpenetrating trabeculectomy (advanced NPT) and combined surgery of advanced NPT and phacoemulsification and intraocular lens implantation. Semin Ophthalmol 2001 ;16 (3): 172-6 .
- **It is not a RCT and has less than 100 patients**
- "Kuroda, S., Mizoguchi, T., Terauchi, H., and Nagata, M. Trabeculectomy combined with phacoemulsification and intraocular lens implantation. Semin Ophthalmol 2001 ;16 (3): 168-71 .
  It is not a RCT and has less than 100 patients
- "Kurtz, S. and Mann, O. Incidence of hyperemia associated with bimatoprost treatment in naive subjects and in subjects previously treated with latanoprost. Eur J Ophthalmol 2009 ;19 (3): 400-3 .
  It is not a RCT and has less than 100 patients
- "Kurtz, S. and Shemesh, G. The efficacy and safety of once-daily versus once-weekly latanoprost treatment for increased intraocular pressure
  Unique comparators
- "Kurtz, S., Ashkenazi, I., and Melamed, S. Major depressive episode secondary to antiglaucoma drugs. Am J Psychiatry 93 ;150 (3): 524-5 .
  It is a case series
- "Kurumety, U. R., Lundy, D. C., Heuer, D. K., Minckler, D. S., Lee, P. P., and Varma, R. COMPARISON OF THE EFFECTIVENESS OF

MITOMYCIN C APPLICATION BEFORE VERSUS AFTER TRABECULECTOMY FLAP DISSECTION

Meeting abstract

- "Kuwayama, Y., Itoh, N., Kano, K., Sudo, M., Okumura, M., Tsujimoto, M., and Tokoro, T. Comparison of timolol and latanoprost in diurnal variation of ypotensive effect

Meeting abstract

- "Kuwayama, Y., Komemushi, S., and Tafluprost Multi-center Study Group. [Intraocular pressure lowering effect of 0.0015% tafluprost as compared to placebo in patients with normal tension glaucoma: randomized, double-blind, multicenter, phase III study]

Foreign language

- "Laake, K. [Systemic adverse affects of beta-blocking agents used in local treatment of the eye]

Foreign language

- "Labbe, A. and Baudouin, C. [Treatment of glaucoma in patients with dry eye syndrome]

Foreign language

- "Lachkar, Y. Non penetrating deep sclerectomy with external trabeculectomy (NPT) vs trabeculectomy: prospsective study

Meeting abstract

- "Lachkar, Y., Leyland, M., Bloom, P., and Migdal, C. Trabeculectomy with intraoperative sponge 5-fluorouracil in Afro-Caribbeans. Br J Ophthalmol 97 ;81 (7): 555-8 .

It is not a RCT and has less than 100 patients

- "Lachkar, Y., Migdal, C., and Dhanjil, S. Effect of brimonidine tartrate on ocular hemodynamic measurements. Arch Ophthalmol 98 ;116 (12): 1591-4 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Lachkar, Y., Neverauskiene, J., Jeanteur-Lunel, M. N., Gracies, H., Berkani, M., Ecoffet, M., Kopel, J., Kretz, G., Lavat, P., Lehrer, M., Valtot, F., and Demailly, P. Nonpenetrating deep sclerectomy: a 6-year retrospective study. Eur J Ophthalmol 2004 ;14 (1): 26-36 .

Other (specify):Study design does not match KQ

- "Lafuma, A. and Berdeaux, G. Costs and effectiveness of travoprost versus a dorzolamide + timolol fixed combination in first-line treatment of glaucoma: analysis conducted on the United Kingdom General Practitioner Research Database (Structured abstract). Current Medical Research and Opinion 2007 ;23 (12): 3009-3016 .

Other (specify):Study design does not match KQ

- "Lafuma, A. and Berdeaux, G. Costs and persistence of carbonic anhydrase inhibitor versus alpha-2 agonists, associated with beta-blockers, in glaucoma and ocular hypertension: an analysis of the UK-GPRD database. Curr Med Res Opin 2008 ;24 (5): 1519-27 .

OAG can't be analyzed separately

- "Lai, J. S. M. and Ho, P. C. P. TRABECULECTOMY COMBINED WITH BETA IRRADIATION IN UNCOMPLICATED PRIMARY OPEN ANGLE GLAUCOMA

Meeting abstract

- "Lai, J. S., Chua, J. K., and Lam, D. S. Effect of latanoprost on IOP. J Cataract Refract Surg 99 ;25 (3): 304 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Laibovitz, R. A., Dubiner, H. B., Sall, K. N., Mundorf, T. K., Katz, L. J., Sing, K., Shulman, D. G., Siegel, L. I., Nussbaum, L. L., and Stewart, W. C. OCULAR TOLERABILITY AND INTRAOCULAR PRESSURE EFFECTS OF CARTEOLOL AND TIMOLOL IN OLDER WOMEN WITH OCULAR HYPERTENSION OR PRIMARY OPEN ANGLE GLAUCOMA

Meeting abstract

- "Laibovitz, R. A., VanDenburgh, A. M., Felix, C., David, R., Batoosingh, A., Rosenthal, A., and Cheetham, J. Comparison of the ocular hypotensive lipid AGN 192024 with timolol: dosing, efficacy, and safety evaluation of a novel compound for glaucoma management. Arch Ophthalmol 2001 ; 119 (7): 994-1000 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Laibovitz, R., Boyle, J., Snyder, E., Strohmaier, K., and Adamsons, I. Dorzolamide versus pilocarpine as adjunctive therapies to timolol: a comparison of patient preference and impact on daily life. Clin Ther 96 ; 18 (5): 821-32 .

Other (specify):pilo"

- "Laibovitz, R., Strahlman, E. R., Barber, B. L., and Strohmaier, K. M. Comparison of quality of life and patient preference of dorzolamide and pilocarpine as adjunctive therapy to timolol in the treatment of glaucoma. J Glaucoma 95 ;4 (5): 306-13 .

Other (specify):pilocarpine

"Laibovitz, R., Zimmerman, K., Getson, A., Shedden, A., Laurence, J., and Adamsons, I. COMPARISON OF THE EFFICACY AND TOLERABILITY OF PRESERVATIVEFREE 2.0% DORZOLAMIDE/0.5% TIMOLOL (PF DORZ/TIM) AND 2.0% DORZOLAMIDE/0.5% TIMOLOL (DORZ/TIM)

- **Meeting abstract**
- "Lamba, P. A., Pandey, P. K., Raina, U. K., and Krishna, V. Short-term results of initial trabeculectomy with intraoperative or postoperative 5-fluorouracil for primary glaucomas. Indian J Ophthalmol 96 ;44 (3): 157-60 .

  OAG can't be analyzed separately
- "Lamba, P. A., Pandey, P. K., Raina, U. K., and Krishna, V. Short-term results of initial trabeculectomy with intraoperative or postoperative 5-fluorouracil for primary glaucomas. Indian J Ophthalmol 97 ;45 (3): 173-6

  Data not abstractable
- "Lamberti, G., Pignalosa, B., Fusco, R., Pignalosa, G., Di Govanni, A., and Sebastiani, A. Short-term clinical trial evaluating the efficacy of the combination of apraclonidine 0.5% solution and betaxolol 0.25% suspension. Acta Ophthalmol Scand Suppl 97 ;(224): 20-1 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Lamping, K. A and Belkin, J. 5-Fluorouracil (5-FU) and Mitomycin-C in Pseudophakic Patients

  Meeting abstract
- "Lamping, K. A. and Belkin, J. K. 5-Fluorouracil and mitomycin C in pseudophakic patients. Ophthalmology 95 ;102 (1): 70-5 .

  Data not abstractable
- "Lamping, K. A., Bellows, A. R., Hutchinson, B. T., and Afran, S. I. Long-term evaluation of initial filtration surgery. OPHTHALMOLOGY 86 ;93 (1): 91-101 .

  Does not address any key questions
- "Landa, G., Pollack, A., Rachmiel, R., Bukelman, A., Marcovich, A., and Zalish, M. Results of combined phacoemulsification and trabeculectomy with mitomycin C in pseudoexfoliation versus non-pseudoexfoliation glaucoma. Graefes Arch Clin Exp Ophthalmol 2005 ;243 (12): 1236-40 .

  Other (specify):comparison of 2 case series"
- "Langerhorst, C. T., de Clercq, B., and van den Berg, T. J. Visual field behavior after intra-ocular surgery in glaucoma patients with advanced defects. Doc Ophthalmol 90 ;75 (3-4): 281-9 .

  It is not a RCT and has less than 100 patients
- "Langham, M. E., Carenini, B. B., Brogliatti, A., Corenini, A. B., and Sibour, G. DIFFERENCES IN THE ACTIONS OF TIMOLOL AND BETAXOLOL ON VISION AND OCULAR PULSATILE BLOOD FLOW IN GLAUCOMA

  Meeting abstract
- "Lankaranian, D., Patel, R., Moster, M. R., Wizov, S., Alvim, H. S., Lopes, J. F., Tong, M., and Spaeth, G. L. A Randomized Prospective Clinical Trial of the Efficacy of Cyclosporine Ophthalmic Emulsion 0.05% Following Trabeculectomy With Antimetabolite

  Meeting abstract
- "Lankaranian, D., Reis, R., Henderer, J. D., Choe, S., and Moster, M. R. Comparison of single thickness and double thickness processed pericardium patch graft in glaucoma drainage device surgery: a single surgeon comparison of outcome. J Glaucoma 2008 ;17 (1): 48-51 .

  It is a case series
- "Larsson, L. I, Svensson, B., Soderhlm, G., and Karlsson, P. A comparison of the intraocular pressure reducing effect of selective laser trabeculoplasty and argon laser trabeculoplasty in patients with glaucoma

  Meeting abstract
- "Larsson, L. I. Effect on intraocular pressure during 24 hours after repeated administration of the fixed combination of latanoprost 0.005% and timolol 0.5% in patients with ocular hypertension. J Glaucoma 2001 ; 10 (2): 109-14 .

  Other (specify):fixed combination"
- "Larsson, L. I. The effect on diurnal intraocular pressure of the fixed combination of latanoprost 0.005% and timolol 0.5% in patients with ocular hypertension. Acta Ophthalmol Scand 2001 ;79 (2): 125-8 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Larsson, L. I., Diestelhorst, M., and European-Canadian Latanoprost Fixed Combination Study Group. A 12-Week, Randomized, Double-Masked Multicenter Study of the Fixed Combination Latanoprost and Timolol in the Evening vs. the Individual Components

  Meeting abstract
- "Lass, J. H, Simpson, C. V, and Eriksson, G. A Double-Masked, Randomized 1-Year Study Comparing the Corneal Effects of Latanoprost and Timolol

- **Meeting abstract**

- "Lass, J. H., Khosrof, S. A., Laurence, J. K., Horwitz, B., Ghosh, K., and Adamsons, I. A double-masked, randomized, 1-year study comparing the corneal effects of dorzolamide, timolol, and betaxolol. Arch. Ophthalmol. 98 ;116 (8): 1003-1010 .
  Does not address any key questions
- "Lass, J. H., Khosrof, S. A., Laurence, J. K., Horwitz, B., Ghosh, K., and Adamsons, I. A double-masked, randomized, 1-year study comparing the corneal effects of dorzolamide, timolol, and betaxolol. Dorzolamide Corneal Effects Study Group. Arch Ophthalmol 98 ;116 (8): 1003-10 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Lass, J. H., Khosrof, S., Laurence, J. K., Ghosh, K., Adamson, I., and The Dorzolamide Study Group. CORNEAL SAFETY OF DORZOLAMIDE, TIMOLOL, AND BETAXOLOL AFTER 1 YEAR OF THERAPY
  Meeting abstract
- "Laster, S. F., Martin, J. L., and Fleming, J. B. The effect of a medication alarm device on patient compliance with topical pilocarpine. J Am Optom Assoc 96 ;67 (11): 654-8 .
  Does not address any key questions
- "Lau, G., Young, S., and Lehrer, R. EFFICACY OF TRABECULECTOMY WITH AND WITHOUT THE EX-PRESS SHUNT
  Duplicate "
- "Lauande, R., Costa, V. P, Rocha, V. A, Vidal, R., Ribeiro, M. P, Antunes, A., and Velanes, A. Travoprost 0,004% and Timolol Maleate 0.5% in Alternate Days Compared to Standard Monotherapy: Study of Intraocular Pressure-efficiency of a New Therapy Modality
  Meeting abstract
- "Laube, T., Ritters, B., Selbach, M., and Hudde, T. [Clinical experiences and results of application of mitomycin C in trabeculectomy]. Klin Monbl Augenheilkd 2003 ;220 (9): 618-24 .
- **It is not a RCT and has less than 100 patients**
- "Laube, T., Ritters, B., Selbach, M., and Hudde, T. Clinical Experiences and Results of Application of Mitomycin C in Trabeculectomy: Klinische Erfahrungen und Ergebnisse beim Einsatz von Mitomycin C bei der Trabekulektomie

- **Duplicate** "
- "Laurence, J., Holder, D., Vogel, R., Gross, R. L., Haik, B. G., Karp, D. W., Koby, M. M., and Zimmerman, T. J. A double-masked, placebo-controlled evaluation of timolol in a gel vehicle. J Glaucoma 93 ;2 (3): 177-82 .
  No subjects with open-angle glaucoma
- "Lavado Landeo, Lincoln and Paredes Portilla, M nica. TrabeculoplastÆa con lbser diodo
  Foreign language
- "Law, S. K. A modified technique of Ahmed glaucoma valve implantation with adjunctive use of antifibrotic agents. Am J Ophthalmol 2008 ;146 (2): 156-8 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Law, S. K., Modjtahedi, S. P., Mansury, A., and Caprioli, J. Intermediate-term comparison of trabeculectomy with intraoperative mitomycin-C between Asian American and Caucasian glaucoma patients: a case-controlled comparison. Eye (Lond) 2007 ;21 (1): 71-8 .
- **It is a case series**
- "Law, S. K., Nguyen, A. M., Coleman, A. L., and Caprioli, J. Severe loss of central vision in patients with advanced glaucoma undergoing trabeculectomy. Arch Ophthalmol 2007 ;125 (8): 1044-50 .
- **It is a case series**
- "Law, S. K., Shih, K., Tran, D. H., Coleman, A. L., and Caprioli, J. Long-term outcomes of repeat vs initial trabeculectomy in open-angle glaucoma. Am J Ophthalmol 2009 ;148 (5): 685-695.e1 .
- **It is a case series**
- "Law, S. K., Song, B. J., Yu, F., Kurbanyan, K., Yang, T. A., and Caprioli, J. Hemorrhagic complications from glaucoma surgery in patients on anticoagulation therapy or antiplatelet therapy. Am J Ophthalmol 2008 ; 145 (4): 736-746 .
  OAG can't be analyzed separately
- "Lazaridou, M. N., Montgomery, D. M., Ho, W. O., and Jaberoo, D. Changes in intraocular pressure following a switch from latanoprost monotherapy to latanoprost/timolol fixed combination therapy in patients with primary open-angle glaucoma or ocular hypertension: results from a clinical practice database. Curr Med Res Opin 2008 ;24 (10): 2725-8 .
  It is not a RCT and has less than 100 patients

- "Lazaro Garcia, C., Castillo Gomez, A., Garcia Feijoo, J., Macias Benitez, J. M., and Garcia Sanchez, J. [Study of the corneal endothelium after glaucoma surgery]. Arch Soc Esp Oftalmol 2000 ;75 (2): 75-80 .

Does not address any key questions

- "Lazaro, C., Benitez-del-Castillo, J. M., Castillo, A., Garcia-Feijoo, J., Macias, J. M., and Garcia-Sanchez, J. Lens fluorophotometry after trabeculectomy in primary open-angle glaucoma. Ophthalmology 2002 ; 109 (1): 76-9 .

It is not a RCT and has less than 100 patients

- "Lazaro, C., Garcia-Feijoo, J., Castillo, A., Perea, J., Martinez-Casa, J. M., and Garcia-Sanchez, J. Impact of intraocular pressure after filtration surgery on visual field progression in primary open-angle glaucoma. Eur J Ophthalmol 2007 ;17 (3): 357-62 .

It is a case series

- "Lazzaroni, F., Fanti, M. R., Fanti, A., and Tosti, G. [Treatment of glaucoma and visual field diminution]. Ophtalmologie 88 ;2 (5): 427-9 .

Data not abstractable

- "Le Jeunne, C. L., Hugues, F. C., Dufier, J. L., Munera, Y., and Bringer, L. Bronchial and cardiovascular effects of ocular topical B-antagonists in asthmatic subjects: comparison of timolol, carteolol, and metipranolol. J Clin Pharmacol 89 ;29 (2): 97-101 .

No subjects with open-angle glaucoma

- "Le Rebeller, M. J. [Our experience with timolol]

Foreign language

- "Le, H. H., Chang, M. R., Cheng, Q., Lee, D. A., and Hartenbaum, D. The effectiveness and safety of dorzolamide 2% in addition to multiple topical antiglaucoma medications. J Ocul Pharmacol Ther 99 ;15 (4): 305-12 .

Other (specify):No control

- "LeBlanc, R. P. and Krip, G. Timolol. Canadian multicenter study. Ophthalmology 81 ;88 (3): 224-8 .

Does not address any key questions

- "LeBlanc, R. P. Twelve-month results of an ongoing randomized trial comparing brimonidine tartrate 0.2% and timolol 0.5% Given twice daily in patients with glaucoma or ocular hypertension

Medical KQ 3 or KQ 3 and KQ 6 only

- "LeBlanc, R. P. Twelve-month results of an ongoing randomized trial comparing brimonidine tartrate 0.2% and timolol 0.5% given twice daily in patients with glaucoma or ocular hypertension. Brimonidine Study Group 2

Medical KQ 3 or KQ 3 and KQ 6 only

- "LeBlanc, R. P., Saheb, N. E., and Krip, G. Timolol: long-term Canadian multicentre study. Can J Ophthalmol 85 ;20 (4): 128-30 .

Other (specify):No control

- "Lee, D. A. and Gornbein, J. A. Effectiveness and safety of brimonidine as adjunctive therapy for patients with elevated intraocular pressure in a large, open-label community trial

Unique comparators

- "Lee, D. A. Efficacy of brimonidine as replacement therapy in patients with open-angle glaucoma or ocular hypertension

Unique comparators

- "Lee, D. A., Gornbein, J., and Abrams, C. The effectiveness and safety of brimonidine as mono-, combination, or replacement therapy for patients with primary open-angle glaucoma or ocular hypertension: a post hoc analysis of an open-label community trial. Glaucoma Trial Study Group. J Ocul Pharmacol Ther 2000 ;16 (1): 3-18 .

OAG can't be analyzed separately

- "Lee, D. A., Gornbein, J., and Abrams, C. The effectiveness and safety of brimonidine as mono-, combination, or replacement therapy for patients with primary open-angle glaucoma or ocular hypertension: A post hoc analysis of an open-label community trial. J. Ocul. Pharmacol. Ther. 2000 ;
- 16 (1): 3-18 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Lee, D. and Alphagan Glaucoma Trial Study Group. THE EFFICACY AND SAFETY OF ALPHAGAN® (Brimonidine) FOR SUBJECTS WITH PRIMARY OPEN-ANGLE HYPERTENSION OR OCULAR HYPERTENSION

Meeting abstract

- "Lee, G. C, Katz, L. J, Molineaux, J., Fontanarosa, J., and Steinmann, W. C. Comparison of Intraocular Pressure Lowering Efficacy of Fixed Combination Timolol-Dorzolamide versus Timolol Plus Latanoprost

Meeting abstract

- "Lee, J. J., Park, K. H., and Youn, D. H. The effect of low-and high-dose adjunctive mitomycin C in trabeculectomy. Korean J Ophthalmol 96 ;
- 10 (1): 42-7 .

OAG can't be analyzed separately

- "Lee, J. W., Lai, J. S., Yick, D. W., and Tse, R. K. Retrospective case series on the long-term visual and intraocular pressure outcomes of phacomorphic glaucoma. Eye (Lond) 2010 ;24 (11): 1675-80 .
- **No subjects with open-angle glaucoma**
- "Lee, P. F., Hsu, C. T., Lin, A. Y., and Shihab, Z. M. Argon laser trabeculoplasty in primary open angle glaucoma: long-term clinical results and its future. Yan Ke Xue Bao 86 ;2 (2): 90-4 .
- **It is a case series**
- "Lee, P. P., Walt, J. G., Chiang, T. H., Guckian, A., and Keener, J. A gap analysis approach to assess patient persistence with glaucoma medication. Am J Ophthalmol 2007 ;144 (4): 520-4 .
- **Other (specify):**study design does not match KQ (KQ2)"
- "Lee, P. W., Doyle, A., Stewart, J. A., Kristoffersen, C. J., and Stewart, W. C. Meta-analysis of timolol on diurnal and nighttime intraocular pressure and blood pressure

  Systematic review
- "Lee, P., Shen, Y., and Eberle, M. The long-acting Ocusert-pilocarpine system in the management of glaucoma. Invest Ophthalmol 75 ;14 (1): 43-6 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Lee, S. J., Paranhos, A., and Shields, M. B. Does titration of mitomycin C as an adjunct to trabeculectomy significantly influence the intraocular pressure outcome?. Clin Ophthalmol 2009 ;3 : 81-7 .
- **It is a case series**
- "Lee, Y. G, Hong, Y. J, KimCY, Ho, K. K, and Kim, D. H. The Effect of Mitomycin-C (MMC) on Primary Trabeculectomy: Comparative Study of the Same Person

  Meeting abstract
- "Leibovici, M. [Iatrogenic pathogenesis of anti-glaucoma medical therapy]

  Foreign language
- "LemmMaraini, G., Gandolfi, S. A., Rossetti, L., Cimino, L., and Orzalesi, N. SUBSTITUTION WITH LATANOPROST COMPARED WITH ADDITION OF LATANOPROST TO MAXIMALLY TOLERATED MEDICAL THERAPY IN UNCONTROLLED HUMAN GLAUCOMA: PROSPECTIVE, RANDOMIZED, 3 MONTH-CLINICAL TRIAL

  Meeting abstract
- "Lemon, L. C., Shin, D. H., Kim, C., Bendel, R. E., Hughes, B. A., and Juzych, M. S. Limbus-based vs fornix-based conjunctival flap in combined glaucoma and cataract surgery with adjunctive mitomycin C. Am J Ophthalmol 98 ;125 (3): 340-5 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Lemon, L. C., Shin, D. H., Kim, C., Juzych, M. S., Hughes, B. A., and Tinoosh, F. LIMBUS- VERSUS FORNIX-BASED CONJUNCTIVAL FLAP IN PRIMARY GLAUCOMA TRIPLE PROCEDURE WITH ADJUNCTIVE MITOMYCIN-C: INTERMEDIATE-TERM FOLLOW-UP

  Meeting abstract
- "Lemon, L. C., Shin, D. H., Reed, S. Y., Birt, C. M., Hughes, B. A., Gianarelli, T. E., and Khatana, A. K. COMPARATIVE STUDY OF FORNIX- VS LIMBUS-BASED CONJUNCTIVAL FLAP IN GLAUCOMA TRIPLE PROCEDURE WITH ADJUNCTIVE SUBCONJUNVITAL MITOMYCIN C

  Meeting abstract
- "Lemon, L. C., Shin, D. H., Song, M. S., Lee, J. H., Bendel, R. E., Juzych, M. S., and Hughes, B. A. Comparative study of silicone versus acrylic foldable lens implantation in primary glaucoma triple procedure. Ophthalmology 97 ;104 (10): 1708-13 .

  It is combined cataract/glaucoma surgery study published before April 2000
- "Leonard, T. J. Iatrogenic factors in the management of glaucoma. Br J Clin Pract 83 ;37 (11-12): 365-6 .

  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Leroy, C. and Collignon-Brach, J. [Primary open-angle glaucoma. Effects of an eyedrop combining timolol and pilocarpine on the ocular pressure]

  Foreign language
- "Lesk, M. R., Koulis, T., Sampalis, F., Sampalis, J. S., and Bastien, N. R. Effectiveness and safety of dorzolamide-timolol alone or combined with latanoprost in open-angle glaucoma or ocular hypertension

  Unique comparators
- "Leske, M. C., Heijl, A., Hussein, M., Bengtsson, B., Hyman, L., and Komaroff, E. Factors for glaucoma progression and the effect of treatment: the early manifest glaucoma trial

  EMGT "
- "Leske, M. C., Heijl, A., Hyman, L., Bengtsson, B., Dong, L., and Yang, Z. Predictors of long-term progression in the early manifest glaucoma trial. Ophthalmology 2007 ;114 (11): 1965-72 .

Does not address any key questions

- "Leske, M. C., Hyman, L., Hussein, M., Heijl, A., and Bengtsson, B. Comparison of glaucomatous progression between untreated patients with normal-tension glaucoma and patients with therapeutically reduced intraocular pressures. The effectiveness of intraocular pressure reduction in the treatment of normal-tension glaucoma. Am J Ophthalmol 99 ;
- 127 (5): 625-6 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Leskea, M. C., Heijl, A., Hyman, L., Bengtsson, B., and Komaroff, E. Factors for progression and glaucoma treatment: the Early Manifest Glaucoma Trial

EMGT-Rolim de Moura 2009 and Maier 2005 "

- "Lesure, P., Feicht, B., Lippa, E. A., Sirbat, D., Hofmann, H., Strohmaier, K., Brunner-Ferber, F., George, J. L., and von Denffer, H. MK-507: ENHANCEMENT OF BID ACTIVITY OF A TOPICAL CAI BY FORMULATION IN A GELRITETM SOLUTION

Meeting abstract

- "Leszczynski, R., Gierek-Ciaciura, S., Forminska-Kapuscik, M., Mrukwa-Kominek, E., and Rokita-Wala, I. Nonpenetrating very deep sclerectomy with reticulated hyaluronic acid implant in glaucoma treatment. Med Sci Monit 2008 ;14 (2): CR86-89 .

OAG can't be analyzed separately

- "Leuenberger, P. M. [Trabeculectomy and trabeculotomy (author's transl)]

Foreign language

- "Levene, R. Z. Central visual field, visual acuity, and sudden visual loss after glaucoma surgery. Ophthalmic Surg 92 ;23 (6): 388-94 .
- **It is not a RCT and has less than 100 patients**
- "Levene, R. Z. Uniocular miotic therapy. Trans Sect Ophthalmol Am Acad Ophthalmol Otolaryngol 75 ;79 (2): OP376-80 .

It is not a RCT and has less than 100 patients

- "Levin, M. L. Phacoemulsification, foldable IOL, Holmium laser sclerostomy, and 5-FU. Ophthalmic Surg 92 ;23 (8): 566 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Levobunolol. A beta-adrenoceptor antagonist effective in the long-term treatment of glaucoma. The Levobunolol Study Group (Appended)
- **Medical KQ 3 or KQ 3 and KQ 6 only Medical KQ 3 or KQ 3 and KQ 6 only**
- "Levobunolol. A four-year study of efficacy and safety in glaucoma treatment. The Levobunolol Study Group

Medical KQ 3 or KQ 3 and KQ 6 only Medical KQ 3 or KQ 3 and KQ 6 only

- "Levy, N. S. and Alsbury, C. TIMOLOL-IN-GELRITE ONCE DAILY IN GLAUCOMA

Meeting abstract

- "Lewis RA, Gross RL, Sall KN, Schiffman RM, Liu CC, Batoosingh AL, and Ganfort Investigators Group II. The safety and efficacy of bimatoprost/timolol fixed combination: a 1-year double-masked, randomized parallel comparison to its individual components in patients with glaucoma or ocular hypertension. Journal of glaucoma 2010 ;19 (6): 424-6 .

Other (specify): Not a medication available here"

- "Lewis, R. A. Comparative Safety and Ocular Hypotensive Efficacy of Brimonidine Tartrate 0.2% and Timolol Maleate 0.5% in Patients with Glaucoma or Ocular Hypertension: 12-month Results from an Ongoing Study

Meeting abstract

- "Lewis, R. A., Gross, R. L., Sall, K. N., Schiffman, R. M., Liu, C. C., and Batoosingh, A. L. The safety and efficacy of bimatoprost/timolol fixed combination: a 1-year double-masked, randomized parallel comparison to its individual components in patients with glaucoma or ocular hypertension. J Glaucoma 2010 ;19 (6): 424-6 .

Other (specify):not FDA approved, **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**

- "Lewis, R. A., Katz, G. J., Weiss, M. J., Landry, T. A., Dickerson, J. E., James, J. E., Hua, S. Y., Sullivan, E. K., Montgomery, D. B., Wells, D. T., and Bergamini, M. V. Travoprost 0.004% with and without benzalkonium chloride: a comparison of safety and efficacy

- **Unique comparators**
- "Lewis, R. A., Schoenwald, R. D., Barfknecht, C. F., and Phelps, C. D. Aminozolamide gel. A trial of a topical carbonic anhydrase inhibitor in ocular hypertension. Arch Ophthalmol 86 ;104 (6): 842-4 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Lewis, R. A., von Wolff, K., Tetz, M., Koerber, N., Kearney, J. R., Shingleton, B. J., and Samuelson, T. W. Canaloplasty: circumferential viscodilation and tensioning of Schlemm canal using a flexible

microcatheter for the treatment of open-angle glaucoma in adults: two-year interim clinical study results. J Cataract Refract Surg 2009 ;35 (5): 814-24 .

Other (specify):Study design does not match KQ

- "Lewis, R. A., von Wolff, K., Tetz, M., Koerber, N., Kearney, J. R., Shingleton, B. J., and Samuelson, T. W. Canaloplasty: Three-year results of circumferential viscodilation and tensioning of Schlemm canal using a microcatheter to treat open-angle glaucoma. J Cataract Refract Surg 2011 ;3: 682-90 .

  Other (specify): Harms not analyzed separately for the two interventions"
- "Lewis, R. A., von Wolff, K., Tetz, M., Korber, N., Kearney, J. R., Shingleton, B., and Samuelson, T. W. Canaloplasty: circumferential viscodilation and tensioning of Schlemm's canal using a flexible microcatheter for the treatment of open-angle glaucoma in adults: interim clinical study analysis. J Cataract Refract Surg 2007 ;33 (7): 1217-26 .

  Other (specify):Study design does not match KQ
- "Lewis, R. A., Weiss, M. J., Landry, T. A., Dickerson, J. E. Jr, James, J. E., Hua, S. Y., Sullivan, E. K., Montgomery, D. B., Wells, D. T., and Bergamini, M. V. W. Travoprost 0.004% With and Without Benzalkonium Chloride: A Comparison of Safety and Efficacy

  Meeting abstract
- "Leydhecker, W. and Krieglstein, G. K. [The effect of low concentrations of pilocarpine with phenylephrine on intraocular pressure in glaucoma]

  Foreign language
- "Leydhecker, W. and Krieglstein, G. K. The effect of low concentrations of pilocarpine with phenylephrine on intraocular pressure in glaucoma: DIE WIRKUNG SCHWACHER KONZENTRATIONEN VON PILOKARPIN MIT PHENYLEPHRIN AUF DEN INTRAOKULAREN DRUCK BEI GLAUKOM. EINE DOPPELBLIND-CROSS-OVER STUDIE

  Duplicate "
- "Leyland, M., Bloom, P., Zinicola, E., McAlister, J., Rassam, S., and Migdal, C. Single intraoperative application of 5-Fluorouracil versus placebo in low-risk trabeculectomy surgery: a randomized trial. J Glaucoma 2001 ;10 (6): 452-7 .
- **OAG can't be analyzed separately**
- "Li, W. J., Ding, Y. L., Zhu, F., and Li, H. [Comparison of two different conjunctival incisions of combined trabeculectomy]

  Foreign language
- "Lichter, P. R, Janz, N. K, Musch, D. C, Gillespie, B., Guire, K. E, Wren, P. A, and Mills, R. P. The collaborative initial glaucoma treatment study (cigts) interim outcomes report with up to 5 years of follow-up

  Meeting abstract
- "Lichter, P. R., Musch, D. C., Gillespie, B. W., Guire, K. E., Janz, N. K., Wren, P. A., and Mills, R. P. Interim clinical outcomes in the Collaborative Initial Glaucoma Treatment Study comparing initial treatment randomized to medications or surgery CIGTS--part of 639 now "
- "Lichter, P. R., Musch, D. C., Gillespie, B. W., Niziol, L. N., and the CIGTS Study Group. Trabeculectomy as Initial Treatment for OAG Patients with Substantial VF Defects

  Meeting abstract
- "Lichter, P. R., Musch, D. C., Gillespie, B., Niziol, L. M., and CIGTS Study Group. Initial Surgery Favorable for Patients With Advanced Visual Field Loss in the Collaborative Initial Glaucoma Treatment Study (CIGTS)

  Meeting abstract
- "Lichter, P. R., Musch, D. C., Guire, K. M., Gillespie, B., and CIGTS Study Group. Risks and Benefits of Intraoperative 5-fluorouracil in the Collaborative Initial Glaucoma Treatment Study (CIGTS)

  Meeting abstract
- "Lichter, P. R., Musch, D. C., Medzihradsky, F., and Standardi, C. L. Intraocular pressure effects of carbonic anhydrase inhibitors in primary open-angle glaucoma. Am J Ophthalmol 89 ;107 (1): 11-7 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Lichter, P. R., Newman, L. P., Wheeler, N. C., and Beall, O. V. Patient tolerance to carbonic anhydrase inhibitors

  Unique comparators
- "Liebmann, J. M., Ritch, R., Marmor, M., Nunez, J., and Wolner, B. Initial 5-fluorouracil trabeculectomy in uncomplicated glaucoma. Ophthalmology 91 ;98 (7): 1036-41 .
- **Other (specify):**Study design does not match KQ (KQ3)"
- "Lienert, F. and Busse, H. [One year's experience with pilocarpin-ocusert in the therapy of glaucoma (author's transl)]. Klin Monbl Augenheilkd 75 ;167 (6): 870-1 .

  Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Lima, F. E., Magacho, L., Guimaraes, N., Avila, M., and Susanna, R. A Prospective, Randomized, Comparative Study between Endoscopic Cyclophotocoagulation and the Ahmed Drainage Implant in Refractory Glaucoma

  Meeting abstract
- "Lima, M. C., Paranhos, A. Jr, Salim, S., Honkanen, R., Devgan, L., Wand, M., Gaudio, A. R., and Shields, M. B. Visually significant cystoid macular edema in pseudophakic and aphakic patients with glaucoma receiving latanoprost. J Glaucoma 2000 ;9 (4): 317-21 .

  Does not address any key questions
- "Lima, Vera Christina Waller de, Mello, Paulo Augusto de Arruda, and Prata Junior, JoPo Antonio. CiclofotocoagulagPo com laser diodo em glaucoma refratbrio, resultado a longo prazo

  Foreign language
- "Lin, J. C., Samuel, F., Katz, L. J., Spaeth, G. L., Hoop, J., and Cantor, L. B. The effect of topical glaucoma medications evaluated by perimetry. Br J Ophthalmol 2003 ;87 (6): 792 .

  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Lin, L. L., Galin, M. A., Obstbaum, S. A., and Katz, I. Longterm timolol therapy. Surv Ophthalmol 79 ;23 (6): 377-80 .
- **Does not address any key questions**
- "Lin, Y. P., Zurakowski, D., and Ayyala, R. S. Surgical outcomes of traditional limbal-based versus fornix-based trabeculectomy with corneal valve. Ophthalmic Surg Lasers Imaging 2007 ;38 (6): 471-7 .
- **It is not a RCT and has less than 100 patients**
- "Linares Mata, T., Pardo Sanchez, J., and de la Cuadra Oyanguren, J. Contact dermatitis caused by allergy to dorzolamide. Contact Dermatitis 2005 ;52 (2): 111-2 .

  It is a case series
- "Linden, C. and Alm, A. Latanoprost and physostigmine have mostly additive ocular hypotensive effects in human eyes. Arch Ophthalmol 97 ;
- 115 (7): 857-61 .
- **No subjects with open-angle glaucoma**
- "Lindsay, C. L., Stewart, J. A., Day, D. G., Holmes, K. T., and Stewart, W. C. THE EFFECT OF TIMOLOL MALEATE 0.5% GEL AND TIMOLOL MALEATE 0.5% SOLUTION TWICE DAILY VERSUS PLACEBO ON PULMONARY FUNCTION IN OLDER PRIMARY OPEN-ANGLE GLAUCOMA OR OCULAR HYPERTENSIVE PATIENTS

  Meeting abstract
- "Lindstrom, E. E., Tredici, T. J., and Martin, B. G. Effects of topical ophthalmic 2 percent pilocarpine on visual performance of normal subjects. Aerosp Med 68 ;39 (11): 1236-40 .
- **No subjects with open-angle glaucoma**
- "Lippa, E. A., Aasved, H., Airaksinen, P. J., Alm, A., Bertelsen, T., Calissendorff, B., Dithmer, O., Eriksson, L. O., Gustad, L., Hovding, G., and et, a. l. Multiple-dose, dose-response relationship for the topical carbonic anhydrase inhibitor MK-927. Arch Ophthalmol 91 ;109 (1): 46-9

  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Lippa, E. A., Carlson, L. E., Ehinger, B., Eriksson, L. O., Finnstrom, K., Holmin, C., Nilsson, S. E., Nyman, K., Raitta, C., Ringvold, A., and et, a. l. Dose response and duration of action of dorzolamide, a topical carbonic anhydrase inhibitor

  Medical KQ 3 or KQ 3 and KQ 6 only
- "Lippa, E. A., Clineschmidt, C. M., Tipping, R. W., and Strohmaier, K. M. DORZOLAMIDE HYDROCHLORIDE: SIX-WEEK, DOSE-RESPONSE STUDY OF AN ACTIVE TOPICAL CARBONIC ANHYDRASE INHIBITOR

  Meeting abstract
- "Lippa, E., Sherwood, M., Laibovitz, R., Miller, E., McMahon, C., Clineschmidt, C., and Caprioli, J. MK-417 VS. TIMOLOL: COMPARATIVE ACTIVITY

  Meeting abstract
- "Littmann, L., Kempler, P., Rohla, M., and Fenyvesi, T. [Severe atrioventricular block caused by pilocarpine eyedrops]

  Foreign language
- "Liu, C. J, Ko, Y. C, Cheng, C. Y, Chou, J. C K, Hsu, W. M, and Liu, J. H. Changes in intraocular pressure and hemodynamic parameters after brimonidine or latanoprost in progressive normal-tension glaucoma

  Meeting abstract
- "Liu, C. J. L., Chou, J. C. K., Hsu, W.-M., and Liu, J.-H. Effects of latanoprost 50 (mu)g/ml on Chinese patients with primary open- angle glaucoma and ocular hypertension

  Foreign language

- "Liu, C. J., Chou, J. C., Hsu, W. M., and Liu, J. H. Effects of latanoprost 50 micrograms/ml on Chinese patients with primary open-angle glaucoma and ocular hypertension. Zhonghua Yi Xue Za Zhi (Taipei) 99 ;62 (10): 703-9 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Liu, H. N., Chen, X. L., Li, X., Nie, Q. Z., and Zhu, Y. Efficacy and tolerability of one-site versus two-site phaco-trabeculectomy: a meta-analysis of randomized controlled clinical trials
  Systematic review
- "Liu, J. H., Kripke, D. F., and Weinreb, R. N. Comparison of the nocturnal effects of once-daily timolol and latanoprost on intraocular pressure. Am J Ophthalmol 2004 ;138 (3): 389-95 .
  It is a case series
- "Liu, J. H., Medeiros, F. A., Slight, J. R., and Weinreb, R. N. Comparing diurnal and nocturnal effects of brinzolamide and timolol on intraocular pressure in patients receiving latanoprost monotherapy
  Unique comparators
- "Liu, Y. and Birt, C. M. Argon Versus Selective Laser Trabeculoplasty in Younger Patients: 2-year Results. J Glaucoma 2011 ;
  OAG can't be analyzed separately
- "Liu, Y., Sponsel, W. E, and Paris, G. R. Nonpenetrating deep sclerectomy (npds) with mmc versus trabeculectomy with mmc: comparison of efficacy and perioperative complications

- **Meeting abstract**
- "Lloyd, M. A., Baerveldt, G., Fellenbaum, P. S., Sidoti, P. A., Minckler, D. S., Martone, J. F., LaBree, L., and Heuer, D. K. Intermediate-term results of a randomized clinical trial of the 350- versus the 500-mm2 Baerveldt implant. Ophthalmology 94 ;101 (8): 1456-63; discussion 1463-4 .
  Data not abstractable
- "Lobstein, A. and Flament, J. [Residual effect of timoptol in ocular hypertension]
  Foreign language
- "Lochhead, J., Casson, R. J., and Salmon, J. F. Long term effect on intraocular pressure of phacotrabeculectomy compared to trabeculectomy. Br J Ophthalmol 2003 ;87 (7): 850-2 .
  Other (specify):Study design does not match KQ
- "Lochman, J., Novak, J., and Rozsival, P. Trabeculectomy - Long term results: Trabekulektomie - Dlouhodobe vysledky
  Foreign language
- "Lockey, S. D. Sr. Bronchospasm precipitated by ophthalmic instillations of timolol. Ann Allergy 81 ;46 (5): 267 .
  It is a case series
- "Loewenstein, A. and Lazar, M. Patient selection in the Timpilo Study. Arch Ophthalmol 93 ;111 (10): 1313 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Lofors, K. T., Hovding, G., Viksmoen, L., Aasved, H., Bergaust, B., and Bulie, T. Twelve-hour IOP control obtained by a single dose of timolol/pilocarpine combination eye drops. Acta Ophthalmol (Copenh) 90 ;68 (3): 323-6 .
  Other (specify): Not inc drug"
- "Loftfield, K. and Ball, S. F. S-FLUOROURACIL (5-FU) IN PRIMARY TRABECULECTOMY: A RANDOMIZED TRIAL
  Meeting abstract
- "Long, D. A., Johns, G. E., Mullen, R. S., Bowe, R. G., Alexander, D., Epstein, D. L., Weiss, M. J., Masi, R. J., Charap, A. D., Eto, C. Y., and et, a. l. Levobunolol and betaxolol. A double-masked controlled comparison of efficacy and safety in patients with elevated intraocular pressure
  Unique comparators
- "Long, D., Zimmerman, T., Spaeth, G., Novack, G., Burke, P. J., and Duzman, E. Minimum concentration of levobunolol required to control intraocular pressure in patients with primary open-angle glaucoma or ocular hypertension
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Lopes, J. F., Moster, M. R., Wilson, R. P., Altangerel, U., Alvim, H. S., Tong, M. G., Fontanarosa, J., and Steinmann, W. C. Subconjunctival sodium hyaluronate 2.3% in trabeculectomy: a prospective randomized clinical trial. Ophthalmology 2006 ;113 (5): 756-60 .
  Other (specify):Not a comparison of interest
- "Lotti, R., Traverso, C. E., Murialdo, U., Frau, B., Calabria, G. A., and Zingirian, M. Argon laser trabeculoplasty: long-term results. Ophthalmic Surg 95 ;26 (2): 127-9 .
  Other (specify):Study design does not match KQ
- "Low, M., Buhler, C., and Mester, U. [Comparison of Healon, Healon GV, and Healon 5 in viscotrabeculectomy]. Ophthalmologe 2003 ;100 (7): 539-44 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Lteif, Y., Berete-Coulibaly, R., Labbe, A., Bouassida, W., and Lachkar, Y. [Mid-term effects of two-site phacotrabeculectomy with limbal-based conjunctival flap and microincision trabeculectomy with adjustable sutures]

Foreign language

- "Lu, D., Liu, W., Li, H., and Ji, J. The application of human anterior lens capsule autotransplantation in phacotrabeculectomy: a prospective, comparative and randomized clinical study. Eye (Lond) 2009 ;23 (1): 195-201 .

OAG can't be analyzed separately

- "Lubeck, M. J. Aplastic anemia following acetazolamide therapy. Am J Ophthalmol 70 ;69 (4): 684-5 .

It is a case series

- "Luchik, V. I. [Efficacy of combined conservative treatment of patients with initial open-angle glaucoma]

Foreign language

- "Luchik, V. I. [The dynamic glaucomatous process based on the data from the long-term dispensary observations of patients operated on in the initial stage of the disease]

- **Foreign language**
- "Luke, C., Dietlein, T. S, Jacobi, P. C, Konen, W., and Kriegistein, G. K. Comparison of viscocanalostomy and trabeculectomy in open-angle glaucoma - a prospective randomized study

Meeting abstract

- "Luke, C., Dietlein, T. S., Jacobi, P. C., Konen, W., and Krieglstein, G. K. A prospective randomized trial of viscocanalostomy versus trabeculectomy in open-angle glaucoma: a 1-year follow-up study

Cheng 2009 and Chai 2010

- "Luke, C., Dietlein, T. S., Luke, M., Konen, W., and Krieglstein, G. K. A prospective trial of phaco-trabeculotomy combined with deep sclerectomy versus phaco-trabeculectomy. Graefes Arch Clin Exp Ophthalmol 2008 ; 246 (8): 1163-8 .
- **It is a case series**
- "Lumme, P., Tuulonen, A., Airaksinen, P. J., and Alanko, H. I. Neuroretinal rim area in low tension glaucoma: effect of nifedipine and acetazolamide compared to no treatment. Acta Ophthalmol (Copenh) 91 ; 69 (3): 293-8 .

It is not a RCT and has less than 100 patients

- "Lund, O. E. and Zink, H. [Long-term results following argon laser trabeculoplasty]. Klin Monbl Augenheilkd 88 ;193 (6): 572-8 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Luntz, M. H. and Freedman, J. The fornix-based conjunctival flap in glaucoma filtration surgery. Ophthalmic Surg 80 ;11 (8): 516-21 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Luntz, M. H. and Schlossman, A. Trabeculectomy: a modified surgical technique. J Cataract Refract Surg 94 ;20 (3): 350-2 .
- **It is not a RCT and has less than 100 patients**
- "Luo, R. J., Zhuo, Y. H., Liu, S. R., Lin, M. K., and Tian, Z. [Long-term effects of non-penetrating trabecular surgery versus trabeculectomy for treating glaucoma]

Foreign language

- "Lupinacci, A. P., Netland, P. A., Fung, K. H., Evans, D., and Zhao, Y. Comparison of twice-daily and three-times-daily dosing of dorzolamide in ocular hypertension and primary open-angle glaucoma patients treated with latanoprost

Unique comparators

- "Luque Aranda, R., Cabarga Del Nozal, C., Silva Silva, G., Vazquez Salvi, A., and Garcia Campos, J. M. [Study on hypotensive effect of latanoprost vs timolol-dorzolamide association]. Arch Soc Esp Oftalmol 2002 ;77 (4): 205-10 .

It is not a RCT and has less than 100 patients

- "Lusky, M., Ticho, U., Glovinsky, J., Weinberger, D., Nesher, R., Yassur, Y., and Melamed, S. A comparative study of two dose regimens of latanoprost in patients with elevated intraocular pressure. Ophthalmology 97 ;104 (10): 1720-4 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Lustgarten, J. S. Topical timolol-induced arthropathy. Am J Ophthalmol 88 ;105 (6): 687-8 .

It is a case series

- "Lustgarten, J., Podos, S. M., Ritch, R., Fischer, R., Stetz, D., Zborowski, L., and Boas, R. Laser trabeculoplasty. A prospective study of treatment variables. Archives of ophthalmology 84 ;102 (4): 517-9 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Lutfalla, A. I. [Clinical results of a 1-stage cataract extraction with trabeculectomy]

  Foreign language
- "Luu, K. T., Raber, S. R., Nickens, D. J., and Vicini, P. A model-based meta-analysis of the effect of latanoprost chronotherapy on the circadian intraocular pressure of patients with glaucoma or ocular hypertension

  Systematic review
- "Luu, S. T., Lee, A. W., and Chen, C. S. Transient monocular visual loss following administration of topical latanoprost: a case report. Can J Ophthalmol 2009 ;44 (6): 715 .

  It is a case series
- "Lynch, M. G., Whitson, J. T., Brown, R. H., Nguyen, H., and Drake, M. M. Topical beta-blocker therapy and central nervous system side effects. A preliminary study comparing betaxolol and timolol. Arch Ophthalmol 88 ;106 (7): 908-11 .

  Data not abstractable
- "Ma, H., Shao, H., Lee, P. Y., Comer, G., and Ma, A. A COMPARISON OF IOP-REDUCING EFFECT OF LATANOPROST AND TIMOLOL IN OCULAR HYPERTENSION AND PRIMARY OPEN-ANGLE GLAUCOMA

  Meeting abstract
- "Ma, J.-X. Treating patients with primary open angle glaucoma or ocular hypertension with domestic and imported latanoprost drop: Comparison on efficacy and cost

  Foreign language
- "Maas, S., Ros, F. E., De Heer, L. J., and De Keizer, R. J. Efficacy and safety of the combination therapy Pilogel/beta-blocker: interim results. Doc Ophthalmol 89 ;72 (3-4): 391-8 .

  It is not a RCT and has less than 100 patients
- "MacKeen, D. L. Effects of aqueous instillation. Ophthalmology 99 ; 106 (10): 1853 .

  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Macky TA. Bimatoprost versus travoprost in an Egyptian population: a hospital-based prospective, randomized study

  Duplicate of 80213 "
- "Macky TA. Bimatoprost versus travoprost in an Egyptian population: a hospital-based prospective, randomized study. Journal of ocular pharmacology and therapeutics : the official journal of the Association for Ocular Pharmacology and Therapeutics 2010 ;26 (6): 605-10 .

  Other (specify): Mean age less than 50"
- "Macky, T. A. Bimatoprost versus travoprost in an egyptian population: a hospital-based prospective, randomized study

  Only addresses med KQ 3 and 6 "
- "Madelain, J., Isorni, M. C., Malthieu, D., and Turut, P. [Trabeculoretraction using argon laser and open-angle glaucoma: results after 4 years]. Bull Soc Ophtalmol Fr 88 ;88 (8-9): 1041-5 .

  Data not abstractable
- "Maffrand, R. A. [Surgery of glaucoma: intrascleral trabeculo-irido encleisis]. Rev Fac Cien Med Univ Nac Cordoba 93 ;51 (1): 13-8 .

  It is not a RCT and has less than 100 patients
- "Maffrand, Roque Alejandro. Cirugia del glaucoma: trabeculo-irido-encleisis intraescleral

  Foreign language
- "Mafwiri, M., Bowman, R. J., Wood, M., and Kabiru, J. Primary open-angle glaucoma presentation at a tertiary unit in Africa: intraocular pressure levels and visual status. Ophthalmic Epidemiol 2005 ;12 (5): 299-302 .

  It is a case series
- "Magacho, L., Queiroz, C. F., Medeiros, M., Lima, F. E., Magacho, B., and Avila, M. Improvement in glaucomatous visual field thresholds after reduction of intraocular pressure: Clinical vs. surgical treatment: Melhora dos limiares de sensibilidade do campo visual apos reducao da pressao intra-ocular em pacientes com glaucoma: Tratamento cirurgico vs. clinico

  Foreign language
- "Magacho, L., Reis, R., Shetty, R. K., Santos, L. C., and Avila, M. P. Efficacy of latanoprost or fixed-combination latanoprost-timolol in patients switched from a combination of timolol and a nonprostaglandin medication. Ophthalmology 2006 ;113 (3): 442-5 .

  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Magacho, Leopoldo, Costa, Marcelus Layguel, Lima, Francisco Eduardo, Magacho, Bernardo, and -vila, Marcos Pereira de. Anblogos das prostaglandinas diminuem a sensibilidade do teste provocativo da ibopamina no glaucoma

  Foreign language
- "Magacho, Leopoldo, Queiroz, Carlos Frederico, Medeiros, Mariele, Lima, Francisco Eduardo, Magacho, Bernardo, and Avila, Marcos. Melhora dos limiares de sensibilidade do campo visual ap£s reducPo da

pressPo intra-ocular em pacientes com glaucoma: tratamento cir·rgico vs. clÆnico

Foreign language

- "Magder, H. and Boyaner, D. The use of a longer acting pilocarpine in the management of chronic simple glaucoma

Duplicate "

- "Magder, H. and Boyaner, D. The use of a longer pilocarpine in the management of chronic simple glaucoma. Can J Ophthalmol 74 ;9 (3): 285-8 .

It is not a RCT and has less than 100 patients

- "Mahdaviani, S., Kitnarong, N., Kropf, J. K., and Netland, P. A. Efficacy of laser trabeculoplasty in phakic and pseudophakic patients with primary open-angle glaucoma. Ophthalmic Surg Lasers Imaging 2006 ;37 (5): 394-8 .

It is not a RCT and has less than 100 patients

- "Mahroo, O. A., Stanbury, R., and Lim, K. S. Were the groups in the trabeculectomy versus Ahmed valve study really comparable?. Br J Ophthalmol 2010 ;94 (11): 1551-2 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Maichuk, I. u. F. and Erichev, V. P. [Pharmaceutical and clinical evaluation of soluble pilocarpine eye films]
- **Foreign language**
- "Makabe, R. [Mydriasis tonography during treatment with miotics]
- **Foreign language**
- "Malagola, R., Motolese, E. D., and De Luca, T. [Long-term tonometry control of laser therapy of open-angle glaucoma]. Fortschr Ophthalmol 88 ;85 (4): 366-8 .

It is a case series

- "Malik, S. R., Sood, G. C., Bhardwaj, P. C., and Saha, S. K. Effect of sustained release acetazolamide on the intraocular tension in normal and glaucomatous eyes. J All India Ophthalmol Soc 65 ;13 (4): 151-7 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Malta, Roberto Freire Santiago. Reprodutibilidade do Teste de prono-posigåo em quarto escuro

Foreign language

- "Mamalis, N., Lohner, S., Rand, A. N., and Crandall, A. S. Combined phacoemulsification, intraocular lens implantation, and trabeculectomy. J Cataract Refract Surg 96 ;22 (4): 467-73 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Mamedov, N. G., Shtilerman, A. L., and Frolov, A. V. [Comparative studies of the efficacy of laser therapy of common and pseudoexfoliative primary open-angle glaucoma]

Foreign language

- "Mancuso, G. and Berdondini, R. M. Allergic contact blepharoconjunctivitis from dorzolamide. Contact Dermatitis 2001 ; 45 (4): 243 .

It is not a RCT and has less than 100 patients

- "Mandia J·nior, Carmo and Rodrigues, Maria de Lourdes Veronese. Trabeculectomia com mitomicina-C no tratamento de glaucomas refratbrios: avaliagPo dos resultados de 108 casos

Foreign language

- "Mandia Junior, Carmo, Kasahara, Niro, Seixas, Francisco Soares, Paolera, MaurÆcio Della, Almeida, Geraldo Vicente de, and Cohen, Ralph. ComparagPo a longo prazo entre a facectomia extracapsular combinada a trabeculectomia e a facotrabeculectomia

Foreign language

- "Mandic, Z. and Ivekovic, R. Glaucoma triple procedure: comparison of ECCE and phacoemulsification combined with trabeculectomy

Meeting abstract

- "Mandic, Z., Bencic, G., Zoric Geber, M., and Bojic, L. Fornix vs limbus based flap in phacotrabeculetomy with mitomycin C: prospective study. Croat Med J 2004 ;45 (3): 275-8 .

Other (specify):Study design does not match KQ

- "Mandic, Z., Bojic, L., Novak-Laus, K., and Saric, D. Evaluation of the intraocular pressure-reducing effect of latanoprost as monotherapy in open-angle glaucoma
- **Excluded drug**
- "Mandic, Z., Ivekovic, R., Petric, I., and Zoric-Geber, M. Glaucoma triple procedure: a one-site vs. a two-site approach. Coll Antropol 2000 ;
- 24 (2): 367-71 .
- **It is not a RCT and has less than 100 patients**
- "Mani, K. M. Experiencia con la trabeculectomia en la poblacion de Jamaica

Foreign language

- "Manni, G. and Bucci, M. Substitution with Latanoprost monotherapy or additional with Dorzolamide in Timolol treated patients. A randomized, multicenter study in Italy
  Meeting abstract
- "Manni, G. Demographic and clinical factors associated with brimonidine-induced ocular allergy. Eur. J. Ophthalmol. 2007 ;17 (SUPPL. 5): S22-S23 .
- **Does not address any key questions**
- "Manni, G. L., Centofanti, M., Napoli, D., Parisi, V., and Bucci, M. G. Hypotensive effects of dorzolamide eyewash in maximal therapy glaucoma patients: a comparative study with oral acetazolamide. Acta Ophthalmol Scand Suppl 97 ;(224): 22-3 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Manni, G., Centofanti, M., Parravano, M., Oddone, F., and Bucci, M. G. A 6-month randomized clinical trial of bimatoprost 0.03% versus the association of timolol 0.5% and latanoprost 0.005% in glaucomatous patients
  Non-FDA-approved drug combination
- "Manni, G., Centofanti, M., Sacchetti, M., Oddone, F., Bonini, S., Parravano, M., and Bucci, M. G. Demographic and clinical factors associated with development of brimonidine tartrate 0.2%-induced ocular allergy. J Glaucoma 2004 ;13 (2): 163-7 .
  Animal or in vitro data
- "Manni, G., Denis, P., Chew, P., Sharpe, E. D., Orengo-Nania, S., Coote, M. A., Laganovska, G., Volksone, L., Zeyen, T., Filatori, I., James, J., and Aung, T. The safety and efficacy of brinzolamide 1%/timolol 0.5% fixed combination versus dorzolamide 2%/timolol 0.5% in patients with open-angle glaucoma or ocular hypertension. J Glaucoma 2009 ;18 (4): 293-300
  Other (specify): Brinz/Tim not fda-approved"
- "Manni, G., Denis, P., Zeyen, T., Aung, T., Filatori, I., James, J., Salem, C., and Smoot, T. Comparison of Safety and Efficacy of Brinzolamide/Timolol (AZARGATM) vs. COSOPT® in Patients With Open-Angle Glaucoma or Ocular Hypertension
  KQ 3 only "
- "Manni, G., Migliardi, R., Lorenzano, D., Minchiotti, S., and Bucci, M. G. Comparison between Surgical and Medical Treatment Effect on Diurnal Intraocular Pressure Fluctuations in Open Angle Glaucoma Patients
  Meeting abstract
- "Mansberger, S. L. Are you compliant with addressing glaucoma adherence?. Am J Ophthalmol 2010 ;149 (1): 1-3 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Mansberger, S. L., Hughes, B. A., Gordon, M. O., Spaner, S. D., Beiser, J. A., Cioffi, G. A., and Kass, M. A. Comparison of initial intraocular pressure response with topical beta-adrenergic antagonists and prostaglandin analogues in African American and white individuals in the Ocular Hypertension Treatment Study
  KQ 6 Medical only "
- "Mansouri K, Tran HV, Ravinet E, and Mermoud A. Comparing deep sclerectomy with collagen implant to the new method of very deep sclerectomy with collagen implant: a single-masked randomized controlled trial. Journal of glaucoma 2010 ;
- 19 (1): 24-30 .
- **OAG can't be analyzed separately**
- "Mansouri, K., Orguel, S., Mermoud, A., Haefliger, I., Flammer, J., Ravinet, E., and Shaarawy, T. Quality of diurnal intraocular pressure control in primary open-angle patients treated with latanoprost compared with surgically treated glaucoma patients: a prospective trial. Br J Ophthalmol 2008 ;92 (3): 332-6 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Mansouri, K., Shaarawy, T., Wedrich, A.,Mermoud, A. Comparing polymethylmethacrylate implant with collagen implant in deep sclerectomy: a randomized controlled trial. J Glaucoma 2006 ;15 (3): 264-70 .
- **OAG can't be analyzed separately**
- "Mansouri, K., Tran, H. V., Ravinet, E., and Mermoud, A. Comparing deep sclerectomy with collagen implant to the new method of very deep sclerectomy with collagen implant: a single-masked randomized controlled trial. J Glaucoma 2010 ;19 (1): 24-30 .
  Other (specify):Not a comparison of interest
- "Maquet, J. A., Dios, E., Aragon, J., Bailez, C., Ussa, F., and Laguna, N. Protocol for mitomycin C use in glaucoma surgery. Acta Ophthalmol Scand 2005 ;83 (2): 196-200 .
  OAG can't be analyzed separately
- "Maquet, J. A., Hernandez Velasco, E., and Pastor Jimeno, J. C. Double blind trial of dipivefrine and epinephrine bitartrate: ESTUDIO DOBLE

CIEGO DE LA DIPIVALYL EPINEFRINA Y EL BITARTRATO DE EPINEFRINA. ARCH. SOC. ESP. OFTALMOL. 84 ;47 (1): 1-5 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Maraini, G., Vinciguerra, E., and Barberini, E. [Personal experience with pilocarpine-Ocusert in the treatment of glaucoma]

  Foreign language
- "Marcel, H. M., Dimitris, P., Philipp, M., Gerasimos, G., and Michael, D. Adherence with brimonidine in patients with glaucoma aware and not aware of electronic monitoring. Acta Ophthalmol 2010 ;

  Does not address any key questions (see below for questions), **Data not abstractable**
- "March, W. and Brinzolamide Study Groups. A COMPARISON OF THE EFFICACY, SAFETY AND OCULAR COMFORT OF BRINZOLAMIDE AND DORZOLAMIDE AS PRIMARY THERAPY FOR OPEN-ANGLE GLAUCOMA AND OCULAR HYPERTENSION

  Meeting abstract
- "March, W. F. and Ochsner, K. I. The long-term safety and efficacy of brinzolamide 1.0% (Azopt) in patients with primary open-angle glaucoma or ocular hypertension

  Medical KQ 3 or KQ 3 and KQ 6 only
- "March, W. F. and Ochsner, K. I. The long-term safety and efficacy of brinzolamide 1.0% (azopt) in patients with primary open-angle glaucoma or ocular hypertension. The Brinzolamide Long-Term Therapy Study Group

  Medical KQ 3 or KQ 3 and KQ 6 only
- "March, W. F., Kothe, A. C., and The Brinzolamide Long-Term Therapy Study Group. EFFECT OF LONG-TERM THERAPY WITH BID OR TID-DOSED BRINZOLAMIDE 1% (AZOPTTM) COMPARED TO TIMOLOL 0.5% ON THE IOP, CORNEAL HEALTH AND VISUAL FIELDS OF PATIENTS WITH POAG OR OHT

  Meeting abstract
- "March, W. F., Silver, L. H., and The Brinzolamide Long-Term Therapy Study Group. THE LONG-TERM SAFETY AND EFFICACY OF BRINZOLAMIDE (AZOPT), A NEW TOPICAL CARBONIC ANHYDRASE INHIBITOR, IN PATIENTS WITH OPEN-ANGLE GLAUCOMA AND OCULAR HYPERTENSION

  Meeting abstract
- "Marchini, G., Ghilotti, G., Bonadimani, M., and Babighian, S. Effects of 0.005% latanoprost on ocular anterior structures and ciliary body thickness. J Glaucoma 2003 ;12 (4): 295-300 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Marcon, Italo Mundialino, Mello, Paulo Augusto de Arruda, CorrWa, Zqlia Maria da Silva, and Marcon, Alexandre Seminoti. Correlagåo entre os achados b biomicroscopia ultra-sónica de bolhas filtrantes, com ou sem mitomicina C, e a pressåo intra-ocular

  Foreign language
- "Marcus, C., Moster, M., and Wilson, R. A FOUR YEAR FOLLOW UP COMPARISON OF 180° VS. 360° NEODYMIMIUM:YAG TRANSSCLERAL CYCLOPHOTOCOAGULATION

  Meeting abstract
- "Marek, R., Joanna, W., Lewczuk, K., Siemiatkowska, A., and Stankiewicz, A. Efficacy and safety of deep sclerectomy and phacoemulsification and deep sclerectomy in clinical material of Military Health Service Institute--yearly observations. Klin Oczna 2006 ;108 (10-12): 385-91 .

  It is not a RCT and has less than 100 patients
- "Margio, Flavio A, Assumpgåo, Deborah, Cronemberger, Sebastiåo, and Calixto, Nassim. ColÆrios antiglaucomatosos e eficbcia da trabeculectomia: II-critqrios de definigåo do sucesso da cirurgia

  Foreign language
- "Marigo, F. A., Cronemberger, S., and Calixto, N. LONG-TERM USE OF TOPICAL ANTIGLAUCOMATOUS DRUGS AND SUCCESS OF TRABECULECTOMY

  Meeting abstract
- "Marigo, Flavio A, Cronemberger, Sebastiåo, and Calixto, Nassim. ColÆrios antiglaucomatosos e eficbcia da trabeculectomia: I. estudo clÆnico

  Foreign language
- "Maris, P. J. Jr, Ishida, K., and Netland, P. A. Comparison of trabeculectomy with Ex-PRESS miniature glaucoma device implanted under scleral flap. J Glaucoma 2007 ;16 (1): 14-9 .

  OAG can't be analyzed separately
- "Maroteaux, I. [Experience with topical brimonidine in the treatment of glaucomas]. J Fr Ophtalmol 2001 ;24 (7): 748-9 .

  No original data (e.g., systematic review, narrative review, editorial, letter)

- "Marquardt, D., Lieb, W. E., and Grehn, F. Intensified postoperative care versus conventional follow-up: a retrospective long-term analysis of 177 trabeculectomies. Graefes Arch Clin Exp Ophthalmol 2004 ;242 (2): 106-13 .

  Animal or in vitro data
- "Marquardt, D., Lieb, W. E., and Grehn, F. Intensified postoperative care versus conventional follow-up: A retrospective long-term analysis of 177 trabeculestomies. Graefe's Arch. Clin. Exp. Ophthalmol. 2004 ;242 (2): 106-113 .
- **OAG can't be analyzed separately**
- "Marquardt, R. and Schubert, T. [Modification of tear film break-up time by beta blocker eyedrops without preservatives]

  Foreign language
- "Martenet, A. C. and Gruber, P. [Trabeculectomy. Role of its localization]

  Foreign language
- "Martin, E., Martinez-de-la-Casa, J. M., Garcia-Feijoo, J., Troyano, J., Larrosa, J. M., and Garcia-Sanchez, J. A 6-month assessment of bimatoprost 0.03% vs timolol maleate 0.5%: hypotensive efficacy, macular thickness and flare in ocular-hypertensive and glaucoma patients

  Medical KQ 3 or KQ 3 and KQ 6 only
- "Martin, F. J. Timolol maleate. A report from the Glaucoma Clinic, Sydney Eye Hospital. Aust J Ophthalmol 80 ;8 (2): 177-8 .

  Data not abstractable
- "Martin, L. and Wanger, P. Five-year follow-up of treated patients with glaucoma using resolution perimetry. J Glaucoma 98 ;7 (1): 22-6 .

  Does not address any key questions
- "Martin, L. Clinical experience with latanoprost: a retrospective study of 153 patients. Acta Ophthalmol Scand 99 ;77 (3): 336-9 .
- **It is a case series**
- "Martin-Boglind, L. and Wanger, P. The effect of treatment on the results of high-pass resolution perimetry in glaucoma. Acta Ophthalmol (Copenh) 94 ;72 (4): 423-8 .
- **It is not a RCT and has less than 100 patients**
- "Martinez, A. and Sanchez, M. A comparison of the effects of 0.005% latanoprost and fixed combination dorzolamide/timolol on retrobulbar haemodynamics in previously untreated glaucoma patients

  Medical KQ 3 only
- "Martinez, A. and Sanchez, M. A comparison of the safety and intraocular pressure lowering of bimatoprost/timolol fixed combination versus latanoprost/timolol fixed combination in patients with open-angle glaucoma. Curr Med Res Opin 2007 ;23 (5): 1025-32 .

  Other (specify):non FDA approved drug"
- "Martinez, A. and Sanchez, M. Bimatoprost/timolol fixed combination vs latanoprost/timolol fixed combination in open-angle glaucoma patients. Eye (Lond) 2009 ;23 (4): 810-8 .

  Does not address any key questions
- "Martinez, A. and Sanchez, M. Effects of dorzolamide 2% added to timolol maleate 0.5% on intraocular pressure, retrobulbar blood flow, and the progression of visual field damage in patients with primary open-angle glaucoma: a single-center, 4-year, open-label study. Clin Ther 2008 ; 30 (6): 1120-34 .

  Other (specify):study design does not match KQ (KQ3)"
- "Martinez, A. and Sanchez, M. Intraocular pressure lowering effect of dorzolamide/timolol fixed combination in patients with glaucoma who were unresponsive to prostaglandin analogs/prostamides. Curr Med Res Opin 2007 ;23 (3): 595-9 .

  It is a case series
- "Martinez, A. and Sanchez, M. Retrobulbar haemodynamic effects of the latanoprost/timolol and the dorzolamide/timolol fixed combinations in newly diagnosed glaucoma patients. Int J Clin Pract 2007 ;61 (5): 815-25

  Other (specify):not FDA approved combination"
- "Martinez, A. and Sanchez-Salorio, M. A comparison of the long-term effects of dorzolamide 2% and brinzolamide 1%, each added to timolol 0.5%, on retrobulbar hemodynamics and intraocular pressure in open-angle glaucoma patients

  Medical KQ 3 only
- "Martinez, A. and Sanchez-Salorio, M. Predictors for visual field progression and the effects of treatment with dorzolamide 2% or brinzolamide 1% each added to timolol 0.5% in primary open-angle glaucoma

  Unique comparators
- "Martinez, J. A., Brown, R. H., Lynch, M. G., and Caplan, M. B. Risk of postoperative visual loss in advanced glaucoma. Am J Ophthalmol 93 ; 115 (3): 332-7 .

  Data not abstractable
- "Martinez-de-la-Casa, J. M., Castillo, A., Garcia-Feijoo, J., Mendez-Hernandez, C., Fernandez-Vidal, A., and Garcia-Sanchez, J. Concomitant administration of travoprost and brinzolamide versus fixed

latanoprost/timolol combined therapy: three-month comparison of efficacy and safety

Non-FDA-approved drug combination

- "Martinez-de-la-Casa, J. M., Garcia-Feijoo, J., Castillo, A., Matilla, M., Macias, J. M., Benitez-del-Castillo, J. M., and Garcia-Sanchez, J. Selective vs argon laser trabeculoplasty: hypotensive efficacy, anterior chamber inflammation, and postoperative pain. Eye (Lond) 2004 ;
- 18 (5): 498-502 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Martini, E., Laffi, G. L., Sprovieri, C., and Scorolli, L. Low-dosage mitomycin C as an adjunct to trabeculectomy. A prospective controlled study

Included in Wilkins 2010

- "Martone, G., Frezzotti, P., Tosi, G. M., Traversi, C., Mittica, V., Malandrini, A., Pichierri, P., Balestrazzi, A., Motolese, P. A., Motolese, I., and Motolese, E. An in vivo confocal microscopy analysis of effects of topical antiglaucoma therapy with preservative on corneal innervation and morphology. Am J Ophthalmol 2009 ;147 (4): 725-735.e1 .
- **It is not a RCT and has less than 100 patients**
- "Maruyama, K. and Shirato, S. Additive effect of dorzolamide or carteolol to latanoprost in primary open-angle glaucoma: a prospective randomized crossover trial

Unique comparators

- "Maruyama, K., Shirato, S., and Haneda, M. Evaluation of the additive effect of bunazosin on latanoprost in primary open-angle glaucoma. Jpn J Ophthalmol 2005 ;49 (1): 61-2 .

It is a case series

- "Masieri, L. T., Parmeggiani, F., Gasparrini, E., Gavioli, I., Peruz, G., Graziani, F., and Costagliola, C. Effects of topical administration of clonidine 0.125% and brimonidine 0.2% on ocular perfusion pressure and visual field parameters in patients with primary open-angle glaucoma: Effetti della somministrazione topica di clonidina 0.125% e brimonidina 0.2% sulla pressione di perfusione oculare e sugli indici perimetrici in pazienti affetti da glaucoma primario ad angolo aperto

Foreign language

- "Mastropasqua, L., Carpineto, P., and Ciancaglini, M. Brimonidine and pupillary diameter. Ophthalmology 98 ;105 (8): 1352-3 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Mastropasqua, L., Carpineto, P., Ciancaglini, M., and Gallenga, P. E. A 12-month, randomized, double-masked study comparing latanoprost with timolol in pigmentary glaucoma. Ophthalmology 99 ;106 (3): 550-5 .

Data not abstractable

- "Mastropasqua, L., Ciancaglini, M., Carpineto, P., Verdesca, G., Ciafre, M., and Costagliola, C. The effect of 1% apraclonidine on visual field parameters in patients with glaucoma and ocular hypertension. Ann. Ophthalmol. Glaucoma 98 ;30 (1): 41-45 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Mastropasqua, L., Ciancaglini, M., Carpineto, P., Zuppardi, E., Falconio, G., and Gallenga, P. E. Effects of brimonidine 0.2% on blue-yellow perimetry of glaucomatous patients. Acta Ophthalmol Scand Suppl 98 ; (227): 36 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Mastropasqua, L., Costagliola, C., Ciancaglini, M., Carpineto, P., and Gallenga, P. E. Ocular hypotensive effect of ketanserin in patients with primary open angle glaucoma. Acta Ophthalmol Scand Suppl 97 ; (224): 24-5 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Masuda, K. Eye and prostaglandins. Clinical application of prostaglandin synthetase inhibitor

Foreign language

- "Mattox, C., Chung, P., and Schuman, J. COMPARISON OF 5.5 MM VERSUS 3.5 MM SCLERAL FLAPS IN COMBINED PHACOEMULSIFICATION AND TRABECULECTOMY WITH MITOMYCIN C

Meeting abstract

- "Maul de la Puente, Eugenio and Vega Sabaleta, Rebeca. Efecto de la pilocarpina gel al 4 sobre la presi£n intraocular en glaucoma cr£nico simple

Foreign language

- "Maul, E., Carrasco, F. G., Costa, V. P., Casiraghi, J. F., Vargas, E. M. G., Sarmina, J. S., and Maylo, R. A Six-Week Double-Masked Study Comparing Travoprost 0.004% to Latanoprost 0.005% Followed by a Six-Week Open-Label Treatment on Travoprost 0.004%

- **Meeting abstract**
- "Maul, E., Carrasco, F. G., Costa, V. P., Casiraghi, J. F., Vargas, E., Sarmina, J. S., and Mayol, R. A 6-week, multicenter, randomized, double-masked, parallel-group study comparing travoprost 0.004% to latanoprost 0.005% followed by 6-week, open-label treatment with travoprost 0.004%
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Mayer, H. and von der Ohe, N. Efficacy of a novel hydrogel formulation in human volunteers. Ophthalmologica 96 ;210 (2): 101-3 .

  It is not a RCT and has less than 100 patients
- "Mazzeo, V., Brienza, D., Ilari, L., Perri, P., and Rossi, A. Trabeculectomy: A retrospective study of results of long-term follow-up. Our experience on 198 eyes. NEW TRENDS OPHTHALMOL. 96 ;
- 11 (1): 33-40 .

  Data not abstractable
- "Mazzola, C. [Timoptol]

  Foreign language
- "McAllister, J. A., Schwartz, L. W., Moster, M., and Spaeth, G. L. Laser peripheral iridectomy comparing Q-switched neodymium YAG with argon. Transactions of the ophthalmological societies of the United Kingdom 85 ;104 (Pt 1) : 67-9 .

  No subjects with open-angle glaucoma
- "McCartney, D. L., Memmen, J. E., Stark, W. J., Quigley, H. A., Maumenee, A. E., Gottsch, J. D., Bernitsky, D. A., and Wong, S. K. The efficacy and safety of combined trabeculectomy, cataract extraction, and intraocular lens implantation. Ophthalmology 88 ;95 (6): 754-63 .

  It is combined cataract/glaucoma surgery study published before April 2000
- "McCarty, C. A., Mukesh, B. N., Kitchner, T. E., Hubbard, W. C., Wilke, R. A., Burmester, J. K., and Patchett, R. B. Intraocular pressure response to medication in a clinical setting: the Marshfield Clinic Personalized Medicine Research Project. J Glaucoma 2008 ;17 (5): 372-7 .

  Does not address any key questions
- "McCarty, G., Stewart, W. C., Quayle, W., Levin, J., and Rienhart, M. EVALUATION OF MORNING IOP CONTROL BY BEDTIME PILOCARPINE GEL DOSING

- **Meeting abstract**
- "McGuigan, L. J., Gottsch, J., Stark, W. J., Maumenee, A. E., and Quigley, H. A. Extracapsular cataract extraction and posterior chamber lens implantation in eyes with preexisting glaucoma. Arch Ophthalmol 86 ;104 (9): 1301-8 .

  Data not abstractable
- "McHam, M. L., Migdal, C. S., and Netland, P. A. Early trabeculectomy in the management of primary open-angle glaucoma. INT. OPHTHALMOL. CLIN. 94 ;34 (3): 163-172 .

  No original data (e.g., systematic review, narrative review, editorial, letter)
- "McIlraith, I., Strasfeld, M., Colev, G., and Hutnik, C. M. Selective laser trabeculoplasty as initial and adjunctive treatment for open-angle glaucoma. J Glaucoma 2006 ;15 (2): 124-30 .

  Other (specify):Study design does not match KQ
- "McKinley, S. H., Singh, R., Chang, P. T., Gross, R. L., and Orengo-Nania, S. Intraocular pressure control among patients transitioned from latanoprost to travoprost at a Veterans Affairs Medical Center Eye Clinic. J Ocul Pharmacol Ther 2009 ;25 (2): 153-7 .

  Other (specify): Mixed glaucoma"
- "McMahon, C. D., Shaffer, R. N., Hoskins, H. D. Jr, and Hetherington, J. Jr. Adverse effects experienced by patients taking timolol. Am J Ophthalmol 79 ;88 (4): 736-8 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "McNeal, E. and Yablonski, M. E. A Paired Comparison of Travoprost and Latanoprost on IOP and Conjunctival Hyperemia

  Meeting abstract
- "Medeiros, F. A. and Susanna, R. Jr. Bimatoprost. Ophthalmology 2005 ;
- 112 (8): 1478; author reply 1479 .

  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Medeiros, F. A., Alencar, L. M., Zangwill, L. M., Sample, P. A., and Weinreb, R. N. The Relationship between intraocular pressure and progressive retinal nerve fiber layer loss in glaucoma

  Systematic review
- "Medeiros, F. A., Pinheiro, A., Moura, F. C., Leal, B. C., and Susanna, R. Jr. Intraocular pressure fluctuations in medical versus surgically treated glaucomatous patients. J Ocul Pharmacol Ther 2002 ;18 (6): 489-98 .
- **It is not a RCT and has less than 100 patients**
- "Medeiros, Felipe Andrade, Borges, Adriana S, and Susanna J·nior, Remo. Alteragões longitudinais na espessura da camada de fibras nervosas da retina ap£s trabeculectomia

Foreign language

- "Megevand, G. S., Salmon, J. F., Scholtz, R. P., and Murray, A. D. The effect of reducing the exposure time of mitomycin C in glaucoma filtering surgery. Ophthalmology 95 ;102 (1): 84-90 .
- **It is not a RCT and has less than 100 patients**
- "Mehrotra, A. N., Jain, B. S., and Anand, G. S. Comparative evaluation of pilocarpine 2% and combined guanethidine 1% & adrenaline 0.5% in the treatment of chronic simple glaucoma. Indian J Ophthalmol 87 ;35 (3): 146-8 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Mehta, H. K. Subconjunctival injection of pilocarpine. Trans Ophthalmol Soc U K 76 ;96 (1): 184-8 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Mehta, K. R., Sathe, S. N., and Karyekar, S. D. Trabeculectomy ab-externo. Indian J Ophthalmol 74 ;22 (3): 9-12 .
- **Does not address any key questions**
- "Mehta, N. H., Simmons, S. T., and Alphagan/Trusopt Study Group. THE SAFETY AND EFFICACY OF BRIMONIDINE AND DORZOLAMIDE AS CONCOMITANT THERAPY IN PRIMARY OPEN ANGLE GLAUCOMA AND OCULAR HYPERTENSION

  Meeting abstract
- "Mehta, R., Puthuran, G., Krishnadas, R., and Mahalakshmi, R. Efficacy of transscleral diode laser cyclophotocoagulation for refractory glaucomas in a South Indian population. Asian J. Ophthalmol. 2006 ;
- 8 (6): 232-235 .
- **No subjects with open-angle glaucoma**
- "Meirelles, Sergio Henrique Sampaio, Liporaci, Simone Duarte, Bloise, Renata Rianelli, and -vila, Ediane Gongalves. Resultado em longo prazo da trabeculectomia no tratamento do glaucoma congWnito primbrio

  Foreign language
- Meirelles, Sergio Henrique Sampaio,Mathias, Cristina Rodrigues,Wagner, Raquel Young,-vila, Ediane Gongalves,Alves, Simone de Ara·jo,Ferreira, DWnia Rezende. Trabeculoplastia com Laser de Argónio e com Laser de Diodo - Anblise comparativa de 2 anos de seguimento. Rev. bras. oftalmol 2003; 62(10): 727-732. **It is not a RCT and has less than 100 patients**
- "Mekki, Q. A. and Turner, P. Dopamine-2 receptor blockade does not affect the ocular hypotensive action of timolol. British Journal of Ophthalmology 88 ;
- 72 (8): 598-600 .
- **Does not address any key questions**
- "Melamed, S. and David, R. Ongoing clinical assessment of the safety profile and efficacy of brimonidine compared with timolol: Year-three results
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Melamed, S., Bossawska, I., Laroch, C., and Bimatoprost Adjunctive to Timolol Study Group. : Effectiveness of Bimatoprost (LUMIGAN) as Adjunctive Therapy with Topical Beta-blockers in Patients with Glaucoma or Ocular Hypertension: A 3-Month, Multi-center, Double-masked, Randomized, Vehicle-controlled Trial with Double-masked Extension of Bimatoprost Treatment to 1 Year

  Meeting abstract
- "Melamed, S., Goldenfeld, M., and Simo, G. A Prospective, Randomized Study to Compare a Gold Micro Shunt With the Ahmed Glaucoma Valve in Glaucoma Patients
- **Meeting abstract**
- "Melamed, S., Nordmann, J., Yannoulis, N., Mertz, B., Schwenninger, C., and Kapik, B. The efficacy and safety of unoprostone isopropyl 0.15%, timolol maleate 0.5%, and betaxolol hydrochloride 0.5% in patients with primary open-angle glaucoma or ocular hypertension. Month 12 data
- **Meeting abstract**
- "Mellin, K. B., Heiligenhaus, A., and Schrenk, M. [Argon laser trabeculoplasty in chronic simple glaucoma with visual field defects and papillary damage]. Ophthalmologe 94 ;
- 91 (5): 585-8 .
- **It is not a RCT and has less than 100 patients**
- "Mello e Oliveira, Nilson de, Porto, Ricardo B, Freitas, Telam Gondim, and Lacava, Augusto Cezar. Estudo comparativo entre a eficbcia da trabeculectomia com e sem uso de 5-Fluorouracil ou Mitomiina -C

  Foreign language
- "Membrey, W. L, Hitchings, R. A, Poinoosawmy, D., and Bunce, C. Trabeculectomy in Normal-Tension Glaucoma (NTG) 2 Year Results: Intraocular Pressure (IOP) Control and Complications

  Meeting abstract

- "Membrey, W. L., Bunce, C., Poinoosawmy, D. P., Fitzke, F. W., and Hitchings, R. A. Glaucoma surgery with or without adjunctive antiproliferatives in normal tension glaucoma: 2 Visual field progression. Br J Ophthalmol 2001 ;85 (6): 696-701 .
  Does not address any key questions
- "Membrey, W. L., Poinoosawmy, D. P., Bunce, C., and Hitchings, R. A. Glaucoma surgery with or without adjunctive antiproliferatives in normal tension glaucoma: 1 intraocular pressure control and complications. Br J Ophthalmol 2000 ;84 (6): 586-90 .
  It is not a RCT and has less than 100 patients
- "Menon, G. J. and Vernon, S. A. Topical brinzolamide and metabolic acidosis. Br J Ophthalmol 2006 ;90 (2): 247-8 .
  It is a case series
- "Merkle, W. [Effect of methazolamide on the intraocular pressure of patients with open-angle glaucoma (author's transl)]. Klin Monbl Augenheilkd 80 ;176 (1): 181-5 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Merkle, W. Effect of methazolamide on the intraocular pressure of patients with open-angle glaucoma
  Duplicate "
- "Mermoud, A., Herbort, C. P., Schnyder, C. C., and Pittet, N. [Comparison of the effects of trabeculoplasty using the Nd-YAG laser and the argon laser]
  Foreign language
- "Mermoud, A., Karlen, M. E., Schnyder, C. C., Sickenberg, M., Chiou, A. G., Hediguer, S. E., and Sanchez, E. Nd:Yag goniopuncture after deep sclerectomy with collagen implant. Ophthalmic Surg Lasers 99 ;30 (2): 120-5 .
  It is a case series
- "Mermoud, A., Salmon, J. F., and Murray, A. D. Trabeculectomy with mitomycin C for refractory glaucoma in blacks. Am J Ophthalmol 93 ;116 (1): 72-8 .
  It is not a RCT and has less than 100 patients
- "Mermoud, A., Schnyder, C. C., Sickenberg, M., Chiou, A. G., Hediguer, S. E., and Faggioni, R. Comparison of deep sclerectomy with collagen implant and trabeculectomy in open-angle glaucoma. J Cataract Refract Surg 99 ;25 (3): 323-31 .
  It is not a RCT and has less than 100 patients
- "Merte, H. J. and Merkle, W. [Experiences in a double-blind study with different concentrations of timolol and pilocarpine (author's transl)]. Klin Monbl Augenheilkd 80 ;177 (4): 443-50 .
  It is not a RCT and has less than 100 patients
- "Merte, H. J., Heilmann, K., and Hollwich, I. [Investigations on the effect of various doses of acetazolamide (Diamox) on intraocular pressure (author's transl)]
  Foreign language
- "Merte, H. J., Stryz, J. R., and Mertz, M. [Comparative studies of initial pressure reduction using 0.3% metipranolol and 0.25% timolol in eyes with wide-angle glaucoma]. Klin Monbl Augenheilkd 83 ;182 (4): 286-9 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Merte, H. J., Stryz, J. R., and Mertz, M. Pindolol eye drops: Six months follow-up of an antiglaucomatous therapy: PINDOLOL-AUGENTROPFEN (GLAUCO-VISKEN(registered trademark)): HALBJAHRESERGEBNISSE EINER GLAUKOMTHERAPIE. KLIN. MONATSBL. AUGENHEILKD. 84 ;184 (3): 227-232 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Mesci, C., Aydin, N., and Erbil, H. H. Twenty-four-hour Intraocular Pressure Control With Latanoprost-timolol-fixed Combination Versus Bimatoprost in Patients Who Switched From Timolol. J Glaucoma 2010 ;
  Does not include treatment for open-angle glaucoma (medical, surgical or combined; See addendum for list of interventions), Other (specify): not included drug "
- "Mesci, C., Aydin, N., and Erbil, H. H. Twenty-four-hour Intraocular Pressure Control With Latanoprost-timolol-fixed Combination Versus Bimatoprost in Patients Who Switched From Timolol. J Glaucoma 2010 ;

  Other (specify): Latanoprost-timolol-fixed Combination not included"
- "Messmer, C., Stumpfig, D., and Flammer, J. [Effect of betaxolol and timolol on visual fields in glaucoma patients]
  Foreign language
- "Messmer, C., Stumpfig, D., and Flammer, J. Influence of betaxolol and timolol on the visual field in glaucoma patients: EINFLUSS VON BETAXOLOL UND TIMOLOL AUF DAS GESICHTSFELD BEI GLAUKOMPATIENTEN
- **Duplicate** "

- "Meuche, C., Heidrich, H., and Bleckmann, H. [Raynaud syndrome following timolol-containing eyedrops]. Fortschr Ophthalmol 90 ;87 (1): 45-7 .

  It is a case series
- "Meyer, J. and Samples, J. EFFICACY OF DORZOLAMIDE IN GLAUCOMA SUBPOPULATIONS INCLUDING PEDIATRIC AND SECONDARY GLAUCOMAS

  Meeting abstract
- "Meyer-Rusenberg, H. W., Lawin-Brussel, C., and Emmerich, K. H. [Long-term results following goniotrepanation (Elliot-Fronimopoulos)]. Fortschr Ophthalmol 88 ;85 (4): 375-7 .
- **It is a case series**
- "Michalikova, L., Ferkova, S., Jakabovicova, E., and Strmen, P. Antimetabolites in glaucoma surgery - The long term study: Antimetabolity v chirurgii glaukomu - Dlhodobe vysledky

  Foreign language
- "Michaud, J. E. and Friren, B. Comparison of topical brinzolamide 1% and dorzolamide 2% eye drops given twice daily in addition to timolol 0.5% in patients with primary open-angle glaucoma or ocular hypertension

  Medical KQ 3 or KQ 3 and KQ 6 only
- "Michelson, G., Junemann, A., Hanel, B., and Naumann, G. O. [Intraocular pressure after filtering operation or combined filter-cataract operation]

  Foreign language
- "Mielke, C., Dawda, V. K., and Anand, N. Intraoperative 5-fluorouracil application during primary trabeculectomy in Nigeria: a comparative study. Eye (Lond) 2003 ;17 (7): 829-34 .

  OAG can't be analyzed separately
- "Mietz, H. and Krieglstein, G. K. Postoperative application of mitomycin c improves the complete success rate of primary trabeculectomy: a prospective, randomized trial. Graefes Arch Clin Exp Ophthalmol 2006 244 (11): 1429-36 .

  OAG can't be analyzed separately
- "Mietz, H. and Krieglstein, G. K. Short-term clinical results and complications of trabeculectomies performed with mitomycin C using different concentrations. Int Ophthalmol 95 ;19 (1): 51-6 .

  Data not abstractable
- "Mietz, H. and Krieglstein, G. K. Suramin to enhance glaucoma filtering procedures: a clinical comparison with mitomycin. Ophthalmic Surg Lasers 2001 ;32 (5): 358-69 .

  OAG can't be analyzed separately
- "Mietz, H., Jacobi, P. C, and Krieglstein, G. K. Postoperative topical versus intraoperative episcleral application of mitomycin for trabeculectomy in secondary glaucoma and repeat trabeculectomy

  Meeting abstract
- "Mietz, H., Jacobi, P. C., and Krieglstein, G. K. [Trabeculectomy in complicated glaucoma: Topical application of mitomycin]

  Meeting abstract
- "Mietz, H., Jacobi, P. C., and Krieglstein, G. K. Intraoperative episcleral versus postoperative topical application of mitomycin-C for trabeculectomies. Ophthalmology 2002 ;109 (7): 1343-9 .
- **OAG can't be analyzed separately**
- "Mietz, H., Jacobi, P. C., and Krieglstein, G. K. Postoperative application of mitomycin for trabeculectomies. Arch Ophthalmol 2000 ;118 (10): 1341-8 .
- **OAG can't be analyzed separately**
- "Mietz, H., Jacobi, P. C., Jonescu-Cuypers, C. P., Welsandt, G., and Krieglstein, G. K. Postoperative Topical Application of Mitomycin For Primary Trabeculectomy
- **Meeting abstract**
- "Mietz, H., Jacobi, P. C., Jonescu-Cuypers, C., Welsandt, G., and Krieglstein, G. K. [Primary trabeculectomy in simple glaucoma: Postoperative, low-dose mitomycin application]

  Meeting abstract
- "Mietz, H., Jacobi, P. C., Welsandt, G., and Krieglstein, G. K. Trabeculectomies in fellow eyes have an increased risk of tenon's capsule cysts. Ophthalmology 2002 ;
- 109 (5): 992-7 .
- **Other (specify):**No control group"
- "Mietz, H., Raschka, B., and Krieglstein, G. K. Risk factors for failures of trabeculectomies performed without antimetabolites. Br J Ophthalmol 99 ;83 (7): 814-21 .
- **It is a case series**
- "Migdal, C. and Hitchings, R. Control of chronic simple glaucoma with primary medical, surgical and laser treatment. Trans Ophthalmol Soc U K 86 ;105 (Pt 6) : 653-6 .
- **Data not abstractable**
- "Migdal, C. and Hitchings, R. Morbidity following prolonged postoperative hypotony after trabeculectomy. Ophthalmic Surg 88 ;

- 19 (12): 865-7 .
- **It is not a RCT and has less than 100 patients**
- "Migdal, C. and Hitchings, R. Primary therapy for chronic simple glaucoma the role of argon laser trabeculoplasty. Trans Ophthalmol Soc U K 85 ;104 (Pt 1) : 62-6 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Migdal, C. S, Hitchings, R. A, and Gregory, W. Long-Term Functional Outcome After Early Surgery Compared With Laser and Medicine in Open-Angle Glaucoma
  Meeting abstract
- "Migdal, C., Gregory, W., and Hitchings, R. Long-term functional outcome after early surgery compared with laser and medicine in open-angle glaucoma. Ophthalmology 94 ;
- 101 (10): 1651-6; discussion 1657 .
- **Data not abstractable**
- "Miglior, S., Grunden, J. W., and Kwok, K. Efficacy and safety of fixed combinations of latanoprost/timolol and dorzolamide/timolol in open-angle glaucoma or ocular hypertension. Eye (Lond) 2010 ;
- 24 (7): 1234-42 .
- **Other (specify):**not fda approv drug"
- "Miglior, S., Pfeifer, N., Cunba-Vaz, J., Zeyen, T., and European Glaucoma Prevention Study Group. THE EUROPEAN GLAUCOMA PREVENTION STUDY, BASELINE DESCRIPTION OF THE PARTICIPANTS

- **Meeting abstract**
- "Miglior, S., Pfeiffer, N., Cunha-Vaz, J., Zeyen, T., and European Glaucoma Prevention Study Group. THE EUROPEAN GLAUCOMA PREVENTION STUDY. OBJECTIVES AND METHODS
- **Meeting abstract**
- "Miglior, S., Torri, V., Zeyen, T., Pfeiffer, N., Cunha-Vaz, J., Adamsons, I., and EGPS Group. The Effect of IOP and Other Inter-Current Factors on the Development of Open Angle Glaucoma in the European Glaucoma Prevention Study
- **Meeting abstract**
- "Miglior, S., Torri, V., Zeyen, T., Pfeiffer, N., Vaz, J. C., and Adamsons, I. Intercurrent factors associated with the development of open-angle glaucoma in the European glaucoma prevention study
  EMGT "
- "Mikelberg, F. S. Safety and effectiveness of topical bimatoprost. Can J Ophthalmol 2009 ;
- 44 (2): 209; author reply 209 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Miki, H. and Miki, K. The effects on the intraocular pressure and visual field resulting from a switch in the treatment from timolol to betaxolol. J Ocul Pharmacol Ther 2004 ;
- 20 (6): 509-17 .
- **It is not a RCT and has less than 100 patients**
- "Mikropoulos, D., Konstas, A. G. P., Haidich, B., Ntampos, K. S., and Stewart, W. C. 24-Hour Intraocular Pressure Control With the Travoprost/Timolol Fixed Combination Compared With Travoprost When Both Are Dosed in the Evening in Primary Open-Angle Glaucoma
  Meeting abstract
- "Miller, H. A. and Morlot, C. [Preliminary note on the use of the pilocarpine Ocusert in primary glaucoma]
  Foreign language
- "Miller, K. N., Blasini, M., Shields, M. B., and Ho, C. H. A comparison of total and partial tenonectomy with trabeculectomy. Am J Ophthalmol 91 ;
- 111 (3): 323-6 .
  Data not abstractable
- "Miller, R. D. and Barber, J. C. Trabeculectomy in black patients. Ophthalmic Surg 81 ;12 (1): 46-50 .
  OAG can't be analyzed separately
- "Mills, K. B. and Wright, G. A blind randomised cross-over trial comparing metipranolol 0.3% with timolol 0.25% in open-angle glaucoma: a pilot study
  Unique comparators
- "Mills, K. B. Blind randomised non-crossover long-term trial comparing topical timolol 0.25% with timolol 0.5% in the treatment of simple chronic glaucoma
  KQ 3 RCT "
- "Mills, K. B. Trabeculectomy: a retrospective long-term follow-up of 444 cases. Br J Ophthalmol 81 ;65 (11): 790-5 .

OAG can't be analyzed separately

- "Mills, K. B., Jacobs, N. J., and Vogel, R. A study of the effects of four concentrations of D-timolol, 0.25% L-timolol, and placebo on intraocular pressure on patients with raised intraocular pressure. Br J Ophthalmol 88 ;
- 72 (6): 469-72 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Minckler, D., Baerveldt, G., Ramirez, M. A., Mosaed, S., Wilson, R., Shaarawy, T., Zack, B., Dustin, L., and Francis, B. Clinical results with the Trabectome, a novel surgical device for treatment of open-angle glaucoma. Trans Am Ophthalmol Soc 2006 ;104 : 40-50 .

It is a case series

- "Minckler, D., Mosaed, S., Dustin, L., and Ms, B. F. Trabectome (trabeculectomy-internal approach): additional experience and extended follow-up. Trans Am Ophthalmol Soc 2008 ;106 : 149-59; discussion 159-60 .

OAG can't be analyzed separately

- "Ming, Y. Z. [The ocular hypotensive effect and side reactions of domestic clonidine eyedrops]

Foreign language

- "Mirza, G. E., Karakucuk, S., Dogan, H., and Erkilic, K. Filtering surgery with mitomycin-C in uncomplicated (primary open angle) glaucoma. Acta Ophthalmol (Copenh) 94 ;72 (2): 155-61 .
- **It is not a RCT and has less than 100 patients**
- "MISHIMA Saiichi, AZUMA Ikuo, AIZAWA Futaba, TAKAHASHI Nobuo, TANAKA Yasuo, IWATA Kazuo, TOMONO Masaaki, NAMBA Katsuhiko, KITAZAWA Yoshiaki, TAKASE Masahiro, FUTEMMA Minoru, MATSUO Harutake, HAMADA Minejiro, OGAWA Tetsuro, KOMOTO Shoichi, KAGEYAMA Mariko, SHINRIKI Shinobu, ENDO Yohko, EIRAKU Hiroto, YOSHIDA Kimio, YASUDA Noriko, TANE Sadanao, ISHIKAWA Kiyoshi, AOKI Sachie, SHIMIZU Naokata, and et, a. l. Clinical Evaluation of Timolol in the Treatment of Patients with Ocular Hypertension and Primary Open Angle Glaucoma Who have been Controlled on Pilocarpine -Double blind study-. Rinsho Hyoka (Clinical Evaluation) 80 ;8 (3): 789-820 .

Other (specify):"

- "MISHIMA Saiichi, AZUMA Ikuo, TAKASE Masahiro, AIZAWA Futaba, SOMA Keiko, KATSUSHIMA Harumi, KIMURA Ryozo, NANBA Hisayoshi, KOMURO Sono, YANAGISAWA Yoriko, KAMEYAMA Kazuko, MIYASAKA Yumiko, KIKUCHI Ryuzi, KOIKE Yuji, TOKORO Takashi, YAGI Takashi, MATSUO Harutake, HAMADA Reijiro, OGAWA Tetsuro, NAKANO Naoki, UEDA Tatsuko, TONO Iwao, INAGAKI Masayasu, SHIMIZU Nobuo, SHIMIZU Naokata, and et, a. l. Clinical Evaluation of Bupranolol Hydrochloride Drop in the Treatment of Primary Open-Angle Glaucoma and Ocular Hypertension - Multi Center Double-Blind Study in Comparison with Pilocarpine Drop-

Foreign language

- "Mishima, H. K., Masuda, K., Kitazawa, Y., Azuma, I., and Araie, M. A comparison of latanoprost and timolol in primary open-angle glaucoma and ocular hypertension. A 12-week study

Medical KQ 3 or KQ 3 and KQ 6 only

- "Mishima, S., Azuma, I., Tane, S., Takase, M., and Kosaki, H. Clinical evaluation of befunolol in the treatment of primary open angle glaucoma and ocular hypertension under controlled with pilocarpine -Multi-center double blind study in comparing between three masked dosages. Rinsho Hyoka (Clinical Evaluation) 82 ;10 : 469-513 .

Other (specify):not FDA approved"

- "Mishima, S., Kitazawa, Y., and Shirato, S. Surgical treatment of open-angle glaucoma. Aust N Z J Ophthalmol 85 ;13 (3): 211-23 .

Does not address any key questions

- "Mital, S., Avasthi, P., and Anand, N. A comparative study of trabeculectomy in cases of chronic simple glaucoma. Indian Journal of Ophthalmology 79 ;27 (4): 113-5 .

It is not a RCT and has less than 100 patients

- "Mitchell, P., Wang, J. J., Cumming, R. G., House, P., and England, J. D. Long-term topical timolol and blood lipids: the Blue Mountains Eye Study. J Glaucoma 2000 ;9 (2): 174-8 .

Does not address any key questions

- "Miura, K., Ito, K., Okawa, C., Sugimoto, K., Matsunaga, K., and Uji, Y. Comparison of ocular hypotensive effect and safety of brinzolamide and timolol added to latanoprost

Unique comparators

- "Miyake, T., Sawada, A., Yamamoto, T., Miyake, K., Sugiyama, K., and Kitazawa, Y. Incidence of disc hemorrhages in open-angle glaucoma before and after trabeculectomy. J Glaucoma 2006 ;15 (2): 164-71 .

Does not address any key questions

- "Mizoguchi, T., Nagata, M., Matsumura, M., Kuroda, S., Terauchi, H., and Tanihara, H. Surgical effects of combined trabeculotomy and

sinusotomy compared to trabeculotomy alone. Acta Ophthalmol Scand 2000 ;78 (2): 191-5 .

Other (specify): Not a treatment modality of interest"

- "Mizokami, K. and Tanaka, Y. [Comparison of a trabeculotomy and trabeculectomy combined with phacoemulsification and foldable lens implantation]

Foreign language

- "Mochizuki, K., Jikihara, S., Ando, Y., Hori, N., Yamamoto, T., and Kitazawa, Y. Incidence of delayed onset infection after trabeculectomy with adjunctive mitomycin C or 5-fluorouracil treatment. Br J Ophthalmol 97 ;81 (10): 877-83 .

OAG can't be analyzed separately

- "Mochizuki, M. and Kitazawa, Y. Trabeculectomy: a follow up study

Foreign language

- "Mogk, L. G. and Cyrlin, M. N. Blood dyscrasias and carbonic anhydrase inhibitors. Ophthalmology 88 ;95 (6): 768-71 .
- **It is a case series**
- "Molfino, F., Frau, B., Semino, E., Venzano, D., and Traverso, C. E. IOP-LOWERING.EFFECT OF DORZOLAMIDE 2% VERSUS BRIMONIDINE TARTRATE 0.2%. A PROSPECTIVE RANDOMIZED CROSS OVER STUDY

Meeting abstract

- "Molteno, A. C. A new implant for glaucoma. Effect of removing implants. Br J Ophthalmol 71 ;55 (1): 28-37 .
- **It is a case series**
- "Molteno, A. C., Bevin, T. H., Herbison, P., and Houliston, M. J. Otago glaucoma surgery outcome study: long-term follow-up of cases of primary glaucoma with additional risk factors drained by Molteno implants. Ophthalmology 2001 ;108 (12): 2193-200 .
- **It is a case series**
- "Molteno, A. C., Bosma, N. J., and Kittelson, J. M. Otago glaucoma surgery outcome study: long-term results of trabeculectomy--1976 to 1995. Ophthalmology 99 ;106 (9): 1742-50 .

It is a case series

- "Molteno, A. C., Straughan, J. L., and Ancker, E. Control of bleb fibrosis after glaucoma surgery by anti-inflammatory agents. S Afr Med J 76 ;
- 50 (23): 881-5 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Molteno, A. C., Whittaker, K. W., Bevin, T. H., and Herbison, P. Otago Glaucoma Surgery Outcome Study: long term results of cataract extraction combined with Molteno implant insertion or trabeculectomy in primary glaucoma. Br J Ophthalmol 2004 ;88 (1): 32-5 .

It is a case series

- "Monta±o Moreno, Gustavo, Babaybn Mena, Juan Ignacio, and Escudero Bache, Eduardo. TrabeculectomÆa: anblisis retrospectivo de 100 casos

Foreign language

- "Montanari, P., Italia, A., Marangoni, P., Pinotti, D., and Miglior, M. Diode laser trans-scleral cyclophotocoagulation in refractory glaucoma treatment. Acta Ophthalmol Scand Suppl 97 ;(224): 38 .
- **It is not a RCT and has less than 100 patients**
- "Montoro, J. B., Lalueza, P., Cano, S. M., Escobar, C., and Linares, F. Drop size and systemic adverse effects in timolol ophthalmic solution

Unique comparators

- "Montoya Pizarro, Olga. Eficacia comparativa del Betaxol y el Timolol

Library can't find "

- "Mora, J. S., Nguyen, N., Iwach, A. G., Gaffney, M. M., Hetherington, J. Jr, Hoskins, H. D. Jr, Wong, P. C., Tran, H., and Dickens, C. J. Trabeculectomy with intraoperative sponge 5-fluorouracil. Ophthalmology 96 ;103 (6): 963-70 .
- **Other (specify):**Study includes angle-closure glaucoma among other types of glaucomas we're excluding"
- "Mori, K. and Kawashima, A. Crossover Comparative Study of Betaxolol and Timolol Effect on Retinal Circulation in Glaucoma and Ocular Hypertension

Meeting abstract

- "Moriarty, A. P. and Dowd, T. C. Timolol-pilocarpine fixed-ratio combinations in the treatment of chronic open angle glaucoma. Arch Ophthalmol 93 ;
- 111 (10): 1313-4 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Moriarty, A. P., McHugh, J. D., Spalton, D. J., Ffytche, T. J., Shah, S. M., and Marshall, J. Comparison of the anterior chamber inflammatory response to diode and argon laser trabeculoplasty using a laser flare meter. Ophthalmology 93 ;
- 100 (8): 1263-7 .

- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Moriarty, B. J., Char, J. N., Acheson, R. W., and Dunn, D. T. Argon laser trabeculoplasty in primary open-angle glaucoma--results in black Jamaican population
  Rolim de Moura 2009
- "Moro, F., Borellini, S., and Cavallaro, N. [Antiglaucomatous trabeculectomy (author's transl)]. Klin Monbl Augenheilkd 78 ;
- 172 (5): 670-6 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Morrison, J. C. and Robin, A. L. Adjunctive glaucoma therapy. A comparison of apraclonidine to dipivefrin when added to timolol maleate. Ophthalmology 89 ;96 (1): 3-7 .
- **Does not address any key questions**
- "Mortada, A. Role of pre and post operative diuretics (acetazolamide) when given with tranquilizers (chlorpromazine) for quick formation of anterior chamber with cataract extraction partial penetrating keratoplasty and glaucoma fistulising operations. BULL. OPHTHALMOL. SOC. EGYPT 73 ;66 (70): 185-191 .
  It is a case series
- "Moschos, M., Brouzas, D., and Papantonis, F. Extracapsular cataract extraction and posterior chamber lens in the management of phacolytic glaucoma. EUR. J. IMPLANT REFRACTIVE SURG. 93 ;
- 5 (2): 145-147 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Moss, A. P., Ritch, R., and Hargett, N. A. A comparison of the effects of timolol and epinephrine on the intraocular pressure. AM. J. OPHTHALMOL. 78 ;
- 86 (4): 489-495 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Moss., A., Ritch, R., and Hargett, N. Comparison of timolol and epinephrine on intraocular pressure of humans. INVEST. OPHTHALMOL. VIS. SCI. 78 ;
- 17 (Suppl.): 122 .
- **It is not a RCT and has less than 100 patients**
- "Mostafaei, A. Augmenting trabeculectomy in glaucoma with subconjunctival mitomycin C versus subconjunctival 5-fluorouracil: a randomized clinical trial. Clin Ophthalmol 2011 ;
- 5; status =Nikoukari Ophthalmology University Hospital, Tabriz University of Medical Sciences, Tabriz, Iran.
- : 491-4 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Moster, M. R. and Moster, M. L. Wipe-out: a complication of glaucoma surgery or just a blast from the past?. Am J Ophthalmol 2005 ;
- 140 (4): 705-6 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Moster, M. R., Leen, M. M., Gandham, S., Sith, M., and Michael, A. J. SUBCONJUNCTIVAL VS. PERIBULBAR ANESTHESIA IN TRABECULECTOMY SURGERY: A PROSPECTIVE, RANDOMIZED STUDY
- **Meeting abstract**
- "Motolko, M. A. Comparison of allergy rates in glaucoma patients receiving brimonidine 0.2% monotherapy versus fixed-combination brimonidine 0.2%-timolol 0.5% therapy. Curr Med Res Opin 2008 ; 24 (9): 2663-7 .
  Other (specify):combination not FDA approved?"
- "Moubayed, S. P., Hamid, M., Choremis, J., and Li, G. An unusual finding of corneal edema complicating selective laser trabeculoplasty. Can J Ophthalmol 2009 ;44 (3): 337-8 .
  It is a case series
- "Moulin, F. and Haut, J. [Argon laser trabeculoplasty. Results over 10 years]
  Foreign language
- "Moulin, F. and Haut, J. [Results of argon laser treatment of 100 eyes with open-angle glaucoma (trabeculoplasty, trabeculoretraction)]
  Foreign language
- "Moulin, F. and Haut, J. Argon laser trabeculoplasty: a 10-year follow-up. Ophthalmologica 93 ;207 (4): 196-201 .
- **Does not address any key questions**
- "Moulin, F., Ameline, B., Redor, Y., Bey Boumerzag, A., and Haut, J. [Trabeculoretraction by argon laser. 5 and 8-year results]
  Foreign language

- "Moulin, F., Haut, J., and Abi Rached, J. Late failures of trabeculoplasty. INT. OPHTHALMOL. 87 ;10 (1): 61-66 .
- **Does not address any key questions**
- "Moulin, F., Haut, J., Le Mer, Y., and Vidal-Cherbonneau, A. [Adverse effects and complications of argon laser trabecular retraction: practical results]
  Foreign language
- "Moulin, F., Le Mer, Y., and Haut, J. Five-year results of the first 159 consecutive phakic chronic open-angle glaucomas treated by argon laser trabeculoplasty. Ophthalmologica 91 ;202 (1): 3-9 .
- **It is a case series**
- "Mqrula, Rafael Vidal, Diniz Filho, Alberto, Gomes, Roberto de Alencar, Cronemberger, SebastiPo, and Calixto, Nassim. Espessura corneana central e densidade das cqlulas endoteliais corneanas centrais ap£s trabeculectomia com e sem mitomicina C
  Foreign language
- "Muckley, E. D. and Lehrer, R. A. Late-onset blebitis/endophthalmitis: incidence and outcomes with mitomycin C. Optom Vis Sci 2004 ;81 (7): 499-504 .
  OAG can't be analyzed separately
- "Muermans, M., Faubert, J., Overbury, O., and Balazsi, A. G. THE ACUTE EFFECTS OF TIMOLOL MALEATE ON TEMPORAL MODULATION FIELDS AND SPATIAL CONTRAST SENSITIVITY

- **Meeting abstract**
- "Mukhina, E. A. [Experience with simultaneous cataract extraction and trabeculectomy]
  Foreign language
- "Mulaney, J., Sonty, S., Ahmad, A., Stewart, J. A., and Stewart, W. C. Comparison of daytime efficacy and safety of dorzolamide/timolol maleate fixed combination versus latanoprost
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Muller, O. and Knobel, H. R. [Effectiveness and tolerance of metipranolol--results of a multi-center long-term study in Switzerland]
  Foreign language
- "Mundorf, T. K and Dirks, M. Efficacy of Brimonidine Purite 0.15% Compared With Timolol 0.5% in Patients With Glaucoma and Ocular Hypertension
  Meeting abstract
- "Mundorf, T. K, Noecker, R., and Earl, M. A Multicenter, Investigator-Masked, Randomized Comparison of the IOP-Lowering Efficacy of Bimatoprost 0.03% versus Travoprost 0.004% in African Americans with Glaucoma or Ocular Hypertension
  Meeting abstract
- "Mundorf, T. K. and Brimonidine Outcomes Study Group, I. I. BRIMONIDINE 0.2% VERSUS BETAXOLOL 0.25% AS MEASURED BY THE CLINICAL SUCCESS RATE AND QUALITY OF LIFE EFFECTS IN PATIENTS WITH GLAUCOMA OR OCULAR HYPERTENSION
  Meeting abstract
- "Mundorf, T. K., Batoosingh, A. L., Safyan, E., and Liu, C. C. R. Three-Month Comparison Study of Brimonidine Purite 0.1 % and 0.15% for Reducing IOP in Glaucoma and Ocular Hypertension
  Meeting abstract
- "Mundorf, T. K., Noecker, R., Earl, M., and Frenkel, R. Brimonidine Purite 0.15% versus Dorzolamide 2% Used as Adjunctive Therapy to Latanoprost

- **Meeting abstract**
- "Mundorf, T. K., Ogawa, T., Naka, H., Novack, G. D., and Crockett, R. S. A 12-month, multicenter, randomized, double-masked, parallel-group comparison of timolol-LA once daily and timolol maleate ophthalmic solution twice daily in the treatment of adults with glaucoma or ocular hypertension
  Unique comparators
- "Mundorf, T. K., Ogawa, T., Novack, G. D., Crockett, R. S., and US ISTALOL Study Group. A Double-masked, Randomized, Parallel Study of the Safety and Efficacy of Timolol-LA in Patients with Ocular Hypertension or Open-angle Glaucoma
  Meeting abstract
- "Mundorf, T. K., Rauchman, S. H., Williams, R. D., and Notivol, R. A patient preference comparison of Azarga (brinzolamide/timolol fixed combination) vs Cosopt (dorzolamide/timolol fixed combination) in patients with open-angle glaucoma or ocular hypertension. Clin Ophthalmol 2008 ;2 (3): 623-8 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**

- "Mundorf, T., Dirks, M., Nocker, R. J., and Earl, M. Brimonidine Purite 0.15% versus Timolol 0.5% as Adjunctive Therapy with Lipids
  Meeting abstract
- "Mundorf, T., Noecker, R. J., and Earl, M. L. A Multicenter, Randomized, Investigator-Masked Comparison of the Efficacy of Bimatoprost 0.03% versus Travoprost 0.004% in African Americans with Glaucoma or Ocular Hypertension
  Meeting abstract
- "Mundorf, T., Wilcox, K. A., Ousler, G. W. 3rd, Welch, D., and Abelson, M. B. Evaluation of the comfort of Alphagan P compared with Alphagan in irritated eyes. Adv Ther 2003 ;20 (6): 329-36 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Mundorf, T., Williams, R., Whitcup, S., Felix, C., and Batoosingh, A. A 3-month comparison of efficacy and safety of brimonidine-purite 0.15% and brimonidine 0.2% in patients with glaucoma or ocular hypertension
  Unique comparators
- "Murchison, J. F. Jr and Shields, M. B. Limbal-based vs fornix-based conjunctival flaps in combined extracapsular cataract surgery and glaucoma filtering procedure. Am J Ophthalmol 90 ;109 (6): 709-15 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Murray, S. B. and Jay, J. L. Trabeculectomy. Its role in the management of glaucoma. Trans Ophthalmol Soc U K 79 ;99 (4): 492-4 .
- **Does not address any key questions**
- "Murthy, S. K., Damji, K. F., Pan, Y., and Hodge, W. G. Trabeculectomy and phacotrabeculectomy, with mitomycin-C, show similar two-year target IOP outcomes. Can J Ophthalmol 2006 ;41 (1): 51-9 .
- **OAG can't be analyzed separately**
- "Musch, D. C, Gillespie, B. W, Lickter, P. R, Varma, R., Skuta, G. L, Guire, K. E, and CIGTS Study Group. Does Initial Treatment Approach Matter for Newly-Diagnosed Open-Angle Glaucoma? The Differential Role of Baseline Visual Field Severity in Subsequent Loss
  Meeting abstract
- "Musch, D. C., Gillespie, B. W., Lichter, P. R., and NIziol, L. M. Intraocular Pressure Control as a Contributing Factor to Long-Term Visual Field Loss in the Collaborative Initial Glaucoma Treatment Study
  Meeting abstract
- "Musch, D. C., Gillespie, B. W., Lichter, P. R., Niziol, L. M., and Janz, N. K. Visual field progression in the Collaborative Initial Glaucoma Treatment Study the impact of treatment and other baseline factors
  CIGTS--part of 639 now "
- "Musch, D. C., Gillespie, B. W., Niziol, L. M., Cashwell, L. F., and Lichter, P. R. Factors associated with intraocular pressure before and during 9 years of treatment in the Collaborative Initial Glaucoma Treatment Study. Ophthalmology 2008 ;115 (6): 927-33 .
  Other (specify):Study design does not match KQ
- "Musch, D. C., Lichter, P. R., Guire, K. E., and Standardi, C. L. The Collaborative Initial Glaucoma Treatment Study: study design, methods, and baseline characteristics of enrolled patients. Ophthalmology 99 ;106 (4): 653-62 .
  Other (specify):link to CIGTS"
- "Muskens, R. P., Wolfs, R. C., Witteman, J. C., Hofman, A., de Jong, P. T., Stricker, B. H., and Jansonius, N. M. Topical beta-blockers and mortality. Ophthalmology 2008 ;115 (11): 2037-43 .
  OAG can't be analyzed separately
- "Mwanza, J. C. and Kabasele, P. M. Trabeculectomy with and without mitomycin-C in a black African population. Eur J Ophthalmol 2001 ;11 (3): 261-3 .
  Other (specify):only 82 percent over 40"
- "Nagar, M., Luhishi, E., and Shah, N. Intraocular pressure control and fluctuation: the effect of treatment with selective laser trabeculoplasty. Br J Ophthalmol 2009 ;93 (4): 497-501 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Nagar, M., Ogunyomade, A., O'Brart, D. P., Howes, F., and Marshall, J. A randomised, prospective study comparing selective laser trabeculoplasty with latanoprost for the control of intraocular pressure in ocular hypertension and open angle glaucoma. Br J Ophthalmol 2005 ;89 (11): 1413-7 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Nagar, M., Shah, N., and Luihishi, E. Effect of Selective Laser Trabeculoplasty and Prostaglandins on Diurnal 10P Fluctuations: Randomized Clinical Trial
  Meeting abstract

- "Nagasubramanian, S. and Hitchings, R. A. Comparison of Apraclonidine and Timolol in Chronic Open-Angle Glaucoma -- Three-Month Study
  Meeting abstract
- "Nagasubramanian, S., Bloom, J., Poinoosawmy, D., and Hitchings, R. A. The effects of a topical acetazolamide preparation on intraocular pressure in patients with ocular hypertension. Glaucoma Update III 87 ;: 255-9 .
  Other (specify):not an FDA drug"
- "Nagasubramanian, S., George, J. L., Honrubia, F. L., Airaksinen, J., and Serra, M. A THREE-MONTH, TRIPLE-MASKED, ADJUNCTIVE-THERAPY STUDY OF THE EFFICACY AND SAFETY OF BID-DOSED BRINZOLAMIDE 1% OPHTHALMIC SUSPENSION AND DORZOLAMIDE 2% OPHTHALMIC SOLUTION (TRUSOPT) IN THE TREATMENT OF PATIENTS WITH POAG OR OH MAINTAINED ON TIMOLOL THERAPY
  Meeting abstract
- "Nagasubramanian, S., Hitchings, R. A., Demailly, P., Chuniaud, M., Pannarale, M. R., Pecori-Giraldi, J., Stodtmeister, R., and Parsons, D. G. Comparison of apraclonidine and timolol in chronic open-angle glaucoma. A three-month study. Ophthalmology 93 ;100 (9): 1318-23 .
- **Does not address any key questions**
- "Nagasubramanian, S., Sheth, G. P., Hitchings, R. A., and Stjernschantz, J. Intraocular pressure-reducing effect of PhXA41 in ocular hypertension. Comparison of dose regimens. Ophthalmology 93 ;100 (9): 1305-11 .
- **Does not address any key questions**
- "Nagasubramanian, S., Tripathi, R. C., Poinoosawmy, D., and Gloster, J. Low concentration guanethidine and adrenaline therapy of glaucoma. A preliminary report. TRANS. OPHTHALMOL. SOC. U. K. 76 ;96 (1): 179-183 .
- **Other (specify):**not used drugs"
- "Nakamoto, K. and Yasuda, N. Effect of concomitant use of latanoprost and brinzolamide on 24-hour variation of IOP in normal-tension glaucoma
  Unique comparators
- "Nakamoto, K., Yasuda, N., Nanno, M., and Fukuda, T. [Comparison of the effects of latanoprost and timolol gel-forming solution on diurnal variation of intraocular pressure in normal-tension glaucoma]
  Foreign language
- "Nakamura, Y., Ishikawa, S., Nakamura, Y., Sakai, H., Henzan, I., and Sawaguchi, S. 24-hour intraocular pressure in glaucoma patients randomized to receive dorzolamide or brinzolamide in combination with latanoprost. Clin Ophthalmol 2009 ;3 : 395-400 .
  Data not abstractable
- "Nakano, Y., Araie, M., and Shirato, S. Effect of postoperative subconjunctival 5-fluorouracil injections on the surgical outcome of trabeculectomy in the Japanese. Graefes Arch Clin Exp Ophthalmol 89 ; 227 (6): 569-74 .
  Other (specify): Mixed glaucomas for analysis of side effects"
- "Nakatani, H., Maeda, K., and Sumie, K. The pilocarpine ocusert system. Long-term clinical trials in the management of glaucoma or ocular hypertension
  Foreign language
- "Narayanaswamy, A., Neog, A., Baskaran, M., George, R., Lingam, V., Desai, C., and Rajadhyaksha, V. A randomized, crossover, open label pilot study to evaluate the efficacy and safety of Xalatan in comparison with generic Latanoprost (Latoprost) in subjects with primary open angle glaucoma or ocular hypertension
  Unique comparators
- "Nassiri N, Nassiri N, Mohammadi B, and Rahmani L. Comparison of 2 surgical techniques in phacotrabeculectomy: 1 site versus 2 sites. European journal of ophthalmology 2010 ;20 (2): 316-26 .
  OAG can't be analyzed separately
- "Nassiri, N., Kamali, G., Rahnavardi, M., Mohammadi, B., Nassiri, S., Rahmani, L., and Nassiri, N. Ahmed glaucoma valve and single-plate Molteno implants in treatment of refractory glaucoma: a comparative study. Am J Ophthalmol 2010 ;149 (6): 893-902 .
  Data not abstractable
- "Nassiri, N., Nassiri, N., Mohammadi, B., and Rahmani, L. Comparison of 2 surgical techniques in phacotrabeculectomy: 1 site versus 2 sites. Eur J Ophthalmol 2010 ;20 (2): 316-26 .
  Data not abstractable
- "Naveh, N., Kottass, R., Glovinsky, J., Blumenthal, M., and Bar-Sever, D. The long-term effect on intraocular pressure of a procedure combining trabeculectomy and cataract surgery, as compared with trabeculectomy alone. Ophthalmic Surg 90 ;21 (5): 339-45 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Naveh-Floman, N., Blumenthal, M., and Belkin, M. [Complications of medical therapy in glaucoma]
  Foreign language

- "Naveh-Floman, N., Stahl, V., and Korczyn, A. D. Effect of pilocarpine on intraocular pressure in ocular hypertensive subjects. Ophthalmic Res 86 ;18 (1): 34-7 .
  No subjects with open-angle glaucoma
- "Nazm, N., Dubey, S., Gandhi, M., and Pegu, J. Re: Outcome of raised intraocular pressure in uveitic eyes with and without a corticosteroid-induced hypertensive response. Am J Ophthalmol 2010 ;149 (3): 525-6; author reply 526-7 .
  No subjects with open-angle glaucoma, **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Neelakantan, A., Rao, B. S., Vijaya, L., Grandham, S. B., Krishnan, N., Priya, V. S., and Murugeshan, R. Effect of the concentration and duration of application of mitomycin C in trabeculectomy. Ophthalmic Surg 94 ;25 (9): 612-5 .
  It is not a RCT and has less than 100 patients
- "Neetens, A., Rubbens, M. C., Van Rompaey, J., and Hendrata, Y. Intraocular pressure lowering effect of timolol in the fellow untreated eye. Bull Soc Belge Ophtalmol 79 ;186 : 39-46 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Negi, A. K., Kiel, A. W., and Vernon, S. A. Does the site of filtration influence the medium to long term intraocular pressure control following microtrabeculectomy in low risk eyes?. Br J Ophthalmol 2004 ;88 (8): 1008-11 .
  It is not a RCT and has less than 100 patients
- "Negi, A., Thoung, D., and Dabbous, F. Nightmares with topical beta-blocker. Eye (Lond) 2000 ;14 Pt 5 : 813-4 .
  It is a case series
- "Nelson, M. E. and Andrzejowski, A. Z. Systemic hypertension in patients receiving dipivalyl adrenaline for glaucoma. BMJ 88 ;297 (6650): 741-2 .
  It is a case series
- "Nelson, W. L. and Kuritsky, J. N. Early postmarketing surveillance of betaxolol hydrochloride, September 1985-September 1986. Am J Ophthalmol 87 ;103 (4): 592 .
  Other (specify):summary of FDA AE reports; no denominator"
- "Nesher, R. and Ticho, U. Switching from systemic to the topical carbonic anhydrase inhibitor dorzolamide: effect on the quality of life of glaucoma patients with drug-related side effects
  Unique comparators
- "Nesher, R., Kass, M. A., and Gans, L. A. Corneal endothelial changes in ocular hypertensive individuals after long-term unilateral treatment with timolol. Am J Ophthalmol 90 ;110 (3): 309-10 .
  It is not a RCT and has less than 100 patients
- "Nesher, R., Schwartzenberg, T., and Ticho, U. Comparison of timolol and pilocarpine combination versus concomitant therapy: A 6-month follow-up study. ANN. OPHTHALMOL. GLAUCOMA 96 ;28 (6): 390-395 .
  It is not a RCT and has less than 100 patients
- "Ness, T. and Funk, J. Increase of intraocular pressure after topical administration of prostaglandin analogs. Arch Ophthalmol 99 ;117 (12): 1646-7 .
  It is a case series
- "Nesterov, A. P., Egorov, E. A., Babushkin, A. E., and Kolesnikova, L. N. [Trabeculectomy with laminar resection of the sclera in the treatment of primary open-angle glaucoma]
  Foreign language
- "Netland, P. A and Kenneth Sullivan, E. K. EFFECT OF TRAVOPROST ON IOP IN BLACK AND NON-BLACK PATIENTS WITH OCULAR HYPERTENSION AND OPEN-ANGLE GLAUCOMA IN A TWELVE-MONTH STUDY
  Meeting abstract
- "Netland, P. A, Landry, T., Silver, L. H, Sullivan, E. K, Andrew, R., Weiner, A. L, Bergamini, M. V W, Robertson, S. M, Mallick, S., Davis, A. A, and Travoprost Study Group. IOP-lowering efficacy and safety of travoprost compared to latanoprost and timolol in patients with open-angle glaucoma or ocular hypertension
  Meeting abstract
- "Netland, P. A. and Travoprost Study Group. SAFETY AND EFFICACY OF TRAVOPROST IN THE TREATMENT OF OPENANGLE GLAUCOMA OR OCULAR HYPERTENSION IN COMPARISON WITH LATANOPROST AND TIMOLOL
  Meeting abstract
- "Netland, P. A., Landry, T., Sullivan, E. K., Andrew, R., Silver, L., Weiner, A., Mallick, S., Dickerson, J., Bergamini, M. V., Robertson, S. M., and Davis, A. A. Travoprost compared with latanoprost and timolol in patients with open-angle glaucoma or ocular hypertension
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Netland, P. A., Michael, M., Rosner, S. A., Katzman, B., and Macy, J. I. Brimonidine Purite and bimatoprost compared with timolol and

latanoprost in patients with glaucoma and ocular hypertension. Adv Ther 2003 ;20 (1): 20-30 .
Other (specify):excluded drug"

- "Netland, P. A., Robertson, S. M., Sullivan, E. K., Silver, L., Bergamini, M. V., Krueger, S., Weiner, A. L., and Davis, A. A. Response to travoprost in black and nonblack patients with open-angle glaucoma or ocular hypertension
Medical KQ 3 only
- "Netland, P. A., Schwartz, B., Feke, G. T., Takamoto, T., Konno, S., and Goger, D. G. Diversity of response of optic nerve head circulation to timolol maleate in gel-forming solution
Medical KQ 3 or KQ 3 and KQ 6 only
- "Netland, P. A., Shapiro, A., and Chapin, M. DUAL THERAPY USING BRIMONIDINE WITH LATANOPROST COMPARED TO TIMOLOL-DORZOLAMIDE COMBINATION THERAPY
Meeting abstract
- "Netland, P. A., Sullivan, E. K., Bergamini, M. V. W., Weiner, A. L., Landry, T. A., and Robertson, S. M. Central Corneal Thickness of Black and Non-Black Patients with Open-Angle Glaucoma or Ocular Hypertension and IOP Response to Travoprost 0.004% Therapy
Meeting abstract
- "Netland, P. A., Weiss, H. S., et al. Cardiovascular effects of topical carteolol hydrochloride and timolol maleate in patients with ocular hypertension and primary open-angle glaucoma
Duplicate "
- "Netland, P., Landry, T., Sullivan, E., Andrew, R., Silver, L., Weinger, A., Mallick, S., Dickerson, J., Bergamini, M., Robertson, S., and Davis, A. Travoprost compared with Latanoprost and Timolol as primary therapy
Meeting abstract
- "Nguyen, Q. H., Budenz, D. L., and Parrish, R. K. 2nd. Complications of Baerveldt glaucoma drainage implants. Arch Ophthalmol 98 ;116 (5): 571-5 .
- **OAG can't be analyzed separately**
- "Nguyen, T. Q. T., Rioux, N., Lesk, M. R., Assalian, A., Amyot, M., Desjardins, D. C., and Duperre, J. DIURNAL VARIATION OF INTRAOCULAR PRESSURE IN GLAUCOMA PATIENTS TAKING COMBINATION TIMOLOL-PILOCARPINE (TIMPILO) THERAPY b.i.d
Meeting abstract
- "Nguyen, T. Y. T., Boisjoly, H. M., Giasson, C., Charest, M., Amyot, M., Lesk, M., Assalian, A., and Rioux, N. CORNEAL HYDRATION CONTROL AFTER SHORT-TERM USE OF TRUSOPT
Meeting abstract
- "Niazi, M. K. and Raja, N. Comparison of latanoprost and dorzolamide in the treatment of patients with open angle glaucoma
Medical KQ 3 or KQ 3 and KQ 6 only
- "Niedermeier, S. [Bivalent vegetative glaucoma therapy]
Foreign language
- "Nielsen, N. V. A diurnal study of the ocular hypotensive effect of metoprolol mounted on ophthalmic rods compared to timolol eye drops in glaucoma patients. Acta Ophthalmol (Copenh) 81 ;59 (4): 495-502 .
Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Nielsen, N. V. and Eriksen, J. S. Timolol and metoprolol in glaucoma. A comparison of the ocular hypotensive effect, local and systemic tolerance. Acta Ophthalmol (Copenh) 81 ;59 (3): 336-46 .
Other (specify): Metoprolol not an intervention of interest"
- "Nielsen, N. V. and Eriksen, J. S. Timolol and metoprolol. A diurnal study of the ocular and systemic effects in glaucoma patients. Acta Ophthalmol (Copenh) 81 ;59 (4): 517-25 .
Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Nielsen, N. V. The ocular hypotensive effect of timolol in long-term treatment of glaucoma. A 4 year study. Acta Ophthalmol (Copenh) 82 ;60 (6): 961-6 .
It is not a RCT and has less than 100 patients
- "Nielsen, N. V., Eriksen, J. S., Larsen, G., Mortensen, K. K., Kemp, A., Andersen, F., Buhl, H., Olsen, J., Dalsgard, C., Frandsen, E., Vase, I., Glissov, B., Pugesgaard, T., Jensen, S., and Heuer, H. E. [Timolol eye drops in the treatment of glaucoma and ocular hypertension. A multicentre study]
Foreign language
- "Nielsen, P. G., Ahrendt, N., Buhl, H., and Byrn, E. Metoprolol eyedrops 3%, a short-term comparison with pilocarpine and a five-month follow-up study. (Multicenter). Acta Ophthalmol (Copenh) 82 ;60 (3): 347-52 .
Other (specify):pilocarpine
- "Nino, M., Balato, A., Ayala, F., and Balato, N. Allergic contact dermatitis due to levobunolol with cross-sensitivity to befunolol. Contact Dermatitis 2007 ;56 (1): 53-4 .

Does not address any key questions

- "Nino, M., Napolitano, M., and Scalvenzi, M. Allergic contact dermatitis due to the beta-blocker betaxolol in eyedrops, with cross-sensitivity to timolol. Contact Dermatitis 2010 ;62 (5): 319-20 .
  It is a case series
- "Nixon, D. R. and Hollander, D. Comparison of the Efficacy and Tolerability of Twice-Daily Combigan vs. Cosopt Fixed-Combination Therapies
  Meeting abstract
- "Nixon, D. R. Evaluation of the Safety and Efficacy of Brimonidine Tartrate-Timolol Maleate Ophthalmic Solution (Combigan®)and Dorzolamide Hydrochloride-Timolol Maleate Ophthalmic Solution (Cosopt®) in Patients with Open-Angle Glaucoma or Ocular Hypertension
  Meeting abstract
- "Nixon, D. R., Yan, D. B., and Hollander, D. A. Randomized, Parallel Comparison of the Efficacy and Tolerability of Twice-Daily 0.2% Brimonidine/0.5% Timolol (Combigan®) vs. 2.0% Dorzolamide/0.5% Timolol (Cosopt®) Fixed Combination Therapies in Patients with Glaucoma or Ocular Hypertension
  Meeting abstract
- "Nixon, D. R., Yan, D. B., Chartrand, J. P., Piemontesi, R. L., Simonyi, S., and Hollander, D. A. Three-month, randomized, parallel-group comparison of brimonidine-timolol versus dorzolamide-timolol fixed-combination therapy
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Nixon, D. R., Yan, D. B., Chartrand, J. P., Piemontesi, R. L., Simonyi, S., and Hollander, D. A. Three-month, randomized, parallel-group comparison of brimonidine-timolol versus dorzolamide-timolol fixed-combination therapy
  Systematic review
- "Noben, K. J., Linsen, M. C., and Zeyen, T. G. Is combined phacoemulsification and trabeculectomy as effective as trabeculectomy alone?. Bull Soc Belge Ophtalmol 98 ;270 : 85-90 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Noecker, R. Intraocular pressure-lowering efficacy of bimatoprost 0.03% and travoprost 0.004% in patients with glaucoma or ocular hypertension. Br J Ophthalmol 2006 ;90 (11): 1336-7 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Noecker, R. J. and Bulau, S. A. COMPARISON OF EFFICACY OF ALPHAGAN VERSUS TRUSOPT IN MEXICAN-AMERICANS
  Meeting abstract
- "Noecker, R. J. and Earl, M. Comparison of the IOP-Lowering Efficacy of Bimatoprost and Travoprost in Black Patients With Glaucoma or Ocular Hypertension
  Meeting abstract
- "Noecker, R. J. Brimonidine.2% as a replacement for beta blockers in geriatric patients with glaucoma. Adv Ther 2002 ;19 (2): 91-7 .
  OAG can't be analyzed separately
- "Noecker, R. J. Evaluation of Bimatoprost 0.03% versus Latanoprost 0.005%: A Paired Comparison Study
  Meeting abstract
- "Noecker, R. J., Dirks, M., Mundorf, T., Williams, R., and Earl, M. Evaluation of Bimatoprost 0.03% versus Latanoprost 0.005%: A Bilateral Monocular Trial
  Meeting abstract
- "Noecker, R. J., Earl, M. L., Mundorf, T. K., Silverstein, S. M., and Phillips, M. P. Comparing bimatoprost and travoprost in black Americans
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Noecker, R. J., Earl, M. L., Mundorf, T., Peace, J., and Williams, R. D. Bimatoprost 0.03% versus travoprost 0.004% in black Americans with glaucoma or ocular hypertension
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Noecker, R. S., Dirks, M. S., and Choplin, N. Comparison of latanoprost, bimatoprost, and travoprost in patients with elevated intraocular pressure: a 12-week, randomized, masked-evaluator multicenter study. Am J Ophthalmol 2004 ;137 (1): 210-1; author reply 211-2 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Noecker, R. S., Dirks, M. S., Choplin, N. T., Bernstein, P., Batoosingh, A. L., and Whitcup, S. M. A six-month randomized clinical trial comparing the intraocular pressure-lowering efficacy of bimatoprost and latanoprost in patients with ocular hypertension or glaucoma
  KQ 3 medical "
- "Noecker, R., Bulau, S., and Kay, J. EFFICACY AND TOLERABILITY OF ALPHAGAN AND TRUSOPT IN MEXICAN-AMERICAN PATIENTS WITH GLAUCOMA OR OCULAR HYPERTENSION
  Meeting abstract

- "Nomura, Y., Nakakura, S., Moriwaki, M., Takahashi, Y., and Shiraki, K. Effect of travoprost on 24-hour intraocular pressure in normal tension glaucoma. 2010 ;4 (1): 643-647 643-647.
  It is not a RCT and has less than 100 patients
- "Norden, L. C. Adverse reactions to topical ocular autonomic agents. J Am Optom Assoc 78 ;49 (1): 75-80 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Nordmann, J. P., Auzanneau, N., Ricard, S., and Berdeaux, G. Vision related quality of life and topical glaucoma treatment side effects. Health Qual Life Outcomes 2003 ;: 75 .
  Data not abstractable
- "Nordmann, J. P., Baudouin, C., Bron, A., Denis, P., Rouland, J. F., Sellem, E., and Renard, J. P. Xal-Ease: impact of an ocular hypotensive delivery device on ease of eyedrop administration, patient compliance, and satisfaction
  Unique comparators
- "Nordmann, J. P., Baudouin, C., Renard, J. P., Denis, P., Lafuma, A., Laurendeau, C., Jeanbat, V., and Berdeaux, G. Measurement of treatment compliance using a medical device for glaucoma patients associated with intraocular pressure control: a survey. Clin Ophthalmol 2010 ;4 : 731-9 .
  Does not address any key questions (see below for questions), **Data not abstractable**
- "Nordmann, J. P., Lepen, C., Lilliu, H., and Berdeaux, G. Estimating the long-term visual field consequences of average daily intraocular pressure and variance : a clinical trial comparing timolol, latanoprost and travoprost. Clin Drug Investig 2003 ;23 (7): 431-8 .
  Data not abstractable
- "Nordmann, J. P., Mertz, B., Yannoulis, N. C., Schwenninger, C., Kapik, B., and Shams, N. A double-masked randomized comparison of the efficacy and safety of unoprostone with timolol and betaxolol in patients with primary open-angle glaucoma including pseudoexfoliation glaucoma or ocular hypertension. 6 month data. Am J Ophthalmol 2002 ;133 (1): 1-10 .
  Other (specify):unoprostone"
- "Nordmann, J. P., Rouland, J. F., and Mertz, B. P. A comparison of the intraocular pressure-lowering effect of 0.5% timolol maleate and the docosanoid derivative of a PGF2 alpha metabolite, 0.12% unoprostone, in subjects with chronic open-angle glaucoma or ocular hypertension. Curr Med Res Opin 99 ;15 (2): 87-93 .
  Other (specify):unoprostone and PGF2"
- "Nordmann, J. P., Soderstrom, M., Rouland, J. F., and Malecaze, F. Comparison of the intraocular pressure lowering effect of latanoprost and a fixed combination of timolol-pilocarpine eye drops in patients insufficiently controlled with beta adrenergic antagonists. French Latanoprost Study Group, and the Swedish Latanoprost Study Group. Br J Ophthalmol 2000 ;84 (2): 181-5 .
  Other (specify): Pilocarpine excluded"
- "Nordmann, J.-P., Baudouin, C., Bron, A., Denis, P., Rouland, J.-F., Sellem, E., and Renard, J.-P. Xal-Ease(registered trademark): Impact of an ocular hypotensive delivery device on ease of eyedrop administration, patient compliance, and satisfaction
  Duplicate "
- "Nordmann, J.-P., Soderstrom, M., Rouland, J.-F., and Malecaze, F. Comparison of the intraocular pressure lowering effect of latanoprost and a fixed combination of timolol-pilocarpine eye drops in patients insufficiently controlled with (beta) adrenergic antagonists
  Duplicate "
- "Norell, S. E. and Granstrom, P. A. Self-medication with pilocarpine among outpatients in a glaucoma clinic. Br J Ophthalmol 80 ;64 (2): 137-41 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Norell, S. Medication behaviour. A study of outpatients treated with pilocarpine eye drops for primary open-angle glaucoma. Acta Ophthalmol Suppl 80 ;(143): 1-28 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Norris, Eleonore J, Schiffman, Joyce C, Palmberg, Paul F, and Mello, Paulo Augusto de Arruda. Resultado a longo prazo do uso de drogas antiproliferativas na trabeculectomia primbria
  Foreign language
- "Noske, W., Pahlitzsch, T., and Kirchner, J. Effect of indomethacin on the ocular hypertension after cataract extraction. A double-blind study: EFFET DE L'INDOMETACINE SUR L'HYPERTENSION OCULAIRE APRES OPERATION DE LA CATARACTE. ETUDE EN DOUBLE AVEUGLE
  Foreign language
- "Nouri-Mahdavi, K. and Caprioli, J. Evaluation of the hypertensive phase after insertion of the Ahmed Glaucoma Valve. Am J Ophthalmol 2003 ;

- 136 (6): 1001-8 .
  Data not abstractable
- "Novack, G. D., David, R., Lee, P. F., Freeman, M. I., Duzman, E., and Batoosingh, A. L. Effect of changing medication regimens in glaucoma patients
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Novack, G. D., Kelley, E. P., and Lue, J. C. A multicenter evaluation of levobunolol (Vistagan) in Germany. Ophthalmologica 88 ;197 (2): 90-6 .
  It is a case series
- "Novack, G. D., Mundorf, T. K., Ogawa, T., Crockett, R. S., and US/ISTALOL Study Group. Randomized, Controlled, One-Year Treatment Comparison of Timolol-LA (ISTALOL™) Given q.d. vs Timolol Maleate Solution Given b.i.d. in Patients With Ocular Hypertension or Open-Angle Glaucoma
  Meeting abstract
- "Novak, S. and Stewart, R. H. The Ocusert system in the management of glaucoma. Tex Med 75 ;71 (12): 63-5 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Novak-Laus, K., Mandic, Z., Ivekovic, R., Korsic, J., Tedeschi-Reiner, E., Masnec-Paskvalin, S., and Bojic, L. Trabeculectomy with mitomycin C in glaucoma associated with uveitis. Coll Antropol 2005 ;29 Suppl 1 : 17-20 .
  No subjects with open-angle glaucoma
- "Novakovic, A., Vujosevic, E., Alajbegovic, R., and Hodzic, S. [2 years' administration of timolol to patients with chronic open-angle glaucoma]
  Foreign language
- "Nowroozzadeh, M. H. and Razeghinejad, M. R. Brimonidine and eye pressure. Ophthalmology 2010 ;117 (7): 1463; author reply 1463-4 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Nowroozzadeh, M. H. Impact of once daily versus twice daily application of adjunctive timolol on the intraocular pressure-lowering effect of latanoprost. Ophthalmic Res 2010 ;44 (2): 140 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Nuzzi, R., Finazzo, C., and Cerruti, A. Adverse effects of topical antiglaucomatous medications on the conjunctiva and the lachrymal (Brit. Engl) response
  Excluded drug
- "Nyman, K. Intraocular pressure reduction with topically administered pilocarpine, timolol and betaxolol in normal tension glaucoma. Acta Ophthalmol (Copenh) 93 ;71 (5): 686-90 .
  It is not a RCT and has less than 100 patients
- "Oancea, I., Pop, R., Calugaru, M., Grigorescu, R., Vladutiu, C., Sandovici, E. M., Popa, L., Marin, C., Lazarov, E., and Trif, V. [Early results following trabeculectomy at the Cluj-Napoca Ophthalmological Clinic]
  Foreign language
- "Ober, M. and Scharrer, A. [The effect of timolol and parasympathicomimetica in the treatment of the elevated intraocular pressure (author's transl)]. Albrecht Von Graefes Arch Klin Exp Ophthalmol 79 ;211 (1): 59-66 .
  It is not a RCT and has less than 100 patients
- "Ober, M. D, Lemon, L. C, Shin, D. H, Nootheti, P., and Cha, S. C. A Long-Term Comparative Study of Silicone versus Acrylic Intraocular Lens in Phaco-Trabeculectomy
  Meeting abstract
- "Ober, M., Scharrer, A., and Dausch, D. [Guanethidine/dipivefrin and pilocarpine in the treatment of increased intraocular pressure]. Klin Monbl Augenheilkd 87 ;190 (2): 103-4 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Ober, M., Scharrer, A., and David, R. Long-term ocular hypotensive effect of levobunolol: Results of a one-year study
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Ober, M., Scharrer, A., Novack, G. D., and Lue, J. C. [Local subjective tolerance of levobunolol and metipranolol in a double-blind comparative study in patients with increased intraocular pressure]. Ophthalmologica 86 ;192 (3): 159-64 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "O'Brart, D. P., Rowlands, E., Islam, N., and Noury, A. M. A randomised, prospective study comparing trabeculectomy augmented with antimetabolites with a viscocanalostomy technique for the management of open angle glaucoma uncontrolled by medical therapy
  Cheng 2009 and Chai 2010
- "O'Brart, D. P., Shiew, M., and Edmunds, B. A randomised, prospective study comparing trabeculectomy with viscocanalostomy with adjunctive

antimetabolite usage for the management of open angle glaucoma uncontrolled by medical therapy

Cheng 2009 and Chai 2010

- "O'Brart, D., Noury, S., Rowlands, E., and Islam, N. A prospective, randomized study to compare Trabeculectomy with Viscocanalostomy technique for the management of open angle glaucoma uncontrolled by medical therapy

  Meeting abstract
- "O'Brart, D., Rowlands, E., and Islam, N. A randomised, prospective study comparing trabeculectomy with viscocanalostomy for the management of open angle glaucoma uncontrolled by medical therapy: 12 month follow-up

  Meeting abstract
- "Obstbaum, S. A., Galin, M. A., and Katz, I. M. Timolol: Effect on intraocular pressure in chronic open-angle glaucoma

  Duplicate "
- "Obstbaum, S. A., Galin, M. A., and Katz, I. M. Trimolol: effect on intraocular pressure in chronic open-angle glaucoma. Ann Ophthalmol 78 ;10 (10): 1347-51 .

  Does not address any key questions
- "Obstbaum, S. A., Kolker, A. E., and Phlps, C. D. Low dose epinephrine. Effct on intraocular pressure. ARCH. OPHTHALMOL. 74 ;92 (2): 118-120 .

  Other (specify):not used as a drug at present"
- "O'Connor, D. and Caprioli, J. Indications for postoperative fluorouracil therapy. Arch Ophthalmol 92 ;110 (1): 25 .

  No original data (e.g., systematic review, narrative review, editorial, letter)
- "O'Connor, G. R. Granulomatous uveitis and metipranolol. Br J Ophthalmol 93 ;77 (8): 536-8 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Odberg, T. and Sandvik, L. The medium and long-term efficacy of primary argon laser trabeculoplasty in avoiding topical medication in open angle glaucoma. Acta Ophthalmol Scand 99 ;77 (2): 176-81 .

  It is a case series
- "Odberg, T. The effect of long-term medical therapy on the outcome of filtration surgery. Am J Ophthalmol 94 ;118 (4): 537-8 .

  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Oddone, F., Manni, G., Parravano, M., Cupo, G., Costa, G., and Bucci, M. G. Six-Months Comparison of the Efficacy and Safety of Bimatoprost 0.03% Versus the Association of Timolol 0.5% and Latanoprost 0.005%

  Meeting abstract
- "O'Donnell, B. F. and Foulds, I. S. Contact allergy to beta-blocking agents in ophthalmic preparations. Contact Dermatitis 93 ;28 (2): 121-2 .

  It is a case series
- "O'Donoghue, E. P. A comparison of latanoprost and dorzolamide in patients with glaucoma and ocular hypertension: a 3 month, randomised study. Ireland Latanoprost Study Group

  Medical KQ 3 or KQ 3 and KQ 6 only
- "O'Donoghue, E. P. A comparison of latanoprost and dorzolamide in patients with glaucoma and ocular hypertension: A 3 month, randomised study

  Medical KQ 3 or KQ 3 and KQ 6 only
- "O'Donoghue, E. P. STRONTIUM 90 VS 5-FU AS ADJUNCT TO SURGERY FOR PATIENTS AT HIGH RISK OF TRABECULECTOMY FAILURE: A PROSPECTIVE RANDOMISED TRIAL

  Meeting abstract
- "O'Donoghue, E. P., Saunders, D. C., Ayliffe, W., and Ridgway, A. E. A. STRONTIUM 90 VS 5-FU AS ADJUNCT TO SURGERY FOR PATIENTS AT HIGH RISK OF TRABECULECTOMY FAILURE: A PROSPECTIVE RANDOMISED TRIAL

  Meeting abstract
- "Offret, H. and Bechetoille, A. [Medical treatment of wide-angle chronic glaucoma]

  Foreign language
- "Ogawa, T., Dake, Y., Saitoh, A. K., Deguchi, H. E., Koyanagi, Y., Yamashita, M., Kuroki, A. M., Motoda, M., and Amemiya, T. Improved nonpenetrating trabeculectomy with trabeculotomy. J Glaucoma 2001 ; 10 (5): 429-35 .

  It is not a RCT and has less than 100 patients
- "O'Grady, J. M., Juzych, M. S., Shin, D. H., Lemon, L. C., and Swendris, R. P. Trabeculectomy, phacoemulsification, and posterior chamber lens implantation with and without 5-fluorouracil. Am J Ophthalmol 93 ; 116 (5): 594-9 .

  It is combined cataract/glaucoma surgery study published before April 2000

- "O'Grady, J., Juzych, M., Shin, D., Swendris, R., Parrow, K., and Stewart, D. GLAUCOMA TRIPLE PROCEDURE WITH AND WITHOUT ADJUNCTIVE 5 FLUOROURACIL
  Meeting abstract
- "Oguz, H. Mitomycin C Molteno tube implantation. Clin Experiment Ophthalmol 2003 ;31 (5): 458; author reply 458-9 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Oh, J. Y. and Park, K. H. The effect of latanoprost on intraocular pressure during 12 months of treatment for normal-tension glaucoma. Korean J Ophthalmol 2005 ;19 (4): 297-301 .
  It is not a RCT and has less than 100 patients
- "Oh, S. Y., Youn, D. H., Kim, D. M., and Hong, C. The effects of intraoperative mitomycin-C or 5-fluorouracil on glaucoma filtering surgery. Korean J Ophthalmol 94 ;8 (1): 6-13 .
  It is not a RCT and has less than 100 patients
- "Ohrstrom, A., Kattstrom, O., Polland, W., Mortensen, J., and Stenstrom, B. Oral and topical adrenergic beta-receptor blockers in glaucoma treatment. A multicenter study
  Excluded drug
- "Ohta, H., Uji, Y., Hattori, Y., Sugimoto, M., and Higuchi, K. [Seasonal variation of intraocular pressure after trabeculotomy]
  Foreign language
- "Ohtake, Y., Tanino, T., Kimura, I., Mashima, Y., and Oguchi, Y. [Long-term efficacy and safety of combined topical antiglaucoma therapy--timolol & unoprostone vs. betaxolol & unoprostone]
  Foreign language
- "Oksala, A. and Salminen, L. [Influence of pilocarpine on ocular tension in new chronic glaucoma cases]
  Foreign language
- "Oksala, A. and Salminen, L. [Tachyphylaxis in chronic timolol-treated glaucoma]
  Foreign language
- "Oksala, A., Salminen, L., and Palkama, A. [Comparative study of timolol and pilocarpine in chronic glaucoma]
  Foreign language
- "Olander, K. W., Galet, V. A., Jia, G., Smugar, S. S., and Stewart, W. C. Relationship between visual field severity and response to fixed combination dorzolamide/timolol or timolol alone. J Ocul Pharmacol Ther 2009 ;25 (4): 357-64 .
  Other (specify):post hoc analysis"
- "Olander, K., Zimmerman, T. J., Downes, N., and Schoenfelder, J. Switching from latanoprost to fixed-combination latanoprost-timolol: a 21-day, randomized, double-masked, active-control study in patients with glaucoma and ocular hypertension. Clin Ther 2004 ;26 (10): 1619-29 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Olivalves, Edilberto, Olivalves, Stella, and Tortelli, Liliane. Comparagåo do efeito do maleato de timolol e pilocarpina na queda da pressåo intra-ocular
  Foreign language
- "Oliveira, Maria Vitoria F. de, Brasil, Oswaldo Ferreira Moura, Gongalves, Isabela, Meirelles, Sqrgio Henrique Sampaio, and Costa Filho, Adroaldo de Alencar Costa. UtilizagPo do laser de argónio no extravasamento da bolha filtrante
  Foreign language
- "Oliver, J. E., Hattenhauer, M. G., Herman, D., Hodge, D. O., Kennedy, R., Fang-Yen, M., and Johnson, D. H. Blindness and glaucoma: a comparison of patients progressing to blindness from glaucoma with patients maintaining vision. Am. J. Ophthalmol. 2002 ;133 (6): 764-772 .
  Does not address any key questions
- "Olivier, M., Bartlett, J., Richardson, T., Whitaker, R., Greenidge, K., and Pensyl, D. OCULAR AND SYSTEMIC TOLERABILITY OF CARTEOLOL AND TIMOLOL IN POSTMENOPAUSAL BLACK WOMEN WITH PRIMARY OPEN-ANGLE GLAUCOMA OR OCULAR HYPERTENSION
  Meeting abstract
- "Ollila, M., Falck, A., and Airaksinen, P. J. Placing the Molteno implant in a long scleral tunnel to prevent postoperative tube exposure. Acta Ophthalmol Scand 2005 ;83 (3): 302-5 .
  OAG can't be analyzed separately
- "Omi, Carlos Akira, Almeida, Geraldo Vicente de, and Belfort Mattos, Rubens. Estudo duplo mascarado sobre o uso t£pico de levobunolol e maleato de timolol em pacientes com glaucoma crónico simples ou hipertenso ocular
  Foreign language
- "Ong, L. B., Liza-Sharmini, A. T., Chieng, L. L., Cheong, M. T., Vengadasalam, S. R., Shin, H. C., and Balaravi, P. The efficacy of timolol in gel-forming solution after morning or evening dosing in Asian glaucomatous patients. J Ocul Pharmacol Ther 2005 ;21 (5): 388-94 .

It is a case series

- "Onol, M., Aktas, Z., and Hasanreisoglu, B. Enhancement of the success rate in trabeculectomy: large-area mitomycin-C application. Clin Experiment Ophthalmol 2008 ;36 (4): 316-22 .

It is not a RCT and has less than 100 patients

- "Opitz, D., Tung, S., Park, J., and Jang, U. SILICONE PUNCTAL PLUGS AS AN ADJUNCTIVE THERAPY TO TRAVOPROST 0.004% OPHTHALMIC SOLUTION IN PRIMARY OPEN ANGLE GLAUCOMA AND OCULAR HYPERTENSION

Foreign language

- "Orcelli, L. The influence of previous medical therapy on the success of trabeculectomy: Influenza della protratta terapia medica sul successo della trabeculectomia

Foreign language

- "Orchard, R. T., Taylor, D. J., and Parkins, R. A. Sulphonamide crystalluria with acetazolamide. Br Med J 72 ;(5827): 646 .

It is a case series

- "Orengo-Nania, S. and Travoprost Study Group. TRAVOPROST IS EFFECTIVE ADJUNCTIVE THERAPY IN PATIENTS WITH UNCONTROLLED IOP WHILE USING TIMOPTIC 0.5%

Meeting abstract

- "Orengo-Nania, S. D, Landry, T., Von Tress, M., Silver, L. H, Dickerson, J., Weiner, A. L, Davis, A. A, and Travoprost Study Group. Travoprost significantly decreased IOP in patients with open-angle glaucoma or ocular hypertension when used adjunctively with timolol

Meeting abstract

- "Orengo-Nania, S. D., Gross, R. L., Mallick, S., Wells, D. T., Sullivan, E. K., and Landry, T. A. Pooled Results of Two Randomized Clinical Trials Comparing the Efficacy and Safety of Travoprost 0.004%/Timolol 0.5% in Fixed Combination Versus Concomitant Travoprost 0.004% and Timolol 0.5%
- **Meeting abstract**
- "Orengo-Nania, S., Landry, T., Von Tress, M., Silver, L. H., Weiner, A., and Davis, A. A. Evaluation of travoprost as adjunctive therapy in patients with uncontrolled intraocular pressure while using timolol 0.5%

Medical KQ 3 or KQ 3 and KQ 6 only

- "Orengo-Nania, S., Oram, O., Severin, T. D., and Gross, R. L. EFFECT OF ATROPINE ON CENTRAL AND PERIPHERAL ANTERIOR CHAMBER DEPTH AND ANTERIOR CHAMBER ANGLE AFTER TRABECULECTOMY

Meeting abstract

- "Orme, M., Collins, S., Dakin, H., Kelly, S., and Loftus, J. Mixed treatment comparison and meta-regression of the efficacy and safety of prostaglandin analogues and comparators for primary open-angle glaucoma and ocular hypertension

Systematic review

- "Ornek, K., Onaran, Z., and Turgut, Y. Anterior uveitis associated with fixed-combination latanoprost and timolol. Can J Ophthalmol 2008 ; 43 (6): 727-8 .

It is a case series

- "Ortiz Arismendi, G. E and Nova, Gloria M. SÆndrome de Axenfeld-Rieger con glaucoma bilateral y descompensaci£n de cornea en ojo izquierdo

Foreign language

- "Ortiz Gonzblez, Elier, Miqueli RodrÆguez, Maritza, and Gonzblez GarcÆa, Alberto Omar. Estudio del brea quir·rgica en pacientes trabeculectomizados

Foreign language

- "Orzalesi, N., Rossetti, I., Bottoli, A., Invernizzi, T., Fumagalli, E., and Fogagnolo, P. Comparison of latanoprost, brimonidine and a fixed combination of timolol and dorzolamide on circadian intraocular pressure in patients with primary open-angle glaucoma and ocular hypertension. Acta Ophthalmol Scand Suppl 2002 ;236 : 55 .

Data not abstractable

- "Orzalesi, N., Rossetti, L., Bottoli, A., and Fogagnolo, P. Comparison of the Effect of Latanoprost, Travoprost, and Bimatoprost on Circadian Intraocular Pressure in Patients with Glaucoma or Ocular Hypertension

Meeting abstract

- "Orzalesi, N., Rossetti, L., Bottoli, A., Fumagalli, E., and Fogagnolo, P. The effect of latanoprost, brimonidine, and a fixed combination of timolol and dorzolamide on circadian intraocular pressure in patients with glaucoma or ocular hypertension. Arch Ophthalmol 2003 ;121 (4): 453-7 .

Other (specify):study design does not match KQ (KQ3)"

- "Orzalesi, N., Rossetti, L., Bottoli, A., Invernizzi, T., Fumagalli, E., and Fogagnolo, P. Comparison of the effect of latanoprost, brimonidine, and a fixed combination of timolol and dorzolamide on circadian intraocular pressure in patients with glaucoma or ocular hypertension

Meeting abstract

- "Orzalesi, N., Rossetti, L., Invernizzi, T., and Bottoli, A. A COMPARISON OF THE EFFECT OF TIMOLOL, LATANOPROST, AND DORZOLAMIDE ON CIRCADIAN INTRAOCULAR PRESSURE IN PATIENTS WITH GLAUCOMA OR OCULAR HYPERTENSION
  Meeting abstract
- "Orzalesi, N., Rossetti, L., Invernizzi, T., Bottoli, A., and Autelitano, A. Effect of timolol, latanoprost, and dorzolamide on circadian IOP in glaucoma or ocular hypertension
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Osako, M., Asaoka, R., Tachibana, K., Okano, T., and Usui, M. Evaluation of Corneal Endothelial Cell Reduction Rates After Combined Glaucoma and Cataract Surgery and After Glaucoma Surgery Alone
  Meeting abstract
- "Osborne, S. A., Montgomery, D. M., Morris, D., and McKay, I. C. Alphagan allergy may increase the propensity for multiple eye-drop allergy
  Unique comparators
- "Ostfeld, B., Halevy, J., and Theodor, E. [Acetazolamide-induced metabolic acidosis in elderly patients with mild renal failure]
  Foreign language
- "Otori, Y. [Side effects of antiglaucoma eye drops]
  Foreign language
- "Otori, Y., Tokugawa, H., Morimura, H., Okada, M., Goto, H., Miki, A., and Tano, Y. [The effect of substituting latanoprost 0.005% for unoprostone 0.12%]
- **Foreign language**
- "Ottaiano, Josq Augusto Alves, Moreira, Josq Belmiro de Castro, Fudo, Aurea, Ueda, Eder Masso, Bosso, Evandro Portaluppe, and Martin, Rosana TerWsa Alves Lois. Apraclonidine a 1 por cento em olhos submetidos a trabeculoplastia por laser de argónio
  Foreign language
- "Otto, S. R. and Hoh, H. R. EFFICACY AND OCULAR TOLERANCE OF TIMOLOL-GEL 0.1% (T-GEL 0.1%) ONCE DAILY VERSUS TIMOLOL 0.25% AQUEOUS EYE DROPS TWICE DAILY
  Meeting abstract
- "Ouhadj, O., Degheb, N., Chergui, I., and Nouri, M. T. [Late endophthalmitis complicating glaucoma filtering surgery without adjunctive antifibrotic agents]
  Foreign language
- "Ourgaud, A. G. [Adverse effects of local medical treatment in glaucoma]
  Foreign language
- "Ourgaud, A. G., Chagnon, A. M., and Roux, J. J. [Clinical study of a new anti-glaucoma treatment in comparison with pilocarpine]
  Foreign language
- "Oya, Y., Fujii, S., Yoshizawa, T., and Iwata, K. COMPARISON OF NON-PENETRATING LAMELLAR TRAVECULECTOMY WITH PENETRATIN TRABECULECTOMY
  Meeting abstract
- "Ozdemir, M. and Ozdemir, G. Comparison of the intraocular pressure lowering effect of latanoprost and carteolol-pilocarpine combination in newly diagnosed glaucoma. Jpn J Ophthalmol 2003 ;47 (1): 72-6 .
  Other (specify):pilocarpine
- "Ozkurt, Y. B., Sengor, T., Evciman, T., Haboglu, M., Bas, G., and Aydin, S. Administration of the fixed combination of latanoprost 0.005% and timolol 0.5% in glaucoma patients with an intraocular pressure over 30 mmHg. Clin Ophthalmol 2009 ;: 337-339 .
  It is not a RCT and has less than 100 patients
- "Ozturk, F., Ermis, S. S., and Inan, U. U. Comparison of the ocular hypotensive effects of bimatoprost and timolol-dorzolamide combination in patients with elevated intraocular pressure: a 6-month study
  KQ 3 RCT "
- "Pab£n, Claudia, Fraga, Olga, and Beaujon Balbi, Oscar. Efectos de la dorzolamida latanoprost y combinaci£n dorzolamida-timolol sobre la c£rnea
  Foreign language
- "Pacella, E., Pacella, F., Cavallotti, C., Librando, A., Feher, J., and Pecori-Giraldi, J. The combination latanoprost-timolol versus twice daily 0.50% timolol administration either associated or not with latanoprost: efficacy and tolerability in the primary open-angle glaucoma. Eur Rev Med Pharmacol Sci 2010 ;14 (5): 477-80 .
  Data not abstractable
- "Pache, M., Wilmsmeyer, S., and Funk, J. [Laser surgery for glaucoma: excimer-laser trabeculotomy]
  Foreign language
- "Pache, M., Wilmsmeyer, S., and Funk, J. Laser surgery for glaucoma: Excimer-laser trabeculotomy: Laserchirurgie und glaukom: Excimer-laser-trabekulotomie
  Foreign language
- "Pager, M. [Problems in estimating the therapeutic results in glaucoma]

Foreign language

- "Pajic, B. Experience with COSOPT, the fixed combination of timolol and dorzolamide, gained in Swiss ophthalmologists' offices. Curr Med Res Opin 2003 ;19 (2): 95-101 .

OAG can't be analyzed separately

- "Pajic, B., Pajic-Eggspuehler, B., and Hafliger, I. O. Comparison of the effects of dorzolamide/timolol and latanoprost/timolol fixed combinations upon intraocular pressure and progression of visual field damage in primary open-angle glaucoma

Unique comparators

- "Pakravan, M., Yazdani, S., Shahabi, C., and Yaseri, M. Superior versus inferior Ahmed glaucoma valve implantation. Ophthalmology 2009 ; 116 (2): 208-13 .

Other (specify): Mixed glaucoma"

- "Palanca-Capistrano, A. M., Hall, J., Cantor, L. B., Morgan, L., Hoop, J., and WuDunn, D. Long-term outcomes of intraoperative 5-fluorouracil versus intraoperative mitomycin C in primary trabeculectomy surgery. Ophthalmology 2009 ;116 (2): 185-90 .

OAG can't be analyzed separately

- "Paletta Guedes, R. A. and Paletta Guedes, V. M. Nonpenetrating deep sclerectomy in Brazil: A 3-year retrospective study: Sclerectomie profonde non perforante au Bresil: Etude retrospective sur trois ans
- **Foreign language**
- "Palmberg, P., Kim, E. E., Kwok, K. K., and Tressler, C. S. A 12-week, randomized, double-masked study of fixed combination latanoprost/timolol versus latanoprost or timolol monotherapy

Non-FDA-approved drug combination

- "Palmer, S. S. Mitomycin as adjunct chemotherapy with trabeculectomy. Ophthalmology 91 ;98 (3): 317-21 .

Data not abstractable

- "Pan, R.-G., Chen, X.-M., Li, M., and Liu, D.-J. Trabeculectomy with scleral tunnel treating refractory glaucoma

Foreign language

- "Pan, S.-X. and Zhao, G.-Q. Clinical observation of compound trabeculectomy in refractory glaucoma

Foreign language

- "Pan, Y. I, Damji, K. F, Rock, W. J, Bovell, A. M, Buhrmann, R., and Hodge, W. G. Comparing the Time to Treatment Failure Rate at 1-Year Post-Treatment: Results From a SLT vs. ALT Randomized Clinical Trial

Meeting abstract

- "Pannarale, M. R., Virno, M., Pecori, G. J., Garofalo, G., and Grechi, G. l-Bunolol in the treatment of open-angle glaucoma: double-blind study versus timolol. Bolletino de Oculistica 88 ;67 : 3-13 .

Other (specify):non english"

- "Papachristou, G. C., Ritch, R., and Liebmann, J. M. Gastrointestinal adverse effects of prostaglandin analogues. Arch Ophthalmol 2008 ; 126 (5): 732-3 .

It is a case series

- "Papaconstantinou D, Georgalas I, Karmiris E, Diagourtas A, Koutsandrea C, Ladas I, Apostolopoulos M, and Georgopoulos G. Trabeculectomy with OloGen versus trabeculectomy for the treatment of glaucoma: a pilot study. Acta ophthalmologica 2010 ;88 (1): 80-5 .

OAG can't be analyzed separately

- "Papaconstantinou, D. S., Georgopoulos, G. T., Andreanos, D. C., Vergados, J., Patsea, E. E., and Theodossiadis, G. P. EFFECT OF TOPICAL BRIMONIDINE ON OCULAR BLOOD FLOW

Meeting abstract

- "Papaconstantinou, D. S., Georgopoulos, G. T., Patsea, E. S., Chalkiadakis, I., Amariotakis, A., Maragos, A., Iliakis, E., Andreanos, D. G., and Moschos, M. Results of Combined Phacoemulsification and Trabeculectomy

Meeting abstract

- "Papaconstantinou, D., Georgalas, I., Karmiris, E., Diagourtas, A., Koutsandrea, C., Ladas, I., Apostolopoulos, M., and Georgopoulos, G. Trabeculectomy with OloGen versus trabeculectomy for the treatment of glaucoma: a pilot study. Acta Ophthalmol 2010 ;88 (1): 80-5 .

Other (specify): Ologen implant not a treatment of interest, Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study"

- "Papapanos, P., Wedrich, A., Pfleger, T., and Menapace, R. Induced astigmatism following small incision cataract surgery combined with trabeculectomy. Doc Ophthalmol 92 ;82 (4): 361-8 .

It is combined cataract/glaucoma surgery study published before April 2000

- "Papendick, U. and Rappe, S. [Contribution to the modern drug therapy of various forms of glaucoma]. Med Monatsschr 77 ;31 (12): 570-5 .

It is not a RCT and has less than 100 patients

- "Pappas, R. M., Pusin, S., and Higginbotham, E. J. Evidence of early change in iris color with latanoprost use. Arch Ophthalmol 98 ; 116 (8): 1115-6 .

It is a case series

- Paranhos J·nior A,Lima M. C,Salim S,Caprioli J,Shields M. B. Trabeculectomy and optic nerve head topography. Braz. j. med. biol. Res 2006; 39(1): 149-155.

it is not a RCT and has less than 100 patients

- "Paranhos, A., Mendonca, M., Silva, M. J., Giampani, J., Almeida Torres, R. J., Della Paolera, M., Russ, H., and Lottenberg, C. L. Hyperemia reduction after administration of a fixed combination of bimatoprost and timolol maleate to patients on prostaglandin or prostamide monotherapy. J Ocul Pharmacol Ther 2010 ;26 (6): 611-5 .

It is a case series

- "Paranhos, A., Mendonca, M., Silva, M. J., Giampani, J., Torres, R. J., Della Paolera, M., Russ, H., and Lottenberg, C. L. Hyperemia reduction after administration of a fixed combination of bimatoprost and timolol maleate to patients on prostaglandin or prostamide monotherapy. J Ocul Pharmacol Ther 2010 ;26): 611-5 .

Other (specify): Medication not approved in US"

- "Paranhos, A., Spadaro, F., Queiroz, C. M, Sagawa, A. P G, and Avila, M. P. Effects of Topical Indomethacin in Patients With Open Angle Glaucoma on Bimatoprost 0,03%

Meeting abstract

- "Parfenov, I. S. and Petukhov, V. M. [Effectiveness of trabeculectomy in primary glaucoma]

Foreign language

- "Parihar, J. K. S., Gupta, R. P., Sahoo, P. K., Misra, R. P., Vats, D. P., Kamath, A. P., and Rodrigues, F. E. A. Phacotrabeculectomy versus conventional combined technique in coexisting glaucoma and cataract. Med. J. Armed Forces India 2005 ;61 (2): 139-142 .

It is not a RCT and has less than 100 patients

- "Paris, G., Trigo, Y., Pena, M., Sanford, D., Weber, A., and Sponsel, W. E. Pulsatile ocular blood flow responses to latanoprost or brimonidine, alone and in combination with oral indomethacin

Meeting abstract

- "Park, H. J., Weitzman, M., and Caprioli, J. Temporal corneal phacoemulsification combined with superior trabeculectomy. A retrospective case-control study. Arch Ophthalmol 97 ;115 (3): 318-23 .

It is combined cataract/glaucoma surgery study published before April 2000

- "Park, H. Y., Lee, N. Y., and Park, C. K. Risk factors of shallow anterior chamber other than hypotony after Ahmed glaucoma valve implant. J Glaucoma 2009 ;18 (1): 44-8 .

Other (specify): Mixed glaucoma"

- "Park, J., Cho, H. K., and Moon, J. I. Changes to upper eyelid orbital fat from use of topical bimatoprost, travoprost, and latanoprost. Jpn J Ophthalmol 2011 ;55): 22-7 .

It is not a RCT and has less than 100 patients

- "Park, M., Hayashi, K., Takahashi, H., Tanito, M., and Chihara, E. Phaco-viscocanalostomy versus phaco-trabeculotomy: a middle-term study. J Glaucoma 2006 ;15 (5): 456-61 .

Other (specify):Study design does not match KQ

- "Park, M., Tanito, M., Nishikawa, M., Hayashi, K., and Chichara, E. Combined viscocanalostomy and cataract surgery compared with cataract surgery in Japanese patients with glaucoma. J Glaucoma 2004 ; 13 (1): 55-61 .

Other (specify):study design does not match KQ (3)"

- "Park, M., Tanito, M., Takahashi, H., and Chihara, E. Does the adjunctive peeling of juxtacanalicular tissue affect the outcome of two-site phaco-viscocanalostomy?. J Glaucoma 2005 ;14 (3): 224-9 .

It is not a RCT and has less than 100 patients

- "Park, M., Tanito, M., Takahashi, K., and Chihara, E. Combined cataract surgery and viscocanalostomy versus Combined cataract surgery and viscocanalostomy with nonpenetrating trabeculectomy

Meeting abstract

- "Parmaksiz, S., Yuksel, N., Karabas, V. L., Ozkan, B., Demirci, G., and Caglar, Y. A comparison of travoprost, latanoprost, and the fixed combination of dorzolamide and timolol in patients with pseudoexfoliation glaucoma

Medical KQ 3 only

- "Parravano, M., Centofanti, M., Palmieri, M., Oddone, F., Migliardi, R., and Bucci, M. G. Preservatives Free Non-Selective ß-blockers in the Management of Glaucomatous and Ocular Hypertensive Patients

Meeting abstract

- "Parrish, R. A Comparison of Latanoprost, Bimatoprost, and Travoprost in Patients with Elevated Intraocular Pressure: A 12-Week, Masked-Evaluator, Multicenter Study

Meeting abstract

- "Parrish, R. and Sheu, W. P. Post-hoc Analyses of the XLT Study Results. A Comparison of Latanoprost, Bimatoprost, and Travoprost in Patients

with Elevated IOP: A 12-week Randomized, Masked-evaluator, Multicenter Study
Meeting abstract

- "Parrish, R. K. 2nd, Schiffman, J. C., Feuer, W. J., and Heuer, D. K. Prognosis and risk factors for early postoperative wound leaks after trabeculectomy with and without 5-fluorouracil. Am J Ophthalmol 2001 ; 132 (5): 633-40 .
Does not address any key questions
- "Parrish, R. K., Palmberg, P., and Sheu, W. P. A comparison of latanoprost, bimatoprost, and travoprost in patients with elevated intraocular pressure: a 12-week, randomized, masked-evaluator multicenter study
Medical KQ 3 or KQ 3 and KQ 6 only
- "Parrish, R., Palmberg, P., and XLT Study Group. Latanoprost, Bimatoprost, and Travoprost in Patients With Elevated Intraocular Pressure: Results of a 12-Week, Masked-Evaluator, Multicenter Study
Meeting abstract
- "Partamian, L. G., Kass, M. A., and Gordon, M. A dose-response study of the effect of levobunolol on ocular hypertension
Medical KQ 3 or KQ 3 and KQ 6 only
- "Passos, Angelo Ferreira, Cardozo, Alessandra Soares, Mendes, Abraao Garcia, and Batista, Diusete Maria Pavan. RecuperagPo tardia de fÆstulas antiglaucomatosas pelo agulhamento episcleral associado a injegPo subconjuntival de mitomicina
Foreign language
- "Pastor Jimeno, J. C. and Eder Labairu, F. Effects of timolol maleate in open-angle glaucoma. Results of a double-blind trial against pilocarpine and a long term study (9 months): EFECTOS DEL MALEATO DE TIMOLOL EN EL GLAUCOMA DE ANGULO ABIERTO. RESULTADOS DE UN ESTUDIO DOBLE CIEGO CON LA PILOCARPINA Y ESTUDIO A LARGO PLAZO (9 MESES)
Foreign language
- "Patel, N. Cataract development after trabeculectomy with mitomycin C: a 1-year study, by L. 'Daugeliene, T. Yamamoto, and Y. Kitazawa. Jpn J Ophthalmol 44:52-7, 2000. Surv Ophthalmol 2000 45 (2): 165 .
Other (specify): No control group"
- "Patelska, B., Greenfield, D. S., Liebmann, J. M., Wand, M., Kushnick, H., and Ritch, R. Latanoprost for uncontrolled glaucoma in a compassionate case protocol. Am J Ophthalmol 97 ;124 (3): 279-86 .
Data not abstractable
- "Paterson, G. Effect of intravenous acetazolamide on relative arcuate scotomas and visual field in glaucoma simplex. Proc R Soc Med 70 ; 63 (9): 865-9 .
It is not a RCT and has less than 100 patients
- "Patil, A. J., Vajaranant, T. S., and Edward, D. P. Bimatoprost - a review. Expert Opin Pharmacother 2009 ;10 (16): 2759-68 .
No original data (e.g., systematic review, narrative review, editorial, letter)
- "Pavan, J., Stambuk, N., Curkovic, T., Konjevoda, P., Pavan-Jukic, D., Gotovac, M., and Karaman, K. Effectiveness of latanoprost (Xalatan) monotherapy in newly discovered and previously medicamentously treated primary open angle glaucoma patients. Coll Antropol 2005 ; 29 (1): 315-9 .
Other (specify): No control group"
- "Peace, J. H., Gross, R. L., Smith, S. E., Walters, T. R., Dubiner, H. B., Weiss, M. J., and Ochsner, K. I. Sustained Duration of Action of TRAVATAN ® Z
Meeting abstract
- "Pechereau, A. [An undesirable effect of a beta-blocker]. Bull Soc Ophtalmol Fr 87 ;87 (4): 517-8 .
It is a case series
- "Pecori-Giraldi, J. Computerized perimetric monitoring and study of scotomatous fluctuations in timolol-treated open-angle glaucoma patients. Surv Ophthalmol 89 ;33 Suppl : 423-5; discussion 435-6 .
It is not a RCT and has less than 100 patients
- "Pecori-Giraldi, J., Collini, S., Planner-Terzaghi, A., Arrico, L., and Grechi, G. [Timolol, betaxolol and befunolol in the treatment of glaucoma. Study of their bronchopulmonary effects]
Foreign language
- "Peeters, A., Schouten, J. S, Webers, C. A, Prins, M. H, Hendrikse, F., and Severens, J. L. Cost-effectiveness of early detection and treatment of ocular hypertension and primary open-angle glaucoma by the ophthalmologist (Structured abstract). Eye 2008 ;22 : 354-362 .
No original data (e.g., systematic review, narrative review, editorial, letter)
- "Peeters, A., Webers, C. A., Prins, M. H., Hendrikse, F., and Schouten, J. S. The clinical impact of 2 different strategies for initiating therapy in patients with ocular hypertension. J Glaucoma 2011 ;20: 30-6 .
Does not address any key questions

- "Pei, C.-G., Zhou, Y., Shao, Y., and Zhou, Q. Clinical study on the application of anterior lens capsule in trabeculectomy combined with cataract surgery
  Foreign language
- "Peng, D. W., Lu, L., and Tian, X. [Laser suture lysis following trabeculectomy]
  Foreign language
- "Peng, D., Li, S., Li, M., Shao, H., Sun, X., Sheng, Y., Yu, K., Fu, P., Guo, W., Meng, F., Xu, C., and Zhu, Z. [A comparison between latanoprost and timolol in treatment of patients with primary open-angle glaucoma and ocular hypertension]
  Foreign language
- "Peng, D., Yu, K., Tian, X., Liu, X., Yu, M., and Zhou, W. [A randomized control clinical trial of glaucoma filtering surgery with homoharringtonine]
  Foreign language
- "Pepys, M. B. Acetazolamide and renal stone formation. Lancet 70 ;1 (7651): 837 .
  It is a case series
- "Peralta, J., Abelairas, J., and Fernandez-Guardiola, J. Anaphylactic shock and death after oral intake of acetazolamide. Am J Ophthalmol 92 ;114 (3): 367 .
  It is a case series
- "Perasalo, R., Flink, T., Lehtosalo, J., Ralli, R., and Sulonen, J. Surgical outcome of phaco-emulsification combined with trabeculectomy in 243 eyes. Acta Ophthalmol Scand 97 ;75 (5): 581-3 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Perez Candelaria, Eneida de la C, Coba Pena, Maria Josefa, Vigoa Aranguren, Lazaro, and Capote Cabrera, Armando. Correlacion Anatomoclinica en pacientes operados con Trabeculectomia y su estabilidad funcional
  Foreign language
- "Perez-Lopez, M., Nozal, C. C., Lopez, M. M., Garcia-Perez, J. L., and Negrete, F. M. Central retinal vein occlusion after nonperforating sclerectomy without mitomycin. Can J Ophthalmol 2009 ;44 (6): 718-9 .
  It is a case series
- "Pesin, S. R. and Brandt, J. D. Paresthesia and numbness due to drugs: the special case of the blind. JAMA 91 ;265 (12): 1527-8 .
  It is a case series
- "Peterson, M. R., Skuta, G. L., Phelan, M. J., and Stanley, S. A. Striate melanokeratosis following trabeculectomy with 5-fluorouracil. Arch Ophthalmol 90 ;108 (9): 1216-7 .
- **It is a case series**
- "Petounis, A., Mylopoulos, N., Kandarakis, A., Andreanos, D., and Dimitrakoulias, N. Comparison of the additive intraocular pressure-lowering effect of latanoprost and dorzolamide when added to timolol in patients with open-angle glaucoma or ocular hypertension: a randomized, open-label, multicenter study in Greece

  Medical KQ 3 or KQ 3 and KQ 6 only
- "Pfeiffer, N. A comparison of the fixed combination of latanoprost and timolol with its individual components
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Pfeiffer, N. and German Latanopost Fixed Combination Study Group. A COMPARISON OF THE FIXED COMBINATION OF LATANOPROST AND TIMOLOL WITH IST INDIVIDUAL COMPONENTS IN PATIENTS WITH GLAUCOMA OR OCULAR HYPERTENSION
  Meeting abstract
- "Pfeiffer, N. and Grehn, F. [Lowering the intraocular pressure by a combination of timolol with adrenergic agents]. Fortschr Ophthalmol 88 ; 85 (5): 456-8 .
  Other (specify):no rct. no harms"
- "Pfeiffer, N. and Grehn, F. [Treatment of glaucoma chronicum simplex with a combination of 0.5 percent timolol with 0.5 percent adrenaline plus 0.3 percent guanethidine]. Klin Monbl Augenheilkd 89 ;194 (3): 161-3 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Pfeiffer, N., Grehn, F., Hennekes, R., and Garus, H. [Decrease in intraocular pressure following administration of the local carbonic anhydrase inhibitor (MK-927)--comparison of the effect with pilocarpine]. Fortschr Ophthalmol 90 ;87 (2): 128-30 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Pfeiffer, N., Greve, E., Bechetoille, A., Lippa, E. A., Jaquet-Muller, F., Gunning, F., Gerling, J., and Grehn, F. [Additive effect of timolol and the local carbonic anhydrase inhibitor MK-417 (sezolamide)]. Fortschr Ophthalmol 91 ;88 (6): 846-7 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Pfeiffer, N., Hennekes, R., Lippa, E. A., Grehn, F., Garus, H., and Brunner-Ferber, F. L. A single dose of the topical carbonic anhydrase inhibitor MK-927 decreases IOP in patients. Br J Ophthalmol 90 ;
- 74 (7): 405-8 .
- **Does not address any key questions**
- "Pfeiffer, N., Scherzer, M. L., Maier, H., Schoelzel, S., Jasek, M. C., Stewart, J. A., and Stewart, W. C. Safety and efficacy of changing to the travoprost/timolol maleate fixed combination (DuoTrav) from prior mono- or adjunctive therapy. Clin Ophthalmol 2010 ;: 459-66 .
  Other (specify):not FDA approved, **It is not a RCT and has less than 100 patients**"
- "Pfeiffer, N., Yannoulis, N., Mertz, B., Cirkel, C., Kapik, B., and The Unoprostone Study Group. Efficacy and safety of unoprostone isopropyl 0.15% and latanoprost 0.005% in adjunctive therapy to timolol maleate 0.5% in patients with primary open-angle glaucoma or ocular hypertension
  Meeting abstract
- "Phelan, M. J. and Skuta, G. L. Reversible corneal keratinization following trabeculectomy and treatment with 5-fluorouracil. Ophthalmic Surg 90 ;21 (4): 296-8 .
  It is a case series
- "Philippin, H., Wilmsmeyer, S., Feltgen, N., Ness, T., and Funk, J. Combined cataract and glaucoma surgery: endoscope-controlled erbium:YAG-laser goniotomy versus trabeculectomy. Graefes Arch Clin Exp Ophthalmol 2005 ;243 (7): 684-8 .
  Other (specify):applies to KQ3 but not RCT"
- "Picht, G., Mutsch, Y., and Grehn, F. [Follow-up of trabeculectomy. Complications and therapeutic consequences]
  Foreign language
- "Picht, G., Mutsch, Y., and Grehn, F. Postoperative complications and therapeutic consequences after trabeculectomy: Nachbetreuung von trabekulektomien: Komplikationen und therapeutische konsequenzen. Ophthalmologe 2001 ;98 (7): 629-634 .
  It is a case series
- "Pillunat, L. E, Kamman, J., and Kohlhaas, M. Clear cornea phacoemulsification as an intraocular pressure lowering procedure in glaucoma

  Meeting abstract
- "Pillunat, L. E. and Larsson, L. I. Intraocular pressure after replacement of current dual therapy with latanoprost monotherapy in patients with open angle glaucoma
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Piltz, J. R. and Bose, S. EFFECT OF â1-SELECTIVE AND NON-SELECTIVE â-BLOCKERS ON MACULAR BLOOD FLOW AND CONTRAST SENSITIVITY
  Meeting abstract
- "Pinheiro, Renato Klingelfus, Mandia, Carmo, Betinjane, Alberto, Kasahara, Niro, Paollera, MaurÆcio, Umbelino, Cristiano, Flank, MaurÆcio, Eliezer, Ricardo, and Crosta, Fernando. RevisPo interna de Simmons: anblise preliminar de seus resultados clÆnicos
  Foreign language
- "Pisella, P. J., Lala, E., Parier, V., Brignole, F., and Baudouin, C. [Effect of preservatives on the conjunctiva: a comparative study of beta-blocker eye drops with and without preservatives in glaucoma patients]
  Foreign language
- "Pitrova, S. and Kalvodova, B. [General symptoms following administration of isopto-carbachol]
  Foreign language
- "Plane, C. [First clinical impressions of metipranolol eyedrops in open-angle glaucoma]. Bull Soc Ophtalmol Fr 85 ;85 (10): 1105-9 .
  It is not a RCT and has less than 100 patients
- "Plane, C., Sansorgne, R., Renaud, C., and Jouan, J. P. [2-year long-term treatment of chronic glaucoma with timolol eyedrops]
  Foreign language
- "Plane, C., Sole, P., and Hamard, H. Results of a double blind study comparing timolol and pilocarpine in 110 patients with chronic open-angle glaucoma: RESULTATS D'UNE ETUDE EN DOUBLE OBSERVATEUR COMPARANT LE TIMOLOL A LA PILOCARPINE CHEZ 110 PATIENTS ATTEINTS DE GLAUCOME CHRONIQUE A ANGLE OUVERT
  Foreign language
- "Plane, C., Sole, P., Hamard, H., Vidal, R., Ourgaud, A. G., and Chagnon, A. [Results of a double-blind study comparing the effects of timolol and pilocarpine in 110 patients with chronic open-angle glaucoma]

  Foreign language

- "Plange, N., Harris, A., Wolter, P., Huber, K., Remky, A., and Arend, O. Retinal hemodynamics, perimetry and contrast sensitivity in glaucoma therapy
  Meeting abstract
- "Pliushko, D. G. [Drug treatment of the initial stage of glaucoma]
  Foreign language
- "Pliushko, D. G. and Kornienko, V. V. [Late results of trabeculectomy in open-angle glaucoma]
  Foreign language
- "Pliushko, D. G. and Sobko, E. G. [Drug therapy of initial open-angle glaucoma]
  Foreign language
- "Plotnikov, M. B., Shilova, O. G., Khatminskii, N. I. u., Zapuskalov, I. V., Fetisov, A. A., Filippova, S. V., Baliuk, N. A., Khatminskii, I. u. F., Pronin, M. P., and Fedorova, N. F. [Preparation polyosm in the treatment of glaucoma]
  Foreign language
- "Podos, S. M. and Serle, J. B. Topically active carbonic anhydrase inhibitors for glaucoma. Arch Ophthalmol 91 ;109 (1): 38-40 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Poinoosawmy, D., Indar, A., Bunce, C., Garway-Heath, D. F., and Hitchings, R. A. Effect of treatment by medicine or surgery on intraocular pressure and pulsatile ocular blood flow in normal-pressure glaucoma. Graefes Arch Clin Exp Ophthalmol 2002 ;240 (9): 721-6 .
  Does not address any key questions
- "Polo, V., Larrosa, J. M., Ferreras, A., and Honrubia, F. M. Latanoprost vs combined therapy with timolol plus dorzolamide in open-angle glaucoma: A 24-month study
  Medical KQ 3 or KQ 3 and KQ 6 only-no true 24hours
- "Polo, V., Larrosa, J. M., Ferreras, A., Borque, E., Pablo, L. E., and Honrubia, F. M. Effect on diurnal intraocular pressure of the fixed combination of latanoprost 0.005% and timolol 0.5% administered in the evening in glaucoma. Ann Ophthalmol (Skokie) 2008 ;40 (3-4): 157-62 .
  Other (specify): No control group"
- "Polo, V., Larrosa, J. M., Gomez, M. L., Pablo, L., and Honrubia, F. M. Latanoprost versus combined therapy with timolol plus dorzolamide: IOP-lowering effect in open-angle glaucoma
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Popa, D. P., Vasinca, D., Mihalachi, C., Mandroiu, S., and Dimancescu, M. [The efficacy of Cairns trabeculectomy in open-angle glaucoma]
  Foreign language
- "Popiela, G., Muzyka, M., Szelepin, L., Cwirko, M., and Nizankowska, M. H. [Use of YAG-Selecta laser and argon laser in the treatment of open angle glaucoma]
  Foreign language
- "Potocky, M. [The Slovak study of the travoprost treatment efficacy]
  Foreign language
- "Potocky, M. and Vodrazkova, E. [Beta-blockers in the treatment of open-angle glaucoma]
  Foreign language
- "Potocky, M. and Vodrazkova, E. [Betoptic, a new possibility in the treatment of glaucoma]
  Foreign language
- "Potocky, M. and Vodrazkova, E. [Factors influencing the effectiveness of argon laser trabeculoplasty]
  Foreign language
- "Potocky, M. and Vodrazkova, E. Betablockers in the treatment of primary open-angle glaucoma
  Duplicate "
- "Potocky, M. The Slovak study of the travoprost treatment efficacy: Slovenska studia efektivity liecby travoprostom
  Duplicate 1546 "
- "Prakash, C., Alexander, C., Hussain, P., Krishnan, P., Venugopal, N. S., and Sahasranam, K. V. Complete heart block after topical timolol. J Assoc Physicians India 90 ;38 (8): 600, 603 .
  It is a case series
- "Prasad, N., Murthy, S., Dagianis, J. J., and Latina, M. A. A comparison of the intervisit intraocular pressure fluctuation after 180 and 360 degrees of selective laser trabeculoplasty (SLT) as a primary therapy in primary open angle glaucoma and ocular hypertension. J Glaucoma 2009 ;18 (2): 157-60 .
  It is not a RCT and has less than 100 patients
- "Prasad, V. N., Narain, M., and Sandeep, G. Combined trabeculectomy and cataract extraction--a retrospective study. Indian J Ophthalmol 88 ;
- 36 (4): 156-7 .
  It is not a RCT and has less than 100 patients
- "Prata Junior, J. A., Minckler, D. S., Baerveldt, G., Lee, P. P., LaBree, L., and Heuer, D. K. Trabeculectomy in pseudophakic patients: postoperative

5-fluorouracil versus intraoperative mitomycin C antiproliferative therapy. Ophthalmic Surg 95 ;26 (1): 73-7 .

- **It is not a RCT and has less than 100 patients**
- "Prata Junior, João Antonio and Reyes, Jose Carlos. Uso prolongado de colÆrios antiglaucomatosos e eficbcia da trabeculectomia

  Foreign language
- "Prata, J. A. Jr, Minckler, D. S., Baerveldt, G., Lee, P. P., and Heuer, D. K. Site of mitomycin-C application during trabeculectomy. J Glaucoma 94 ;3 (4): 296-301 .

  It is not a RCT and has less than 100 patients
- "Prata, J. A. Jr, Seah, S. K., Minckler, D. S., Baerveldt, G., Lee, P. P., and Heuer, D. K. Postoperative complications and short-term outcome after 5-Fluorouracil or mitomycin-C trabeculectomy. J Glaucoma 95 ;(1): 25-31 .

  OAG can't be analyzed separately
- "Prata, T. S., Palmiero, P. M., Angelilli, A., Sbeity, Z., De Moraes, C. G., Liebmann, J. M., and Ritch, R. Iris morphologic changes related to alpha(1)-adrenergic receptor antagonists implications for intraoperative floppy iris syndrome

  Systematic review
- "Prell, R. [Successful pressure decrease and improved patient quality of life by Trusopt]. Klin Monbl Augenheilkd 96 ;208 (4): 11-2 .

  It is a case series
- "Preoteasa, D. and Mocanu, C. [Efficacy of ophthalmic suspension of Brinzolamide (Azopt) in the primary or combined therapy for patients with hypertensive glaucomas]

  Foreign language
- "Pribylova, E. Thromboses of retinal veins

  Foreign language
- "Primrose, J. Dangerous antihypertensive treatment. Br Med J 79 ; 2 (6192): 737 .

  No subjects with open-angle glaucoma
- "Promesberger, H. and Junemann, G. [Results of treatment with timolol in problematic cases (author's transl)]. Klin Monbl Augenheilkd 81 ; 179 (6): 426-7 .
- **It is not a RCT and has less than 100 patients**
- "Prosdocimo, G., Daniotti, E., and Rapizzi, A. The triple procedure of ECCE, IOL implantation and trabeculectomy, long-term results and complications. EUR. J. IMPLANT REFRACTIVE SURG. 93 ; (1): 60-62 .

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- "Prost, M. and Krwawicz, L. [Timolol in the treatment of uncontrolled glaucoma (author's transl)]

  Foreign language
- "Przydryga, J. T. and Egloff, C. Intraocular pressure lowering efficacy of travoprost. Eur J Ophthalmol 2004 ;14 (5): 416-22 .

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- "Puig, L., Goni, F. J., Roque, A. M., Bordas, F. D., and de Moragas, J. M. Psoriasis induced by ophthalmic timolol preparations. Am J Ophthalmol 89 ;108 (4): 455-6 .

  It is a case series
- "Puustjarvi, T. J. and Repo, L. P. Timolol-pilocarpine fixed-ratio combinations in the treatment of chronic open angle glaucoma. A controlled multicenter study of 48 weeks. Scandinavian Timpilo Study Group. Arch Ophthalmol 92 ;110 (12): 1725-9 .

  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Puustjarvi, T. J., Repo, L. P., Aarnisalo, E., Aitasalo, K., Alme, G., Brinek, H. P., Brodwall, J., Disen, T., Forsman, E., Fostad, P., Gedde-Dahl, S., Granstrom -, P. A., Guldsten, H., Haugland, K. M., Hellum, H., Henricson, T., Heuer, H. E., Hoff, T., and Juhanen, L. Timolol-pilocarpine fixed-ratio combinations in the treatment of chronic open angle glaucoma: A controlled multicenter study of 48 weeks. ARCH. OPHTHALMOL. 92 ;110 (12): 1725-1729 .

  Other (specify):pilocarpine
- "Puustjarvi, T., Aine, E., and Hakala, T. [The effect of timolol/pilocarpine combinations with a fixed ratio compared with 0.5% timolol in the treatment of open-angle glaucoma]. Fortschr Ophthalmol 88 ;85 (1): 76-8

  It is not a RCT and has less than 100 patients
- "Puustjarvi, T., Aine, E., and Hakala, T. The effect of two timolol and pilocarpine combinations versus timolol 0.5% in the treatment of open-angle glaucoma

  Unique comparators
- "Puy, P., Arias-Puente, A., Shafik, M., gomez, M., Kamel, N., Benitez del Castillo, J., and Garcia-Sanchez, J. EFFECT OF PILOCARPINE AND DIPIVALYL-EPINEPHRINE ON THE BLOOD AQUEOUS BARRIER IN GLAUCOMATOUS PATIENTS

  Meeting abstract

- "Qu, J. M., Tang, G. L., and Hou, J. P. [Comparison of two ways for adjustable suture in complex trabeculectomy]

  Foreign language
- "Quaranta, L., Hitchings, R. A., and Quaranta, C. A. Ab-interno goniotrabeculotomy versus mitomycin C trabeculectomy for adult open-angle glaucoma: a 2-year randomized clinical trial. Ophthalmology 99 ; 106 (7): 1357-62 .

  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Quaranta, L., Miglior, S., Floriani, I., Pizzolante, T., and Konstas, A. G. Effects of the timolol-dorzolamide fixed combination and latanoprost on circadian diastolic ocular perfusion pressure in glaucoma

  Medical KQ 3 or KQ 3 and KQ 6 only
- "Quaranta, L., Pasquini, L., Cassamali, M., Hauranieh, N., Gandolfo, E., and Quaranta, C. A. Ocular hypotensive effect of sublingual administration of timolol. Int Ophthalmol 96-97 ;20 (1-3): 49-51 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Quentin, C. D., Dittmer, K., Lauritzen, K., Langer, F., and Vogel, M. Combined phaco-trabeculectomy with implantation of foldable posterior chamber lens implantation. Complications and long-term results: Kombinierte glaukom- und kataraktoperation mit faltbarer hinterkammerlinsenimplantation. Langzeitergebnisse und komplikationen. Ophthalmologe 2000 ;97 (11): 753-757 .

  It is a case series
- "Quigley, H. A. and Pollack, I. P. Intraocular pressure control with twice-daily pilocarpine in two vehicle solutions. Ann Ophthalmol 77 ;9 (4): 427-30 .

  Data not abstractable
- "Quigley, H. A. European Glaucoma Prevention Study. Ophthalmology 2005 ;112 (9): 1642-3; author reply 1643-5 .

  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Quigley, H. A., Pollack, I. P., and Harbin, T. S. Jr. Pilocarpine ocuserts. Long-term clinical trials and selected pharmacodynamics. Arch Ophthalmol 75 ;93 (9): 771-5 .

  Other (specify):ocusert no longer sold"
- "Quinones, R., Severin, T., and Mundorf, T. Efficacy of bimatoprost 0.03 percent in untreated glaucoma and ocular hypertension patients: results from a large community-based clinical trial. J Ocul Pharmacol Ther 2004 ;20 (2): 115-22 .

  It is a case series
- "Quiralte, J., Florido, F., and de San Pedro, B. S. Allergic contact dermatitis from carteolol and timolol in eyedrops. Contact Dermatitis 2000 ;42 (4): 245 .

  It is a case series
- "Rachmiel, R., Trope, G. E., Buys, Y. M., Flanagan, J. G., and Chipman, M. L. Intermediate-term outcome and success of superior versus inferior Ahmed Glaucoma Valve implantation. J Glaucoma 2008 ;17 (7): 584-90

  It is a case series
- "Racz, P., Ruzsonyi, M. R., Nagy, Z. T., and Bito, L. Z. Maintained intraocular pressure reduction with once-a-day application of a new prostaglandin F2 alpha analogue (PhXA41). An in-hospital, placebo-controlled study. Arch Ophthalmol 93 ;111 (5): 657-61 .

  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Racz, P., Ruzsonyi, M. R., Nagy, Z. T., Gaygi, Z., and Bito, L. Z. Around-the-clock intraocular pressure reduction with once-daily application of latanoprost by itself or in combination with timolol. Arch Ophthalmol 96 ;114 (3): 268-73 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Radcliffe NM, Musch DC, Niziol LM, Liebmann JM, Ritch R, and Collaborative Initial Glaucoma Treatment Study Group. The effect of trabeculectomy on intraocular pressure of the untreated fellow eye in the collaborative initial glaucoma treatment study. Ophthalmology 2010 ; 117 (11): 2055-60 .

  It is a case series
- "Radcliffe, N. M., Musch, D. C., Niziol, L. M., Liebmann, J. M., and Ritch, R. The effect of trabeculectomy on intraocular pressure of the untreated fellow eye in the collaborative initial glaucoma treatment study

  Systematic review
- "Radcliffe, N. M., Musch, D. C., Niziol, L. M., Liebmann, J. M., and Ritch, R. The effect of trabeculectomy on intraocular pressure of the untreated fellow eye in the collaborative initial glaucoma treatment study. Ophthalmology 2010 ;117 : 2055-60 .

  Does not address any key questions

- "Radhakrishnan, S., Quigley, H. A., Jampel, H. D., Friedman, D. S., Ahmad, S. I., Congdon, N. G., and McKinnon, S. Outcomes of surgical bleb revision for complications of trabeculectomy
  Systematic review
- "Radhakrishnan, S., Quigley, H. A., Jampel, H. D., Friedman, D. S., Ahmad, S. I., Congdon, N. G., and McKinnon, S. Outcomes of surgical bleb revision for complications of trabeculectomy. Ophthalmology 2009 ; 116 (9): 1713-8 .
  Does not address any key questions
- "Radian, A. B. and Alupei, L. [Clinical observations on the local use of timolol maleate]
  Foreign language
- "Radian, A. B. and Radian, A. L. [Long-term treatment with acetazolamide in primary glaucoma]
  Foreign language
- "Radian, A. B., Chereches, S., and Alupei, L. [A comparative study of the ocular hypotonic action of collyria with oxprenolol and timolol maleate]
  Foreign language
- "Radius, R. L. Use of betaxolol in the reduction of elevated intraocular pressure. Arch Ophthalmol 83 ;101 (6): 898-900 .
  It is not a RCT and has less than 100 patients
- "Radzikhovskii, B. L. [Effect of pilocarpine on the visual field of normal and galacomatous eyes]
  Foreign language
- "Rahman, M. Q., Montgomery, D. M., and Lazaridou, M. N. Surveillance of glaucoma medical therapy in a Glasgow teaching hospital: 26 years' experience. Br J Ophthalmol 2009 ;93 (12): 1572-5 .
  It is a case series
- "Raina, U. K. and Tuli, D. Trabeculectomy with releasable sutures: a prospective, randomized pilot study. Arch Ophthalmol 98 ; 116 (10): 1288-93 .
  OAG can't be analyzed separately
- "Raina, U. K., Tuli, D., and Mehta, D. K. Polyglactin sutures versus nylon sutures for scleral flap suturing in trabeculectomy. Ophthalmic Surg Lasers 99 ;30 (7): 554-9 .
  Other (specify):Not a comparison of interest
- "Rait, J. L. and Adena, M. A. Persistency rates for prostaglandin and other hypotensive eyedrops: population-based study using pharmacy claims data. Clin Experiment Ophthalmol 2007 ;35 (7): 602-11 .
  Other (specify):study design does not match KQ (KQ2)"
- "Raitta, C. and Setala, K. Trabeculectomy with the use of sodium hyaluronate. A prospective study. Acta Ophthalmol (Copenh) 86 ;
- 64 (4): 407-13 .
  It is not a RCT and has less than 100 patients
- "Raitta, C., Lehto, I., Puska, P., Vesti, E., and Harju, M. A randomized, prospective study on the use of sodium hyaluronate (Healon) in trabeculectomy. Ophthalmic Surg 94 ;25 (8): 536-9 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
  "Raivio, V. E., Puska, P. M., and Immonen, I. J. Cyclophotocoagulation with the transscleral contact red 670-nm diode laser in the treatment of glaucoma. Acta Ophthalmol 2008 ;86 (5): 558-64 .
  It is a case series
- "Rajan, M. S., Syam, P., and Liu, C. Systemic side effects of topical latanoprost. Eye (Lond) 2003 ;17 (3): 442-4 .
  It is not a RCT and has less than 100 patients
- "Rakofsky, S. I., Lazar, M., Almog, Y., LeBlanc, R. P., Mann, C., Orr, A., Lee, P. F., Friedland, B. R., Novack, G. D., Kelley, E. P., and et, a. l. Efficacy and safety of once-daily levobunolol for glaucoma therapy
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Rakofsky, S. I., Melamed, S., Cohen, J. S., Slight, J. R., Spaeth, G., Lewis, R. A., Zbrowski-Gutman, L., Eto, C. Y., Lue, J. C., and Novack, G. D. A comparison of the ocular hypotensive efficacy of once-daily and twice-daily levobunolol treatment
  Unique comparators
- "Ramdas, W. D., van der Velde, N., van der Cammen, T. J., and Wolfs, R. C. Evaluation of risk of falls and orthostatic hypotension in older, long-term topical beta-blocker users
  Unique comparators
- "Rao, H. L., Babu, G. J., and Sekhar, G. C. Comparison of the diagnostic capability of the Heidelberg Retina Tomographs 2 and 3 for glaucoma in the Indian population
  Systematic review
- "Rao, M. R., O'Brien, J., Dening, T. R., and Dober, M. Systemic hazards of ocular timolol. Br J Hosp Med 93 ;50 (9): 553 .
  It is not a RCT and has less than 100 patients
- "Rasheed el-S. Initial trabeculectomy with intraoperative mitomycin-C application in primary glaucomas. Ophthalmic Surg Lasers 99 ;30 (5): 360-6 .
  It is not a RCT and has less than 100 patients

- "Rauscher, F. M., Gedde, S. J., Schiffman, J. C., Feuer, W. J., Barton, K., and Lee, R. K. Motility disturbances in the tube versus trabeculectomy study during the first year of follow-up. Am J Ophthalmol 2009 ; 147 (3): 458-66 .

  Data not abstractable
- "Ravinet, E., Bovey, E., and Mermoud, A. T-Flux implant versus Healon GV in deep sclerectomy. J Glaucoma 2004 ;13 (1): 46-50 .

  OAG can't be analyzed separately
- "Rayner, S. A., Bhikoo, R., and Gray, T. Spherical implantable collamer lenses for myopia and hyperopia: 126 eyes with 1-year follow up

  Systematic review
- "Razeghinejad, M. R. Glaucoma medications in the Tube versus Trabeculectomy Study. Am J Ophthalmol 2010 ;150 (2): 290; author reply 290-1 .

  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Razemon, P., Dascotte, J. C., and Leser, C. [Our experience with the tonometric effect of timolol]

  Foreign language
- "Realini, T. Assessing the effectiveness of intraocular pressure-lowering therapy. Ophthalmology 2010 ;117 (11): 2045-6 .

  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Realini, T. Assessing the effectiveness of intraocular pressure-lowering therapy. Ophthalmology 2010 ;
- 117 (11): 2045-6 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Realini, T. D. A Prospective, randomized, investigator-masked evaluation of the monocular trial in ocular hypertension or open-angle glaucoma. Ophthalmology 2009 ;116 (7): 1237-42 .
- **Does not address any key questions**
- "Realini, T., Charlton, J., and Hettlinger, M. The impact of anti-inflammatory therapy on intraocular pressure reduction following selective laser trabeculoplasty. Ophthalmic Surg Lasers Imaging 2010 ;41 (1): 100-3 .

  Other (specify): Prednisolone not a medication of interest, Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study"
- "Reardon, G., Schwartz, G. F., and Kotak, S. Persistence on prostaglandin ocular hypotensive therapy: an assessment using medication possession and days covered on therapy

  Systematic review
- "Reardon, G., Schwartz, G. F., and Mozaffari, E. Patient persistency with ocular prostaglandin therapy: a population-based, retrospective study. Clin Ther 2003 ;25 (4): 1172-85 .

  OAG can't be analyzed separately
- "Reardon, G., Schwartz, G. F., and Mozaffari, E. Patient persistency with pharmacotherapy in the management of glaucoma. Eur J Ophthalmol 2003 ;13 Suppl 4 : S44-52 .

  Does not address any key questions
- "Reardon, G., Schwartz, G. F., and Mozaffari, E. Patient persistency with topical ocular hypotensive therapy in a managed care population. Am J Ophthalmol 2004 ;137 (1 Suppl): S3-12 .

  Animal or in vitro data
- "Rebolleda, G. and Munoz-Negrete, F. J. Comparison between phaco-deep sclerectomy converted into phaco-trabeculectomy and uneventful phaco-deep sclerectomy. Eur J Ophthalmol 2005 ;
- 15 (3): 343-6 .
- **Other (specify):No control**
- "Reeder, J. and Wallace, M. R. The effect of carbonic anhydrase inhibitors on urinary calcium and citrate. Trans Ophthalmol Soc N Z 79 ;
- 31 : 51-2 .
- **Does not address any key questions**
- "Rehman, S. U, Amoaku, W. M K, Doran, R. M L, Menage, M. J, Morrell, A. J, and Fox, P. D. Investigation into the Use of Beta Radiation as an Adjunct to Trabeculectomy in Glaucoma

- **Meeting abstract**
- "Rehman, S. U, Tesha, P., Merriman, M., Amoaku, W. M K, Barnes, R., Menage, M. J, and Mora, J. Results of A Multi-Centered Randomized Controlled Trial of Beta Irradiation as an Adjunct to Trabeculectomy in Open-Angle Glaucoma

  Meeting abstract
- "Rehman, S. U., Amoaku, W. M., Doran, R. M., Menage, M. J., and Morrell, A. J. Randomized controlled clinical trial of beta irradiation as an adjunct to trabeculectomy in open-angle glaucoma

  Kirwan 2009

- "Reibaldi, A. and Uva, M. G. Five-year follow-up of LSL trabeculectomies with low dosage mitomycin-C in primary open-angle glaucoma. Acta Ophthalmol Scand Suppl 2002 ;236 : 61-2 .
  It is not a RCT and has less than 100 patients
- "Reibaldi, A., Uva, M. G., Ott, J. P., Longo, A., Chisan, G., and Franco, L. COMBINED SURGERY VS TWO-STAGE PROCEDURE: A PERSPECTIVE RANDOMIZED STUDY USING MITOMYCIN-C
  Meeting abstract
- "Reichert, R. W., Shields, M. B., and Stewart, W. C. Intraocular pressure response to replacing pilocarpine with carbachol. Am J Ophthalmol 88 ;
- 106 (6): 747-8 .
  Does not address any key questions
- "Reichert, R., Stewart, W., and Shields, M. B. Limbus-based versus fornix-based conjunctival flaps in trabeculectomy. Ophthalmic Surg 87 ; 18 (9): 672-6 .
  It is not a RCT and has less than 100 patients
- "Reichstein, D., Kammer, J., and Recchia, F. Combined 25-gauge vitrectomy and posterior tube shunt placement for advanced glaucoma
  Systematic review
- "Reinthal, E. K., Denk, P. O., Grub, M., Besch, D., and Bartz-Schmidt, K. U. Dose, timing and frequency of subconjunctival 5-fluorouracil injections after glaucoma filtering surgery. Graefes Arch Clin Exp Ophthalmol 2007 ;245 (3): 369-75 .
  OAG can't be analyzed separately
- "Reis, R., dos Santos, L. C., Vila, M. P., and Magacho, L. Effects of travoprost 0.004% ophthalmic solution, six weeks after its laminated packaging had been removed, in primary open-angle glaucoma: a randomized, controlled, investigator-blinded study. Clin Ther 2004 ; 26 (12): 2121-7 .
  Does not address any key questions
- "Reis, R., Queiroz, C. F., Santos, L. C., Avila, M. P., and Magacho, L. A randomized, investigator-masked, 4-week study comparing timolol maleate 0.5%, brinzolamide 1%, and brimonidine tartrate 0.2% as adjunctive therapies to travoprost 0.004% in adults with primary open-angle glaucoma or ocular hypertension
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Reiter, C., Wimmer, S., Schultheiss, A., Klink, T., Grehn, F., and Geerling, G. [Corneal epitheliopathy following trabeculectomy with postoperative adjunctive 5-fluorouracil]
  Foreign language
- "Rekas, M., Lewczuk, K., Fuksinska, B., Rudowicz, J., Pawlik, R., and Stankiewicz, A. Combined surgery for cataract and glaucoma: PDS with absorbable SK-gel implant compared with PDS with non-absorbable T-flux implant medium-term results. Curr. Med. Res. Opin. 2010 ; 26 (5): 1131-1137 .
  It is not a RCT and has less than 100 patients
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  It is a case series
- "Rekas, M., Wierzbowska, J., Lewczuk, K., Siemiatkowska, A., and Stankiewicz, A. The effectiveness of phacodeepsclerectomy performed with implantation sk-gel and T-flux--12 months observations. Klin Oczna 2008 ;110 (4-6): 145-50 .
  Other (specify):study design does not match KQ (3)"
- "Remky, H. [Extended sinusectomy (trabeculectomy with cyclodialysis effect). Late results and analysis of failures]. Klin Monbl Augenheilkd 86 ;188 (4): 278-82 .
  Data not abstractable
- "Ren, J., Shin, D. H., O'Grady, J. M., Kim, Y. Y., Juzych, M. S., Hughes, B. A., Kim, C., and Glover, B. K. Long-term outcome of primary glaucoma triple procedure with adjunctive 5-fluorouracil. Graefes Arch Clin Exp Ophthalmol 98 ;236 (7): 501-6 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Ren, J., Tinoosh, F., Chung, H. S, Birt, C. M, and Glover, B. Efficacy of Apraclonidine I % vs. Pilocarpine 4% for Prophylaxis of Intraocular Pressure Spike after Argon Laser Trabeculoplasty
  Meeting abstract
- "Renard, G., Louka, B., Legeais, J. M., and Pouliquen, Y. [Combined operation of glaucoma and cataract. Comparison between 2 operative techniques]
  Foreign language
- "Renard, G., Valtot, F., Giraud, J. P., and Offret, G. [Is it possible to use 0.1% timolol in the treatment of chronic glaucoma?]
  Foreign language
- "Renieri, G., Fuhrer, K., Scheithe, K., Lorenz, K., Pfeiffer, N., and Thieme, H. Efficacy and tolerability of preservative-free eye drops

containing a fixed combination of dorzolamide and timolol in glaucoma patients. J Ocul Pharmacol Ther 2010 ;26 (6): 597-603 .

It is a case series

- "Rentiers, P. K., Johnston, A. C., and Buskard, N. Severe aplastic anemia as a complication of acetazolamide therapy. Can J Ophthalmol 70 ; 5 (4): 337-42 .

It is a case series

- "Repass, R., Eto, C. Y., Lee, P. H., and Sinclair, L. AN EVALUATION OF THE DURATION OF ACTION AND SAFETY OF PILASITETM IN OCULAR HYPERTENSIVE PATIENTS

Meeting abstract

- "Reyes, E., Izquierdo, N. J., and Blasini, M. Adverse drugs reactions associated with glaucoma medications. Bol Asoc Med P R 97 ;89 (4-6): 51-5 .

It is a case series

- "Reyna, M nica and Consigli, Carlos A. Blefaroconjuntivitis de contacto alqrgica por timolol

Foreign language

- "Rhee, D. J., Peace, J. H., Mallick, S., Landry, T. A., and Bergamini, M. V. A study of the safety and efficacy of travoprost 0.004%/timolol 0.5% ophthalmic solution compared to latanoprost 0.005% and timolol 0.5% dosed concomitantly in patients with open-angle glaucoma or ocular hypertension. Clin Ophthalmol 2008 ;2 (2): 313-319 .

Does not address any key questions

- "Ribeiro, Breno Barreto, Roitberg, Marcelo, Marigo, Flbvio, Cronemberger, SebastiPo, and Torqueti, Leonardo. Estudo do £stio interno da trabeculectomia pela biomicroscopia ultra-sónica

Foreign language

- "Richards, R. D. Long-term results of gonioplasty. Am J Ophthalmol 70 ; 70 (5): 715-8 .

It is a case series

- "Ridgway, A. E. Trabeculectomy. A follow-up study. Br J Ophthalmol 74 ;58 (7): 680-6 .

It is not a RCT and has less than 100 patients

- "Ringvold, A. Bilateral open-angle glaucoma. Acta Ophthalmol Scand 99 ;77 (1): 114-6 .

It is a case series

- "Risk factors for suprachoroidal hemorrhage after filtering surgery. The Fluorouracil Filtering Surgery Study Group. Am J Ophthalmol 92 ; 113 (5): 501-7 .

Data not abstractable

- "Rismanchian, A., Eslami, F., Moeini, H., Attarzade, H., and Naderibeni, A. Efficacy of the latanoprost versus timolol/dorzolamide combination therapy in patients with primary open angle glaucoma

Medical KQ 3 only

- "Ritch, R. Initial treatment of exfoliative glaucoma. J Glaucoma 98 ; (2): 137-40 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Ritland, J. S., Egge, K., Lydersen, S., Juul, R., and Semb, S. O. Comparison of survival of exfoliative glaucoma patients and primary open-angle glaucoma patients: impact of acetazolamide use. Acta Ophthalmol Scand 2004 ;82 (4): 397-400 .

Does not address any key questions

- "Ritland, J. S., Egge, K., Lydersen, S., Juul, R., and Semb, S. O. Exfoliative glaucoma and primary open-angle glaucoma: associations with death causes and comorbidity. Acta Ophthalmol Scand 2004 ;82 (4): 401-4 .
- **\Data not abstractable**
- "Rivalan, J., Chevet, D., Le Pogamp, P., Charasse, C., and Joyeux, V. [Renal lithiasis, a logical complication of long-term treatment of glaucoma with a carbonic anhydrase inhibitor]. Ann Med Interne (Paris) 89 ; 140 (5): 419-20 .

It is a case series

- "Rivero Reyes, Reinaldo L, Rio Torres, Marcelino, and L£pez Pardo, Cbndido M. Acci£n sobre la hidroconductancia del humor acuoso de medicamentos de acci£n hipotensora

Foreign language

- "Robin, A. DECREASING THE FREQUENCY OF POSTOPERATIVE IOP RISE ASSOCIATED WITH COMBINED CATARACT EXTRACTION AND TRABECULECTOMY WITH TOPICAL APRACLONIDINE 1 %

Meeting abstract

- "Robin, A. L, Krishnadas, R., Sathyan, P., and Ramakrishnan, R. A comparison of the additive effects of betaxolol 0.25% suspension and timolol maleate 0.5% when added to latanoprost 0.005% in patients with bilateral openangle glaucoma

Meeting abstract

- "Robin, A. L, Protzko, E. E, Visco, D. M, LaBorwit, S. E, Smearman, S. M, Khanna, S., Seidenberg, J. A, Reed, D., Stottlemyer, J., and Brummett,

M. Four-Week Double-Masked Comparison of Adverse Events Associated with Travoprost and Bimatoprost in Ocular Hypertension and Glaucoma

Meeting abstract

- "Robin, A. L. A six-month randomized clinical trial comparing the IOP-lowering efficacy of bimatoprost and latanoprost in patients with ocular hypertension or glaucoma. Am J Ophthalmol 2003 ; 135 (6): 921-2; author reply 922-3 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Robin, A. L. An accurate comparison of bimatoprost's efficacy and adverse effects. Arch Ophthalmol 2002 ;120 (7): 999-1000; author reply 1000 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Robin, A. L. Apraclonidine Reduces Intraocular Pressure Rises After Combined Extracapsular Cataract Surgery and Trabeculectomy

Meeting abstract

- "Robin, A. L. Ocular hypotensive efficacy and safety of a combined formulation of betaxolol and pilocarpine. Trans Am Ophthalmol Soc 96 ; 94 : 89-101; discussion 101-3 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Robin, A. L., Novack, G. D., Covert, D. W., Crockett, R. S., and Marcic, T. S. Adherence in glaucoma: objective measurements of once-daily and adjunctive medication use. Am J Ophthalmol 2007 ;144 (4): 533-40 .

It is not a RCT and has less than 100 patients

- "Robin, A. L., Protzko, E., Visco, D., Schwartz, A. L., LaBorwit, S., Smearman, S. M., Seidenburg, J., Reed, D., Stottlemyer, J., Weiss, H. S., Khanna, S., and Brummett, M. Hyperemia and Myalgia: A 28-Day Prospective Double-Masked Comparison of Travoprost and Bimatoprost Therapy in Primary Open Angle Glaucoma and Ocular Hypertension

Meeting abstract

- "Robin, A. L., Ramakrishnan, R., Krishnadas, R., Smith, S. D., Katz, J. D., Selvaraj, S., Skuta, G. L., and Bhatnagar, R. A long-term dose-response study of mitomycin in glaucoma filtration surgery. Arch Ophthalmol 97 ; 115 (8): 969-74 .

Data not abstractable

- "Robin, A. L., Ritch, R., Shin, D. H., Smythe, B., Mundorf, T., and Lehmann, R. P. Short-term efficacy of apraclonidine hydrochloride added to maximum-tolerated medical therapy for glaucoma. Apraclonidine Maximum-Tolerated Medical Therapy Study Group. Am J Ophthalmol 95 ;120 (4): 423-32 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Robin, A. L., Ritch, R., Shin, D. H., Smythe, B., Mundorf, T., Lehmann, R. P., Brotherman, D., Camras, C., Derick, R., Garrett, D. T., Gross, R., Kapetansky, F., Katz, L. J., Kaufman, P., Lehmann, R., Mandell, A., McCulley, J., Olander, K., and Roberts, A. Short-term efficacy of apraclonidine hydrochloride added to maximum- tolerated medical therapy for glaucoma

Duplicate "

- "Robin, A. L., Ritch, R., Shin, D., Smythe, B., Mundorf, T., and Lehmann, R. P. Topical apraclonidine hydrochloride in eyes with poorly controlled glaucoma. The Apraclonidine Maximum Tolerated Medical Therapy Study Group. Trans Am Ophthalmol Soc 95 ;93 : 421-38; discussion 439-41 .

Other (specify):excluded drug"

- "Robin, A. L., Ritch, R., Shin, D., Smythe, B., Mundorf, T., Lehmann, R. P., and Spaeth, G. L. Topical apraclonidine hydrochloride in eyes with poorly controlled glaucoma. TRANS. AM. OPHTHALMOL. SOC. 95 ; 93 : 421-441 .

Other (specify):apraclonidine"

- "Robin, A., Ritch, R., Shin, D., Smythe, B., McCarty, G., Taylor, B., Silver, L., DeFaller, J., and Godio, L. DELAY OF SURGERY BY APRACLONIDINE IN PATIENTS ON MAXIMALLY TOLERATED MEDICAL THERAPY FOR GLAUCOMA

Meeting abstract

- "Robinson, D. I., Lertsumitkul, S., Billson, F. A., and Robinson, L. P. Long-term intraocular pressure control by trabeculectomy: a ten-year life table. Aust N Z J Ophthalmol 93 ;21 (2): 79-85 .

Data not abstractable

- "Robison, M., Gamero, G., Harmon, H., Goldsmith, L., Fechtener, R., and Zimmerman, T. THE EFFECT OF NASOLACRIMAL OCCLUSION ON THE DURATION OF ACTION OF DORZOLAMIDE 2%

Meeting abstract

- "Rockwood, E. J., Larive, B., and Hahn, J. Outcomes of combined cataract extraction, lens implantation, and trabeculectomy surgeries. Am J Ophthalmol 2000 ;130 (6): 704-11 .

Does not address any key questions

- "Rodriguez Bermejo, C., Montero, P., Perez Santonja, J. J., Meza, J., Gasco, J. L., and Zato Gomez De Liano, M. A. Comparative study of quimiotherapic agents as contribution in chronic simple glaucoma surgery
  Duplicate "
- "Rodriguez-Bermejo, C., Montero, P., Perez-Santonja, J. J., Meza, J., Gasco, J. L., and Zato GDLMA. Comparative study of quimiotherapic agents as contribution in chronic simple glaucoma surgery. ESTUDIO COMPARATIVO DE AGENTES QUIMIOTERAPICOS COMO COADYUVANTES A LA CIRUGIA DEL GLAUCOMA CRONICO SIMPLE
  Duplicate "
- "Rodriguez-Prats, J. L., Alio, J. L., and Galal, A. Milling trabeculoplasty for nonpenetrating glaucoma surgery. J Cataract Refract Surg 2004 ; 30 (7): 1507-16 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Rojanapongpun, P. Comparison of Separate-Site to Same-Site Approach in Combined Phaco-Trabeculectomy with Mitomycin-C
  Meeting abstract
- "Rolle, T., Cipullo, D., Vizzeri, G. M., Triggiani, A., and Brogliatti, B. Evaluation and comparison between the effects on intraocular pressure and retinal blood flow of two antiglaucomatous drugs administered in monotherapy: brimonidine and latanoprost. Preliminary results. Acta Ophthalmol Scand Suppl 2000 ;(232): 50-2 .
  Other (specify):kq 1 and 3 other trial
- "Rolle, T., Tofani, F., Brogliatti, B., and Grignolo, F. M. The effects of dorzolamide 2% and dorzolamide/timolol fixed combination on retinal and optic nerve head blood flow in primary open-angle glaucoma patients
  Unique comparators
- "Rom, M., Schwartz, B., and Bealka, N. Enhanced acute ocular hypotensive response to timolol with dexamethasone treatment. J Glaucoma 97 ;6 (2): 111-6 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Romaguera, C., Grimalt, F., and Vilaplana, J. Contact dermatitis by timolol. Contact Dermatitis 86 ;14 (4): 248 .
  It is a case series
- "Romanova, T. B. and Abakumova, L. I. a. [Reaction of the pupil in patients with glaucoma following long-time treatment with pilocarpine]
  Foreign language
- "Ros, F. E., Dake, C. L., Innemee, H. C., and van Zwieten, P. A. [Beta-receptor blocking agents and glaucoma; timolol in eye drops]
  Foreign language
- "Rosenberg, L. F., Krupin, T., Tang, L. Q., Hong, P. H., and Ruderman, J. M. Combination of systemic acetazolamide and topical dorzolamide in reducing intraocular pressure and aqueous humor formation. Ophthalmology 98 ;105 (1): 88-92; discussion 92-3 .
  It is not a RCT and has less than 100 patients
- "Rosenlund, E. F. The intraocular pressure lowering effect of timolol in gel-forming solution
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Rosenthal, A. R. Pressure cup and tonography in chronic simple glaucoma before and during pilocarpine therapy. Am J Ophthalmol 69 ; 67 (5): 713-23 .
  Other (specify):No control
- "Rosenthal, A., Walters, T., Berg, E., Safyan, E., and Batoosingh, A. A COMPARISON OF THE SAFETY AND EFFICACY OF BRIMONIDINE 0.2%, BID VERSUS TID, IN SUBJECTS WITH ELEVATED INTRAOCULAR PRESSURE
  Meeting abstract
- "Rosentreter, A., Mellein, A. C., Konen, W. W., and Dietlein, T. S. Capsule excision and Ologen(trademark) implantation for revision after glaucoma drainage device surgery
  Duplicate of 148 "
- "Ross, A. H., Jackson, T. E., Wertheim, M. S., Spry, P. G., Sparrow, J. M., and Diamond, J. P. Analysis of the diurnal intraocular pressure profile pre and post trabeculectomy using 24-hour monitoring of intraocular pressure. Eur J Ophthalmol 2010 ;
  It is not a RCT and has less than 100 patients
- "Rossert, J., Rondeau, E., Jondeau, G., Ronco, P., Mougenot, B., Kanfer, A., and Sraer, J. D. Tamm-Horsfall protein accumulation in glomeruli during acetazolamide-induced acute renal failure. Am J Nephrol 89 ;(1): 56-7 .
  It is a case series
- "Rossetti, L., Barbieri, P., Velati, P., Bujtar, E., and Orzalesi, N. The efficacy of the combination of l-moprolol and dipivefrin in reducing the intraocular pressure in primary open-angle glaucoma or in ocular hypertension. Graefes Arch Clin Exp Ophthalmol 94 ;232 (11): 670-4 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Rossetti, L., Bucci, L., Miglior, S., and Orzalesi, N. Temporal corneal phacoemulsification combined with separate-incision superior trabeculectomy vs standard phacotrabeculectomy. A comparative study. Acta Ophthalmol Scand Suppl 97 ;(224): 39 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Rossetti, L., Karabatsas, C. H., Topouzis, F., Vetrugno, M., Centofanti, M., Boehm, A., Viswanathan, A., Vorwerk, C., and Goldblum, D. Comparison of the effects of bimatoprost and a fixed combination of latanoprost and timolol on circadian intraocular pressure. Ophthalmology 2007 ;114 (12): 2244-51 .
  Other (specify):not FDA approved combination"
- "Rossi, G. C., Pasinetti, G. M., Bracchino, M., Bucarelli, M., Franchin, S., Cerqueti, P., Bellini, R., Caravati, C., Celesia, L., Clemente, A., and Tinelli, C. Switching from concomitant latanoprost 0.005% and timolol 0.5% to a fixed combination of travoprost 0.004%/timolol 0.5% in patients with primary open-angle glaucoma and ocular hypertension: a 6-month, multicenter, cohort study. Expert Opin Pharmacother 2009 ;(11): 1705-11
  Other (specify): No concurrent control"
- "Rossmann, M., Harrer, S., and Rigal, K. T-cut in the bottom of the scleral pocket in combined cataract and glaucoma surgery. J Cataract Refract Surg 2000 ;26 (5): 702-8 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Rotchford, A. P. and King, A. J. Moving the goal posts definitions of success after glaucoma surgery and their effect on reported outcome
  Systematic review
- "Rotchford, A. P. and Murphy, K. M. Compliance with timolol treatment in glaucoma. Eye (Lond) 98 ;12 (Pt 2) : 234-6 .
  Does not address any key questions
- "Rotchford, A. P. and Vernon, S. A. Phaco-microtrabeculectomy: technique and intraocular pressure control in comparison with microtrabeculectomy. Clin Experiment Ophthalmol 2007 ;35 (9): 812-7 .
  It is not a RCT and has less than 100 patients
- "Roth, S. M., Spaeth, G. L., Starita, R. J., Birbillis, E. M., and Steinmann, W. C. The effects of postoperative corticosteroids on trabeculectomy and the clinical course of glaucoma: five-year follow-up study. Ophthalmic Surg 91 ;22 (12): 724-9 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Rothman, R. F., Liebmann, J. M., and Ritch, R. Low-dose 5-fluorouracil trabeculectomy as initial surgery in uncomplicated glaucoma: long-term followup. Ophthalmology 2000 ;107 (6): 1184-90 .
  It is not a RCT and has less than 100 patients
- "Rouhiainen, H. and Terasvirta, M. Repeated 50 burn/180 degree argon laser trabeculoplasty. Acta Ophthalmol (Copenh) 88 ;66 (1): 83-6 .
  Other (specify):Not a comparison of interest
- "Rouhiainen, H. J., Terasvirta, M. E., and Tuovinen, E. J. Laser power and postoperative intraocular pressure increase in argon laser trabeculoplasty. Arch Ophthalmol 87 ;105 (10): 1352-4 .
  It is not a RCT and has less than 100 patients
- "Rouhiainen, H. J., Terasvirta, M. E., and Tuovinen, E. J. Peripheral anterior synechiae formation after trabeculoplasty. Arch Ophthalmol 88 ;
- 106 (2): 189-91 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Rouland, J. F. and Le Pen, C. Naturalistic, prospective study of glaucoma and ocular hypertension treatment in France: strategies, clinical outcomes, and costs at 1 year. Eur J Ophthalmol 2003 ;13 Suppl 4 : S5-20 .
  It is a case series
- "Rouland, J. F., Le Pen, C., Benhaddi, H., Piriou, E., Lilliu, H., and Kenigsberg, P. A. Naturalistic, prospective study of glaucoma and ocular hypertension treatment in France: Strategies, clinical outcomes, and costs at 2 years. Eur J Ophthalmol 2005 ;15 (5): 562-80 .
  Does not address any key questions
- "Rouland, J. F., Morel-Mandrino, P., Elena, P. P., Polzer, H., and Sunder Raj, P. Timolol 0.1% gel (Nyogel 0.1% once daily versus conventional timolol 0.5% solution twice daily: a comparison of efficacy and safety

  Medical KQ 3 or KQ 3 and KQ 6 only
- "Rouland, J. F., Peigne, G., Sellem, E., Renard, J. P., Williamson, W., Filippi, J. M., Cohn, H., Hamard, P., Abellan, P., Chagnon, A., Malet, F., and Haye, I. [An observational, retrospective two-year cost study in primary open-angle glaucoma and ocular hypertension in newly diagnosed patients]
  Foreign language
- "Rouland, J.-F., Morel-Mandrino, P., Elena, P.-P., Polzer, H., and Sunder Raj, P. Timolol 0.1% gel (nyogel 0.1%(registered trademark)) once daily

versus conventional timolol 0.5% solution twice daily: A comparison of efficacy and safety

Medical KQ 3 or KQ 3 and KQ 6 only

- "Rouxel, A. M., Roguedas-Contios, A. M., and Misery, L. [Malar and ciliary hypertrichosis induced by bimatoprost]

Foreign language

- "Rowe, T. O. Acetazolamide delirium. Am J Psychiatry 77 ;134 (5): 587-8

It is a case series

- "Royer, J., Roth, A., and Montard, M. [Results of our experience with the use of timolol maleate eyedrops]

Foreign language

- "Rozovskaia, S. B. [Problems of drug therapy of initial glaucoma and the atypical reaction to pilocarpine]

Foreign language

- "Ruiz Mesa, R., Benitez Del Castillo Sanchez, J., Jimenez-Alfaro Morote, I., and Benitez Del Castillo, J. M. Mitomycin-C in primary normal glaucomas surgery: La mitomicina-C en la cirugia de los glaucomas primarios normales

Foreign language

- "Rulo, A. H., Greve, E. L., and Hoyng, P. F. Additive effect of latanoprost, a prostaglandin F2 alpha analogue, and timolol in patients with elevated intraocular pressure. Br J Ophthalmol 94 ;
- 78 (12): 899-902 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Rulo, A. H., Greve, E. L., and Hoyng, P. F. Additive ocular hypotensive effect of latanoprost and acetazolamide. A short-term study in patients with elevated intraocular pressure. Ophthalmology 97 ;104 (9): 1503-7 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Rulo, A. H., Greve, E. L., Geijssen, H. C., and Hoyng, P. F. Reduction of intraocular pressure with treatment of latanoprost once daily in patients with normal-pressure glaucoma. Ophthalmology 96 ;103 (8): 1276-82 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Rulo, A., Greve, E., Hoyng, P., and Alm, A. A STUDY OF THE E1+hCT OF LATANOPROST ON THE INTRAOCULAR PRESSURE AND RETINAL VASCULATURE IN PSEUDOPHAKIC PATIENTS

Meeting abstract

- "Rusk, C., Laurence, J., Polis, A., and Adamsons, I. COMPARISON OF THE EFFICACY AND SAFETY OF DORZOLAMIDE ARID BETAXOLOL

Meeting abstract

- "Rusk, C., Liss, R., Clineschmidt, C., Getson, A., Shedden, A., and Adamsons, I. Comparison of the Efficacy and Safety of Preservative-Free Dorzolamide and Dorzolamide with Preservative

Meeting abstract

- "Rusk, C., Sharpe, E., Laurence, J., Polis, A., and Adamsons, I. Comparison of the efficacy and safety of 2% dorzolamide and 0.5% betaxolol in the treatment of elevated intraocular pressure

Medical KQ 3 or KQ 3 and KQ 6 only

- "Rusk, C., Sharpe, E., Laurence, J., Polis, A., and Adamsons, I. Comparison of the efficacy and safety of 2% dorzolamide and 0.5% betaxolol in the treatment of elevated intraocular pressure. Dorzolamide Comparison Study Group

Medical KQ 3 or KQ 3 and KQ 6 only

- "Rusk, C., Snyder, E., and Adamsons, I. A CLINICAL TRIAL COMPARING PATIENT PREFERENCE AND IMPACT ON DAILY LIFE OF THE DORZOLAMIDE/TIMOLOL COMBINATION TO PILOCARPINE PLUS TIMOLOL

Meeting abstract

- "Rynne, M. V. Timolol toxicity: ophthalmic medication complicating systemic disease. J Maine Med Assoc 80 ;71 (3): 82 .

It is a case series

- "Saari, M., Koskela, P., and Masar, S. E. Effect of vehicle on pilocarpine-induced ocular hypotension. Acta Ophthalmol (Copenh) 78 ;56 (4): 489-95 .

Does not address any key questions

- "Sadiq, S. A. and Vernon, S. A. Sublingual timolol--an alternative to topical medication in glaucoma?. Br J Ophthalmol 96 ;80 (6): 532-5 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Sadiq, S. A., Fielding, K., and Vernon, S. A. The effect of timolol drops on respiratory function. Eye (Lond) 98 ;12 (Pt 3a) : 386-9 .

Does not address any key questions

- "Sagara, H., Iida, T., Suzuki, K., Fujiwara, T., Koizumi, H., and Yago, K. Sodium hyaluronate eye drops prevent late-onset bleb leakage after trabeculectomy with mitomycin C. Eye 2008 ;22 (4): 507-514 .

- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Sagdic Yalvac, I., Eksioglu, U., Karagoz, Y., Akgun, U., Kasim, R., and Duman, S. Prophylactic use of apraclonidine for intraocular pressure increase after 180-degree argon laser trabeculoplasty. ANN. OPHTHALMOL. GLAUCOMA 96 ;28 (4): 240-243 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Sahouri, M., Shin, D., Hughes, B., and Kim, C. COMPARATIVE STUDY OF PMMA VS SILICONE IOL THROUGH SMALL INCISION IN GLAUCOMA TRIPLE PROCEDURE
  Meeting abstract
- "Saito, M., Takano, R., and Shirato, S. Effects of latanoprost and unoprostone when used alone or in combination for open-angle glaucoma. Am J Ophthalmol 2001 ;132 (4): 485-9 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Saito, Y., Higashide, T., Takeda, H., Ohkubo, S., and Sugiyama, K. Beneficial effects of preoperative intravitreal bevacizumab on trabeculectomy outcomes in neovascular glaucoma
  Systematic review
- "Sakai, T. and Yamashita, S. [Choroidal detachment after glaucoma surgery]
  Foreign language
- "Salach, L., Uher, M., and Ogielska, E. [Timoptic in the treatment of glaucoma]
  Foreign language
- "Sall, K. N, Johnson-Pratt, L., Skobieranda, F., Polis, A., DeLucca, P., Kolodny, A., Fletcher, C., and Cassel, D. A comparison of the ocular hypotensive effect of dorzolamide hydrochloride/ timolol maleate to that of the concomitant therapy with brimonidine tartate and timolol maleate in patients with ocular hypertension or primary open-angle glaucoma
  Meeting abstract
- "Sall, K. N., Greff, L. J., Johnson-Pratt, L. R., DeLucca, P. T., Polis, A. B., Kolodny, A. H., Fletcher, C. A., Cassel, D. A., Boyle, D. R., and Skobieranda, F. Dorzolamide/timolol combination versus concomitant administration of brimonidine and timolol: six-month comparison of efficacy and tolerability
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Sall, K. The efficacy and safety of brinzolamide 1% ophthalmic suspension (Azopt((registered trademark))) as a primary therapy in patients with open-angle glaucoma or ocular hypertension
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Sall, K. The efficacy and safety of brinzolamide 1% ophthalmic suspension (Azopt) as a primary therapy in patients with open-angle glaucoma or ocular hypertension. Brinzolamide Primary Therapy Study Group
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Sall, K., Assil, K. K., Beehler, C. C., Cacioppo, L., Caine, R., DiGaetano, M., Friedlaender, M., Friedland, B., Greenidge, K., Gross, R. L., Higginbortham, E., Horwitz, B., Iwach, A., Kantor, R. L., Keates, E. U., Lopatynsky, M., Lowry, G. M., Morris, J. B., Sall, K., Samples, J., Stevenson, O. D., Terry, S. A., Tubbs, C. B., Walters, T. R., and Weiss, M. J. The efficacy and safety of brinzolamide 1% ophthalmic suspension (Azopt((TM))) as a primary therapy in patients with open-angle glaucoma or ocular hypertension
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Samuels, S. I. and Maze, M. Beta-receptor blockade following the use of eye drops. Anesthesiology 80 ;52 (4): 369-70 .
- **It is a case series**
- "Samuelson, T. W. and Simmons, S. T. Efficacy and tolerability of Alphagan versus Xalatan as adjunct therapy in chronic open-angle glaucoma or ocular hypertension patients uncontrolled on beta-blockers alone
  Meeting abstract
- "Sanchez, E., Schnyder, C. C., and Mermoud, A. [Comparative results of deep sclerectomy transformed to trabeculectomy and classical trabeculectomy]
  Foreign language
- "Sanchez, E., Schnyder, C. C., Sickenberg, M., Chiou, A. G., Hediguer, S. E., and Mermoud, A. Deep sclerectomy: results with and without collagen implant. Int Ophthalmol 96-97 ;20 (1-3): 157-62 .
  OAG can't be analyzed separately
- "Sanchez, J. G. Efficacy and side effects of latanoprost monotherapy compared to adding dorzolamide to timolol in patients with glaucoma and ocular hypertension - A three-month randomised study
  Duplicate "

- "Sanders, S. and Chaudhuri, R. INITIAL SUCCESS OF COMBINED CATARACT SURGERY AND ENDOCYCLOPHOTOCOAGULATION IN REDUCING THE NEED FOR TOPICAL THERAPY IN GLAUCOMA
  Meeting abstract
- "Sanders, S. P., Cantor, L. B., and Hoop, J. S. MITOMYCIN C IN PRIMARY TRABECULECTOMY: A COMPARISON OF 0.1 TO 0.2 MG/CC
  Meeting abstract
- "Sanders, S. P., Cantor, L. B., Dobler, A. A., and Hoop, J. S. Mitomycin C in higher risk trabeculectomy: a prospective comparison of 0.2- to 0.4-mg/cc doses
  Unique comparators
- "Sanders, S. P., Cantor, L. B., Dobler, A. A., Hoop, J., Sponsel, W. E., and Shoemaker, J. MITOMYCIN C IN COMPLICATED TRABECULECTOMY: A COMPARISON OF 0.2 TO 0.4 MG/CC
  Meeting abstract
- "Sanfelici, G., Rolando, M., Calabria, G., and Murialdo, U. [Timolol and dapiprazole combination in patients with glaucoma]
  Foreign language
- "Santos, H. D., Fernandes, T. A., Souza, C. A., Cronemberger, S., and Calixto, N. [Efficacy of latanoprost versus travoprost assessed by daily intraocular pressure curve]
  Foreign language
- "Santos, Hqrika Danielle de Miranda, Fernandes, Thatiana Almeida Pereira, Souza, Camila Ara jo de, Cronemberger, SebastiPo, and Calixto, Nassim. Eficbcia do latanoprosta x travoprosta avaliada pela curva dibria de pressPo intraocular: Efficacy of latanoprost versus travoprost assessed by daily intraocular pressure curve
  Foreign language
- "Satterfield, D., Mannis, M. J., and Glover, A. T. Unilateral corneal vesicles secondary to dipivefrin therapy. Am J Ophthalmol 92 ;113 (3): 339-40 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Savelsbergh-Fillette, M. P. and Demailly, P. [Comparative study of levobunolol and timolol in the treatment of chronic open-angle glaucoma and chronic ocular hypertension]
  Foreign language
- "Scafidi, A. F., Stewart, W. C., Ropo, A. M., and the Timolol Hemihydrate Study Group. SAFETY AND EFFICACY OF TIMOLOL HEMIHYDRATE (0.25 AND 0.5% OPHTHALMIC SOLUTION) IN OPEN-ANGLE GLAUCOMA AND OCULAR HYPERTENSION
  Meeting abstract
- "Scharrer, A. and Ober, M. [Metipranolol 0.1% and pilocarpine 2% as a fixed combination compared to each substance alone in the treatment of glaucoma. A controlled, randomized clinical study comparing the intraindividual effects and tolerance]. Klin Monbl Augenheilkd 86 ;
- 189 (6): 450-5 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Scharrer, A. and Ober, M. [Timolol and acetazolamide in the treatment of increased intraocular pressure (author's transl)]. Albrecht Von Graefes Arch Klin Exp Ophthalmol 79 ;212 (2): 129-34 .
  It is not a RCT and has less than 100 patients
- "Scharrer, A. and Ober, M. Fixed combination of metipranolol 0.1% and pilocarpine 2% compared with the individual drugs in glaucoma therapy. A controlled, randomized clinical study for intraindividual comparison of efficacy and tolerance: 189 (6): 450-455 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Schenker, H. I. and Silver, L. H. Long-term intraocular pressure-lowering efficacy and safety of timolol maleate gel-forming solution 0.5% compared with Timoptic XE 0.5% in a 12-month study
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Schenker, H. I., Williams, L., Goode, S. M., Gross, R. D., Mathis, J. A., Mallick, S., Dickerson, J. E., Andrew, R., Silver, L., and Landry, T. : Iris Pigmentation Changes Following Treatment With Travoprost Or Latanoprost In Patients With Open-angle Glaucoma Or Ocular Hypertension
  Meeting abstract
- "Schenker, H., Maloney, S., Liss, C., Gormley, G., and Hartenbaum, D. Patient preference, efficacy, and compliance with timolol maleate ophthalmic gel-forming solution versus timolol maleate ophthalmic solution in patients with ocular hypertension or open-angle glaucoma
- **Not an RCT Just KQ 2 and/or 5** "
- "Scherer, W. J. Effect of topical prostaglandin analog use on outcome following selective laser trabeculoplasty. J Ocul Pharmacol Ther 2007 ;

- 23 (5): 503-12 .
  It is not a RCT and has less than 100 patients
- "Schiffer, H. P. [Comparative study between timolol and pilocarpine in the treatment of open-angle glaucoma (author's transl)]
  Foreign language
- "Schiffman, J., Alward, W. L. M., Farrell, T., Hayreh, S., Kolder, H., Carney, B., Phelps, C., Gressel, M., Costin, J., Craven, P., Zgrabik, M., Schremp, P., Simashkevich, B., Heuer, D. K., Baerveldt, G., Minckler, D., Irvine, J., Green, R., and McDonnell, P. Five-year follow-up of the fluorouracil filtering surgery study
  Duplicate "
- "Schiffman, R. M and Javitt, J. C. The Clinical Success Rate and Quality of Life of Brimonidine 0.2% BID vs. Timolol 0.5% BID, in Previously Untreated OAG or OHT Patients
  Meeting abstract
- "Schild, A. M., Jordan, J. F., Konen, W., Krieglstein, G. K., and Dietlein, T. S. Midterm patient satisfaction following mitomycin C-assisted trabeculectomy: Patientenzufriedenheit nach filtrierender glaukomchirurgie mit mitomycin C
  Foreign language
- "Schlote, T., Derse, M., Rassmann, K., Nicaeus, T., Dietz, K., and Thiel, H. J. Efficacy and safety of contact transscleral diode laser cyclophotocoagulation for advanced glaucoma. J Glaucoma 2001 ;
- (4): 294-301 .
  OAG can't be analyzed separately
- "Schlote, T., Tzamalis, A., and Kynigopoulos, M. Central corneal thickness during treatment with travoprost 0.004% in glaucoma patients. J Ocul Pharmacol Ther 2009 ;25 (5): 459-62 .
  It is a case series, **Does not address any key questions**
- "Schmidt, C. M. Jr, Wilson, R. P., Steinmann, W. C., and Spaeth, G. L. SUTURE TYPE AFFECTS TENON'S CYST INCIDENCE IN LIMBAL-BASED TRABECULECTOMY
  Meeting abstract
- "Schmidt, K. G., Stegman, D. Y., Serle, J. B., Garrett, D. T., Camras, C. B., Mittag, T. W., and Podos, S. M. OCULAR PULSE AMPLITUDE (OPA) IN PRIMARY OPEN ANGLE GLAUCOMA, LOW TENSION GLAUCOMA, AND IN OCULAR HYPERTENSIVE PATIENTS BEFORE AND AFTER DRUG TREATMENT
  Meeting abstract
- "Schmidt, K. G., von Ruckmann, A., and Pillunat, L. E. Topical carbonic anhydrase inhibition increases ocular pulse amplitude in high tension primary open angle glaucoma. Br J Ophthalmol 98 ;82 (7): 758-62 .
  Data not abstractable
- "Schmidt-Erfurth, U., Wetzel, W., Droge, G., Haring, G., Behrendt, S., and Birngruber, R. Progress in laser sclerostomy ab externo: Expanding the sclerostomy channels and administration of local mitomycin: 95 ;92 (4): 536-541 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Schmier, J. K, Halpern, M. T, Covert, D. W, and Robin, A. L. Travoprost versus latanoprost combinations in glaucoma: economic evaluation based on visual field deficit progression (Structured abstract). Current Medical Research and Opinion 2006 ;22 (9): 1737-1743 .
  Does not address any key questions
- "Schmier, J. K., Covert, D. W., and Robin, A. L. First-year treatment patterns among new initiators of topical prostaglandin analogs
  Systematic review
- "Schmitz-Valckenberg, P. and Kessler, C. LOW-DOSE COMBINATION OR HIGH-DOSE SEPARATE SOLUTIONS IN GLAUCOMA ?
  Meeting abstract
- "Schmutz, J. L., Barbaud, A., and Trechot, P. [Toxic epidermal necrolysis following eyedrop treatment for glaucoma]. Ann Dermatol Venereol 2007 ;134 (4 Pt 1): 417 .
  It is a case series
- "Schnarr, K. D. [Comparative multicenter study of carteolol eyedrops with other beta blockers in 768 patients under normal conditions]
  Foreign language
- "Schnyder, C. C., Bernasconi, O., Mermoud, A., and Faggioni, R. [Comparative study of administration time of mitomycin C in trabeculectomy: 2.5 or 5 minutes?]
  Foreign language
- "Schoene, R. B., Martin, T. R., Charan, N. B., and French, C. L. Timolol-induced bronchospasm in asthmatic bronchitis. JAMA 81 ;
- 245 (14): 1460-1 .
  No subjects with open-angle glaucoma
- "Schrems, W., Hofmann, G., and Krieglstein, G. K. [Therapy of open-angle glaucoma with the argon and neodymium laser]. Fortschritte der

Ophthalmologie : Zeitschrift der Deutschen Ophthalmologischen Gesellschaft 88 ;85 (1): 119-23 .

Other (specify):no rct and no harms"

- "Schroder, H. [Increased intraocular pressure in asthma patients]. Med Monatsschr Pharm 2005 ;28 (8): 286-7 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Schuhr, J., Stewart, J. A., Day, D. G., Leech, J. N., and Stewart, W. C. The Safety and Efficacy of Unoprostone Isopropyl 0.15% Versus Brimonidine 0.2%

Meeting abstract

- "Schultheiss, E. [Hypersensitivity to levobunolol]. Derm Beruf Umwelt 89 ;37 (5): 185-6 .

It is a case series

- "Schultz, J. S., Hoenig, J. A., and Charles, H. Possible bilateral anterior uveitis secondary to metipranolol (optipranolol) therapy. Arch Ophthalmol 93 ;111 (12): 1606-7 .

It is a case series

- "Schulzer, M. Intraocular pressure reduction in normal-tension glaucoma patients

Duplicate of 5281 "

- "Schulzer, M. Intraocular pressure reduction in normal-tension glaucoma patients. The Normal Tension Glaucoma Study Group
Maier 2005 and Burr 2004 "
- "Schulzer, M., Drance, S. M, and Anderson, D. R. Successful Intraocular Pressure Reduction in Normal Tension Glaucoma

Meeting abstract

- "Schulzer, M., Drance, S. M., and Douglas, G. R. A comparison of treated ad untreated glaucoma suspects
- **Maier, 2005**
- "Schuman, J. S, Pettigrew, S. C, Mallick, S., Wells, D. T, Andrew, R. M, Sullivan, E. K, Landry, T. A, Bergamini, M. V W, Robertson, S. M, and Travoprost 0.004%/Timolol 0.5% Study Group. A Comparison of Travoprost 0.004%/Timolol 0.5% Ophthalmic Solution to the Concomitant Administration of Travoprost 0.004% and Timolol 0.5% Ophthalmic Solutions and to Timolol 0.5% Ophthalmic Solution Alone

Meeting abstract

- "Schuman, J. S. and AGN 192024 Study Groups, I. & II. 6-MONTH COMPARISON OF AGN 192024 QD AND BID WITH TIMOLOL BID IN PATIENTS WITH ELEVATED IOP

Meeting abstract

- "Schuman, J. S. Effects of systemic (beta)-blocker therapy on the efficacy and safety of topical brimonidine and timolol. Ophthalmology 2000 ; 107 (6): 1171-1177 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Schuman, J. S. Effects of systemic beta-blocker therapy on the efficacy and safety of topical brimonidine and timolol. Brimonidine Study Groups 1 and 2

Excluded drug

- "Schuman, J. S., Hersh, P., and Kylstra, J. Vitreous hemorrhage associated with pilocarpine. Am J Ophthalmol 89 ;108 (3): 333-4 .

It is a case series

- "Schuman, J. S., Horwitz, B., Choplin, N. T., David, R., Albracht, D., and Chen, K. A 1-year study of brimonidine twice daily in glaucoma and ocular hypertension. A controlled, randomized, multicenter clinical trial. Chronic Brimonidine Study Group

Medical KQ 3 or KQ 3 and KQ 6 only

- "Schuman, J. S., Katz, G. J., Lewis, R. A., Henry, J. C., Mallick, S., Wells, D. T., Sullivan, E. K., Landry, T. A., Bergamini, M. V., and Robertson, S. M. Efficacy and safety of a fixed combination of travoprost 0.004%/timolol 0.5% ophthalmic solution once daily for open-angle glaucoma or ocular hypertension

Non-FDA-approved drug combination

- "Schuman, J. S., Mallick, S., Wells, D. T., Sullivan, E. K., Landry, T. A., and Robertson, S. M. A Comparison of Travoprost 0.004%/Timolol 0.5% Ophthalmic Solution to the Concomitant Administration of Travoprost 0.004% and Timolol 0.5% Ophthalmic Solutions

Meeting abstract

- "Schuman, J. S., Mallick, S., Wells, D., Sullivan, E. K., Landry, T. A., Bergamini, M. V. W., Wax, M. B., and Robertson, S. M. Evaluation of Travoprost 0.004%/Timolol 0.5% Fixed Combination Ophthalmic Solution vs. Concomitant Use of Travoprost 0.004% and Timolol 0.5%

Meeting abstract

- "Schwartz, B. Reversibility by timolol of optic nerve disc cupping and pallor in ocular hypertensives. Surv Ophthalmol 89 ;33 Suppl : 419-20; discussion 421-2 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Schwartz, B., Lavin, P., Takamoto, T., Araujo, D. F., and Smits, G. Decrease of optic disc cupping and pallor of ocular hypertensives with timolol therapy. Acta Ophthalmol Scand Suppl 95 ;(215): 5-21 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Schwartz, B., Lavin, P., Takamoto, T., Araujo, D., and Smits, G. Reversal of optic disc cupping and pallor in patients with ocular hypertension using timolol therapy. J Glaucoma 93 ;2 Suppl A : 20-1 .
  Data not abstractable
- "Schwartz, B., Takamoto, T., and Lavin, P. Retinal nerve fiber layer thickness measurements in ocular hypertensive patients with timolol treatment. Journal of Glaucoma 93 ;2 (A): S22-S23 .
  Does not address any key questions
- "Schwartz, B., Takamoto, T., Lavin, P., and Smits, G. Increase of retinal nerve fiber layer thickness in ocular hypertensives with timolol therapy
  Vass 2007 "
- "Schwartz, B., Takamoto, T., Nagin, P., Lavin, P., Rosa, D. A., and Barton, J. A. Optic disc measurements after timolol therapy in ocular hypertensives. CHIBRET INT. J. OPHTHALMOL. 87 ;5 (3): 29-30 .
  Other (specify):abstract"
- "Schwartz, G. F. Clinical and economic outcomes of latanoprost, bimatoprost, or travoprost. Asian J. Ophthalmol. 2003 ;5 (2): 15 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Schwartz, G. F. Patient persistence with topical prostaglandin therapy. Asian J. Ophthalmol. 2003 ;5 (2): 16-17 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Schwartz, G. F. Persistency and tolerability of ocular hypotensive agents: population-based evidence in the management of glaucoma. Am J Ophthalmol 2004 ;137 (1 Suppl): S1-2 .
  Does not address any key questions
- "Schwartz, G. F., Reardon, G., and Mozaffari, E. Persistency with latanoprost or timolol in primary open-angle glaucoma suspects. Am J Ophthalmol 2004 ;137 (1 Suppl): S13-6 .
  Does not address any key questions
- "Schwartz, L. W., Spaeth, G. L., Traverso, C., and Greenidge, K. C. Variation of techniques on the results of argon laser trabeculoplasty. Ophthalmology 83 ;90 (7): 781-4 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Schwenn, O., Heckmann, B., Guzy, C., and Miller, P. J. Long-term effect of latanoprost/timolol fixed combination in patients with glaucoma or ocular hypertension: a prospective, observational, noninterventional study. BMC Ophthalmol 2010 ;: 21 .
  It is a case series
- "Schwenn, O., Springer, C., Troost, A., Yun, S. H., and Pfeiffer, N. [Deep sclerectomy using a hyaluronate implant versus trabeculectomy. A comparison of two glaucoma operations using mitomycin C]
  Foreign language
- "Schwenn, O., Springer, C., Troost, A., Yun, S. H., and Pfeiffer, N. Deep sclerectomy using a hyaluronate implant versus trabeculectomy. A comparison of two glaucoma operations using mitomycin C: Tiefe sklerektomie mit hyaluronatimplantat vs. trabekulektomie. Zwei glaukomoperationen unter verwendung von mitomycin C
  foreign language- german "
- "Scorgia, G., Niutta, A., Librando, A., Gambescia, T. D., Bruzzichessi, D., Palombi, E., and Balaceo Gabrieli, C. A clinical valuation and comparison of the ocular-hypotensive efficacy of befunolol versus timolol levobunolol and placebo in the treatment of the open angle glaucoma. CLIN. OCUL. PATOL. OCUL. 90 ;(6): 424-426 .
  It is not a RCT and has less than 100 patients
- "Scott A, Kotecha A, Bunce C, Balidis M, Garway-Heath DF, Miller MH, and Wormald R. YAG laser peripheral iridotomy for the prevention of pigment dispersion glaucoma a prospective, randomized, controlled trial. Ophthalmology 2011 118 (3): 468-73 .
  Does not address any key questions
- "Scott, A., Kotecha, A., Bunce, C., Balidis, M., Garway-Heath, D. F., Miller, M. H., and Wormald, R. YAG laser peripheral iridotomy for the prevention of pigment dispersion glaucoma a prospective, randomized, controlled trial. Ophthalmology 2011 ;118 468-73 .
  Does not address any key questions
- "Seah, S. K., Gazzard, G., and Aung, T. Intermediate-term outcome of Baerveldt glaucoma implants in Asian eyes. Ophthalmology 2003 ;110 (5): 888-94 .
  OAG can't be analyzed separately
- "Seah, S. L, Khaw, P. T, Minassian, D., Foster, P. J, Husain, R., Gazzard, G., Oen, F. T S, Chew, P. T K, Machin, D., and Aung, T. The Singapore 5-FU Study: A Prospective Randomized Masked Trial of Intra-Operative

5-Fluorouracil vs Placebo- Effect on Long-Term Pressure Control and Glaucoma Progression

Meeting abstract

- "Seamone, C., LeBlanc, R., Saheb, N., and Novack, G. Efficacy of twice-daily levobunolol in the treatment of elevated intraocular pressure

Medical KQ 3 or KQ 3 and KQ 6 only

- "Sebastiani, A., Parmeggiani, F., Costagliola, C., Ciancaglini, M., D'Oronzo, E., and Mastropasqua, L. Effects of acute topical administration of clonidine 0.125%, apraclonidine 1.0% and brimonidine 0.2% on visual field parameters and ocular perfusion pressure in patients with primary open-angle glaucoma. Acta Ophthalmol Scand Suppl 2002 ;236 : 29-30 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Sehi, M., Grewal, D. S., Feuer, W. J., and Greenfield, D. S. The impact of intraocular pressure reduction on retinal ganglion cell function measured using pattern electroretinogram in eyes receiving latanoprost 0.005% versus placebo

Medical KQ 3 only

- "Sehi, M., Grewal, D. S., Goodkin, M. L., and Greenfield, D. S. Reversal of Retinal Ganglion Cell Dysfunction after Surgical Reduction of Intraocular Pressure. Ophthalmology 2010 ;

It is not a RCT and has less than 100 patients

- "Seider, N., Miller, B., and Beiran, I. Topical glaucoma therapy as a risk factor for nasolacrimal duct obstruction

Unique comparators

- "Sellem, E., Rouland, J. F., Baudouin, C., Bron, A., Denis, P., Nordmann, J. P., and Renard, J. P. Predictors of additional intraocular pressure reduction in patients changed to latanoprost/timolol fixed combination. BMC Ophthalmol 2010 ;10 : 10 .

Other (specify):Inadequate control

- "Sen, E., Nalcacioglu, P., Yazici, A., Aksakal, F. N., Altinok, A., Tuna, T., and Koklu, G. Comparison of the effects of latanoprost and bimatoprost on central corneal thickness. J Glaucoma 2008 ;17 (5): 398-402 .

Other (specify):Study design does not match KQ

- "Seong, G. J., Rho, S. H., Kim, C. S., Moon, J. I., Kook, M. S., Kim, Y. Y., Ma, K. T., Hong, Y. J., Nelson, L. A., Kruft, B., Stewart, J. A., and Stewart, W. C. Potential benefit of intraocular pressure reduction in normal-tension glaucoma in South Korea. J Ocul Pharmacol Ther 2009 ; 25 (1): 91-6 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Serguhn, S. and Spiegel, D. [Comparison of postoperative recovery after trabeculectomy for pseudoexfoliation glaucoma and chronic primary open angle glaucoma]. Klin Monbl Augenheilkd 99 ;215 (5): 281-6 .

It is a case series

- "Serle, J. B. A comparison of the safety and efficacy of twice daily brimonidine 0.2% versus betaxolol 0.25% in subjects with elevated intraocular pressure

Medical KQ 3 or KQ 3 and KQ 6 only

- "Serle, J. B. A comparison of the safety and efficacy of twice daily brimonidine 0.2% versus betaxolol 0.25% in subjects with elevated intraocular pressure

Duplicate of 9552 "

- "Serle, J. B. A comparison of the safety and efficacy of twice daily brimonidine 0.2% versus betaxolol 0.25% in subjects with elevated intraocular pressure. The Brimonidine Study Group II**Medical KQ 3 or KQ 3 and KQ 6 only**

- "Serle, J. B., Lustgarten, J. S., and Podos, S. M. A clinical trial of metipranolol, a noncardioselective beta-adrenergic antagonist, in ocular hypertension

Medical KQ 3 or KQ 3 and KQ 6 only

- "Serle, J. B., Lustgarten, J. S., Lippa, E. A., Camras, C. B., Panebianco, D. L., and Podos, S. M. MK-927, a topical carbonic anhydrase inhibitor. Dose response and reproducibility. Arch Ophthalmol 90 ;108 (6): 838-41

Does not address any key questions

- "Serle, J. B., Lustgarten, J., Lippa, E. A., Camras, C. B., Framm, L., Payne, J. E., Deasy, D., and Podos, S. M. Six week safety study of 2% MK-927 administered twice daily to ocular hypertensive volunteers. J Ocul Pharmacol 92 ;8 (1): 1-9 .

- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**

- "Serle, J. B., Piltz, J. R., Rosenberg, L. F., Wright, M., and Gagliuso, D. J. COMPARISON OF EFFICACY & TOLERABILITY OF 0.5% APRACLONIDINE T.I.D. AND 0.2% BRIMONIDINE B.I.D. IN PATIENTS WITH ELEVATED INTRAOCULAR PRESSURE (IOP)

Meeting abstract

- "Serle, J., Johnson-Pratt, L., Polis, A., DeLucca, P., Kolodny, A., Fletcher, C., Cassel, D., Boyle, D., and Skobieranda, F. A COMPARISON OF THE

INTRAOCULAR PRESSURE LOWERING EFFECT OF COSOPT® TO THE CONCOMITANT ADMINISTRATION OF ALPHAGAN® AND TIMOLOL

Meeting abstract

- "Serpa Junior, E. and Wishart, P. K. Comparison of PMMA, foldable silicone and foldable acrylic hydrophobic intraocular lenses in combined phacoemulsification and trabeculectomy. Arq Bras Oftalmol 2005 ; 68 (1): 29-35 .

It is a case series

- "Shaarawy, T., Flammer, J., Smits, G., and Mermoud, A. Low first postoperative day intraocular pressure as a positive prognostic indicator in deep sclerectomy. Br J Ophthalmol 2004 ;88 (5): 658-61 .

OAG can't be analyzed separately

- "Shaarawy, T., Karlen, M., Schnyder, C., Achache, F., Sanchez, E., and Mermoud, A. Five-year results of deep sclerectomy with collagen implant. J Cataract Refract Surg 2001 ;27 (11): 1770-8 .

Other (specify):Study design does not match KQ

- "Shaarawy, T., Mansouri, K., Schnyder, C., Ravinet, E., Achache, F., and Mermoud, A. Long-term results of deep sclerectomy with collagen implant. J Cataract Refract Surg 2004 ;30 (6): 1225-31 .

It is a case series

- "Shaarawy, T., Nguyen, C., Schnyder, C., and Mermoud, A. Comparative study between deep sclerectomy with and without collagen implant: long term follow up. Br J Ophthalmol 2004 ;88 (1): 95-8 .

Animal or in vitro data

- "Shah, P., O'Donnell, B., Pochkhanawala, F., and Tan, C. Y. Severe exacerbation of rosacea by oral acetazolamide. Br J Dermatol 93 ;129 (5): 647-8 .
- **It is not a RCT and has less than 100 patients**
- "Shaikh, M. H. and Mars, J. S. The acute effect of pilocarpine on pulsatile ocular blood flow in ocular hypertension. Eye (Lond) 2001 ;15 (Pt 1): 63-6 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Shaivitz, S. A. Timolol and myasthenia gravis. JAMA 79 ;242 (15): 1611-2 .

It is a case series

- "Shammas, H. J. Anterior intraocular lens dislocation after combined cataract extraction trabeculectomy. J Cataract Refract Surg 96 ;
- 22 (3): 358-61 .

It is combined cataract/glaucoma surgery study published before April 2000

- "Shao, H., Sun, X. Y., and Bai, F. G. [Comparison of 0.1% dipivalyl epinephrine and 1% epinephrine in patients with glaucoma or ocular hypertension]

Foreign language

- "Shapiro, S. and Fraunfelder, F. T. Acetazolamide and aplastic anemia. Am J Ophthalmol 92 ;113 (3): 328-30 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Sharir, M., Zimmerman, T. J., del Negro, R. G., Ball, S. F., and Kooner, K. S. A comparison of the efficacy of various metipranolol-pilocarpine combinations in patients with ocular hypertension and primary open-angle glaucoma. J Ocul Pharmacol 94 ;10 (2): 411-20 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Sharma, A. and Gupta, A. Primary argon laser trabeculoplasty vs pilocarpine 2% in primary open angle glaucoma: two years follow-up study. Indian J Ophthalmol 97 ;45 (2): 109-13 .

Data not abstractable

- "Sharma, G. K., Nepalia, L. K., and Garg, A. S. Pressure dynamics following trabeculectomy. A critical analysis. Indian J Ophthalmol 86 ;34 : 202-5 .

Data not abstractable

- "Sharma, O. D., Gupta, N. C., Sing Parmar, I. P., and Khurana, A. K. Evaluation of pilocarpine vs timolol and their combined efficacy in primary open angle glaucoma. Afro-Asian Journal of Ophthalmology 90 ; 9 (2): 58-60 .

Other (specify):pilo out"

- "Sharma, R., Kohli, K., Kapoor, B., Mengi, R. K., and Sadhotra, P. The cardio-vascular effects of topical timolol, levobunolol and betaxolol in patients of chronic simple glaucoma

Medical KQ 3 or KQ 3 and KQ 6 only

- "Sharma, R., Kohli, K., Kapoor, B., Mengi, R. K., Sadotra, P., and Verma, U. Comparative effect of timolol, levobunolol and betaxolol on IOP in patients of chronic simple glaucoma

Meeting abstract

- "Sharpe, E. D, Kapik, B., Reaves, A., Haque, R., and Shams, N. Comparison of the effect of different concentrations of the cocosanoid

unoprostone isopropyl on intraocular pressure in patients with primary open-angle glaucoma or ocular hypertension

Meeting abstract

- "Sharpe, E. D., Day, D. G., Beischel, C. J., Rhodes, J. S., Stewart, J. A., and Stewart, W. C. Brimonidine purite 0.15% versus dorzolamide 2% each given twice daily to induce intraocular pressure in subjects with open angle glaucoma or ocular hypertension
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- "Sharpe, E. D., Henry, C. J., Mundorf, T. K., Day, D. G., Stewart, J. A., Jenkins, J. N., and Stewart, W. C. Brimonidine 0.2% vs unoprostone 0.15% both added to timolol maleate 0.5% given twice daily to patients with primary open-angle glaucoma or ocular hypertension. Eye (Lond) 2005 ;19 (1): 35-40 .

  Other (specify): Unoprostone"
- "Sharpe, E. D., Williams, R. D., Stewart, J. A., Nelson, L. A., and Stewart, W. C. A comparison of dorzolamide/timolol-fixed combination versus bimatoprost in patients with open-angle glaucoma who are poorly controlled on latanoprost

  Medical KQ 3 only
- "Shaya, F. T., Mullins, C. D., Wong, W., and Cho, J. Discontinuation rates of topical glaucoma medications in a managed care population. Am J Manag Care 2002 ;8 (10 Suppl): S271-7 .

  OAG can't be analyzed separately
- "Shayegan, M. R., Boloorian, A. A., and Kianoush, S. Comparative study of topical application of timolol and verapamil in patients with glaucoma within 6 months. J Ocul Pharmacol Ther 2009 ;25 (6): 551-3 .

  Other (specify): Verapamil not a medication of interest"
- "Shedden, A., Adamsons, I. A., Getson, A. J., Laurence, J. K., Lines, C. R., Hewitt, D. J., and Ho, T. W. Comparison of the efficacy and tolerability of preservative-free and preservative-containing formulations of the dorzolamide/timolol fixed combination (COSOPT) in patients with elevated intraocular pressure in a randomized clinical trial

  Unique comparators
- "Shedden, A., Laurence, J., and Tipping, R. Efficacy and tolerability of timolol maleate ophthalmic gel-forming solution versus timolol ophthalmic solution in adults with open-angle glaucoma or ocular hypertension: a six-month, double-masked, multicenter study

  Medical KQ 3 or KQ 3 and KQ 6 only
- "Sheha, H., Kheirkhah, A., and Taha, H. Amniotic membrane transplantation in trabeculectomy with mitomycin C for refractory glaucoma. J Glaucoma 2008 ;17 (4): 303-7 .

  No subjects with open-angle glaucoma
- "Shen, Z. M. [Preliminary report of clinical observation on reduction in intraocular pressure by timolol (author's transl)]

  Foreign language
- "Sheng, X.-L., Xia, M.-H., Wang, J., and Zhang, L. Comparison of two methods for glaucoma combined with a cataract

  Foreign language
- "Sherwood, M. and Brandt, J. Six-month comparison of bimatoprost once-daily and twice-daily with timolol twice-daily in patients with elevated intraocular pressure
- **Medical KQ 3 only**
- "Sherwood, M. B., Craven, E. R., Chou, C., DuBiner, H. B., Batoosingh, A. L., Schiffman, R. M., and Whitcup, S. M. Twice-daily 0.2% brimonidine-0.5% timolol fixed-combination therapy vs monotherapy with timolol or brimonidine in patients with glaucoma or ocular hypertension: a 12-month randomized trial. Arch Ophthalmol 2006 ; 124 (9): 1230-8 .

  OAG can't be analyzed separately
- "Sherwood, M. B., Lattimer, J., and Hitchings, R. A. Laser trabeculoplasty as supplementary treatment for primary open angle glaucoma

  Rolim de Moura 2009
- "Sherwood, M. for the Brimonidine Study Group. A Comparison of the Safety and Ocular Hypotensive Efficacy of Twice Daily Brimonidine 0.2% versus Betaxolol 0.25% Suspension in Patients with Open-Angle Glaucoma or Ocular Hypertension
- **Meeting abstract**
- "Shibuya, T., Kashiwagi, K., and Tsukahara, S. Comparison of efficacy and tolerability between two gel-forming timolol maleate ophthalmic solutions in patients with glaucoma or ocular hypertension. Ophthalmologica 2003 ;217 (1): 31-8 .

  Other (specify):timolol vs timolol"
- "Shields, M. B. and Shields, S. E. Noncontact transscleral Nd:YAG cyclophotocoagulation: a long-term follow-up of 500 patients. Trans Am Ophthalmol Soc 94 ;92 : 271-83; discussion 283-7 .

  Data not abstractable

- "Shields, M. B., Wilkerson, M. H., and Echelman, D. A. A comparison of two energy levels for noncontact transscleral neodymium-YAG cyclophotocoagulation. Arch Ophthalmol 93 ;111 (4): 484-7 .
  Data not abstractable
- "Shiew, M. M. F. and O'Brart, D. P. S. Comparison of Trabeculectomy with Viscocanulostomy with Adjunctive Anti-metabolite Usage: A Randomised, Prospective Study
  Meeting abstract
- "Shigeeda, T., Tomidokoro, A., Chen, Y. N., Shirato, S., and Araie, M. Long-term follow-up of initial trabeculectomy with mitomycin C for primary open-angle glaucoma in Japanese patients. J Glaucoma 2006 ; 15 (3): 195-9 .
  It is a case series
- "Shimazaki, J., Hanada, K., Yagi, Y., Yamagami, J., Ishioka, M., Shimmura, S., and Tsubota, K. Changes in ocular surface caused by antiglaucomatous eyedrops: prospective, randomised study for the comparison of 0.5% timolol v 0. 12% unoprostone. Br J Ophthalmol 2000 ;84 (11): 1250-4 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Shimazaki, J., Yagi, Y., Hanada, K., Fujishima, H., Shinmura, S., and Tsubota, K. CHANGES IN OCULAR SURFACE AND TEARS CAUSED BY ANTI-GLAUCOMA EYEDROPS
  Meeting abstract
- "Shimmyo, M. Central corneal thickness and measured IOP response to topical ocular hypotensive medication in the Ocular Hypertension Treatment Study. Am J Ophthalmol 2005 ;139 (6): 1148; author reply 1148-9 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Shin, D. Adjunctive therapy with brinzolamide 1% ophthalmic suspension (Azopt((registered trademark))) in patients with open-angle glaucoma or ocular hypertension maintained on timolol therapy
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Shin, D. H. and The Brinzolamide Adjunctive Theraphy Study Group. A TRIPLE-MASKED, PLACEBO-CONTROLLED, ADJUNCTIVE THERAPY STUDY OF THE EFFICACY AND SAFETY OF TID-DOSED BRINZOLAMIDE 1.0% COMPARED TO TID-DOSED PLACEBO WHEN USED ADJUNCTIVELY TO TIMOLOL 0.5%
  Meeting abstract
- "Shin, D. H. THE EFFICACY AND SAFETY OF BRINZOLAMIDE AS PRIMARY THERAPY FOR OPEN-ANGLE GLAUCOMA AND OCULAR HYPERTENSION
  Meeting abstract
- "Shin, D. H., Feldman, R. M., and Sheu, W. P. Efficacy and safety of the fixed combinations latanoprost/timolol versus dorzolamide/timolol in patients with elevated intraocular pressure
  Non-FDA-approved drug combination
- "Shin, D. H., Frenkel, R. E., David, R., and Cheetham, J. K. Effect of topical anti-inflammatory treatment on the outcome of laser trabeculoplasty. The Fluorometholone-Laser Trabeculoplasty Study Group. Am J Ophthalmol 96 ;122 (3): 349-54 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Shin, D. H., Garadi, R., and The Timolol Gel Forming Solution 0.5% Study Group. THE IOP-LOWERING EQUIVALENCE OF TIMOLOL MALEATE 0.5% GEL FORMING SOLUTION, QD, TO TIMOLOL 0.5% OPHTHALMIC SOLUTION, BID, IN PATIENTS WITH POAG OR OHT
  Meeting abstract
- "Shin, D. H., Hughes, B. A., Song, M. S., Kim, C., Yang, K. J., Shah, M. I., Juzych, M. S., and Obertynski, T. Primary glaucoma triple procedure with or without adjunctive mitomycin. Prognostic factors for filtration failure. Ophthalmology 96 ;103 (11): 1925-33 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Shin, D. H., Iskander, N. G., Ahee, J. A., Singal, I. P., Kim, C., Hughes, B. A., Eliassi-Rad, B., and Kim, Y. Y. Long-term filtration and visual field outcomes after primary glaucoma triple procedure with and without mitomycin-C. Ophthalmology 2002 ;109 (9): 1607-11 .
  Does not address any key questions
- "Shin, D. H., Kardasis, C. T., Kim, C., Bsee, Juzych, M. S., Mhsa, Hughes, B. A., and Keole, N. S. Topical verapamil in glaucoma filtration surgery. J Glaucoma 2001 ;10 (3): 211-4 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Shin, D. H., Ren, J., Juzych, M. S., Hughes, B. A., Kim, C., Song, M. S., Yang, K. J., and Glover, K. B. Primary glaucoma triple procedure in patients with primary open-angle glaucoma: the effect of mitomycin C in patients with and without prognostic factors for filtration failure

Duplicate "

- "Shin, D. H., Ren, J., Juzych, M. S., Hughes, B. A., Kim, C., Song, M. S., Yang, K. J., and Glover, K. B. Primary glaucoma triple procedure in patients with primary open-angle glaucomas: The effect of mitomycin C in patients with and without prognostic factors for filtration failure. Am. J. Ophthalmol. 98 ;125 (3): 346-352 .

It is combined cataract/glaucoma surgery study published before April 2000

- "Shin, D. H., Simone, P. A., Song, M. S., Reed, S. Y., Juzych, M. S., Kim, C., and Hughes, B. A. Adjunctive subconjunctival mitomycin C in glaucoma triple procedure. Ophthalmology 95 ;102 (10): 1550-8 .

It is combined cataract/glaucoma surgery study published before April 2000

- "Shin, D. H., Vandenbelt, S. M., Kim, P. H., Gross, J. P., Keole, N. S., Lee, S. H., Birt, C. M., and Reed, S. Y. Comparison of long-term incidence of posterior capsular opacification between phacoemulsification and phacotrabeculectomy. Am J Ophthalmol 2002 ;133 (1): 40-7 .

Does not address any key questions

- "Shin, I. H., Nah, Y. S., Hong, Y. J., and Kim, C. Y. Comparison of surgical outcomes between small collagen and chromic catgut implants in deep sclerectomy. Korean J Ophthalmol 2002 ;16 (2): 75-81 .

It is not a RCT and has less than 100 patients

- "Shingleton, B. J., Campbell, C. A., and O'Donoghue, M. W. Effects of pupil stretch technique during phacoemulsification on postoperative vision, intraocular pressure, and inflammation. J Cataract Refract Surg 2006 ;32 (7): 1142-5 .

Does not address any key questions

- "Shingleton, B. J., Chaudhry, I. M., O'Donoghue, M. W., Baylus, S. L., King, R. J., and Chaudhry, M. B. Phacotrabeculectomy: limbus-based versus fornix-based conjunctival flaps in fellow eyes. Ophthalmology 99 ;
- 106 (6): 1152-5 .

It is not a RCT and has less than 100 patients

- "Shingleton, B. J., Distler, J. A., and Baker, B. H. Filtration surgery in black patients: early results in a West Indian population. Ophthalmic Surg 87 ;18 (3): 195-9 .

It is not a RCT and has less than 100 patients

- "Shingleton, B. J., Jacobson, L. M., and Kuperwaser, M. C. Comparison of combined cataract and glaucoma surgery using planned extracapsular and phacoemulsification techniques. Ophthalmic Surg Lasers 95 ;26 (5): 414-9 .

It is combined cataract/glaucoma surgery study published before April 2000

- "Shingleton, B. J., Price, R. S., O'Donoghue, M. W., and Goyal, S. Comparison of 1-site versus 2-site phacotrabeculectomy. J Cataract Refract Surg 2006 ;32 (5): 799-802 .
- **It is not a RCT and has less than 100 patients**
- "Shingleton, B. J., Richter, C. U., Bellows, A. R., Hutchinson, B. T., and Glynn, R. J. Long-term efficacy of argon laser trabeculoplasty. Ophthalmology 87 ;94 (12): 1513-8 .

It is a case series

- "Shingleton, B. J., Richter, C. U., Dharma, S. K., Tong, L., Bellows, A. R., Hutchinson, B. T., and Glynn, R. J. Long-term efficacy of argon laser trabeculoplasty. A 10-year follow-up study. Ophthalmology 93 ;100 (9): 1324-9 .

It is not a RCT and has less than 100 patients

- "Shiose, Y. [Clinical trial of timolol maleate ophthalmic solution for glaucoma (author's transl)]

Foreign language

- "Shirakashi, M., Yaoeda, K., Funaki, S., Nakatsue, T., Ohta, A., Suda, K., Hara, H., Fukichi, T., and Abe, H. LONG-TERM EFFECT OF TRABECULECTOMY USING AN ANTIMETABOLITE ON VISUAL FIELD DETERIORATION IN NORMAL-TENSION GLAUCOMA

Meeting abstract

- "Shirato, S., Kitazawa, Y., and Mishima, S. A critical analysis of the trabeculectomy results by a prospective follow-up design. Jpn J Ophthalmol 82 ;26 (4): 468-80 .

It is not a RCT and has less than 100 patients

- "Shmeleva, O. A. [Comparative efficiency of the effects of conservative and surgical methods of treating primary open-angle glaucoma on blood supply of the optic nerve and retina]

Foreign language

- "Shmeleva, V. V., Mukhina, Z. A., and Nikol'skaia, G. M. [Analysis of the effectiveness of trabeculectomy]

Foreign language

- "Shoji, N., Araie, M., Shirato, S., and Nakano, Y. [A five-year follow-up of the effect of postoperative 5-fluorouracil subconjunctival injections on the surgical outcome of trabeculectomy]

Foreign language

- "Shoji, T., Tanito, M., Takahashi, H., Park, M., Hayashi, K., Sakurai, Y., Nishikawa, S., and Chihara, E. Phacoviscocanalostomy versus cataract

surgery only in patients with coexisting normal-tension glaucoma: midterm outcomes. J Cataract Refract Surg 2007 ;33 (7): 1209-16 .

It is not a RCT and has less than 100 patients

- "Shoji, Y. [Side effects of opthalmic drugs]

Foreign language

- "Shrader, C. E., Thomas, J. V., and Simmons, R. J. Relationship of patient age and tolerance to carbonic anhydrase inhibitors. Am J Ophthalmol 83 ;96 (6): 730-3 .

Does not address any key questions

- "Shroff, A. C. Timolol for treatment of glaucoma. (One year follow up). Indian J Ophthalmol 82 ;30 (4): 253-6 .

It is not a RCT and has less than 100 patients

- "Shuster, J. and Kass, M. A. Timolol and acetazolamide. Ann Ophthalmol 83 ;15 (5): 400 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Siamak, N. M., Camejo, L., and Noecker, R. J. Comparison of Short-Term Hyperemia and Comfort between Travoprost Solutions Containing Benzalkonium Chloride and No Benzalkonium Chloride

Meeting abstract

- "Sicakova, S. and Vyborny, P. [Selective laser trabeculoplasty in glaucoma treatment--results during three years follow-up]

Foreign language

- "Sidorov, E. G. [Clinical and drug treatment characteristics of glaucoma in young persons]

Foreign language

- "Siegel, M. J., Camras, C. B., Lustgarten, J. S., and Podos, S. M. EFFECT OF FLURBIPROFEN (FL) ON THE REDUCTION OF INTRAOCULAR PRESSURE (IOP) FOLLOWING PARA-AMINOCLONIDINE (PAC) 1% IN GLAUCOMA PATIENTS

Meeting abstract

- "Siegner, S. W., Netland, P. A., Urban, R. C. Jr, Williams, A. S., Richards, D. W., Latina, M. A., and Brandt, J. D. Clinical experience with the Baerveldt glaucoma drainage implant. Ophthalmology 95 ;102 (9): 1298-307 .

Data not abstractable

- "Siesky, B., Harris, A., Brizendine, E., Marques, C., Loh, J., Mackey, J., Overton, J., and Netland, P. Literature review and meta-analysis of topical carbonic anhydrase inhibitors and ocular blood flow

Systematic review

- "Siesky, B., Harris, A., Cantor, L. B., Kagemann, L., Weitzman, Y., McCranor, L., Marques, C., Werne, A., and Stefansson, E. A comparative study of the effects of brinzolamide and dorzolamide on retinal oxygen saturation and ocular microcirculation in patients with primary open-angle glaucoma. Br J Ophthalmol 2008 ;92 (4): 500-4 .

Data not abstractable

- "Siesky, B., Harris, A., Kagemann, L., Stefansson, E., McCranor, L., Miller, B., Bwatwa, J., Regev, G., and Ehrlich, R. Ocular blood flow and oxygen delivery to the retina in primary open-angle glaucoma patients: the addition of dorzolamide to timolol monotherapy

Medical KQ 3 only

- "Siesky, B., Harris, A., Sines, D., Rechtman, E., Malinovsky, V. E., McCranor, L., Yung, C. W., and Zalish, M. A comparative analysis of the effects of the fixed combination of timolol and dorzolamide versus latanoprost plus timolol on ocular hemodynamics and visual function in patients with primary open-angle glaucoma

Unique comparators

- "Sihota, R., Agarwal, H. C., and Rajashekar, Y. L. A comparative evaluation of pilocarpine 1% and clonidine 0.125% versus timolol 0.5%. Indian J Ophthalmol 96 ;44 (2): 87-9 .

Data not abstractable

- "Sihota, R., Agarwal, H., Saigal, D., and Garudadri, C. S. Comparative Evaluation of Daunorubicin and Mitomycin in High-Risk Glaucomas

Meeting abstract

- "Sihota, R., Rajashekhar, Y. L., Venkatesh, P., and Agarwal, H. A prospective, long-term, randomized study of the efficacy and safety of the drug combination pilocarpine 1% with clonidine 0.06% or clonidine 0.125% versus timolol 0.25%. J Ocul Pharmacol Ther 2002 ;18 (6): 499-506 .

Other (specify):pilo and clonidine"

- "Sihota, R., Saxena, R., Agarwal, H. C., and Gulati, V. Crossover comparison of timolol and latanoprost in chronic primary angle-closure glaucoma. Arch Ophthalmol 2004 ;122 (2): 185-9 .

OAG can't be analyzed separately

- "Sihota, R., Saxena, R., Agarwal, H. C., Pandey, R. M., and Gulati, V. Peak pressures: crossover study of timolol and latanoprost

Medical KQ 3 only

- "Sihota, R., Sharma, T., and Agarwal, H. C. Intraoperative mitomycin C and the corneal endothelium. Acta Ophthalmol Scand 98 ;76 (1): 80-2 .

OAG can't be analyzed separately

- "Silver, L. H. Clinical efficacy and safety of brinzolamide (azopt(TM)), a new topical carbonic anhydrase inhibitor for primary open-angle glaucoma and ocular hypertension
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Silver, L. H. Clinical efficacy and safety of brinzolamide (Azopt), a new topical carbonic anhydrase inhibitor for primary open-angle glaucoma and ocular hypertension. Brinzolamide Primary Therapy Study Group
  Unique comparators
- "Silver, L. H. Ocular comfort of brinzolamide 1.0% ophthalmic suspension compared with dorzolamide 2.0% ophthalmic solution: results from two multicenter comfort studies. Brinzolamide Comfort Study Group. Surv Ophthalmol 2000 ;44 Suppl 2 : S141-5 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Silver, L. H., Brotherman, D., Caine, R., Smith, S., Stewart, R., Walters, T., and Wasserstrom, J. Ocular comfort of brinzolamide 1.0% ophthalmic suspension compared with dorzolamide 2.0% ophthalmic solution: Results from two multicenter comfort studies. Survey of Ophthalmology 2000 ;
- 44 (SUPPL. 2): 141-145 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Silver, L. H., Garadi, R., and Timolol Gel Folding Solution Study Group. THE LONG-TERM SAFETY AND EFFICACY OF TIMOLOL MALEATE GEL FORMING SOLUTION IN PATIENTS WITH OPEN-ANGLE GLAUCOMA OR OCULAR HYPERTENSION
  Meeting abstract
- "Silver, L. H., Martin, W., Hall, K., Turner, F. D., and The Brinzolamide Long-Term Therapy Study. AN ASSESSMENT OF CORNEAL HEALTH FOLLOWING LONG-TERM THERAPY WITH BRINZOLAMIDE (AZOPT) IN PATIENTS WITH OPEN-ANGLE GLAUCOMA AND OCULAR HYPERTENSION
  Meeting abstract
- "Silver, L. H., Von Tress, M., Garadi, R., McCarty, G., and The Levobetaxolol Dose-Response Study Group. A Dose-Response Evaluation of the Ocular Hypotensive Effect of Levobetaxolol Ophthalmic Suspension in Patients with Open-Angle Glaucoma or Ocular Hypertension
  Meeting abstract
- "Silverstone, B. Z. and Marcus, T. [Hypoglycemia due to ophthalmic timolol in a diabetic]
  Foreign language
- "Silverstone, D., Zimmerman, T., Choplin, N., Mundorf, T., Rose, A., Stoecker, J., Kelley, E., and Lue, J. Evaluation of once-daily levobunolol 0.25% and timolol 0.25% therapy for increased intraocular pressure
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Silvestre, J. F., Carnero, L., Ramon, R., Albares, M. P., and Botella, R. Allergic contact dermatitis from apraclonidine in eyedrops. Contact Dermatitis 2001 ;45 (4): 251 .
  Does not address any key questions
- "Simmons, R. B., Shields, M. B., Blasini, M., Wilkerson, M., and Stern, R. A. Transscleral Nd:YAG laser cyclophotocoagulation with a contact lens. Am J Ophthalmol 91 ;112 (6): 671-7 .
  Other (specify):Not a comparison of interest
- "Simmons, S. T and Brown, M. M. Comparison of Brimonidine with Latanoprost as Second-Line Therapy in Patients with Glaucoma or Ocular Hypertension
  Meeting abstract
- "Simmons, S. T and Earl, M. COMPARISON OF LATANOPROST AND BRIMONIDINE AT TROUGH DRUG EFFECT IN PATIENTS UNCONTROLLED ON TOPICAL BETA-BLOCKERS
  Meeting abstract
- "Simmons, S. T and Mehta, N. Safety and Efficacy of Brimonidine and Dorzolamide as Adjunctive Therapy in Glaucoma
  Meeting abstract
- "Simmons, S. T. and Alphagan/Xalatan Study Group. THE SAFETY AND EFFICACY OF BRIMONIDINE AND LATANOPROST AS ADJUNCTIVE THERAPY IN GLAUCOMA
  Meeting abstract
- "Simmons, S. T. and Earl, M. L. Three-month comparison of brimonidine and latanoprost as adjunctive therapy in glaucoma and ocular hypertension patients uncontrolled on beta-blockers: tolerance and peak intraocular pressure lowering
  Medical KQ 3 only
- "Simmons, S. T. and Samuelson, T. W. Comparison of brimonidine with latanoprost in the adjunctive treatment of glaucoma
  Medical KQ 3 or KQ 3 and KQ 6 only

- "Simmons, S. T. and Samuelson, T. W. Comparison of brimonidine with latanoprost in the adjunctive treatment of glaucoma. ALPHAGAN/XALATAN Study Group
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Simmons, S. T. and Samuelson, T. W. SAFETY AND EFFICACY OF BRIMONIDINE, DORZOLAMIDE AND LATANOPROST AS ADJUNCTIVE THERAPY IN THE TREATMENT OF GLAUCOMA
  Meeting abstract
- "Simmons, S. T. Efficacy of brimonidine 0.2% and dorzolamide 2% as adjunctive therapy to beta-blockers in adult patients with glaucoma or ocular hypertension
  Unique comparators
- "Simmons, S. T., Bernstein, P., and Hollander, D. A. A comparison of long-term intraocular pressure fluctuation in patients treated with bimatoprost or latanoprost
  Medical KQ 3 only
- "Simon, G., Melamed, S., and Lowery, J. A. Randomized Clinical Study Results Comparing Titanium:Sapphire Laser

  Meeting abstract
- "Simone, P. A, Reed, S. Y, Júzych, M. S, Shin, D. H, Song, M. S, Kim, C., and Sotolongo, L. B. Adjunctive Subconjunctival Mitomycin C in Glaucoma Triple Procedure
  Meeting abstract
- "Simpson, A. J., Gray, T. B., and Ballantyne, C. A controlled clinical trial of dorzolamide: a single-centre subset of a multicentre study
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Simsek, S., Yulek, F., Cakmak, H. B., and Midillioglu, I. K. Long-term effects of prostaglandin analogues on the anterior chamber depth of patients with primary open-angle glaucoma. Cutan Ocul Toxicol 2009 ;28 (3): 125-8 .
  Does not address any key questions (see below for questions), **It is not a RCT and has less than 100 patients**
- "Simsek, T., Citirik, M., Batman, A., Mutevelli, S., and Zilelioglu, O. Efficacy and complications of releasable suture trabeculectomy and standard trabeculectomy. Int Ophthalmol 2005 ;26 (1-2): 9-14 .
  OAG can't be analyzed separately
- "Singer, L., Romen, M., and Isakov, I. [Rare general side-effects after timolol eyedrops in glaucoma]
  Foreign language
- "Singh and Primary Trabeculectomy Antimetabolite Study Group. Intraoperative 5-Fluorouracil (5FU) vs Mitomycin C(MMC): The Primary. Trabeculectomy Antimetabolite Study
  Meeting abstract
- "Singh, D. Timolol for glaucoma. Indian J Ophthalmol 82 ;30 (4): 227-8 .
  It is not a RCT and has less than 100 patients
- "Singh, K. and Primary Trabeculectomy Antimetabolite Study Group. Randomized Clinical Trial of Trabeculectomy with Intraoperative Mitomycin C versus 5-Fluorouracil: Internediate Tests Results
  Meeting abstract
- "Singh, K., Egbert, P. R, Byrd, S., Budenz, D. L, Williams, A. S, Decker, J. H, and Dadzie, P. Trabeculectomy with Intraoperative 5-Flourouracil (5FU) vs. Mitomycin C (MMC): Randomized Clinical
  Meeting abstract
- "Singh, K., Egbert, P. R, Byrd, S., Williams, A. S, Decker, J. H, Foster, R. S, and Dadzie, P. Randomized Clinical Trial of Trabeculectomy with Adjunctive Intraoperative 5-Fluorouracil (5-FU) vs. Mitomycin-C (MMC)
  Meeting abstract
- "Singh, K., Egbert, P. R., Byrd, S., Budenz, D. L., Williams, A. S., Decker, J. H., and Dadzie, P. Trabeculectomy with intraoperative 5-fluorouracil vs mitomycin C. Am J Ophthalmol 97 ;123 (1): 48-53 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Singh, K., Egbert, p., Budenz, D., and Dadzie, P. RISK OF HYPOTONY FOLLOWING ANTIMETABOLITE TRABECULECTOMY IN A BLACK WEST AFRICAN POPULATION
  Meeting abstract
- "Singh, K., Mehta, K., Shaikh, N. M., Tsai, J. C., Moster, M. R., Budenz, D. L., Greenfield, D. S., Chen, P. P., Cohen, J. S., Baerveldt, G. S., and Shaikh, S. Trabeculectomy with intraoperative mitomycin C versus 5-fluorouracil. Prospective randomized clinical trial. Ophthalmology 2000 ;107 (12): 2305-9 .
  OAG can't be analyzed separately
- "Singh, R. P., Goldberg, I., and Mohsin, M. The efficacy and safety of intraoperative and/or postoperative 5-fluorouracil in trabeculectomy and phacotrabeculectomy. Clin Experiment Ophthalmol 2001 ;29 (5): 296-302 .
  Data not abstractable
- "Sirbat, D., Charlin, J. F., Cohn, H., Dascotte, J. C., George, J. L., Lesure, P., Massin, M., Massin, G., Maurin, J. F., Renard, J. P., and et, a. l.

[Efficacy and tolerability of 2 presentations of eyedrops combining carteolol 2% and pilocarpine 2% in primary open-angle glaucoma and simple ocular hypertension]

Foreign language

- "Sirbat, D., George, J. L., Mayeux, D., Saudax, E., Kohler, C., Levan, D., and Grilliat, J. P. [Effects of systemic blockade of beta-blockers eyedrops]

Foreign language

- "Sirbat, D., Kohler, C., George, J. L., Mayeux, D., and Grilliat, J. P. [Evaluation of the systemic cardiovascular and bronchial effects of beta-blocking eyedrops. Value of isoprenaline and carbachol tests. Therapeutic consequences]. Ophtalmologie 88 ;2 (3): 213-8 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Siriwardena, D., Cordeiro, M. F, King, A. J, Donaldson, M. L, Wells, A., Levin, S., Migdal, C. S, and Khaw, P. T. Human anti-TGFâ2 antibody (CAT-152)as a new modulator of wound healing in glaucoma filtration surgery: longer term follow up data

Meeting abstract

- "Siriwardena, D., Khaw, P. T., Donaldson, M. L., King, A. J., Migdal, C., and Cordeiro, M. F. A randomized placebo-controlled trial of human anti-TGFâ2monoclonal antibody (CAT-152): a new modulator of wound healing following trabeculectomy

Meeting abstract

- "Siriwardena, D., Khaw, P. T., King, A. J., Donaldson, M. L., Overton, B. M., Migdal, C., and Cordeiro, M. F. Human antitransforming growth factor beta(2) monoclonal antibody--a new modulator of wound healing in trabeculectomy: a randomized placebo controlled clinical study. Ophthalmology 2002 ;109 (3): 427-31 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Siriwardena, D., Khaw, P. T., King, A. J., Donaldson, M. L., Overton, B. M., Migdal, C., and Cordeiro, M. F. Human antitransforming growth factor beta2 monoclonal antibody - A new modulator of wound healing in trabeculectomy: A randomized placebo controlled clinical study. Ophthalmology 2002 ;109 (3): 427-431 .

Other (specify):ineligible drug"

- "Sirois, F. J. Pilocarpine psychosis. Psychosomatics 2005 ;46 (1): 88 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Skorkovska, K. [Comparison of intraocular pressure lowering efficacy of bimatoprost / timolol fixed combination and other glaucoma medications in the treatment of glaucoma]

Foreign language

- "Skripka, V. K. [Late reseults of trabeculectomy in primary glaucoma taking into account the trophic coefficient]

Foreign language

- "Skuta, G. L., Beeson, C. C., Higginbotham, E. J., Lichter, P. R., Musch, D. C., Bergstrom, T. J., Klein, T. B., and Falck, F. Y. Jr. Intraoperative mitomycin versus postoperative 5-fluorouracil in high-risk glaucoma filtering surgery. Ophthalmology 92 ;99 (3): 438-44 .

- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**

- "Slavina, T. M. [Pilocarpine test and the dynamics of daily intraocular pressure fluctuations in open-angle glaucoma]

Foreign language

- "Sleath, B. L., Krishnadas, R., Cho, M., Robin, A. L., Mehta, R., Covert, D., and Tudor, G. Patient-reported barriers to glaucoma medication access, use, and adherence in southern India. Indian J Ophthalmol 2009 ;57 (1): 63-8 .

Does not address any key questions

- "Sleep, T. Trabeculectomy and the use of antimetabolites. Insight 2010 ; 35 (1): 10-2 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Smith, J. Argon laser trabeculoplasty: comparison of bichromatic and monochromatic wavelengths. Ophthalmology 84 ;91 (4): 355-60 .

- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**

- "Smith, J. P., Weeks, R. H., Newland, E. F., and Ward, R. L. Betaxolol and acetazolamide. Combined ocular hypotensive effect. Arch Ophthalmol 84 ;102 (12): 1794-5 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Smith, M. F. and Sherwood, M. B. A COMPARISON OF THE MOLTENO IMPLANT TO THE ACTSEB (SCHOCKET) PROCEDURE IN THE TREATMENT OF REFRACTORY GLAUCOMAS

Meeting abstract

- "Smith, M. F., Doyle, J. W., and Sherwood, M. B. Comparison of the Baerveldt glaucoma implant with the double-plate Molteno drainage implant. Arch Ophthalmol 95 ;113 (4): 444-7 .
  It is not a RCT and has less than 100 patients
- "Smith, M. F., Sherwood, M. B., and McGorray, S. P. Comparison of the double-plate Molteno drainage implant with the Schocket procedure. Arch Ophthalmol 92 ;110 (9): 1246-50 .
  Data not abstractable
- "Smith, R. J. H., Blamires, T., and Nagasubramanian, S. Addition of pindolol to routine medical therapy: A clinical trial. BR. J. OPHTHALMOL. 82 ;66 (2): 102-108 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Smith, R. J., Nagasubramanian, S., Watkins, R., and Poinoosawmy, D. Addition of timolol maleate to routine medical therapy: a clinical trial
  Unique comparators
- "Smith, S. L., Pruitt, C. A., Sine, C. S., Hudgins, A. C., and Stewart, W. C. Latanoprost 0.005% and anterior segment uveitis. Acta Ophthalmol Scand 99 ;77 (6): 668-72 .
  Animal or in vitro data
- "Smith, S. L., Sine, C. S., Pruitt, C. A., and Stewart, W. C. The use of latanoprost 0.005% once daily and its effect on intraocular pressure as primary or adjunctive therapy
  Unique comparators
- "Soderstrom, M. B., Wallin, O., Granstrom, P. A., and Thorburn, W. Timolol-pilocarpine combined vs timolol and pilocarpine given separately. Am J Ophthalmol 89 ;107 (5): 465-70 .
  Other (specify):pilocarpine
- "Soderstrom, M. Medical vs surgical therapy in preventing visual field loss. Ophthalmology 2003 ;110 (2): 249; author reply 249 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Sodhi, P. K., Pandey, R. M., and Ratan, S. K. Efficacy and safety of brimonidine, dorzolamide and latanoprost as adjunctive therapy in primary open angle glaucoma
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Sodhi, P. K., Verma, L., and Ratan, S. K. Increased periocular pigmentation with ocular hypotensive lipid use in African Americans. Am J Ophthalmol 2004 ;137 (4): 783 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Solish, A. Bimatoprost and Travoprost in Clinical Practice of Glaucoma
  Meeting abstract
- "Solish, A. M., DeLucca, P. T., Cassel, D. A., Kolodny, A. H., Hustad, C. M., and Skobieranda, F. Dorzolamide/Timolol fixed combination versus concomitant administration of brimonidine and timolol in patients with elevated intraocular pressure: a 3-month comparison of efficacy, tolerability, and patient-reported measures
  Just KQ 2 and/or 5 "
- "Soll, D. B. Evaluation of timolol in chronic open-angle glaucoma. Once a day vs twice a day. Arch Ophthalmol 80 ;98 (12): 2178-81 .
  It is not a RCT and has less than 100 patients
- "Song, Y.-P., Zhu, L., Ding, Q., Zhao, X., and Huang, P.-C. Long-term effect of transscleral diode laser cyclophotocoagulation in treatment of refractory glaucoma
  Foreign language
- "Sonnsjo, B., Holmin, C., and Krakau, C. E. Occurrence of disc haemorrhages in open-angle glaucoma treated with pilocarpine or timolol. Acta Ophthalmol (Copenh) 91 ;69 (2): 217-24 .
  Does not address any key questions
- "Sonntag, J. R., Brindley, G. O., and Shields, M. B. Timolol and epinephrine. Comparison of efficacy and side effects. ARCH. OPHTHALMOL. 79 ;97 (2): 273-277 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Sonty, S. P., Sonty, S., and Viana, M. A. G. THE COMPARATIVE OCULAR HYPOTENSIVE EFFECTS OF TIMOLOL, BETAXOLOL AID OPTIPRANOLOL
  Meeting abstract
- "Sonty, S., Henry, J. C., Sharpe, E. D., Weiss, M. J., Stewart, J. A., Nelson, L. A., and Stewart, W. C. Success rates for switching to dorzolamide/timolol fixed combination in timolol responders who are insufficiently controlled by latanoprost monotherapy. Acta Ophthalmol 2008 ;86 (4): 419-23 .
  It is not a RCT and has less than 100 patients
- "Sonty, S., Mundorf, T. K., Stewart, J. A., and Stewart, W. C. Short-term tolerability of once-daily timolol hemihydrate 0.5%, timolol maleate in sorbate 0.5%, and generic timolol maleate gel-forming solution 0.5% in glaucoma and/or ocular hypertension: a prospective, randomized, double-

masked, active-controlled, three-period crossover pilot study. Clin Ther 2009 ;31 (10): 2063-71 .

Other (specify): Inadequate control groups, Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study"

- "Sood, S. and Wilensky, J. Comparative Efficacy of Travoprost vs Latanoprost in Lowering Intraocular Pressure in African Americans

Meeting abstract

- "Sorensen, S. J and Abel, S. R. Comparison of the ocular beta-blockers (Brief record)

Duplicate "

- "Soro-Martinez, M. I., Villegas-Perez, M. P., Sobrado-Calvo, P., Ruiz-Gomez, J. M., and Miralles de Imperial Mora-Figueroa, J. Corneal endothelial cell loss after trabeculectomy or after phacoemulsification, IOL implantation and trabeculectomy in 1 or 2 steps. Graefes Arch Clin Exp Ophthalmol 2010 ;248 (2): 249-56 .

It is not a RCT and has less than 100 patients

- "Soser, M., Ogriseg, M., Kessler, B., and Zirm, H. [New findings on the effect of azetazolamide (Diamox) on intraocular pressure and acid-base metabolism of the blood following oral administration]. Klin Monbl Augenheilkd 80 ;176 (1): 88-92 .

It is not a RCT and has less than 100 patients

- "Soto, J. and Diaz, S. Does the fixed combination of bimatoprost/timolol really produce a better benefit/risk balance than the fixed combination of latanoprost/timolol?. Eur J Ophthalmol 2010 ;20 (1): 246-7; author reply 247-8 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Spaeth, G. L. Allergic contact dermatitis caused by topical eye drops. Am J Ophthalmol 2006 ;142 (4): 706 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Spaeth, G. L. and Baez, K. A. Argon laser trabeculoplasty controls one third of cases of progressive, uncontrolled, open angle glaucoma for 5 years. Arch Ophthalmol 92 ;110 (4): 491-4 .

Data not abstractable

- "Spaeth, G. L. Potassium, acetazolamide, and intraocular pressure. Arch Ophthalmol 67 ;78 (5): 578-82 .

Does not address any key questions

- "Spaeth, G. L. The management of patients with conjoint cataract and glaucoma. Ophthalmic Surgery 80 ;11 (11): 780-3 .

It is combined cataract/glaucoma surgery study published before April 2000

- "Spaeth, G. L., Bernstein, P., Caprioli, J., and Schiffman, R. M. Control of Intraocular Pressure and Fluctuation With Fixed-Combination Brimonidine-Timolol Versus Brimonidine or Timolol Monotherapy. Am J Ophthalmol 2010 ;

o**ther (specify):**IOP <18mmHg"

- "Spiegel, D. and the European Latanoprost Study Group. A comparison of the safety and efficacy of lantanoprost (Xalatan®) versus the fixed combination of dorzolamide and timolol (Cosopt®) in patients with open angle glaucoma

Meeting abstract

- "Spiegel, D., Wegscheider, E., and Lund, O. E. Argon laser trabeculoplasty: long-term follow-up of at least 5 years. Ger J Ophthalmol 92 ;1 (3-4): 156-8 .

Other (specify):No control

- "Spiegel, D., Wetzel, W., and Birngruber, R. [Ab externo erbium YAG laser sclerostomy versus conventional trabeculectomy. Treatment of glaucoma patients]. Ophthalmologe 98 ;95 (8): 537-41 .

It is not a RCT and has less than 100 patients

- "Spiegel, D., Wetzel, W., and Birngruber, R. Comparison of the efficacy of ER-YAG laser sclerostomy ab externo versus trabeculectomy in the treatment of patients with primary open - Angle glaucoma: Ab externo-Erbium-YAG-lasersklerostomie versus konventionelle trabekulektomie: Die behandlung von glaukompatienten. Ophthalmologe 98 ;95 (8): 537-541 .

It is not a RCT and has less than 100 patients

- "Spiegel, D., Wetzel, W., Neuhann, T., Stuermer, J., Hoeh, H., Garcia-Feijoo, J., Martinez-De-La-Casa, J. M., and Garcia-Sanchez, J. Coexistent primary open-angle glaucoma and cataract: interim analysis of a trabecular micro-bypass stent and concurrent cataract surgery. Eur J Ophthalmol 2009 ;19 (3): 393-9 .

It is not a RCT and has less than 100 patients

- "Spinelli, D., Curatola, M. R., and Faroni, E. Comparison between deep sclerectomy with reticulated hyaluronic acid implant and trabeculectomy in glaucoma surgery. Acta Ophthalmol Scand Suppl 2000 ;(232): 60-2 .

It is a case series

- "Sponsel, W. E, Paris, G. R, Trigo, Y., Weber, A., Pena, M., and Sanford, D. K. THERAPEUTIC AND PHYSIOLOGIC ALTERATIONS WITH ORAL NSAID USE DURING LATANOPROST AND BRIMONIDINE THERAPY
  Meeting abstract
- "Sponsel, W. E. Glaucoma suspect treatment trial. Ophthalmology 90 ;97 (4): 397 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Sponsel, W. E. Quantification and monitoring of visual field defects and a prospective, randomized comparison of pilocarpine and timolol using computerized perimetry. Surv Ophthalmol 89 ;33 Suppl : 427-8; discussion 435-6 .
  Data not abstractable
- "Sponsel, W. E. Quantification and monitoring of visual field defects and prospective, randomized comparison of pilocarpine and timolol using computerized perimetry (17). Journal of Glaucoma 93 ;2 (A): S15-S19 .
  Data not abstractable
- "Sponsel, W. E. Timolol Vs pilocarpine in open angle glaucoma: The observation of significant differences in visual field response in patients with clinically equivalent IOP control. CHIBRET INT. J. OPHTHALMOL. 87 ;5 (3): 50-56 .
  Other (specify):pilocarpine
- "Sponsel, W. E., Paris, G., Trigo, Y., and Pena, M. Comparative effects of latanoprost (Xalatan) and unoprostone (Rescula) in patients with open-angle glaucoma and suspected glaucoma. Am J Ophthalmol 2002 ;134 (4): 552-9 .
  Other (specify):unoprostone"
- "Sponsel, W. E., Trigo, Y., Pena, M., Paris, G. R., Sanford, D. K., and McKinnon, S. R. Oral NSAID Effects on Latanoprost and Brimonidine
  Meeting abstract
- "Spooner, J. J., Bullano, M. F., Ikeda, L. I., Cockerham, T. R., Waugh, W. J., Johnson, T., and Mozaffari, E. Rates of discontinuation and change of glaucoma therapy in a managed care setting. Am J Manag Care 2002 ; 8 (10 Suppl): S262-70 .
  OAG can't be analyzed separately
- "Sporn, A., Scothorn, D. M., and Terry, J. E. Metabolic acidosis induced by acetazolamide. J Am Optom Assoc 91 ;62 (12): 934-7 .
  It is a case series
- "Sporova, N. A. [Results of the protracted use of prolonged action meiotics in primary glaucoma]
  Foreign language
- "Sporova, N. A., Kozlova, L. P., Zubareva, T. V., and Cherkasova, I. N. [Effectiveness of treatment of primary glaucoma with prolonged-action pilocarpine]
  Foreign language
- "Spratt, A., Ogunbowale, L., and Franks, W. Fixed Combination Timolol/Dorzolamide versus Timolol/Brimonidine: A Randomized Clinical Trial
  Meeting abstract
- "Sreckovic, S., Petrovic, M. J., Petrovic, N., and Vukosavljevic, M. [Comparison of primary medicament therapy effects and primary argon laser trabeculoplasty on regulation of intraocular pressure and stability of perimetry findings in open angle glaucoma]
  Foreign language
- "Stack, R. R. and McKellar, M. J. Black eye drop bottle tips improve compliance. Clin Experiment Ophthalmol 2004 ;32 (1): 39-41 .
  Does not address any key questions
- "Stamper, R. L., McMenemy, M. G., and Lieberman, M. F. Hypotonous maculopathy after trabeculectomy with subconjunctival 5-fluorouracil. Am J Ophthalmol 92 ;114 (5): 544-53 .
  It is not a RCT and has less than 100 patients
- "Stangogiannis D, Crisanti, Romero Q, Rafael, Naranjo Tackman, Ram n, Ozorno Zarate, Jorge, and Gil Carrasco, Fqlix. Induccí£n de cambio en el patr£n topogrbfico en la cirugÆa filtrante de glaucoma
  Foreign language
- "Stangos, A. N., Mavropoulos, A., Leuenberger, P. M., and Sunaric-Megevand, G. The Effect of Learning Curve on the Surgical Outcome of Viscocanalostomy. J Glaucoma 2011 ;
  Other (specify): Testing physician learning curve only"
- "Stankiewicz, A. and Wierzbowska, J. [A multicentre, observative, non-invasive study of the tolerance of NYOLOL gel 0,1% in ocular hypertensive patients]
  Foreign language
- "Starita, R. J. and Fellman, R. L. Glaucoma treatment with once-daily levobunolol. Am J Ophthalmol 86 ;102 (4): 544-7 .
  No original data (e.g., systematic review, narrative review, editorial, letter)

- "Starita, R. J., Fellman, R. L., Spaeth, G. L., and Poryzees, E. M. Effect of varying size of scleral flap and corneal block on trabeculectomy. Ophthalmic Surg 84 ;
- 15 (6): 484-7 .
- **OAG can't be analyzed separately**
- "Starita, R. J., Fellman, R. L., Spaeth, G. L., Poryzees, E. M., Greenidge, K. C., and Traverso, C. E. Short- and long-term effects of postoperative corticosteroids on trabeculectomy. Ophthalmology 85 ;92 (7): 938-46 .
  OAG can't be analyzed separately
- "Stark, W. J., Goyal, R. K., Awad, O., Vito, E., and Kouzis, A. C. The safety and efficacy of combined phacoemulsification and trabeculectomy with releasable sutures. Br J Ophthalmol 2006 ;90 (2): 146-9 .
  It is a case series
- "Stawska, M. [Comparative analysis of the results of modified sinusectomy and trabeculectomy in patients with primary open angle glaucoma]
  Foreign language
- "Stead, R. E. and King, A. J. Outcome of trabeculectomy with mitomycin C in patients with advanced glaucoma. Br J Ophthalmol 2011 ;: 960-5 .
  OAG can't be analyzed separately
- "Stecchi, G., Saccucci, S., Molinari, S., and De Gregorio, F. Eyelash hypertrichosis induced by topical latanoprost: 6-month follow-up study. Acta Ophthalmol Scand Suppl 2002 ;236 : 56-7 .
  It is not a RCT and has less than 100 patients
- "Stefan, C. and Dumitrica, D. M. [Ocular surface disfunction in glaucoma]
  Foreign language
- "Stefan, C., Cucea, R., and Urena-Saenz, J. M. [Pseudoexfoliative glaucoma]
  Foreign language
- "Stefan, C., Neacsu, A., Balas, M., Nenciu, A., and Lascu, L. [Trabeculectomy and nonpenetrating surgery in glaucoma]
  Foreign language
- "Stefanescu-Dima, A. S., Mocanu, C., Manescu, R., and Sfanescu-Dima, M. A. [Laser trabeculoplasty--a prospective study]
  Foreign language
- "Stefaniu, I., Zemba, M., Nitulescu, C., and Nita, N. [A comparative study of the results of 2 technical variants of protective trabeculectomy]
  Foreign language
- "Stefaniu, I., Zemba, M., Nitulescu, C., and Nita, N. [Comparison between two therapeutic approaches in patients with cataract and glaucoma]
  Foreign language
- "Stefansson, E., Guomundsdottir, E., Sigurjonsdottir, J., Bjarnadottir, G., Masson, M., and Cyclodextrin drug delivery group. Methazolamide 1% in cyclodextrin aqueous eye drops lowers intraocular pressure in ocular hypertensive humans
  Meeting abstract
- "Stegmann, R., Pienaar, A., and Miller, D. Viscocanalostomy for open-angle glaucoma in black African patients. J Cataract Refract Surg 99 ; 25 (3): 316-22 .
  It is not a RCT and has less than 100 patients
- "Steigerwalt Jr, R. D., Belcaro, G., Morazzoni, P., Bombardelli, E., Burki, C., and Schonlau, F. Mirtogenol(registered trademark) potentiates latanoprost in lowering intraocular pressure and improves ocular blood flow in asymptomatic subjects
  Duplicate of 117 "
- "Steigerwalt, R. D., Belcaro, G., Morazzoni, P., Bombardelli, E., Burki, C., and Schonlau, F. Mirtogenol potentiates latanoprost in lowering intraocular pressure and improves ocular blood flow in asymptomatic subjects. Clin Ophthalmol 2010 ;4 : 471-6 .
  o**ther (specify):not FDA approved**, **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Stein, J. D., McCoy, A. N., Asrani, S., Herndon, L. W., Lee, P. P., McKinnon, S. J., Allingham, R. R., and Challa, P. Surgical management of hypotony owing to overfiltration in eyes receiving glaucoma drainage devices. J Glaucoma 2009 ;18 (8): 638-41 .
  It is a case series
- "Stein, J. D., Ruiz, D. Jr, Belsky, D., Lee, P. P., and Sloan, F. A. Longitudinal rates of postoperative adverse outcomes after glaucoma surgery among medicare beneficiaries 1994 to 2005. Ophthalmology 2008 ;115 (7): 1109-1116.e7 .
  OAG can't be analyzed separately
- "Stepanik, J. [Timolol versus Diamox (author's transl)]. Klin Monbl Augenheilkd 81 ;179 (4): 280-2 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Steurich, F. and Theis, F. R. [Bronchial obstruction caused by eyedrops]. Prax Klin Pneumol 85 ;39 (4): 122-6 .
  It is a case series

- "Stewart, J. A., Cvenkel, B., Nelson, L. A., and Stewart, W. C. Dorzolamide/Timolol Maleate Fixed Combination Given Twice Daily versus Latanoprost/Timolol Maleate Fixed Combination Given Once Every Morning in Patients With Primary Open-Angle Glaucoma or Ocular Hypertension
  Meeting abstract
- "Stewart, J. A., Day, D. G., Sharpe, E. D., and Stewart, W. C. Efficacy and Safety of Latanoprost/Timolol Maleate Fixed Combination Verses Timolol Maleate and Brimonidine Given Twice Daily
  Meeting abstract
- "Stewart, J. A., Kent, A. R., Dubiner, H. B., Whitaker, R., Mundorf, T. K., and Stewart, W. C. THE EFFICACY AND SAFETY OF DICLOFENAC 0.1 % VERSUS PREDNISOLONE ACETATE 1 % FOLLOWING TRABECULECTOMY WITH ADJUNCTIVE MITOMYCIN-C
  Meeting abstract
- "Stewart, J. A., Koester, J., Kapik, B., Pugh, S., and Stewart, W. C. THE IOP DIURNAL CURVE IN COAG OR OHT PATIENTS TREATED WITH RESCULA 0.12% OR TIMOLOL MALEATE 0.5%
  Meeting abstract
- "Stewart, J. A., Stewart, W. C., Day, D. G., Sharpe, E. D., and Leech, J. N. Efficacy and Safety of Latanoprost/timolol Maleate Fixed Combination versus Brimonidine Given Twice Daily and Latanoprost Given Each Evening
  Meeting abstract
- "Stewart, R. and The Brinzolamide Comfort Study Group. THE OCULAR COMFORT OF TID-DOSED BRINZOLAMIDE 1.0% COMPARED TO TID-DOSED DORZOLAMIDE 2.0% IN PATIENTS WITH PRIMARY OPEN-ANGLE GLAUCOMA OR OCULAR HYPERTENSION
  Meeting abstract
- "Stewart, R. H., Kimbrough, R. L., and Ward, R. L. Betaxolol vs timolol. A six-month double-blind comparison
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Stewart, W. C, Harasymowycz, P., Hutnik, C. M L, and Nicolela, M. The Efficacy and Safety of Latanoprost 0.005% versus Timolol Maleate 0.5% Gel Forming Solution Each Given Once Every Evening in Primary Open-Angle Glaucoma or Ocular Hypertension
  Meeting abstract
- "Stewart, W. C, Mundorf, T., Haque, R., Brown, A., Kapik, B., Shams, N., and The Unoprostone Study Group. Comparison of the IOP-lowering efficacy and safety of the docosanoid unoprostone isopropyl 0.15% versus timolol maleate 0.5% dosed twice daily for 6 months in patients with primary open-angle glaucoma or ocular hypertension
  Meeting abstract
- "Stewart, W. C. and Pitts, R. A. Postoperative prognostic indicators following trabeculectomy. Acta Ophthalmol (Copenh) 93 ;71 (6): 733-8 .
  Does not address any key questions
- "Stewart, W. C. THE USE OF SUBCONJUNCTIVAL 5-FLUOROURACIL FOLLOWING COMBINED TRABECULECTOMY AND CATARACT EXTRACTION
  Meeting abstract
- "Stewart, W. C. Timolol hemihydrate: a new formulation of timolol for the treatment of glaucoma. J Ocul Pharmacol Ther 96 ;(2): 225-37 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Stewart, W. C., Cohen, J. S., Netland, P. A., Weiss, H., and Nussbaum, L. L. Efficacy of carteolol hydrochloride 1% vs timolol maleate 0.5% in patients with increased intraocular pressure. Nocturnal Investigation of Glaucoma Hemodynamics Trial Study Group
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Stewart, W. C., Cohen, J. S., Netland, P. A., Weiss, H., Nussbaum, L. L., Abrams, D., Schwartz, G., Hughes, P., Adelson, A., Brink, M., Myers, M., Bahr, R., Dowling J.L., Jr., Richards, F., Geltzer, A., Hofmann, R. J., Snady-McCoy, L., Bartnik, L. A., Beneke, J., Barr, L., Muroski, D., Neal, J., Clevenger, C., Summitt, B., Lee, A., Cohen, J., Riccio, K. A., Luechauer, A., DuBiner, H., Cribbs, S., Laibovitz, R., Neck, K., Mundorf, T., Otero, D., Netland, P. A., Vivolo, D. A., Schwartz, L., Carmichael, P., Conner, R., Nowinski, T., Keselring, J., Bollenbach, A., Foley, A., Stewart, W., Stewart, J., Chase, C., Weiss, H., Schwartz, A., and Latham, B. D. Efficacy of carteolol hydrochloride 1% vs timolol maleate 0.5% in patients with increased intraocular pressure
  Duplicate "
- "Stewart, W. C., Crinkley, C. M., and Carlson, A. N. Fornix- vs. limbus-based flaps in combined phacoemulsification and trabeculectomy. Doc Ophthalmol 94 ;88 (2): 141-51 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Stewart, W. C., Crinkley, C. M., and Carlson, A. N. Results of combined phacoemulsification and trabeculectomy in patients with elevated preoperative intraocular pressures. J Glaucoma 95 ;4 (3): 164-9 .
  It is not a RCT and has less than 100 patients

- "Stewart, W. C., Crinkley, C. M., and Carlson, A. N. Results of trabeculectomy combined with phacoemulsification versus trabeculectomy combined with extracapsular cataract extraction in patients with advanced glaucoma. Ophthalmic Surg 94 ;25 (9): 621-7 .
- **It is combined cataract/glaucoma surgery study published before April 2000**
- "Stewart, W. C., Day, D. G., Holmes, K. T., and Stewart, J. A. Effect of timolol 0.5% gel and solution on pulmonary function in older glaucoma patients. J Glaucoma 2001 ;10 (3): 227-32 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Stewart, W. C., Day, D. G., Sharpe, E. D., Dubiner, H. B., Holmes, K. T., and Stewart, J. A. Efficacy and safety of timolol solution once daily vs timolol gel added to latanoprost
  Unique comparators
- "Stewart, W. C., Day, D. G., Stewart, J. A., Holmes, K. T., and Jenkins, J. N. Short-term ocular tolerability of dorzolamide 2% and brinzolamide 1% vs placebo in primary open-angle glaucoma and ocular hypertension subjects. Eye (Lond) 2004 ;18 (9): 905-10 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Stewart, W. C., Day, D. G., Stewart, J. A., Holmes, K. T., Leech, J. N., Rowan, C. T., and Schwartz, G. F. Therapeutic success of latanoprost 0.005% compared to brimonidine 0.2% in patients with open-angle glaucoma or ocular hypertension. J Ocul Pharmacol Ther 2000 ; 16 (6): 557-64 .
  Other (specify):study design does not match KQ (KQ3)"
- "Stewart, W. C., Day, D. G., Stewart, J. A., Schuhr, J., and Latham, K. E. The efficacy and safety of latanoprost 0.005% once daily versus brimonidine 0.2% twice daily in open-angle glaucoma or ocular hypertension
  Medical KQ 3 only
- "Stewart, W. C., Dubiner, H. B., Mundorf, T. K., Laibovitz, R. A., Sall, K. N., Katz, L. J., Singh, K., Shulman, D. G., Siegel, L. I., Hudgins, A. C., Nussbaum, L., and Apostolaros, M. Effects of carteolol and timolol on plasma lipid profiles in older women with ocular hypertension or primary open-angle glaucoma. Am J Ophthalmol 99 ;127 (2): 142-7 .
  Data not abstractable
- "Stewart, W. C., Halper, L. K., Johnson-Pratt, L., Polis, A., and Hartenbaum, D. Tolerability and efficacy of dorzolamide versus acetazolamide added to timolol
  Unique comparators
- "Stewart, W. C., Halper, L. K., Najarian, D., Johnson-Pratt, L., and Hartenbaum, D. TOLERABILITY AND EFFICACY OF DORZOLAMIDE VERSUS ACETAZOLANIIDE IN PATIENTS WITH OCULAR HYPERTENSION OR OPEN-ANGLE GLAUCOMA
  Meeting abstract
- "Stewart, W. C., Hollo, G., and Passmore, C. L. The Efficacy of Timolol Maleate 0.5% versus Brinzolamide 1% Each Given Twice Daily Added to Travoprost 0.004% in Patients With Ocular Hypertension or Open-angle Glaucoma
  Meeting abstract
- "Stewart, W. C., Konstas, A. G. P., Kozobolis, V. P., Tersis, I., and Leech, J. N. The Efficacy and Safety of the Timolol/dorzolamide Fixed Combination Versus Latanoprost in Exfoliation Glaucoma
  Meeting abstract
- "Stewart, W. C., Konstas, A. G., Kruft, B., Mathis, H. M., and Stewart, J. A. Meta-analysis of 24-h intraocular pressure fluctuation studies and the efficacy of glaucoma medicines
  Systematic review
- "Stewart, W. C., Kristoffersen, C. J., Demos, C. M., Fsadni, M. G., and Stewart, J. A. Incidence of conjunctival exposure following drainage device implantation in patients with glaucoma
  Systematic review
- "Stewart, W. C., Laibovitz, R., Horwitz, B., Stewart, R. H., Ritch, R., and Kottler, M. A 90-day study of the efficacy and side effects of 0.25% and 0.5% apraclonidine vs 0.5% timolol. Apraclonidine Primary Therapy Study Group. Arch Ophthalmol 96 ;114 (8): 938-42 .
  Data not abstractable
- "Stewart, W. C., Laibovitz, R., Horwitz, B., Stewart, R. H., Ritch, R., and Kottler, M. A 90-day study of the efficacy and side effects of 0.25% and 0.5% apraclonidine vs 0.5% timolol. ARCH. OPHTHALMOL. 96 ; 114 (8): 938-942 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Stewart, W. C., Leland, T. M., Cate, E. A., and Stewart, J. A. Efficacy and safety of timolol solution once daily versus timolol gel in treating elevated intraocular pressure

Medical KQ 3 or KQ 3 and KQ 6 only

- "Stewart, W. C., Pfeiffer, N., and Mathis, H. M. Meta-analysis of articles evaluating routine intraocular pressure control in monotherapy in the United States and Germany

Systematic review

- "Stewart, W. C., Ritch, R., Shin, D. H., Lehmann, R. P., Shrader, C. E., and van Buskirk, E. M. The efficacy of apraclonidine as an adjunct to timolol therapy. Apraclonidine Adjunctive Therapy Study Group. Arch Ophthalmol 95 ;113 (3): 287-92 .

Data not abstractable

- "Stewart, W. C., Ritch, R., Shin, D. H., Lehmann, R. P., Shrader, C. E., and Van Buskirk, E. M. The efficacy of apraclonidine as an adjunct to timolol therapy. ARCH. OPHTHALMOL. 95 ;113 (3): 287-292 .

Other (specify):apraclonidine"

- "Stewart, W. C., Sharpe, E. D., Day, D. G., Kolker, A. E., Konstas, A. G., Lee, W. H., Rieser, J. C., Chopra, H., and Holmes, K. T. Comparison of the efficacy and safety of latanoprost 0.005% compared to brimonidine 0.2% or dorzolamide 2% when added to a topical beta-adrenergic blocker in patients with primary open-angle glaucoma or ocular hypertension. J Ocul Pharmacol Ther 2000 ;16 (3): 251-9 .

It is a case series

- "Stewart, W. C., Sharpe, E. D., Harbin, T. S. Jr, Pastor, S. A., Day, D. G., Holmes, K. T., and Stewart, J. A. Brimonidine 0.2% versus dorzolamide 2% each given three times daily to reduce intraocular pressure

Medical KQ 3 or KQ 3 and KQ 6 only

- "Stewart, W. C., Sharpe, E. D., Stewart, J. A., and Hott, C. E. The safety and efficacy of timolol 0.5% in xanthan gum versus timolol gel forming solution 0.5%

Unique comparators

- "Stewart, W. C., Sharpe, E. D., Stewart, J. A., Holmes, K. T., and Latham, K. E. Additive efficacy of unoprostone isopropyl 0.12% (rescula) to latanoprost 0.005%. Am J Ophthalmol 2001 ;131 (3): 339-44 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Stewart, W. C., Sharpe, E. D., Williams, R. D., Nelson, L. A., and Stewart, J. A. A Comparison of Dorzolamide/Timolol Maleate Fixed Combination versus Bimatoprost in Primary Open-Angle Glaucoma Patients Who Are Insufficiently Controlled on Latanoprost

Meeting abstract

- "Stewart, W. C., Shields, M. B., Allen, R. C., Lewis, R. A., Cohen, J. S., Hoskins, H. D., Hetherington, J. N., Bahr, R. L., Noblin, J. E., and Delehanty, J. T. A 3-month comparison of 1% and 2% carteolol and 0.5% timolol in open-angle glaucoma

Medical KQ 3 or KQ 3 and KQ 6 only

- "Stewart, W. C., Sine, C. S., and Carlson, A. N. Three-millimeter versus 6-mm incisions in combined phacoemulsification and trabeculectomy. Ophthalmic Surg Lasers 96 ;27 (10): 832-8 .

It is combined cataract/glaucoma surgery study published before April 2000

- "Stewart, W. C., Sine, C. S., and LoPresto, C. Surgical vs medical management of chronic open-angle glaucoma. Am J Ophthalmol 96 ; 122 (6): 767-74 .

Does not address any key questions

- "Stewart, W. C., Stewart, J. A., Day, D. G., and Jenkins, J. The safety and efficacy of unoprostone 0.15% versus brimonidine 0.2%. Acta Ophthalmol Scand 2004 ;82 (2): 161-5 .
- **ther (specify):**Unoprostone"
- "Stewart, W. C., Stewart, J. A., Day, D. G., Sharpe, E. D., and Jenkins, J. N. Efficacy and safety of the latanoprost/timolol maleate fixed combination vs concomitant brimonidine and latanoprost therapy. Eye (Lond) 2004 ;18 (10): 990-5 .

Other (specify):combination not FDA approved"

- "Stewart, W. C., Stewart, J. A., Day, D., and Sharpe, E. D. Efficacy and safety of timolol maleate/latanoprost fixed combination versus timolol maleate and brimonidine given twice daily

Non-FDA-approved drug combination

- "Stewart, W. C., Stewart, J. A., Demos, C. M., and Turner, M. Serious adverse event reporting. Ophthalmology 2009 ;116 (12): 2485-2485.e1 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Stewart, W., Beehler, C., McDonald, D., Croyle, T., Ostrov, C., Rosanelli, E., and Crandall, A. THE EFFICACY OF LEVOBUNOLOL 0.25% BID IN PATIENTS SWITCHED FROM TIMOLOL 0.5% BID THERAPY

Meeting abstract

- "Stillitano, Iane Gongalves, Ribeiro, Marco Polo, Brandt, Carlos Teixeira, and Cabral, Juliana. Impaacto economico do custo de colÆrios no tratamento da Glaucoma

Foreign language

- "Stilma, J. S. Trabeculectomy with 5-fluorouracil in complicated glaucoma. Klin Oczna 93 ;95 (2): 81-3 .
  OAG can't be analyzed separately
- "Stodtmeister, R., Brenner, J., and Baur, M. P. [The action of stabilised pilocarpine drops on the human eye (author's transl)]. Klin Monbl Augenheilkd 77 ;170 (5): 750-3 .
  Does not address any key questions
- "Storr-Paulsen, A., Pedersen, J. H., and Laugesen, C. A prospective study of combined phacoemulsification-trabeculectomy versus conventional phacoemulsification in cataract patients with coexisting open angle glaucoma. Acta Ophthalmol Scand 98 ;76 (6): 696-9 .
- **It is not a RCT and has less than 100 patients**
- "Stoudemire, A. and Houpt, J. L. Carbonic anhydrase inhibitors: an underrecognized cause of psychiatric symptoms. Psychiatr Med 83 ;1 (3): 353-5 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Strahlman, E. R., Barber, B. L., and Laibovitz, R. B. A COMPARISON OF QUALITY OF LIFE AND PATIENT PREFFERENCE OF DORZOLAMIDE AND PILOCARPINE AS ADJUNCTIVE THERAPY TO TIMOLOL IN THE TREATMENT OF GLAUCOMA
  Meeting abstract
- "Strahlman, E. R., Deasy, D., and Panebianco, D. A TWO-WEEK PILOT ACTIVITY STUDY OF A FIXED COMBINATION OF TIMOLOL AND DORZOLAMIDE HYDROCHLORIDE
  Meeting abstract
- "Strahlman, E. R., Lippa, E. A., Tipping, R., Smith, B., Strohmaier, K., and Dorzolamide/Beta-Blocker Comparison Study Group. A CONTROLLED CLINICAL TRIAL OF 2.0% DORZOLAMIDE (MK-507) COMPARED TO TIMOLOL AND BETAXOLOL
  Meeting abstract
- "Strahlman, E. R., Vogel, R., Tipping, R., and Clineschmidt, C. M. The use of dorzolamide and pilocarpine as adjunctive therapy to timolol in patients with elevated intraocular pressure. OPHTHALMOLOGY 96 ; 103 (8): 1283-1293 .
  Other (specify):pilocarpine
- "Strahlman, E. R., Vogel, R., Tipping, R., and Clineschmidt, C. M. The use of dorzolamide and pilocarpine as adjunctive therapy to timolol in patients with elevated intraocular pressure. The Dorzolamide Additivity Study Group
  Duplicate 8395 "
- "Strahlman, E., Tipping, R., and Vogel, R. A double-masked, randomized 1-year study comparing dorzolamide (Trusopt), timolol, and betaxolol
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Strahlman, E., Tipping, R., and Vogel, R. A double-masked, randomized 1-year study comparing dorzolamide (Trusopt), timolol, and betaxolol. International Dorzolamide Study Group
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Strahlman, E., Tipping, R., and Vogel, R. A six-week dose-response study of the ocular hypotensive effect of dorzolamide with a one-year extension. Dorzolamide Dose-Response Study Group
  Duplicate 8392 "
- "Strahlman, E., Tipping, R., Vogel, R., Abrantes, P., Alm, A., Airaksinen, P. J., Barnebey, H., Borgeois, A., Cohen, J. S., Collignon-Brach, J., Cyrlin, M. N., Demailly, P., Ehinger, B., George, J. L., Greve, E., Gross, R. L., Higginbotham, E. J., Kass, M. A., Laibovitz, R. A., and et, al. A six-week dose-response study of the ocular hypotensive effect of dorzolamide with a one-year extension
  Unique comparators
- "Strempel, I. [Immediate effect of a topical beta-blocker on breakup time]. Ophthalmologica 86 ;192 (1): 11-6 .
  short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Strempel, I. Long-term results in the treatment of glaucoma with beta-adrenergic blocking agents. Trans Ophthalmol Soc N Z 81 ;33 : 21-3 .
  It is not a RCT and has less than 100 patients
- "Strempel, I. The influence of topical beta-blockers on the breakup time. Ophthalmologica 84 ;189 (3): 110-5 .
  No subjects with open-angle glaucoma
- "Strohmaier, K., Snyder, E., and Adamsons, I. A multicenter study comparing dorzolamide and pilocarpine as adjunctive therapy to timolol: patient preference and impact on daily life. J Am Optom Assoc 98 ;69 (7): 441-51 .
  Other (specify):pilocarpine
- "Strohmaier, K., Snyder, E., DuBiner, H., and Adamsons, I. The efficacy and safety of the dorzolamide-timolol combination versus the concomitant administration of its components
  Medical KQ 3 or KQ 3 and KQ 6 only

- "Strohmaier, K., Snyder, E., DuBiner, H., and Adamsons, I. The efficacy and safety of the dorzolamide-timolol combination versus the concomitant administration of its components. Dorzolamide-Timolol Study Group
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Strouthidis, N. G., Demirel, S., Asaoka, R., Cossio-Zuniga, C., and Garway-Heath, D. F. The Heidelberg retina tomograph Glaucoma Probability Score: reproducibility and measurement of progression
  Systematic review
- "Stryz, J. R. and Merte, H. J. [Pressure lowering effect and side effects of 0.5% and 1.0% levobunolol eyedrops, compared with 0.5% timolol eyedrops in patients with open-angle glaucoma]
  Foreign language
- "Stryz, J. R. and Merte, H. J. [Results of 1-year use of local pindolol in open-angle glaucoma]. Klin Monbl Augenheilkd 85 ;186 (1): 43-5 .
  It is not a RCT and has less than 100 patients
- "Sturm, A., Vogel, R., Binkowitz, B., and The Timolol-Pilocarpine Clinical Study Groups. A fixed combination of Timolol and Pilocarpine: double-masked comparisons with timolol and with pilocarpine
  Excluded drug
- "Subrez Pqrez, Juana Caridad and La Rosa Chibbs, Teresa. Uso del 5-fluoracilo en la trabeculectomÆa y escleroctomÆa profunda perforante durante cinco a±os
  Foreign language
- "Sud, R. N. and Grewal, S. S. Stevens Johnson syndrome due to Diamox. Indian J Ophthalmol 81 ;29 (2): 101-3 .
  It is a case series
- "Suda, K. [Our investigations on glaucoma studies at the department of ophthalmology, Kumamoto University]
- **Foreign language**
- "Sudesh, S., Cohen, E. J., Rapuano, C. J., and Wilson, R. P. Corneal toxicity associated with latanoprost. Arch Ophthalmol 99 ;117 (4): 539-40
  It is a case series
- "Sugimoto, R., Kuwayama, Y., Hashitani, T., and Tanaka, Y. COMPARISON OF TIMOLOL AND UNOPROSTONE IN CIRCADIAN VARIATION OF HYPOTENSIVE EFFECT
  Meeting abstract
- "Sugiyama, T., Kojima, S., Ishida, O., and Ikeda, T. Changes in optic nerve head blood flow induced by the combined therapy of latanoprost and beta blockers. Acta Ophthalmol 2009 ;87 (7): 797-800 .
- **Does not address any key questions**
- "Sugiyama, T., Shibata, M., Kojima, S., Ueki, M., and Ikeda, T. The first report on intermediate-term outcome of Ex-PRESS glaucoma filtration device implanted under scleral flap in Japanese patients. Clin Ophthalmol 2011 ;1063-6 .
  It is not a RCT and has less than 100 patients
- "Suh, M. H., Park, K. H., and Kim, D. M. Effect of travoprost on intraocular pressure during 12 months of treatment for normal-tension glaucoma. Jpn J Ophthalmol 2009 ;53 (1): 18-23 .
  It is not a RCT and has less than 100 patients
- "Suic, S. P., Laus, K. N., Dosen, V. M., Ekert, M., Mandic, Z., and Bojic, L. Comparison of evening and morning dosing of travoprost 0.004%/timolol 0.5% fixed combination in 6 month period. Coll Antropol 2010 ;34 (3): 847-52 .
  It is not a RCT and has less than 100 patients
- "Sullivan-Mee, M., Pensyl, D., Alldredge, B., Halverson, K., Gerhardt, G., and Qualls, C. Brimonidine hypersensitivity when switching between 0.2% and 0.15% formulations
  Systematic review
- "Sultan, M. B., Mansberger, S. L., and Lee, P. P. Understanding the importance of IOP variables in glaucoma: a systematic review
  Systematic review
- "Sun, Y.-B., Sun, Z.-S., and Wang, X.-L. Clinical analysis of combined phacoemulsification, intraocular lens implantation and trabeculectomy for cataract patients withglaucoma
  Foreign language
- "Sung, V. C., Butler, T. K., and Vernon, S. A. Non-enhanced trabeculectomy by non-glaucoma specialists: are results related to risk factors for failure?. Eye (Lond) 2001 ;(Pt 1): 45-51 .
  It is a case series
- "Suominen, S. and Valimaki, J. Bilateral anterior uveitis associated with travoprost. Acta Ophthalmol Scand 2006 ;84 (2): 275-6 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Susanna Junior, Remo and Costa, Vital Paulino. Estudo comparativo entre o maleato de timolol 0.5 e betaxolol 0.5 na redugåo da pressåo intra-ocular de pacientes submetidos a trabeculectomia
  Foreign language
- "Susanna Junior, Takahashi Walter Y. Estudo comparativo entre o uso do 5-fluoro-uracil e da mitomicina em olhos trabeculectomizados

Foreign language

- "Susanna, R. Jr and Sheu, W. P. Comparison of latanoprost with fixed-combination dorzolamide and timolol in adult patients with elevated intraocular pressure: an eight-week, randomized, open-label, parallel-group, multicenter study in Latin America
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Susanna, R. Jr, Giampani, J. Jr, Borges, A. S., Vessani, R. M., and Jordao, M. L. A double-masked, randomized clinical trial comparing latanoprost with unoprostone in patients with open-angle glaucoma or ocular hypertension. Ophthalmology 2001 ;108 (2): 259-63 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Susanna, R. Jr, Nicolela, M. T., and Oga, E. Additive effect of latanoprost to the combination of timolol and dorzolamide. J Glaucoma 2000 ;9 (2): 183-6 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Sussman, Adriana and Vives, Patricia. Bolsa encapsulada en cirugÆa filtrante con base fornix y base limbo
  Foreign language
- "Sutton, B. Xalatan difficulties. J Am Optom Assoc 97 ;68 (4): 214 .
  It is a case series
- "Suzuki, E. R. Jr, Franklin, L. M., da Silva, L. J., Figueiredo, C. R., Netto, J. A., and Batista, W. D. Comparison of the efficacy and safety of travoprost with a fixed-combination of dorzolamide and timolol in patients with open-angle glaucoma or ocular hypertension
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Suzuki, M., Mishima, H. K., Masuda, K., Araie, M., Kitazawa, Y., and Azuma, I. Efficacy and safety of latanoprost eye drops for glaucoma treatment: a 1-year study in Japan. Jpn J Ophthalmol 2000 ;44 (1): 33-8 .
- **Other (specify):**Study design does not match KQ (KQ3)"
- "Svacinova, J. and Zouharova, M. [Electro-tonography study of patients treated with Timoptic]
  Foreign language
- "Svedbergh, B. and Sherwood, M. Argon laser trabeculoplasty in exfoliation glaucoma. A retrospective analysis. Dev Ophthalmol 85 ;11 : 116-23 .
  It is not a RCT and has less than 100 patients
- "Svedbergh, B., Bodin, L., and Bergea, B. PRIMARY ARGON LASER TRABECULOPLASTY VERSUS PILOCARPINE
  Meeting abstract
- "Sveinsson, O., Sigurdsson, T., and Hovding, G. Trabeculectomy and gelatin implants. A retrospective, long-term follow-up study. Acta Ophthalmol (Copenh) 92 ;70 (5): 645-50 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Sverrisson, T., Gross, R., Pearson, J., Rusk, C., Adamsons, I., Gloor, B., Goethals, M., Kestelijn, P., Ladenvall, G., Mermoud, A., Poland, W., Sverrisson, T., and Thygesen, J. The dorzolamide/timolol combination versus timolol plus pilocarpine: Patient preference and impact on daily life. J. Glaucoma 99 ;8 (5): 315-324 .
  Other (specify):pilocarpine
- "Sverrisson, T., Gross, R., Pearson, J., Rusk, C., and Adamsons, I. The dorzolamide/timolol combination versus timolol plus pilocarpine: patient preference and impact on daily life. United States Patient Preference Study Group. International Patient Preference Study Group. J Glaucoma 99 ;8 (5): 315-24 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Swendris, R. P., Shin, D. H., and Hong, Y. J. APRACLONIDINE VERSUS TIMOLOL PRETREATMENT IN THE PREVENTION OF INTRAOCULAR PRESSURE SPIKES FOLLOWING ARGON LASER TRABECULOPLASTY
  Meeting abstract
- "Swendris, R., Chou, F., Shin, D., Parrow, K., Uhm, K., and Juzych, M. TRABECULECTOMY WITH RELEASABLE SCLERAL FLAP SUTURES AND ADJUNCTIVE LOW DOSE 5-FLUOROURACIL VERSUS MOLTENO IMPLANT IN ADVANCED APHAKIC AND PSEUDOPHAKIC GLAUCOMA
  Meeting abstract
- "Sycha, T., Vass, C., Findl, O., Bauer, P., Groke, I., Schmetterer, L., and Eichler, H. G. WITHDRAWN: Interventions for normal tension glaucoma
  Systematic review
- "Sycha, T., Vass, C., Findl, O., Bauer, P., Groke, I., Schmetterer, L., and Eichler, H. Interventions for normal tension glaucoma
  Duplicate of 202 "

- "Szaflik, J., Liberek, I., Kaminska, A., Chudzynska-Zawadzka, D., Borucka, A. I., and Sklodowska, A. [Phacoemulsification combined with trabeculectomy from personal material]
  Foreign language
- "Szaflik, J., Zawadzka, D., and Zaleska-Zmijewska, A. [Diode laser cyclophotocoagulation--effect on intraocular pressure in comparison with cyclodiathermy under the scleral flap]
  Foreign language
- "Szymanski, A., Brozyna-Zylka, B., Sobieraj, A., and Otrzonsek, D. [Surgical treatment of low pressure glaucoma]
  Foreign language
- "Tabak, S., de Waard, P. W. T., Lemij, H. G., and Remeijer, L. Selective laser trabeculoplasty in glaucoma
  Meeting abstract
- "Takahashi, I. and Tanaka, M. Switching to latanoprost monotherapy for 24 weeks in glaucoma patients. Eur J Ophthalmol 2004 ;(5): 401-6 .
  It is not a RCT and has less than 100 patients
- "Takahashi, N. [Cytotoxic effects of antiglaucoma agents on cultured human conjunctival cells (author's transl)]
  Foreign language
- "Takihara, Y., Inatani, M., Seto, T., Iwao, K., Iwao, M., Inoue, T., Kasaoka, N., Murakami, A., Futa, R., and Tanihara, H. Trabeculectomy with mitomycin for open-angle glaucoma in phakic vs pseudophakic eyes after phacoemulsification. Arch Ophthalmol 2011 ;129: 152-7 .
  Does not address any key questions
- "Takki, K. K., Klemetti, A., and Valle, O. The IOP-lowering effect of timolol in simple and capsular glaucoma. A multicenter study in Finland. Graefes Arch Clin Exp Ophthalmol 82 ;218 (2): 83-7 .
  Other (specify):STudy design does not match KQ (KQ3)"
- "Takmaz, T., Asik, S., Kurkcuoglu, P., Gurdal, C., and Can, I. Comparison of intraocular pressure lowering effect of once daily morning vs evening dosing of latanoprost/timolol maleate combination. Eur J Ophthalmol 2008 ;18 (1): 60-5 .
  Other (specify):combination not FDA approved"
- "Tamcelik, N., Ozkiris, A., and Sarici, A. M. Long-term results of combined viscotrabeculotomy-trabeculectomy in refractory developmental glaucoma. Eye (Lond) 2010 ;24 (4): 613-8 .
  No subjects with open-angle glaucoma
- "Tamer, C. and Oksuz, H. Circadian intraocular pressure control with dorzolamide versus timolol maleate add-on treatments in primary open-angle glaucoma patients using latanoprost
- **Unique comparator** "
- "Tan, Y. L., Tsou, P. F., Tan, G. S., Perera, S. A., Ho, C. L., Wong, T. T., and Aung, T. Postoperative Complications After Glaucoma Surgery for Primary Angle-Closure Glaucoma vs Primary Open-Angle Glaucoma. Arch Ophthalmol 2011 ;129 987-92 .
  Does not address any key questions
- "Tanaka, G. H., Vold, S. D., and Ruderman, J. M. PRIMARY COMBINED PHACOEMULSIFICATION AND TRABECULECTOMY VERSUS PHACOEMULSIFICATION ALONE IN PATIENTS WITH WELL-CONTROLLED GLAUCOMA: EARLY OUTCOMES
  Meeting abstract
- "Tanenbarm, H., Connor, C., Simmons, S. T., and Alphagan/Trusopt Study Group. A PHARMACOECONOMIC ANALYSIS COMPARING BRIMONIDINE BID TO DORZOLAMIDE TID AS ADJUNCTIVE THERAPY IN GLAUCOMA
  Meeting abstract
- "Taniguchi, M., Kino, H., Mori, M., and Nakahama, M. [A case of fatal asthma induced by timolol eye-drop]
  Foreign language
- "Taniguchi, T., Kitazawa, Y., and Shimizu, U. Long-term results of 5-fluorouracil trabeculectomy for primary open-angle glaucoma. Int Ophthalmol 89 ;13 (1-2): 145-9 .
  It is not a RCT and has less than 100 patients
- "Tanihara, H., Negi, A., Akimoto, M., Terauchi, H., Okudaira, A., Kozaki, J., Takeuchi, A., and Nagata, M. Surgical effects of trabeculotomy ab externo on adult eyes with primary open angle glaucoma and pseudoexfoliation syndrome. Arch Ophthalmol 93 ;111 (12): 1653-61 .
- **\Other (specify):No control**
- "Tanito, M., Ohira, A., and Chihara, E. Factors leading to reduced intraocular pressure after combined trabeculotomy and cataract surgery. J Glaucoma 2002 ;11 (1): 3-9 .
- **\It is a case series**
- "Tanito, M., Ohira, A., and Chihara, E. Surgical outcome of combined trabeculotomy and cataract surgery. J Glaucoma 2001 ;10 (4): 302-8 .
- **It is a case series**

- "Tanito, M., Park, M., Nishikawa, M., Ohira, A., and Chihara, E. Comparison of surgical outcomes of combined viscocanalostomy and cataract surgery with combined trabeculotomy and cataract surgery. Am J Ophthalmol 2002 ;134 (4): 513-20 .
- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**
- "Tanna, A. P., Rademaker, A. W., Stewart, W. C., and Feldman, R. M. Meta-analysis of the efficacy and safety of alpha2-adrenergic agonists, beta-adrenergic antagonists, and topical carbonic anhydrase inhibitors with prostaglandin analogs
  Systematic review
- "Tapaszto, I. and Boross, F. [Investigations of the efficacy and bio-availability of different pilocarpine eye drops]. Graefes Arch Clin Exp Ophthalmol 82 ;218 (6): 315-8 .
  Does not address any key questions
- "Tarkkanen, A. and Karjalainen, K. Cataract formation during miotic treatment for chronic open-angle glaucoma. Acta Ophthalmol (Copenh) 66 ;44 (6): 932-9 .
  Does not address any key questions
- "Tattersall, C., Vernon, S., and Singh, R. Resting pulse rates in a glaucoma clinic: the effect of topical and systemic beta-blocker usage
  Unique comparators
- "Taumer, R. and Gross, G. [Report on the application of chibro-timoptol after one year's use in ophthalmological practice (author's transl)]. Klin Monbl Augenheilkd 80 ;177 (3): 384-9 .
  It is a case series
- "Taverniti, L., Di Staso, S., Arrico, L., Giuffre, I., and Recupero, S. M. Effect of brimonidine on patients undergoing uncontrolled IOP with beta-blockers. Acta Ophthalmol Scand Suppl 2002 ;236 : 54 .
  It is not a RCT and has less than 100 patients
- "Taverniti, L., Voccia, L., Amoroso, L., De Stefano, C., and Virno, M. Ocular tension and pupil diameter effects of timolol 0.50% and pilocarpine 2% or 4% in association. Acta Ophthalmol Scand Suppl 97 ;(224): 55-6 .
  Does not address any key questions
- "Teekhasaenee, C. and Ritch, R. The use of PhEA 34c in trabeculectomy. Ophthalmology 86 ;93 (4): 487-91 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Tesha, P. E, Rehman, S. U, Amoaku, W. M K, Doran, R. M L, Menage, M. J, and Morrell, A. J. Investigation into the use of beta radiation as an adjunct to trabeculectomy in open angle glaucoma
  Meeting abstract
- "Teus Guezala, M. A., Arranz Marquez, E., Morales Bertrand, J., and Marcos De La Huerga, A. [Ocular hypotensive effect of pilocarpine in latanoprost treated eyes; a pilot study]
  Foreign language
- "Teus, M. A., Miglior, S., Laganovska, G., Volksone, L., Romanowska-Dixon, B., Gos, R., and Hollo, G. Efficacy and safety of travoprost/timolol vs dorzolamide/timolol in patients with open-angle glaucoma or ocular hypertension. Clin Ophthalmol 2009 ;3 : 629-36 .
  Other (specify):not FDA approved"
- "Tezel, G., Kolker, A. E., Kass, M. A., and Wax, M. B. Comparative results of combined procedures for glaucoma and cataract: I. Extracapsular cataract extraction versus phacoemulsification and foldable versus rigid intraocular lenses. Ophthalmic Surg Lasers 97 ;28 (7): 539-50 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Tezel, G., Kolker, A. E., Kass, M. A., and Wax, M. B. Comparative results of combined procedures for glaucoma and cataract: II. Limbus-based versus fornix-based conjunctival flaps. Ophthalmic Surg Lasers 97 ;28 (7): 551-7 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Tham, C. C., Lai, J. S., Poon, A. S., Lai, T. Y., and Lam, D. S. Results of trabeculectomy with adjunctive intraoperative mitomycin C in Chinese patients with glaucoma. Ophthalmic Surg Lasers Imaging 2006 ;37 (1): 33-41 .
  It is not a RCT and has less than 100 patients
- "Tham, C. C., Leung, D. Y., Yick, D. W., and Lam, D. S. Changes in the RNFL. Ophthalmology 2005 ;112 (7): 1319-20; author reply 1320-1 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "The Advanced Glaucoma Intervention Study (AGIS): 11. Risk factors for failure of trabeculectomy and argon laser trabeculoplasty. Am J Ophthalmol 2002 ;134 (4): 481-98 .
  Other (specify):link with other AGIS articles **Other (specify):**AGIS"

- "The Advanced Glaucoma Intervention Study (AGIS): 12. Baseline risk factors for sustained loss of visual field and visual acuity in patients with advanced glaucoma. Am J Ophthalmol 2002 ;134 (4): 499-512 .
  Other (specify):linkTo other AGIS articles **Other (specify):**AGIS"
- "The Advanced Glaucoma Intervention Study (AGIS): 4. Comparison ofTreatment outcomes within race. Seven-year results. Ophthalmology 98 ;105 (7): 1146-64 .
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- "The Advanced Glaucoma Intervention Study (AGIS): 7. The relationship between control of intraocular pressure and visual field deterioration.The AGIS Investigators. Am J Ophthalmol 2000 ;130 (4): 429-40 .
  Other (specify): Other (specify):AGIS"
- "The Advanced Glaucoma Intervention Study (AGIS): 9. Comparison of glaucoma outcomes in black and white patients withinTreatment groups. Am J Ophthalmol 2001 ;132 (3): 311-20 .
  Other (specify): Other (specify):AGIS"
- "The Advanced Glaucoma Intervention Study: 8. Risk of cataract formation afterTrabeculectomy. Arch Ophthalmol 2001 ;119 (12): 1771-9
  Other (specify): Other (specify):AGIS"
- "The effectiveness of intraocular pressure reduction in the treatment of normal-tension glaucoma. Collaborative Normal-Tension Glaucoma Study Group
- **Maier 2005 and Burr 2004 Maier 2005 and Burr 2004 "**
- "The European glaucoma prevention study (EGPS). Aims and methods. Acta Ophthalmol. Scand. Suppl. 99 ;77 (229): 12 .
- No original data (e.g., systematic review, narrative review, editorial, letter)
  Other (specify):link to EGPS, No original data (e.g., systematic review, narrative review, editorial, letter)"
- "The European glaucoma prevention study (EGPS). Aims and methods. Acta Ophthalmol. Scand. Suppl. 99 ;77 (229): 12 .
  Other (specify): Rolim de Moura 2009
- "The Levobunolol Study Group. Levobunolol. A beta-adrenoceptor antagonist effective in the long-term treatment of glaucoma. The Levobunolol Study Group
  Duplicate "
- "The ocular effects of prostaglandins and other eicosanoids
  Foreign language
- "Theeuwes, F., Bayne, W., and McGuire, J. Gastrointestinal therapeutic system for acetazolamide. Efficacy and side effects
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Thelen, U., Buchholz, P., and Kimmich, F. Treatment of patients with primary open-angle glaucoma with a fixed combination of brimonidine 0.2%/timolol 0.5%: multicenter, open-label, observational study in Germany. Curr Med Res Opin 2009 ;25 (4): 1003-9 .
  Other (specify): Study design does not match KQ (KQ3)"
- "Thelen, U., Weiler, W., Kirchhoff, E., Fuchs, H. B., and Stewart, W. C. Clinical experience in the treatment of normal tension glaucoma with latanoprost in Germany. J Ocul Pharmacol Ther 2007 ;23 (3): 311-3 .
  It is a case series
- "Thomas, R., Jacob, P., Braganza, A., Mermoud, A., and Muliyil, J. Releasable suture technique for trabeculectomy. Indian J Ophthalmol 97 ; 45 (1): 37-41 .
  It is a case series
- "Thomas, R., Parikh, R., and Muliyil, J. Comparison between phacoemulsification and the Blumenthal technique of manual small-incision cataract surgery combined with trabeculectomy. J Glaucoma 2003 ;12 (4): 333-9 .
  OAG can't be analyzed separately
- "Thomas, R., Parikh, R., Muliyil, J., George, R., Paul, P., and Abraham, L. M. Comparison between latanoprost and brimonidine efficacy and safety in Indian eyes. Indian J Ophthalmol 2003 ;51 (2): 123-8 .
  It is not a RCT and has less than 100 patients
- "Thomas, R., Parikh, R., Sood, D., Vijaya, L., Sekhar, G. C., Sood, N. N., Baskaran, M., and Prasad, K. K. Efficacy and safety of latanoprost for glaucoma treatment: a three-month multicentric study in India. Indian J Ophthalmol 2005 ;53 (1): 23-30 .
  Does not address any key questions
- "Thorburn, W. Comparison of timolol and pilocarpine combination versus concomitant therapy with separate components: A swedish multicenter study
  Excluded drug
- "Thorne, J. E., Maguire, A. M., and Lanciano, R. CME and anterior uveitis with latanoprost use. Ophthalmology 98 ;105 (11): 1981-3 .
  It is a case series
- "Thyer, H. W. and Wilson, P. Trabeculectomy. Br J Ophthalmol 72 ;
- 56 (1): 37-40 .
  It is not a RCT and has less than 100 patients
- "Thyer, H. W. Timolol: corneal anaesthesia. Med J Aust 80 ;1 (1): 34 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Thygesen, J. [Betaxolol. A new beta blockader with beta-1-selectivity in glaucoma treatment]

Foreign language

- "Ticho, U. and Nesher, R. Laser trabeculoplasty in glaucoma. Ten-year evaluation. Arch Ophthalmol 89 ;107 (6): 844-6 .

It is a case series

- "Ticho, U. and Ophir, A. Late complications after glaucoma filtering surgery with adjunctive 5-fluorouracil. Am J Ophthalmol 93 ;115 (4): 506-10 .

Data not abstractable

- "Ticho, U., Blumenthal, M., Zonis, S., Gal, A., Blank, I., and Mazor, Z. W. A clinical trial with Piloplex--a new long-acting pilocarpine compound: preliminary report. Ann Ophthalmol 79 ;11 (4): 555-61 .

It is not a RCT and has less than 100 patients

- "Tingey, D., Bernard, L. M., Grima, D. T., Miller, B., and Lam, A. Intraocular pressure control and persistence on treatment in glaucoma and ocular hypertension. Can J Ophthalmol 2005 ;40 (2): 161-9 .

Other (specify):Study design does not match KQ

- "Titouamane, S. and Baudouin, C. [Use of brimonidine 0.2% in treatment of glaucoma or ocular hypertony after poorly tolerated beta-blocker treatment]

Foreign language

- "Titouamane, S. and Baudouin, C. Use of brimonidine 0.2% in treatment of glaucoma or ocular hypertony after poorly tolerated (beta)-blocker treatment: Interet de la brimonidine 0,2% dans le traitement du glaucome ou de l'hypertension intraoculaire apres intolerance a un traitement par (beta)-bloquant

Duplicate "

- "Tomisaka, S., Nakanishi, T., and Hashimoto, A. Medical therapy of glaucoma with topical bupranolol hydrochloride. FOLIA OPHTHALMOL. JPN. 79 ;30 (8): 1167-1172 .

It is not a RCT and has less than 100 patients

- "Tomita, G., Araie, M., Kitazawa, Y., and Tsukahara, S. A three-year prospective, randomized and open comparison between latanoprost and timolol in Japanese normal-tension glaucoma patients

Medical KQ 3 or KQ 3 and KQ 6 only

- "Tomono, M. and Nanba, K. Long-term clinical trials of Pilocarpine Ocusert. (Second report). A further follow up study. FOLIA OPHTHALMOL. JPN. 81 ;32 (10): 2095-2099 .

It is not a RCT and has less than 100 patients

- "Toor, A., Chanis, R. A., Polikoff, L. A., Fahim, M. M., Sinha, A. P., and Serle, J. B. Additivity of pilocarpine to bimatoprost in ocular hypertension and early glaucoma

Non-FDA-approved drug combination

- "Toor, A., Fahim, M. M, Polikoff, L. A, Chanis, R. A, Sinha, A. P, and Serle, J. B. The Additivity of Pilocarpine to Bimatoprost in Early Glaucoma and Ocular Hypertension

Meeting abstract

- "Topical timolol and serum lipoproteins. Arch Ophthalmol 91 ;109 (10): 1341-2 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Topouzis, F., Melamed, S., Danesh-Meyer, H., Wells, A. P., Kozobolis, V., Wieland, H., Andrew, R., and Wells, D. A 1-year study to compare the efficacy and safety of once-daily travoprost 0.004%/timolol 0.5% to once-daily latanoprost 0.005%/timolol 0.5% in patients with open-angle glaucoma or ocular hypertension. Eur J Ophthalmol 2007 ;(2): 183-90 .

Other (specify):not FDA approved combination"

- "Topouzis, F., Yu, F., and Coleman, A. L. Factors associated with elevated rates of adverse outcomes after cyclodestructive procedures versus drainage device procedures. Ophthalmology 98 ;105 (12): 2276-81 **OAG can't be analyzed separately**

- "Toris, C. B., Camras, C. B., and Yablonski, M. E. Acute versus chronic effects of brimonidine on aqueous humor dynamics in ocular hypertensive patients. Am J Ophthalmol 99 ;128 (1): 8-14 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Toris, C. B., Gleason, M. L., Camras, C. B., and Yablonski, M. E. Effects of brimonidine on aqueous humor dynamics in human eyes. Arch Ophthalmol 95 ;113 (12): 1514-7 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Toris, C. B., Zhan, G. L., Zhao, J., Camras, C. B., and Yablonski, M. E. Potential mechanism for the additivity of pilocarpine and latanoprost. Am J Ophthalmol 2001 ;131 (6): 722-8 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Toris, C. B., Zhan, G., Fan, S., Dickerson, J. E., Landry, T. A., Bergamini, M. V., and Camras, C. B. Effects of travoprost on aqueous humor dynamics in patients with elevated intraocular pressure. J Glaucoma 2007 ;(2): 189-95 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Tornqvist, G. and Drolsum, L. K. Trabeculectomies. A long-term study. Acta Ophthalmol (Copenh) 91 ;69 (4): 450-4 .

It is a case series

- "Torres-Suarez, E., Rebolleda, G., Munoz Negrete, F. J., Cabarga, C., and Rivas, L. Influence of deep scleral flap size on intraocular pressure after deep sclerectomy. Eur J Ophthalmol 2007 ;(3): 350-6 .

Does not address any key questions

- "Tost, M. and Rasch, V. [Results of air impulse esthesiometry after administration of oftan-timolol]. Fortschr Ophthalmol 88 ;85 (2): 130-1 .

Does not address any key questions

- "Tost, M., Herde, J., Fincke, S., and Nook, O. [Tolerance and tachyphylaxis during the long-term local treatment of different forms of glaucoma with Arutimol]

Foreign language

- "Tous, H. M. and Nevarez, J. Comparison between the outcomes of combined phaco/trabeculectomy by cataract incision site. P R Health Sci J 2007 ;26 (1): 29-33 .

OAG can't be analyzed separately

- "Tran, D. H., Souza, C., Ang, M. J., Loman, J., Law, S. K., Coleman, A. L., and Caprioli, J. Comparison of long-term surgical success of Ahmed Valve implant versus trabeculectomy in open-angle glaucoma. Br J Ophthalmol 2009 ;93 (11): 1504-9 .

Does not address any key questions

- Traverso CE,Ropo A,Papadia M,Uusitalo H. A phase II study on the duration and stability of the intraocular pressure-lowering effect and tolerability of Tafluprost compared with latanoprost. Journal of ocular pharmacology and therapeutics : the official journal of the Association for Ocular Pharmacology and Therapeutics 2010; 26(1): 97-104.

OAG can't be analyzed separately

- "Traverso, C. E., Greenidge, K. C., and Spaeth, G. L. Formation of peripheral anterior synechiae following argon laser trabeculoplasty. A prospective study to determine relationship to position of laser burns. Archives of ophthalmology 84 ;102 (6): 861-3 .

Does not address any key questions

- "Traverso, C. E., Ropo, A., Papadia, M., and Uusitalo, H. A phase II study on the duration and stability of the intraocular pressure-lowering effect and tolerability of Tafluprost compared with latanoprost. J Ocul Pharmacol Ther 2010 ;26 (1): 97-104 .

Data not abstractable

- "Traverso, C. E., Tomey, K. F., and Antonios, S. Limbal- vs fornix-based conjunctival trabeculectomy flaps. Am J Ophthalmol 87 ; 104 (1): 28-32 .

- **Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study**

- "Traverso, C. E., Walt, J. G., Stern, L. S., and Dolgitser, M. Pharmacotherapy compliance in patients with ocular hypertension or primary open-angle glaucoma. J Ocul Pharmacol Ther 2009 ;25 (1): 77-82 .

Does not address any key questions

- "Tredici, T. J. and Epstein, D. L. Ocular complications of drug therapy. Aerosp Med 72 ;43 (8): 898-902 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Trepsat, C., Roussille, M., and Genoulaz, L. [Timolol maleate, a new beta-blocker in the treatment of chronic simple glaucoma]

Foreign language

- "Treseder, A. S. and Thomas, T. P. Sinus arrest due to timolol eye drops. Br J Clin Pract 86 ;40 (6): 256-8 .

Other (specify):case report of harm"

- "Tressler, C. S. Bimatoprost versus timolol and dorzolamide. Ophthalmology 2005 ;112 (2): 357-8; author reply 358-9 .

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Tressler, C. S., Cyrlin, M. N., and Fazio, R. MITOMYCIN C IN GLAUCOMA FILTERING SURGERY A COMPARISON OF SUBCONJUNCTIVAL TO INTRASCLERAL ADMINISTRATION

Meeting abstract

- "Tressler, C. S., Susanna, R. Jr, and Latin American Latanoprost Study Group. Latanoprost and Fixed Combination Dorzolamide + Timolol in Patients With Elevated Intraocular Pressure. An 8-week, Open-label, Multicenter Study in Latin America

Meeting abstract

- "Trinquand, C., Romanet, J. P., Nordmann, J. P., Allaire, C., and Groupe d'étude. [Efficacy and safety of long-acting carteolol 1% once daily. A double-masked, randomized study]
  Duplicate "
- "Trinquand, C., Romanet, J.-P., Nordmann, J.-P., and Allaire, C. Efficacy and safety of long-acting carteolol 1% once daily. A double-masked, randomized study: Efficacite et tolerance du carteolol 1% a liberation prolongee une fois par jour: Etude randomisee en double insu
  Foreign language
- "Trocme, S., Hwang, L. J., Bean, G. W., and Sultan, M. B. The role of benzalkonium chloride in the occurrence of punctate keratitis: a meta-analysis of randomized, controlled clinical trials
  Systematic review
- "Troiano, P., Cavallotti, B., Iraci, M., Galli, L., and Miglior, M. Pressure-reducing efficacy and tolerability of betaxolol in ionic solution
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Troiano, P., Oldani, A., Gozzini, C., Iraci, M., Dalpozzo, R., Baratta, M., and De Mattia, M. Latanoprost 0.005%: evaluation of its effect on accommodative capacity. Acta Ophthalmol Scand Suppl 2000 ;(232): 52-
  No subjects with open-angle glaucoma
- "Troutbeck, R., Lee, G. A., Sanfilippo, P., and Fleming, B. Trabeculectomy: a training dilemma. Eye (Lond) 2007 ;21 (2): 183-6 .
  Animal or in vitro data
- "Tsai, J. C. A comprehensive perspective on patient adherence to topical glaucoma therapy
  Systematic review
- "Tsai, J. C., Johnson, C. C., and Dietrich, M. S. The Ahmed shunt versus the Baerveldt shunt for refractory glaucoma: a single-surgeon comparison of outcome. Ophthalmology 2003 ;110 (9): 1814-21 .
  OAG can't be analyzed separately
- "Tsai, J. C., Johnson, C. C., Kammer, J. A., and Dietrich, M. S. The Ahmed shunt versus the Baerveldt shunt for refractory glaucoma II: longer-term outcomes from a single surgeon. Ophthalmology 2006 ;113 (6): 913-7 .
  Other (specify):Study design does not match KQ
- "Tsironi, S., Konstas, A. G. P., Pikilidou, M. I., Mikropoulos, D., Kozobolis, V. P., Lasarides, A. N., and Stewart, W. C. 24-Hour Intraocular Pressure and Blood Pressure Control With Latanoprost/Timolol Maleate Fixed Combination QPM and Timolol Maleate BID in Primary Open Angle Glaucoma Patients
  Meeting abstract
- "Tsukamoto, H., Mishima, H. K., Kitazawa, Y., Araie, M., Abe, H., and Negi, A. A comparative clinical study of latanoprost and isopropyl unoprostone in Japanese patients with primary open-angle glaucoma and ocular hypertension. J Glaucoma 2002 ;11 (6): 497-501 .
  Other (specify):unoprostone"
- "Tsukamoto, H., Noma, H., and Mishima, H. K. Correlation between the additive effect of bunazosin and the response to latanoprost on intraocular pressure in patients with glaucoma treated with bunazosin as adjunctive therapy to latanoprost. Jpn J Ophthalmol 2006 ;50 (1): 65-7 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Tsukamoto, H., Noma, H., Matsuyama, S., Ikeda, H., and Mishima, H. K. The efficacy and safety of topical brinzolamide and dorzolamide when added to the combination therapy of latanoprost and a beta-blocker in patients with glaucoma
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Tsukamoto, H., Noma, H., Mukai, S., Ikeda, H., and Mishima, H. K. The efficacy and ocular discomfort of substituting brinzolamide for dorzolamide in combination therapy with latanoprost, timolol, and dorzolamide
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Tsukamoto, H., Yokoyama, T., Okada, K., Okada, M., Mochizuki, H., and Mishima, H. K. Substituting latanoprost (Xalatan(TM)) for isopropyl unoprostone (Rescula(TM)) in monotherapy and combination therapy [1]. Acta Ophthalmol. Scand. 2000 ;78 (5): 604-605 .
  Does not address any key questions
- "Tsuru, T., Kitazawa, Y., Usui, M., Ueno, S., Azuma, I., and Masuda, K. The additive effects on intraocular pressure of combining nipradilol 0.25% and latanoprost 0.005% ophthalmic solutions: a prospective, randomized, multicenter study. Jpn J Ophthalmol 2008 ;52 (5): 368-73 .
- **Does not include treatment for open-angle glaucoma (medical, surgical or combined)**
- "Tsyganko, T. A. [Immediate and late results of trabeculectomy in glaucoma]
  Foreign language

- "Tugushi, O. A., Shliapuzhnikova, A. V., and Listopadova, N. A. [Comparative analysis of life quality in patients receiving beta-blockers and xalathane (latanoprost)]
  Foreign language
- "Tuli, S. S., WuDunn, D., Ciulla, T. A., and Cantor, L. B. Delayed suprachoroidal hemorrhage after glaucoma filtration procedures. Ophthalmology 2001 ;108 (10): 1808-11 .
  Data not abstractable
- "Tumbocon, J. A, Latina, M. A, Frenkel, R. E P, and Gosengfiao, D. THE EFFECTS OF TOPICAL DORZOLAMIDE AND BRIMONIDINE ON RETINAL CAPILLARY. BLOOD FLOW: A CROSSOVER STUDY IN PATIENTS WITH OPEN-ANGLE GLAUCOMA
  Meeting abstract
- "Tuovinen, E. [Treatment of chronic glaucoma]
  Foreign language
- "Turacli, E., Budak, K., Kaur, A., Mizrak, B., and Ekinci, C. The effects of long-term topical glaucoma medication on conjunctival impression cytology. Int Ophthalmol 97 ;21 (1): 27-33 .
  OAG can't be analyzed separately
- "Turacli, E., Gunduz, K., Aktan, G., and Tamer, C. A comparative clinical trial of mitomycin C and cyclosporin A in trabeculectomy. Eur J Ophthalmol 96 ;6 (4): 398-401 .
  No subjects with open-angle glaucoma
- "Turacli, M. E., Gunduz, K., Aktan, G., and Sencer, H. Topical cyclosporine as a possible new antimetabolite in trabeculectomy. Ophthalmic Surg Lasers 96 ;27 (6): 438-44 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Turacli, M. E., Gunduz, K., Aktan, G., and Sencer, H. Trabeculectomy with mitomycin C: an electron microscopic and clinical study. Int Ophthalmol 95-96 ;(6): 337-46 .
  Data not abstractable
- "Turgut, B., Turkcuoglu, P., Guler, M., Akyol, N., Celiker, U., and Demir, T. Anosmia as an adverse effect of dorzolamid. Acta Ophthalmol Scand 2007 ;85 (2): 228-9 .
  It is a case series
- "Tuulonen, A. Economic considerations of the diagnosis and management for glaucoma in the developed world
  Systematic review
- "Tuulonen, A. Is more always better?. Acta Ophthalmol Scand 2004 ;82 (4): 377-9 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Tuulonen, A. The effect of topical indomethacin on acute pressure elevation of laser trabeculoplasty in capsular glaucoma. Acta ophthalmologica 85 ;63 (2): 245-9 .
  Does not address any key questions
- "Tuulonen, A., Niva, A. K., and Alanko, H. I. A controlled five-year follow-up study of laser trabeculoplasty as primary therapy for open-angle glaucoma. Am J Ophthalmol 87 ;104 (4): 334-8 .
  It is not a RCT and has less than 100 patients
- "Twer, A., Anand, R., and Kooner, K. S. LOW DOSE VS HIGH DOSE MITOMYCIN-C WITH GLAUCOMA FILTRATION SURGERY IN PATIENTS WITH PRIMARY OPEN ANGLE GLAUCOMA
  Meeting abstract
- "Two new beta-blockers for glaucoma. Med Lett Drugs Ther 86 ; 28 (712): 45-6 .
- **No original data (e.g., systematic review, narrative review, editorial, letter)**
- "Uchida, S., Suzuki, Y., Araie, M., Shigeeda, T., Hara, T., and Shirato, S. Long-term follow-up of initial 5-fluorouracil trabeculectomy in primary open-angle glaucoma in Japanese patients. J Glaucoma 2001 ;10 (6): 458-65 .
  Other (specify):case series
- "Ulbig, M. W., McHugh, D. A., McNaught, A. I., and Hamilton, A. M. Clinical comparison of semiconductor diode versus neodymium: YAG non-contact cyclo photocoagulation. Br J Ophthalmol 95 ;79 (6): 569-74 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Ullman, S., Fisher, S. J., Lavine, J. B., Mandell, A. I., and Ostrov, C. S. OCULAR HYPOTENSIVE EFFECT OF COMBINATION AGENT LEVOBUNOLOL 0.5%/DIPIVEFRIN 0.1%
  Meeting abstract
- "Ung, C. T., Von Lany, H., and Claridge, K. G. Late bleb needling. Br J Ophthalmol 2003 ;87 (11): 1430-1 .
  It is a case series
- "Urban, V., Kammann, M. T., and Sturmer, J. P. [Glaucoma and cataract: combined operation or trabeculectomy first and cataract extraction later?]

Foreign language

- "Uretmen, O., Ates, H., Guven, S., and Andac, K. Comparison of outcomes of viscocanalostomy and phacoviscocanalostomy

Foreign language

- "Urner-Bloch, U., Bucheli, J., Eltz, H., Gloor, B., and Aeschlimann, J. [Clinical trials of various glaucoma drugs acting on the adrenergic system (author's transl)]. Klin Monbl Augenheilkd 80 ;176 (4): 555-7 .

It is not a RCT and has less than 100 patients

- "Urtti, A., Rouhiainen, H., Kaila, T., and Saano, V. Controlled ocular timolol delivery: Systemic absorption and intraocular pressure effects in humans. PHARM. RES. 94 ;11 (9): 1278-1282 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Uusitalo, H., Chen, E., Pfeiffer, N., Brignole-Baudouin, F., Kaarniranta, K., Leino, M., Puska, P., Palmgren, E., Hamacher, T., Hofmann, G., Petzold, G., Richter, U., Riedel, T., Winter, M., and Ropo, A. Switching from a preserved to a preservative-free prostaglandin preparation in topical glaucoma medication
- **Tafluprost "**
- "Uusitalo, H., Kahonen, M., Ropo, A., Maenpaa, J., Bjarnhall, G., Hedenstrom, H., and Turjanmaa, V. Improved systemic safety and risk-benefit ratio of topical 0.1% timolol hydrogel compared with 0.5% timolol aqueous solution in the treatment of glaucoma. Graefes Arch Clin Exp Ophthalmol 2006 ;244 (11): 1491-6 .

Other (specify):T-gel not FDA approved"

- "Uusitalo, H., Pillunat, L. E., and Ropo, A. Efficacy and safety of tafluprost 0.0015% versus latanoprost 0.005% eye drops in open-angle glaucoma and ocular hypertension: 24-month results of a randomized, double-masked phase III study. Acta Ophthalmol 2010 ;88 (1): 12-9 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Uusitalo, R. J. and Palkama, A. Efficacy and safety of timolol/pilocarpine combination drops in glaucoma patients. Acta Ophthalmol (Copenh) 94 ; 72 (4): 496-504 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Uusitalo, R. J. and Palkama, A. Long-term evaluation of timolol. Acta Ophthalmol (Copenh) 89 ;67 (5): 573-81 .

Data not abstractable

- "Uusitalo, R. J., Palkama, A., and Stjernschantz, J. A study of the efficacy of two commercial preparations of timolol maleate with special reference to side effects
- **Medical KQ 3 or KQ 3 and KQ 6 only**
- Uva MG, Longo A, Reibaldi M. Pneumatic trabeculoplasty versus argon laser trabeculoplasty in primary open-angle glaucoma. Ophthalmologica. Journal international d'ophtalmologie. International journal of ophthalmology. Zeitschrift für Augenheilkunde 2010. 224(1): 10-5.

Other (specify): Not a comparison we are interested in (pneumatic trabeculoplasty)

- "Uva, M. G., Avitabile, T., Panta, G., Cro, M., Giuffrida, S., and Reibaidi, A. A NEW ANTI-GLAUCOMA MUCOADHESIVE ASSOCIATION: 0.5% TIMOLOL - 2% PILOCARPINE IN SODIUM HYALURONATE VEHICLE AND ITS IOP LOWERING EFFECTS

Meeting abstract

- "Uva, M. G., Avitabile, T., Panta, G., Russo, V., and Reibaldi, A. INTRAOPERATIVE 5-FU PLUS TITRATED TRABECULECTOMY: OUR PRELIMINARY RESULTS

Meeting abstract

- "Uva, M. G., Longo, A., and Reibaldi, M. Pneumatic trabeculoplasty versus argon laser trabeculoplasty in primary open-angle glaucoma. Ophthalmologica 2010 ;224 (1): 10-5 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Uva, M. G., Longo, A., and Reibaldi, M. Pneumatic trabeculoplasty vs latanoprost as adjunctive therapy to timolol in primary open-angle glaucoma or ocular hypertension. Graefes Arch Clin Exp Ophthalmol 2009 ;247 (8): 1103-9 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Uva, M. G., Russo, V., Longo, A., Ott, J. P., and Reibaldi, A. 2% dorzolamide and cornea: an ultrabiomicroscopic study. Acta Ophthalmol Scand Suppl 97 ;(224): 23-4 .

It is not a RCT and has less than 100 patients

- "Uva, M., Avitabile, T., Russo, V., Ott, J., D'Agata, V., and Reibaldi, A. IS YAG LASER IRIDOTOMY USEFUL IN CASE OF PIGMENTARY GLAUCOMA?

Meeting abstract

- "Vahidassr, M. D., Foy, C. J., O'Malley, T., and Passmore, A. P. Eye drops and lethargy. J R Soc Med 97 ;90 (3): 155 .
  It is a case series
- "Vaidergorn, Paulo Gelman, Susanna J·nior, Remo, Borges, Adriana Silva, and Giampani J·nior, Jair. Tempo de terapWutica propiciado por frasco de colÆrios hipotensores oculares
  Foreign language
- "Vaidergorn, Paulo Gelman, Susanna Jr, Remo, Oliveira, Cleriston Lucena de, Sakata, Lisandro, Zacharias, Leandro Cabral, and Barreto Jr, Jackson. Prova de sobrecarga hÆdrica em pacientes submetidos a trabeculoplastia
  Foreign language
- "Vainio-Jylha, E., Vuori, M. L., and Nummelin, K. Progression of retinal nerve fibre layer damage in betaxolol- and timolol-treated glaucoma patients. Acta Ophthalmol Scand 2002 ;80 (5): 495-500 .
  No subjects with open-angle glaucoma
- "Vajaranant, T. S., Price, M. O., Price, F. W., Gao, W., Wilensky, J. T., and Edward, D. P. Visual acuity and intraocular pressure after Descemet's stripping endothelial keratoplasty in eyes with and without preexisting glaucoma
  Systematic review
- "Vajaranant, T. S., Price, M. O., Price, F. W., Gao, W., Wilensky, J. T., and Edward, D. P. Visual acuity and intraocular pressure after Descemet's stripping endothelial keratoplasty in eyes with and without preexisting glaucoma. Ophthalmology 2009 ;116 (9): 1644-50 .
  Does not address any key questions (see below for questions), **It is a case series**
- "Valimaki, J., Airaksinen, P. J., Tuulonen, A., and Risteli, J. Postoperative systemic corticosteroid treatment and Molteno implant surgery: a randomized clinical trial. Acta Ophthalmol Scand 99 ;77 (1): 50-6 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Val'kova, I. V. and Petukhova, M. S. [A modified glaucoma operation with incisions]
  Foreign language
- Valle MJ, MartÆnez A, MarÆa R. Eficacia de la mitomicina C vs 5 fluoracilo en trabeculectomÆa de pacientes con diagn£stico de glaucoma primario de bngulo abierto atendidos en el Centro Nacional de OftalmologÆa de noviembre del 2001-noviembre del 2002 Welsh unable to locate PDF
- "Valle, O., Klemetti, A., and Takki, K. K. [Timolol maleate in the treatment of chronic open-angle glaucoma]
  Foreign language
- "Valnickova, J. [Results of long-term treatment of glaucoma with timolol]
  Foreign language
- "Van Beek, L. M., De Keizer, R. J. W., Polak, B. G. P., Elzenaar, P. R., Van Haeringen, N. J., and Kijlstra, A. Incidence of ocular side effects of topical (beta) blockers in the Netherlands. Br. J. Ophthalmol. 2000 ; 84 (8): 856-859 .
  It is a case series
- "van Beuningen, E. [The importance of stabilised drug therapy of glaucoma (glaucoma simplex)]
  Foreign language
- "Van Buskirk, E. M. Adverse reactions from timolol administration. Ophthalmology 80 ;87 (5): 447-50 .
  OAG can't be analyzed separately
- "Van Buskirk, E. M. and Fraunfelder, F. T. Ocular beta-blockers and systemic effects. Am J Ophthalmol 84 ;98 (5): 623-4 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Van Buskirk, E. M. The laser step in early glaucoma therapy. Am J Ophthalmol 91 ;112 (1): 87-90 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "van der Valk, R., Webers, C. A., Hendrikse, F., de Vogel, S. C., Prins, M. H., and Schouten, J. S. Predicting intraocular pressure change before initiating therapy: timolol versus latanoprost. Acta Ophthalmol 2008 ; 86 (4): 415-8 .
  Other (specify):Study design does not match KQ
- "van der Valk, R., Webers, C. A., Lumley, T., Hendrikse, F., Prins, M. H., and Schouten, J. S. A network meta-analysis combined direct and indirect comparisons between glaucoma drugs to rank effectiveness in lowering intraocular pressure
  Systematic review
- "van Gestel, A., Webers, C. A., Beckers, H. J., van Dongen, M. C., Severens, J. L., Hendrikse, F., and Schouten, J. S. The relationship between visual field loss in glaucoma and health-related quality-of-life. Eye (Lond) 2010 ;24 1759-69 .
  It is a case series

- "Van Oye, R., De Sutter, E., and De Bie, S. The effect of timolol maleate on the fellow eye. Bull Soc Belge Ophtalmol 80 ;191 : 69-74 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "VanDenBurgh, A. M., Laibovitz, R. A., and Felix, C. A NOVEL OCULAR HYPOTENSIVE LIPID: INITIAL SAFETY AND EFFICACY OF AGN 192024
  Meeting abstract
- "VanDenburgh, A. M., Laibovitz, R. A., and Felix, C. A ONE-MONTH DOSE-RESPONSE STUDY OF AGN 192024, A NOVEL ANTIGLAUCOMA AGENT, IN PATIENTS WITH ELEVATED INTRAOCULAR PRESSURE
  Meeting abstract
- "Varga, M. and Follmann, P. [Ultrastructural studies of the conjunctival surface following long-term treatment with timolol]
  Foreign language
- "Varma R, Hwang LJ, Grunden JW, and Bean GW. Using diurnal intraocular pressure fluctuation to assess the efficacy of fixed-combination latanoprost/timolol versus latanoprost or timolol monotherapy. The British journal of ophthalmology 2010 ;94 (1): 80-4 .
  It is not a RCT and has less than 100 patients
- "Varma, R., Hwang, L. J., Grunden, J. W., and Bean, G. W. Using diurnal intraocular pressure fluctuation to assess the efficacy of fixed-combination latanoprost/timolol versus latanoprost or timolol monotherapy. Br J Ophthalmol 2010 ;94 (1): 80-4 .
  Other (specify):not FDA approved"
- "Varma, R., Hwang, L. J., Grunden, J. W., Bean, G. W., and Sultan, M. B. Assessing the efficacy of latanoprost vs timolol using an alternate efficacy parameter: the intervisit intraocular pressure range
  Systematic review
- "Varma, R., Hwang, L. J., Grunden, J. W., Bean, G. W., and Sultan, M. B. Assessing the efficacy of latanoprost vs timolol using an alternate efficacy parameter: the intervisit intraocular pressure range. Am J Ophthalmol 2009 ;148 (2): 221-6 .
  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Vasinca, I. D., Furtuna, A., Vasinca, D., and Cociu, M. [Laser trabeculoplasty--3 years of experience]
  Foreign language
- "Vass, C., Menapace, R., Strenn, K., and Rainer, G. Episcleral versus combined episcleral and intrascleral application of mitomycin-C in trabeculectomy. Ophthalmic Surg Lasers 98 ;29 (9): 714-21 .
  It is not a RCT and has less than 100 patients
- "Velloso, Luiz. Tunelizagåo da trabeculectomia
  Foreign language
- "Ventura, Antonio Guilherme Gonsalves de Melo, Cavalcanti, Hellmann Dantas Olinda, Holanda, Andrqa Gifoni Siebra de, Cardoso, Get lio, and Trigueiro, LuÆs. Tratamento de bolhas hiperfiltrantes por sutura de compressPo
  Foreign language
- "Verin, P., Vildy, A., Cales, R., and Bapt, J. B. [New indications for timoptol eyedrops]
  Foreign language
- "Verkens, J. and Hennekes, R. Cyclocryocoagulation vs. trabeculectomy in primary glaucoma: a long-term intra-individual comparison of intra-ocular pressure. Bull Soc Belge Ophtalmol 99 ;273 : 57-63 .
  It is not a RCT and has less than 100 patients
- "Verma, N. and Fromberg, G. Combined argon laser iridoplasty and trabeculoplasty in the management of open angle glaucomas. Indian J Ophthalmol 86 ;34 : 221-3 .
  Data not abstractable
- "Vesti, E. Development of cataract after trabeculectomy. Acta Ophthalmol (Copenh) 93 ;71 (6): 777-81 .
  It is not a RCT and has less than 100 patients
- "Vetrugno, M., Cardascia, N., Cantatore, F., and Sborgia, C. Comparison of the effects of bimatoprost and timolol on intraocular pressure and pulsatile ocular blood flow in patients with primary open-angle glaucoma: A prospective, open-label, randomized, two-arm, parallel-group study
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Vetrugno, M., Maino, A., Cantatore, F., Ruggeri, G., and Cardia, L. Acute and chronic effects of brimonidine 0.2% on intraocular pressure and pulsatile ocular blood flow in patients with primary open-angle glaucoma: an open-label, uncontrolled, prospective study. Clin Ther 2001 ; 23 (9): 1519-28 .
  It is not a RCT and has less than 100 patients
- "Vetrugno, M., Sborgia, C., Balestrazzi, E., Bianchi, C., Caporossi, A., Nardi, M., Rapisarda, A., Tassinari, G., and Zeppa, L. Efficacy and safety of bimatoprost in patients with uncontrolled glaucoma as alternative to filtration surgery. Eur J Ophthalmol 2005 ;15 (4): 477-81 .

It is not a RCT and has less than 100 patients

- "Vieira, Juan Carlos, Gonzblez Vivas, Deodq, and Reyes Feo, MarÆa Victoria. Uso intraopertaorio de Mitomicina C en cirugÆa filtrante de glaucoma

Foreign language

- "Vilaplana, J., Zaballos, P., and Romaguera, C. Contact dermatitis by dipivefrine. Contact Dermatitis 2005 ;52 (3): 169-70 .

It is a case series

- "Villon, J. C., Dubiez, M., Charleux, J., and Etienne, R. [Remote tonometric results of trabeculectomy]

Foreign language

- "Villumsen, J. and Alm, A. PhXA34--a prostaglandin F2 alpha analogue. Effect on intraocular pressure in patients with ocular hypertension. Br J Ophthalmol 92 ;76 (4): 214-7 .

Does not include treatment for open-angle glaucoma (medical, surgical or combined)

- "Villumsen, J. and Alm, A. The effect of adding prostaglandin F2 alpha-isopropylester to timolol in patients with open angle glaucoma. Arch Ophthalmol 90 ;108 (8): 1102-5 .

Does not address any key questions

- "Vinuesa-Silva, J. M., Vinuesa-Silva, I., Pinazo-Duran, M. D., Soto-Alvarez, J., Delgado-Ortega, L., and Diaz-Cerezo, S. [Development of conjunctival hyperemia with the use of a fixed combination of latanoprost/timolol: systematic review and meta-analysis of clinical trials]

Systematic review

- "Virno, M., De Gregorio, F., D'Ubaldo, E., Sallucci, S., De Stefano, C., and Sedran, L. Effects of adrenergics, adrenolytics, cholinergics and carbonic anhydrase inhibitors on ibopamine-induced ocular hypertension in POAG. Acta Ophthalmol Scand Suppl 97 ;(224): 25-6 .

Does not address any key questions

- "Virno, M., Missori, E., Pecori Giraldi, J., and Pica, B. Double-blind study of timolol and pilocarpine in open-angle glaucoma: CONFRONTO A DOPPIO CIECO TRA TIMOLOLO E PILOCARPINA NEL GLAUCOMA AD ANGOLO APERTO

Foreign language

- "Virno, M., Pecori-Giraldi, J., Pivetti-Pezzi, P., and Leonardi, E. [Ocular hypotonic effect of hematic acidifying agents: carbonic anhydrase inhibitors]

Foreign language

- "Vizzeri, G., Weinreb, R. N., Martinez de la Casa, J. M., Alencar, L. M., Bowd, C., Balasubramanian, M., Medeiros, F. A., Sample, P., and Zangwill, L. M. Clinicians agreement in establishing glaucomatous progression using the Heidelberg retina tomograph

Systematic review

- "Vogel, A. [European Glaucoma Prevention Study (EGPS). Examination of the effectiveness of dorzolamide on the reduction of intraocular pressure for prevention of glaucoma in patients with ocular hypertension]

Meeting abstract

- "Vogel, R, Clineschmidt, CM, Kulaga, SF, Lewis, GP, Ryan, JR, Tipping and others. Comparison of the ocular tolerability of two beta-adrenergic antagonists: timolol and betaxolol. Glaucoma 88 ;10 : 71-5 .

Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study

- "Vogel, R. Surface toxicity of timolol. Ophthalmology 93 ;100 (3): 293-4

No original data (e.g., systematic review, narrative review, editorial, letter)

- "Vogel, R., Crick, R. P., Mills, K. B., Reynolds, P. M., Sass, W., Clineschmidt, C. M., and Tipping, R. Effect of timolol versus pilocarpine on visual field progression in patients with primary open-angle glaucoma. Ophthalmology 92 ;99 (10): 1505-11 .

Other (specify):cannot find age"

- "Vogel, R., Tipping, R., Kulaga Jr., S. F., and Clineschmidt, C. M. Changing therapy from timolol to betaxolol: Effect on intraocular pressure in selected patients with glaucoma

Medical KQ 3 or KQ 3 and KQ 6 only

- "Vogel, R., Tipping, R., Kulaga, S. F., and Clineschmidt, C. M. Changing therapy from timolol to betaxolol. Effect on intraocular pressure in selected patients with glaucoma. Timolol-Betaxolol Study Group

Medical KQ 3 or KQ 3 and KQ 6 only

- "Vold, S. D., Evans, R. M., Stewart, R. H., Walters, T., and Mallick, S. A one-week comfort study of BID-dosed brinzolamide 1%/timolol 0.5% ophthalmic suspension fixed combination compared to BID-dosed dorzolamide 2%/timolol 0.5% ophthalmic solution in patients with open-angle glaucoma or ocular hypertension. J Ocul Pharmacol Ther 2008 ; 24 (6): 601-5 .

Other (specify):involves non FDA approved drug combo"

- "Vold, S. D., Krupin, T., Ruderman, J. M., and Tanaka, G. LONG-TERM OUTCOMES OF INITIAL TRABECULECTOMY WITH 5-FLUOROURACIL
  Meeting abstract
- "Vonwil, A., L, olt, M., Flammer, J., and Bachofen, H. Treatment of glaucoma with topical timolol: Bronchoconstrictive side effect in patients with obstructive lung disease
  Duplicate of 9584 "
- "Vonwil, A., Landolt, M., Flammer, J., and Bachofen, H. [Bronchoconstrictive side effects of timolol eye drops in patients with obstructive lung disease]
  Foreign language
- "Vonwil, A., Landolt, M., Flammer, J., and Bachofen, H. Treatment of glaucoma with topical timolol: Bronchoconstrictive side effect in patients with obstructive lung disease. BRONCHOKONSTRIKTIVE NEBENWIRKUNG VON TIMOLOL-AUGENTROPFEN BEI PATIENTEN MIT OBSTRUKTIVEN LUNGENERKRANKUNGEN
  Foreign language
- "Voudouri, A., Zafirakis, P., Livir-Rallatos, G., Markomichelakis, N., Mitsonis, I., and Baltatzis, S. Standard versus separate phacotrabeculectomy: a randomized study
  Meeting abstract
- "Vuori, M. L. and Viitanen, T. ""Scleral tunnel incision""-trabeculectomy with one releasable suture. Acta Ophthalmol Scand 2001 ;79 (3): 301-4 .
  OAG can't be analyzed separately
- "Vyas, A. V., Bacon, P. J., and Percival, S. P. Phacotrabeculectomy: comparison of results from 3.5- and 5.2-mm incisions. Ophthalmic Surg Lasers 98 ;29 (3): 227-33 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Vyas, A. V., Bacon, P. J., and Percival, S. P. The benefits of phacotrabeculectomy using 10-0 polyglactin sutures. Eye (Lond) 99 ; 13 (Pt 2) : 215-20 .
  It is a case series
- "Vymazal, M., Valkova, Z., Polachova, M., Dokonalova, E., Dragounova, H., and Jezdinsky, J. [Clinical trial of Pilogel HS made by Alcon]
  Foreign language
- "Wade, A. and Banla, M. [Long-term tonometric results of trabeculectomy in Black Africa patients (apropos of 119 cases of chronic open-angle glaucoma surgically treated at the Ophthalmological Clinical of University Medical Center at Dakar)]
  Foreign language
- "Waheed, K. and Laganowski, H. Bilateral poliosis and granulomatous anterior uveitis associated with latanoprost use and apparent hypotrichosis on its withdrawal. Eye (Lond) 2001 ;15 (Pt 3): 347-9 .
  It is a case series
- "Wakili, N., Seitz, B., Hayler, J., Handel, A., and Junemann, A. Impact of cataract surgery on intraocular pressure after filtering operation due to primary open angle glaucoma and secondary glaucoma in pseudoexfoliation syndrome: Augeninnendruck bei kataraktoperation nach filtrierender operation wegen primarer offenwinkelglaukome und sekundaer Offenwinkeiglaukome bei pseudoexfoliationssyndrom. Klin. Monatsbl. Augenheilkd. 2002 ;219 (3): 132-137 .
  It is not a RCT and has less than 100 patients
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  Meeting abstract
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Foreign language

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  Meeting abstract
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  Meeting abstract

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- "Wu, N. Z. [Evaluation of timolol in the treatment of glaucoma (author's transl)]
  Foreign language
- "WuDunn, D., Cantor, L. B., Palanca-Capistrano, A. M., Hoop, J., Alvi, N. P., Finley, C., Lakhani, V., Burnstein, A., and Knotts, S. L. A prospective randomized trial comparing intraoperative 5-fluorouracil vs mitomycin C in primary trabeculectomy. Am J Ophthalmol 2002 ;134 (4): 521-8 .
  Data not abstractable
- "WuDunn, D., Palanca-Capistrano, A. M., Hall, J., Cantor, L. B., and Morgan, L. Long-Term Outcomes of Intraoperative 5-Fluorouracil Versus Intraoperative Mitomycin C in Primary Trabeculectomy Surgery
  Meeting abstract
- "WuDunn, D., Phan, A. D., Cantor, L. B., Lind, J. T., Cortes, A., and Wu, B. Clinical experience with the Baerveldt 250-mm2 Glaucoma Implant. Ophthalmology 2006 ;113 (5): 766-72 .
  Other (specify): No comparison"
- "Wyse, T., Meyer, M., Ruderman, J. M., Krupin, T., Talluto, D., Hernandez, R., and Rosenberg, L. F. Combined trabeculectomy and phacoemuisification: A one-site vs a two- site approach. Am. J. Ophthalmol. 98 ;125 (3): 334-339 .
  It is not a RCT and has less than 100 patients
- "Wyse, T., Meyer, M., Ruderman, J. M., Krupin, T., Talluto, D., Hernandez, R., and Rosenberg, L. F. Combined trabeculectomy and phacoemulsification: a one-site vs a two-site approach. Am J Ophthalmol 98 ;125 (3): 334-9 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Wyse, T., Ruderman, J., Talluto, D., Krupin, T., Meyer, M., and Hernandez, R. COMBINED TRABECULECTOMY AND PHACOEMULSIFICATION: TWOSITE VERSUS ONE-SITE APPROACH
  Meeting abstract
- "Xia, X., Huang, P., Jiang, Y., Wang, C., and Yang, C. [The clinical effect after locally using mitomycin C during trabeculectomy in glaucoma]
  Foreign language
- "Xiabo, X., Peigang, H., Youqing, J., Chenye, W., and Changquan, Y. The clinical effect after partial using mitomycin C during trabeculectomy in glaucoma
  Foreign language

- "Xiong, X. L, Jiang, Y. Q, and Wu, Z. Z. [The anti-cicatrization effect of low dosage 5-Furacil after trabeculectomy in late glaucoma]
  Duplicate "
- "Xiong, X. L. [The anti-cicatrization effect of low dosage 5-Fu after trabeculectomy in late glaucoma]
  Foreign language
- "Xiong, X., Jiang, Y., Wu, Z., and Jiang, Y. Long-term efficacy of low dosage of 5-Fu after trabeculectomy in late glaucoma on anti-fibroblasts proliferation
  Foreign language
- "Xu, D.-H., Hao, L., and Liu, W.-L. Effects comparison on three implanted materials in NPTS operation
  Foreign language
- "Xu, L., Ma, K., and Zhang, W. Clinical observation of the effect of (beta) Ophtiole on reducing intraocular pressure in glaucoma patients
  Meeting abstract
- "Xu, X. L., Mialhe, J. P., Bec, P., and Arne, J. L. [Argon laser trabeculoretraction in chronic open-angle glaucoma. Personal results based on 100 eyes]. J Fr Ophtalmol 85 ;8 (3): 219-25 .
  OAG can't be analyzed separately
- "Yablonski, M. E., Novack, G. D., Burke, P. J., Cook, D. J., and Harmon, G. The effect of levobunolol on aqueous humor dynamics. Exp Eye Res 87 ;44 (1): 49-54 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Yaldo, M. K., Shin, D. H., and Lee, S. Y. The Additive Effects of 1 % Apraclonidine to Non-Selective â-Blockers
  Meeting abstract
- "Yalon, M., Urinowsky, E., Rothkoff, L., Treister, G., and Blumenthal, M. Frequency of timolol administration. Am J Ophthalmol 81 ;92 (4): 526-9 .
  It is not a RCT and has less than 100 patients
- "Yalvac, I. S., Sahin, M., Eksioglu, U., Midillioglu, I. K., Aslan, B. S., and Duman, S. Primary viscocanalostomy versus trabeculectomy for primary open-angle glaucoma: three-year prospective randomized clinical trial
  Cheng 2009 and Chai 2010
- "Yalvac, I., Airaksinen, P. J., and Tuulonen, A. Phacoemulsification with and without trabeculectomy in patients with glaucoma. Ophthalmic Surg Lasers 97 ;28 (6): 469-75 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Yamamoto, T. and Kuwayama, Y. Interim clinical outcomes in the collaborative bleb-related infection incidence and treatment study. Ophthalmology 2011 ;118 (3; status =Department of Ophthalmology, Gifu University Graduate School of Medicine, Gifu, Japan.): 453-8 .
  OAG can't be analyzed separately
- "Yamamoto, T., Kitazawa, Y., Azuma, I., Tsukahara, S., and Nakashima, M. Clinical evaluation of a new formula of timolol maleate (WP-934 ophthalmic solution)
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Yamamoto, T., Kitazawa, Y., Azuma, I., Tsukahara, S., and Nakashima, M. Clinical evaluation of a new formula of timolol maleate (WP-934 ophthalmic solution). WP-934 Study Group. Jpn J Ophthalmol 97 ;41 (4): 244-50 .
  Other (specify):non-FDA approved"
- "Yamashita, H., Eguchi, S., Yamamoto, T., Shirato, S., and Kitazawa, Y. Trabeculectomy: a prospective study of complications and results of long-term follow-up. Jpn J Ophthalmol 85 ;29 (3): 250-62 .
  It is a case series
- "Yan, D. B. A 12-week Comparison of Travoprost and Timolol in the Treatment of Newly Diagnosed, Normal Tension Glaucoma
  Meeting abstract
- "Yan, D. B., Battista, R. A., Haidich, A. B., and Konstas, A. G. Comparison of morning versus evening dosing and 24-h post-dose efficacy of travoprost compared with latanoprost in patients with open-angle glaucoma. Curr Med Res Opin 2008 ;
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Yang, K. J., Moster, M. R., Azuara-Blanco, A., Wilson, R. P., Araujo, S. V., and Schmidt, C. M. Mitomycin-C supplemented trabeculectomy, phacoemulsification, and foldable lens implantation. J Cataract Refract Surg 97 ;(4): 565-9 .
  It is combined cataract/glaucoma surgery study published before April 2000
- "Yang, Y., Wu, K., Yuan, H., and Yu, M. Cytochrome oxidase 2D6 gene polymorphism in primary open-angle glaucoma with various effects to ophthalmic timolol. J Ocul Pharmacol Ther 2009 ;(2): 163-71 .
  Other (specify): No comparison of interest"
- "Yanhong, Z., Jingzhen, L., and Tiansheng, H. Clinical studies of D-timolol vs L-timolol
- **Meeting abstract**

- "Yankelevich, I. J. The results of medical therapy in the pre-operation stage of acute eye hypertensions. Bibl Ophthalmol 68 ;74 : 124-31 .
  OAG can't be analyzed separately
- "Yao, K., Shen-Tu, X. C., Xu, W., and Chen, P. Q. [Combined surgery for cataract and glaucoma: phacoemulsification, foldable intraocular lens implantation and viscocanalostomy]
  Foreign language
- "Yarangumeli, A., Comoglu, S., Koz, O. G., Elhan, A. H., and Kural, G. Effects of betaxolol and flunarizine on visual fields and intraocular pressure in patients with migraine. Doc Ophthalmol 2003 ; 106 (3): 265-70 .
  No subjects with open-angle glaucoma
- "Yarangumeli, A., Gureser, S., Koz, O. G., Elhan, A. H., and Kural, G. Viscocanalostomy versus trabeculectomy in patients with bilateral high-tension glaucoma
  Chai 2010 "
- "Yarangumeli, A., Koz, O. G., and Kural, G. Encapsulated blebs following primary standard trabeculectomy: course and treatment. J Glaucoma 2004 ;13 (3): 251-5 .
  Does not address any key questions
- "Yasar, T., Ozdemir, M., Andi, I., Ozdemir, G., and Simsek, S. Latanoprost therapy in patients with glaucoma and ocular hypertension inadequately controlled with carteolol. Jpn J Ophthalmol 2004 ;48 (2): 172-3 .
  It is not a RCT and has less than 100 patients
- "Yates, D. Syncope and visual hallucinations, apparently from timolol. JAMA 80 ;244 (8): 768-9 .
  It is not a RCT and has less than 100 patients
- "Ye, C. H. and Jiang, Y. Q. Neuroprotective effect of Erigeron Breviscapus (Vant) Hand-Mazz for patients with glaucoma. Asian J. Ophthalmol. 2003 ;5 (1): 8-12 .
  Does not address any key questions
- "Yeom, H. Y., Hong, S., Kim, S. S., Kim, C. Y., and Seong, G. J. Influence of topical bimatoprost on macular thickness and volume in glaucoma patients with phakic eyes. Can J Ophthalmol 2008 ; 43 (5): 563-6 .
  It is not a RCT and has less than 100 patients
- "Yilmaz, T., Weaver, C. D., Gallagher, M. J., Cordero-Coma, M., Cervantes-Castaneda, R. A., Klisovic, D., Lavaque, A. J., and Larson, R. J. Intravitreal triamcinolone acetonide injection for treatment of refractory diabetic macular edema: a systematic review
  Systematic review
- "Yorston, D. and Khaw, P. T. A randomised trial of the effect of intraoperative 5-FU on the outcome of trabeculectomy in east Africa. Br J Ophthalmol 2001 ;85 (9): 1028-30 .
  Data not abstractable
- "Youn, J., Cox, T. A., Allingham, R. R., and Shields, M. B. Factors associated with visual acuity loss after noncontact transscleral Nd:YAG cyclophotocoagulation. J Glaucoma 96 ;5 (6): 390-4 .
  OAG can't be analyzed separately
- "Yu, K., Peng, D., and Liu, X. [A comparative study of homoharringtonine with 5-fluorouracil in filtering surgery]
  Foreign language
- "Yu, M., Li, Y., and Ge, J. [The ocular hypotensive effect and safety of 0.2% brimonidine]
  Foreign language
- "Yuan, H., Yu, M., Yang, Y., Wu, K., Lin, X., and Li, J. Association of CYP2D6 single-nucleotide polymorphism with response to ophthalmic timolol in primary open-angle Glaucoma--a pilot study. J Ocul Pharmacol Ther 2010 ;(5): 497-501 .
  Does not address any key questions
- "Yuan, J. and Wei, H. [A clinical observation of the therapeutic effects of pilocarpine gel for treatment of glaucoma]
  Foreign language
- "Yuan, J. Y. and Wei, H. R. [A clinical observation of the therapeutic effect of pilocarpine gel for treatment of glaucoma]
  Foreign language
- "Yuan, Z. L., Yang, Q., Chen, Q., Zhang, W. Z., and Sun, H. [Modified viscocanalostomy for the surgical treatment with primary open angle glaucoma]
  Foreign language
- "Yuan, Z.-L., Sun, H., Wang, L.-L., Wang, L.-N., and Yu, H. Comparison of domatic brimonidine tartrate eye drops with Alphagan to treat primary open -angle glaucoma or ocular hypertention
  Foreign language
- "Yuki, K., Shimmura, S., Shiba, D., and Tsubota, K. Trabeculotomy for the treatment of glaucoma after Descemet stripping endothelial keratoplasty. Br J Ophthalmol 2008 ;92 (9): 1299-300 .
  It is a case series

- "Yuksel, N., Altintas, O., Karabas, L., Alp, B., and Caglar, Y. The short-term effect of adding brimonidine 0.2% to timolol treatment in patients with open-angle glaucoma. Ophthalmologica 99 ;
- 213 (4): 228-33 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Yuksel, N., Elibol, O., Caglar, Y., and Alcelik, T. Short-term effect of apraclonidine on intraocular pressure in glaucoma patients receiving timolol and pilocarpine. Ophthalmologica 97 ;211 (6): 354-7 .

  It is not a RCT and has less than 100 patients
- "Yuksel, N., Guler, C., Caglar, Y., and Elibol, O. Apraclonidine and clonidine: a comparison of efficacy and side effects in normal and ocular hypertensive volunteers. Int Ophthalmol 92 ;16 (4-5): 337-42 .

  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Yuksel, N., Karabas, L., Altintas, O., Yildirim, Y., and Caglar, Y. A comparison of the short-term hypotensive effects and side effects of unilateral brimonidine and apraclonidine in patients with elevated intraocular pressure. Ophthalmologica 2002 ;216 (1): 45-9 .

  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Zabel, R. W. and MacDonald, I. M. Sinus arrest associated with betaxolol ophthalmic drops. Am J Ophthalmol 87 ;104 (4): 431 .

  It is a case series
- "Zabriskie, N. A, Ahmed, I. K, Cantor, L. B, Kent, A. B, Mundorf, T., Tauber, J., Rubin, J. M, and Hoop, J. Efficacy and safety of combination therapy with brimonidine 0.2% and latanoprost 0.005% versus fixed combination timolol 0.5%/dorzolamide 2%

  Meeting abstract
- "Zabriskie, N. and Netland, P. A. Comparison of brimonidine/latanoprost and timolol/dorzolamide: two randomized, double-masked, parallel clinical trials

  Non-FDA-approved drug combination
- "Zadok, D., Geyer, O., Zadok, J., Lazar, M., Krakowski, D., and Nemet, P. Combined timolol and pilocarpine vs pilocarpine alone and timolol alone in the treatment of glaucoma. Am J Ophthalmol 94 ;117 (6): 728-31 .

  It is not a RCT and has less than 100 patients
- "Zalloum, J. N., Ahuja, R. M., Shin, D., and Weiss, J. S. Assessment of corneal decompensation in eyes having undergone molteno shunt procedures compared to eyes having undergone trabeculectomy. CLAO J 99 ;25 (1): 57-60 .

  Other (specify):arms not specified"
- "Zambarakji, H. J., Spencer, A. F., and Vernon, S. A. An unusual side effect of Dorzolamide. Eye (Lond) 97 ;11 (Pt 3) : 418-9 .

  It is a case series
- "Zamber, R. W., Starkebaum, G., Rubin, R. L., Martens, H. F., and Wener, M. H. Drug induced systemic lupus erythematosus due to ophthalmic timolol. J Rheumatol 92 ;19 (6): 977-9 .

  It is a case series
- "Zapata Rojas, Jenny and Castellanos, Rosendo. Estudio comparativo entre tqcnica Base limbo y Base fornix con sutura retirable

  Foreign language
- "Zarkovic, A., Chow, K., and Mora, J. S. Comparison of 90-s versus 5-min intraoperative 5-fluorouracil in trabeculectomy. Int Ophthalmol 2010 ;30 (1): 31-9 .

  Other (specify): Mixed glaucoma"
- "Zatloukal, Z., Dolezal, P., and Sklubalova, Z. [Liberation of pilocarpine from therapeutic lenses]

  Foreign language
- "Zavorkova, M. and Susicky, P. [Five years retrospective study of latanoprost glaucoma treatment]

  Foreign language
- "Zeiter, J. H, Juzych, M. S, Shin, D. H, Stewart, D. H, Parrow, K. A, and O'Grady, J. M. Adjunctive Subscleral Flap Mitomycin in Trabeculectomy Combined With Cataract Surgery

  Meeting abstract
- "Zeitz, O., Matthiessen, E. T., Reuss, J., Wiermann, A., Wagenfeld, L., Galambos, P., Richard, G., and Klemm, M. Effects of glaucoma drugs on ocular hemodynamics in normal tension glaucoma: a randomized trial comparing bimatoprost and latanoprost with dorzolamide. BMC Ophthalmol 2005 ;5 : 6 .

  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Zenzen, C. T., Cha, S. C., Wierenga, C. M., Shin, D. H., Nootheti, P., and Hughes, B. A. COMPARATIVE STUDY OF FILTRATION OUTCOME BETWEEN PRIMARY TRABECULECTOMY AND PRIMARY GLAUCOMA TRIPLE PROCEDURE WITH AND WITHOUT ADJUNCTIVE MITOMYCIN C

  Meeting abstract

- "Zhaboedov, G. D., Slavnova, A. V., and Fedirko, P. A. [Dynamics of visual function in glaucoma patients treated with various antiglaucoma preparations]
  Foreign language
- "Zhang, J., Wang, Y.-W., Chen, B., and Li, R.-X. Clinical study of bio-amnion implantation in conjunctive flap used in glaucoma trabeculectomy
  Foreign language
- "Zhao, F., Ji, X. C., and Zheng, Y. Z. Effects of D-timolol on intraocular pressure (IOP), beta blocking activity, and the dynamic changes of drug concentrations in aqueous humor. J Ocul Pharmacol 89 ;5 (4): 271-9 .
  Short term follow up only (less than 1 month for medical study/1 year for surgical study) but it is not a 24 hour study
- "Zhao, J. L., Ge, J., Li, X. X., Li, Y. M., Sheng, Y. H., Sun, N. X., Sun, X. H., Yao, K., Zhong, Z., and Xsgc, X. S. Comparative efficacy and safety of the fixed versus unfixed combination of latanoprost and timolol in Chinese patients with open-angle glaucoma or ocular hypertension. BMC Ophthalmol 2011 ;11 (1): 23 .
  Other (specify):not an FDA approved combination
- "Zhao, J., Mao, J., and Sui, R. [The effect of three kinds of anti-glaucoma eyedrops on ocular blood flow]
  Foreign language
- "Zhao, W.-J. Comparison of travoprost and timolol in patients with primary open angle glaucoma and ocular hypertension
  Foreign language
- "Zheng, J., Jiang, K., and Liu, X. [Reversed trabeculectomy for treatment of glaucoma]
  Foreign language
- "Zheng, K., Huang, Z., Zou, H., Li, H., Huang, Y., and Xie, M. [The comparison study of glaucoma trabeculectomy applying amniotic membrane or mitomycin C]
  Foreign language
- "Zhioua, R., Ouertani, A., Lasram, L., el Euch, M., Guermazi, K., Matri, L., and Triki, F. [Treatment of open-angle, simple glaucoma in Tunisia]
  Foreign language
- "Zhong, L. and Li, M. Clinical research on 0.2% Alphagan and 0.5% Timolol in primary open-angle glaucoma and ocular hypertension
  Foreign language
- "Zhou, W. B. [A preliminary report on treatment of glaucoma with timolol (author's transl)]
  Foreign language
- "Zhou, W. B., Liu, Y. F., Ye, T. C., Hu, S. Y., and Zhang, C. J. [A preliminary report on treatment of glaucoma with timolol]
  Duplicate "
- "Zhu, B.-L. and Zhong, Q. A comparative study between trabeculectomy combined with phacoemulsification and glaucoma surgery by stages
  Foreign language
- "Zhu, H., Wei, R., Li, Y., Cai, J., and Zhou, H. [The contribution of phacoemulsification to combined cataract and glaucoma surgery]
  Foreign language
- "Zhuravlev, V. S., Rushkova, S. A., and Mel'nikova, G. V. [Use of the preparation optimol in treating primary glaucoma]
  Foreign language
- "Ziai, N., Dolan, J. W., Kacere, R. D., and Brubaker, R. F. The effects on aqueous dynamics of PhXA41, a new prostaglandin F2 alpha analogue, after topical application in normal and ocular hypertensive human eyes. Arch Ophthalmol 93 ;111 (10): 1351-8 .
  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Zimmerman, T. J, Sharir, M., Nardin, G. F, and Fuqua, M. Therapeutic index of pinephrine and dipivefrin with nasolacrimal occlusion
  Duplicate "
- "Zimmerman, T. J. and Canale, P. Timolol--further observations. Ophthalmology 79 ;86 (1): 166-9 .
  Does not address any key questions
- "Zimmerman, T. J., Dukar, U., Nardin, G. F., Patchett, R., and Fuqua, M. Carbachol dose response. AM. J. OPHTHALMOL. 89 ;108 (4): 456-457 .
  It is not a RCT and has less than 100 patients
- "Zimmerman, T. J., Gillespie, J. E., Kass, M. A., Yablonski, M. E., and Becker, B. Timolol plus maximum-tolerated antiglaucoma therapy. Arch Ophthalmol 79 ;97 (2): 278-9 .
  OAG can’t be analyzed separately
- "Zimmerman, T. J., Kass, M. A., Yablonski, M. E., and Becker, B. Timolol maleate: efficacy and safety
  Medical KQ 3 or KQ 3 and KQ 6 only
- "Zimmerman, T. J., Kooner, K. S., Ford, V. J., Olander, K. W., Mandlekorn, R. M., Rawlings, E. F., Leader, B. J., and Koskan, A. J. Trabeculectomy vs. nonpenetrating trabeculectomy: a retrospective study of two procedures in phakic patients with glaucoma. Ophthalmic Surg 84 ;15 (9): 734-40 .
  It is not a RCT and has less than 100 patients

- "Zimmerman, T. J., Leader, B. J., and Golob, D. S. Potential side effects of timolol therapy in the treatment of glaucoma. Ann Ophthalmol 81 ; 13 (6): 683-9 .

  OAG can't be analyzed separately
- "Zimmerman, T. J., Sharir, M., Nardin, G. F., and Fuqua, M. Therapeutic index of epinephrine and dipivefrin with nasolacrimal occlusion. Am J Ophthalmol 92 ;114 (1): 8-13 .

  Does not include treatment for open-angle glaucoma (medical, surgical or combined)
- "Zimmerman, T. J., Sharir, M., Nardin, G. F., and Fuqua, M. Therapeutic index of pilocarpine, carbachol, and timolol with nasolacrimal occlusion. Am J Ophthalmol 92 ;114 (1): 1-7 .

  It is not a RCT and has less than 100 patients
- "Zimmerman, T. Switching to latanoprost from other monotherapy. Asian J. Ophthalmol. 2003 ;5 (2): 15-16 .

  No original data (e.g., systematic review, narrative review, editorial, letter)
- "Zink, H., Kampik, A., and Lund, O. E. [Argon laser trabeculoplasty. Initial results of a prospective study]. Klin Monbl Augenheilkd 84 ; 184 (4): 278-82 .

  It is a case series
- "Zou, Y., Lin, Z., and Zhou, J. [Comparison between one-site and two-site incision in phacotrabeculectomy]

  Foreign language
- "Zumbro, D. S., Sanders, J. B., Boldt, H. C., Novack, R. L., Dugel, P. U., and Klein, M. L. Diagnostic and therapeutic challenges. Retina 2006 ;(5): 571-7 .

  Does not address any key questions

Appendix E. Included Devices and Medications

Glaucoma Medications: FDA Approval Status

Pharmacologic category	Generic Name	US Brand Name	FDA Status	Approval Date	Marketing Status
Non-selective beta-adrenergic receptor blocker	Timolol	Betimol®	Approved - NDA 020439	3/31/1995	Prescription
		Istalol®	Approved - NDA 021516	06/04/2004	Prescription
		Timoptic®	Approved - NDA 018086	8/17/1978	Prescription
		Timoptic-XE®	Approved - NDA 020330	11/4/1993	Prescription
		Timoptic OcuDose®	Approved - NDA 019463	11/5/1986	Prescription
		Timolol GFS	Approved		
	Levobunolol	Betagan®	Approved - NDA 019219	12/19/1985	Prescription
	Metipranolol	OptiPranolol	Approved - NDA 019907	12/29/1989	Prescription
Beta 1 selective beta blocker	Betaxolol	Betoptic	Approved - NDA 019270	8/30/1985	Prescription
Alpha2 Agonist	Apraclonidine	Iopidine®	Approved - NDA 019779	12/31/1987	Prescription
	Brimonidine	Alphagan®	Approved - NDA 020490	3/13/1997	Discontinued
		Alphagan P®	Approved - NDA 021262	3/16/2001	Prescription
Carbonic Anhydrase Inhibitor	Brinzolamide	Azopt®	Approved - NDA 020816	4/1/1998	Prescription
	Acetazolamide	Diamox®	Approved - NDA 012945		Prescription

Pharmacologic category	Generic Name	US Brand Name	FDA Status	Approval Date	Marketing Status
		Sequels®			
	Dorzolamide	Trusopt®	Approved - NDA 020408	12/9/1994	Prescription
Cholinergic	Carbachol	Isopto® Carbachol	Approved		Discontinued
		Miostat®	Approved - NDA 016968	9/28/1972	Prescription
Prostaglandin Analogs	Travoprost	Travatan®	Approved - NDA 021257	3/16/2001	Prescription
		Travatan® Z	Approved - NDA 021994	9/21/2006	Prescription
	Bimatoprost	Lumigan®	Approved - NDA 021275	3/16/2001	Prescription
		Latisse TM	Approved - NDA 022369	12/24/2008	Prescription
	Latanoprost	Xalatan®	Approved - NDA 020597	6/5/1996	Prescription
Combined	Dorzolamide and timolol	Cosopt®	Approved - NDA 020869	4/7/1998	Prescription
		Preservative-free Cosopt®			
	Brimonidine and timolol	Combigan®	Approved - NDA 021398	10/30/2007	Prescription
	Brinzolamide and Timolol	Azarga®	Not Approved		
	Travoprost and Timolol	DuoTrav®	Not Approved		
	Bimatoprost and Timolol	Ganfort®	Not Approved		

Glaucoma Medications: Generic and Trade Names

Pharmacologic category	Generic Name	US Brand Name	Canadian Brand Name	Mexican Brand name	European Brand Names
non-selective beta-adrenergic receptor blocker	Timolol	Betimol®	Apo-Timol®	Globitan	Timabak
		Istalol®	Gen-Timolol	Horex	
		Timoptic®	Nu-Timolol	Imot Ofteno	
		Timoptic-XE®	Phoxal-timolol	Nyolol	
		Timoptic OcuDose®	PMS-Timolol	Shemol	
		Timolol GFS	Tim-AK	Timoptol	
			Timoptic®	Timozzard	
			Timoptic-XE®		
			Alti-Timolol		
			Apo-Timop®		
			Mylan-Timolol		
			Sandoz-Timolol		
	Levobunolol	Betagan®	Apo-Levobunolol®	Betagan	Vistagan
			Betagan®		Vistagan-Liquifilm
			Novo-Levobunolol		
			Optho-Bunolol®		
			PMS-Levobunolol		
			Sandoz-Levobunolol		
	Metipranolol	OptiPranolol	OptiPranolol		Turoptin

Pharmacologic category	Generic Name	US Brand Name	Canadian Brand Name	Mexican Brand name	European Brand Names
					Normoglaucon
					Minims metipranolol
					Betacarpin augentropfen
					Betamann
					Betaophtiole
Beta 1 selective beta blocker	Betaxolol	Betoptic	Betoptic S	Betoptic S	Oxodal
			Sandoz-Betaxolol		
Alpha2 Agonist	Apraclonidine	Iopidine®	Iopidine®		
	Brimonidine	Alphagan®	Alphagan®	Agglad Ofteno	
			Apo-Brimonidine P®	Alphagan	
			Apo-Brimonidine®	Nor-Tenz	
			PMS-Brimonidine Tartrate		
			ratio-Brimonidine		
			Sandoz-Brimonidine		
Carbonic Anhydrase Inhibitor	Brinzolamide	Azopt®	Azopt®	Azopt	
	Acetazolamide	Diamox®	Apo-Acetazolamide®	Acetadiazol	
		Sequels®	Diamox®		
	Dorzolamide	Trusopt®	Trusopt®	Trusopt	

Pharmacologic category	Generic Name	US Brand Name	Canadian Brand Name	Mexican Brand name	European Brand Names
Cholinergic	Carbachol	Isopto® Carbachol	Isopto® Carbachol		
		Miostat®	Miostat®		
Prostaglandin Analogs	Travoprost	Travatan®	Travatan®	Travatan	
		Travatan® Z	Travatan® Z		
	Bimatoprost	Lumigan®	Lumigan®	Lumigan	
		Latisse TM	Lumigan® RC		
	Latanoprost	Xalatan®	Xalatan®	Xalatan	
Combined	Dorzolamide and timolol	Cosopt®	Cosopt®	Cosopt	
		Preservative-free Cosopt®			
	Brimonidine and timolol	Combigan®	Combigan®		

Glaucoma Treatment Devices

Laser, ophthalmic Product code: HQF			

Company	Product	FDA Status”	Approval Date
20/20 TECHNOLOGIES, INC	HYPERION LTK SYSTEM (PMA Number P990078)	PMA	5/8/2002
ADVANCED SURGICAL PRODUCTS INC.	PRISMA DISPOSABLE ENDO-OCULAR PROBE	SE	4/13/1988
AESCULAP-MEDITEC NORTH AMERICA	MEDITEC LINK	SE	6/17/1998
ALCON LABORATORIES	NEXT GENERATION LASER	SE	11/5/2007
ALCON RESEARCH, LTD	OPHTHALAS 532 SOLID STATE PHOTOCOAG	Registered	n/a
ALCON RESEARCH, LTD	NEXT GENERATION LASER; PUREPOINT LASER SYSTEM	Registered	n/a
ALCON RESEARCH, LTD	ALCON LIO	Registered	n/a
AMERICAN LASER CORP.	BQ/BM INTEGRATED LASER DELIVERY SYSTEM	SE	5/17/1999
AMERICAN MEDICAL OPTICS	ARGON LASER PHOTOCOAGULATOR SYS	SE	11/6/1984
AMERICAN MEDICAL OPTICS	AMERI. MEDICAL OPTICS ARGON LASER PHOTO	SE	8/15/1984
AMERICAN MEDICAL OPTICS	AMER. MEDICAL OPTICS ARGON/KRYPTON LASE	SE	8/15/1984
AMERICAN MEDICAL OPTICS	AMER. MED. OPTICS ARGON LASER PHOTO	SE	6/19/1984
AMERICAN MEDICAL OPTICS	AMER. MED. OPTICS ARGON/KRYPTON LASER	SE	6/7/1984
BAUSCH & LOMB INC.	MILLENNIUM MICROSURGICAL SYSTEM AND PERISTALTIC PHACO PACK	SE	2/10/2004
BIOPHYSIC MEDICAL INC.	INDIRECT OPHTHALMOSCOPE ACCESSORY DELIVERY SYSTEM	SE	3/24/1989
BIOPHYSIC MEDICAL INC.	OPHTHALAS DYE OPHTHALMIC LASER	SE	10/29/1987

Company	Product	FDA Status”	Approval Date
BIOPHYSIC MEDICAL INC.	FOUR MODIFICATIONS TO OPHTHALAS ARGON/DYE LASER	SE	8/30/1988
BRITT CORP. INC.	LASER PHOTOCOAGULATOR 1520-A & K	SE	1/30/1984
BRITT CORP. INC.	BRITT KRYPTON LASERS 150K & 152K	SE	1/22/1982
CANDELA LASER CORP.	CANDELA DIODE TRABECULOPLASTY LASER DTL	SE	3/4/1991
CANDELA LASER CORP.	CANDELA UPC LASER PHOTOCOAGULATOR	SE	8/2/1989
CARL ZEISS INC.	VISULINK 900 ARGON	SE	8/14/1995
CARL ZEISS INC.	ZEISS VISULAS ARGON LASER	SE	1/6/1988
CARL ZEISS MEDITEC AG	VISUMAX LASER KERATOME	SE	7/8/2010
CARL ZEISS MEDITEC AG	VISULAS YAG II LASER	Registered	n/a
CARL ZEISS MEDITEC AG	VISUMAX LASER KERATOME	Registered	n/a
CARSON LASERWORKS	JR -- OPHTHALMIC ARGON LASER	SE	11/12/1993
CAVITRON CORP.	LASER PHOTOCOAGULATION	SE	12/28/1978
CERAMOPTEC INC.	CERALAS DIODE LASER SYSTEM (CERALAS D2)	SE	2/21/1997
CERAMOPTEC INC.	MEGABEAM ENDOCULAR PROBE	SE	4/1/1994
CHIRON VISION CORP.	LASAG MICRORUPTOR 2 ND:YAG OPHTH. LASER SYSTEM	SE	1/10/1989
COBURN OPTICAL IND. INC.	MEDITEC (RODENSTOCK) LASER PHOTOCOAGUL	SE	10/11/1979
COHERENT MEDICAL DIVISION	MODEL 900K PHOTOCOAGULATOR	SE	7/28/1980
COHERENT MEDICAL GROUP	COHERENT MARIE ARGON PHOTOCOAGULATOR	SE	6/15/1989
COHERENT MEDICAL GROUP	SYSTEM 920 PHOTOCOAGULATOR TO INCLUDE SCHIRMERSCOP	SE	1/3/1985
COHERENT MEDICAL GROUP	LDS - LASER DELIVERY SYSTEM	SE	10/7/1986

Company	Product	FDA Status”	Approval Date
COHERENT MEDICAL GROUP	SYSTEM 920 ARGON/DYE PHOTOCOAGULATOR	SE	6/5/1985
COOPER LASERSONICS INC.	MONITOR CO2 LASER SURGICAL SYSTEM	SE	4/25/1984
COOPER LASERSONICS INC.	MODEL 8000 ND:YAG LASER SYS TREATMENT OF BENIGN LE	SE	1/3/1985
COOPER LASERSONICS INC.	MODEL 4000 MD-YAG LASER FOR MALIGNANT	SE	6/26/1984
COOPERVISION INC.	RESUBMITTED DIODE LASER COAGULATOR	SE	8/2/1988
COOPERVISION INC.	MODEL 9500 ARGON KRYPTON & DYE SURGICAL LASER SYS	SE	2/4/1986
COOPERVISION INC.	MODEL 1000 OPHTHALMIC LASER SYSTEM	SE	9/24/1986
D.O.R.C. INTL. B.V.	OPHTHALMIC LASER PROBE	Registered	n/a
D.O.R.C. INTL. B.V.	LASERSTAR 532	Registered	n/a
D.O.R.C. INTL. B.V.	OPHTHALMIC ILLUMINATED LASER PROBES	Registered	n/a
DIRECTED ENERGY INC.	MODEL 10-C W/FL-10A/U OPTICAL ATTACHMENT/OPTHALMIC	SE	5/22/1987
DOUGLAS JAMES DONALDSON COMPLIANCE SERVICES	CRYSTAL FOCUS EMERALD-CW LASER PHOTOCOAGULATOR	SE	10/19/1990
DOUGLAS JAMES DONALDSON COMPLIANCE SERVICES	CRYSTAL FOCUS EMERALD LASER/SLT OPHF 0.6 ENDO HAND	SE	3/5/1991
ELLEX MEDICAL PTY. LTD.	LASEREX MODEL LP4532	SE	10/6/2004
ELLEX MEDICAL PTY. LTD.	LASEREX LP1532 PHOTOCOAGULATOR	SE	10/3/1997
ELLEX MEDICAL PTY. LTD.	INTEGRE MODEL LP581	SE	3/11/2008
ELLEX MEDICAL PTY. LTD.	INTEGRE PRO MODEL L2RY	SE	7/2/2008
ELLEX MEDICAL PTY. LTD.	INTEGRE FAMILY; SOLITAIRE LP4532	Registered	n/a
ELLEX MEDICAL PTY. LTD.	INTEGRE DUO LP1RG; INTEGRE LP5532	Registered	n/a

Company	Product	FDA Status”	Approval Date
ELLEX MEDICAL PTY. LTD.	INTEGRE PRO FAMILY	Registered	n/a
ELLEX MEDICAL PTY. LTD.	INTEGRE LP1561	Registered	n/a
ENDO OPTIKS, INC.	LASER, OPHTHALMIC (NOT SPECIFIED)	Registered	n/a
F. & F. KOENIGKRAMER	RELIANCE OPHTHALMIC SLIT LAMP R-083	SE	2/4/1984
G. RODENSTOCK INSTRUMENTE GMBH	RODENSTOCK LASER SLITLAMP	SE	11/4/1997
G. RODENSTOCK INSTRUMENTE GMBH	ORION 3001 LASER PHOTOCOAGULATOR	SE	11/13/1986
GLENDALE PROTECTIVE TECHNOLOGIES INC.	LASERMED* GOGGLES AND SPECTACLES	SE	9/21/1989
HCG INC.	HCG INC. MEDICAL LASER ENDOCOAGULATOR MODEL P.C.	SE	7/25/1985
HERAEUS LASERSONICS INC.	ND:YAG LASER SYSTEMS (VARIOUS MODELS)	SE	5/24/1991
HGM INC.	FLEISCHMAN-SWARTZ ENDO-OCULAR PROBE	SE	5/9/1984
HGM INC.	HGM ILLUMINATING IMAGING ENDOCULAR PROBE	SE	3/1/1994
HGM INC.	MEDICAL LASER ENDOCOAGULATOR 5K	SE	4/2/1984
HGM INC.	FLEISCHMAN-SWARTZ ENDO-OCULAR PROBE (STERILE)	SE	3/21/1986
HGM INC.	HGM INC. MEDICAL LASER ENDOCOAGULATOR MODEL 8-K	SE	4/23/1985
HGM INC.	HGM ASPIRATING ENDOOCULAR(TM) PROBE	SE	8/17/1993
HGM MEDICAL LASER SYSTEMS INC.	COMPAC(TM) DIODE LASERS	SE	4/25/1991
INFINITECH INC.	INFINITECH MULTI-SPOT SLIT LAMP LASER ADAPTER	SE	8/1/1997
IRIDERM DIV.	DIOPEXY PROBE	SE	7/19/1996
IRIDERM DIV.	OCULIGHT GL	SE	8/28/1996
IRIDEX CORP.	IRIS MEDICAL IQ 810 PHOTOCOAGULATOR	SE	9/20/2004

Company	Product	FDA Status”	Approval Date
IRIDEX CORP.	OCULIGHT SL/SLX	SE	5/3/2002
IRIDEX CORP.	IRIDEX WIRELESS FOOTSWITCH	SE	11/14/2006
IRIDEX CORP.	IRIS MEDICAL OCULIGHT GL/GLX LASER SYSTEMS	SE	8/27/2003
IRIDEX CORP.	LASER, OPHTHALMIC (NOT SPECIFIED)	Registered	n/a
IRIDEX CORP.	LASER, OPHTHALMIC (NOT SPECIFIED)	Registered	n/a
IRIDEX CORP.	LASER, OPHTHALMIC (NOT SPECIFIED)	Registered	n/a
KEELER INSTRUMENTS INC.	MICROLASE 8 0 0 (OPHTHALMIC LASER)	SE	3/15/1989
KEELER INSTRUMENTS INC.	MICROLASE BY LASER TRABECULOPLASTY	SE	10/31/1989
KEELER INSTRUMENTS INC.	KEELER MULTILASE 3000	SE	11/22/1994
LASAG AG	LASAG MICRORUPTER 2 ND:YAG LASER TRABECULOPLASTY	SE	3/27/1990
LASER INDUSTRIES LTD.	OPHTHALMIC ARGON LASER #700A	SE	1/30/1984
LASERMED CORP.	OCULASE 514 OPHTHALMIC ARGON LASER	SE	2/4/1984
LASERTEK OY	LASER COAGULATOR MODEL 41AK	SE	2/8/1979
LASERTEK OY	COAGULATOR MODEL 40 AARGON	SE	2/8/1979
LASERTEK OY	MODEL 150K LASER COAGULATOR	SE	1/30/1984
LIGHT-MED (USA) INC.	LPULSA SYL-9000 OPHTHALMIC YAG LASER	SE	3/30/1999
LIGHTMED CORP.	LIGHTLAS 810 INFRARED LASER PHOTOCOAGULATOR	SE	8/8/2002
LIGHTMED CORP.	LIGHTLAS SELECTOR	SE	8/13/2009
LIGHTMED CORP.	LIGHTLAS 577 MEDICAL OPTICAL PUMPED SEMICONDUCTOR LASER	SE	9/28/2009

Company	Product	FDA Status”	Approval Date
LIGHTMED CORP.	LIGHTLAS MODEL 532	SE	9/18/2009
LIGHTMED CORP.	LIGHTLAS 561 OPTHALMIC PHOTOCOAGULATOR	SE	9/20/2007
LIGHTMED CORP.	LIGHTLAS 532 PHOTOCOAGULATOR	SE	8/22/2001
LIGHTMED CORP.	AURA PT; OPHTHALMIC YAG LASER; SYL-9000	Registered	n/a
LIGHTMED CORP.	LIGHTLAS 561	Registered	n/a
LIGHTMED CORP.	LIGHTLAS 532	Registered	n/a
LIGHTMED CORP.	LIGHTLAS 810	Registered	n/a
LIGHTMED CORP.	LIGHTLAS SELECTOR DEUX	Registered	n/a
LIGHTMED CORP.	LIGHTLAS 577	Registered	n/a
LIGHTMED CORP.	LIGHTLAS 532	Registered	n/a
LUMENIS INC.	FAMILY OF SELECTA OPHTHALMIC LASER SYSTEMS (SELECTA 1064 SELECTA SLT SELECTA DUO) DELIVERY DEVICE AND ACCESSORIES	SE	9/30/2005
LUMENIS INC.	MODEL 900S INTRAOCULAR PROBE	SE	11/16/1981
LUMENIS INC.	AURA PT-II	Registered	n/a
LUMENIS INC.	LASER, OPHTHALMIC (NOT SPECIFIED)	Registered	n/a
LUMENIS INC.	LASER, OPHTHALMIC (NOT SPECIFIED)	Registered	n/a
LUMENIS INC.	SELECTA 1064; SELECTA DUO; SELECTA SLT; SELECTA TRIO	Registered	n/a
LUMENIS INC.	NOVUS 2000	Registered	n/a
LUXTEC CORP.	LUXSCOPE	SE	11/21/1997
MARTIN S. KNOPF ASSOC. INC.	URAM OPHTHALMIC LASER ENDOSCOPE	SE	5/28/1991

Company	Product	FDA Status”	Approval Date
MEDITEC INC.	MDS 83 OPHTHALMIC DYE LASER SYSTEM	SE	8/1/1985
MEDITEC OF AMERICA	LASER LENS-VARIOUS MODELS	SE	4/5/1984
MERIDIAN AG	MERILAS 532A	SE	12/14/2007
MERIDIAN AG	MERILAS 532ALPHA	Registered	n/a
MIRA INC.	OPHTHALMIC LASER PHOTOCOAGULATOR	SE	11/12/1985
MIRA INC.	ENDOPHOTOCOAGULATION PROBE	SE	10/10/1986
MIRA INC.	OPHALMIC LASER PHOTOCOAGULATOR	SE	11/12/1985
MIRA INC.	MIRALITE	SE	10/31/1986
NIDEK CO., LTD. HAMACHO PLANT	LASER DIODE PHOTOCOAGULATOR DC-3300	Registered	n/a
NIDEK CO., LTD. HAMACHO PLANT	MC-300; MC-500; MULTICOLOR LASER PHOTOCOAGULATOR	Registered	n/a
NIDEK INC.	MODEL DC-1200 DIODE LASER PHOTOCOAGULATOR	SE	10/16/1989
NIDEK INC.	NIDEK ADC-8000 LASER SYSTEM	SE	10/15/1987
NIDEK INC.	ARGON/KRYPTON ION LASER PHOTOCOAGULA	SE	3/16/1984
NIDEK INC.	NIDEK MODEL AC-2300	SE	11/22/1993
NIDEK INC.	NIDEK MODEL GYC-1500 AND GYC-2000	SE	9/14/1995
NIDEK INC.	NIDEK MODEL AKC-8000	SE	8/7/1989
NIDEK INC.	DC-3300 LASER DIODE PHOTOCOAGULATOR	SE	2/11/2002
NIDEK INC.	NIDEK OPEATING MICROSCOPE DELIVERY SYSTEM (OMDS)	SE	9/15/1988
OCULAR INSTRUMENTS INC.	RITCH TRABECULOPLASTY LASER LENS	SE	7/11/1986
OCULAR INSTRUMENTS INC.	MULTIPLE RITCH TRABECULOPLASTY	Registered	n/a

Company	Product	FDA Status”	Approval Date
OD -OS GMBH	NAVILAS LASER SYSTEM	SE	10/27/2009
OD -OS GMBH	NAVILAS LASER SYSTEM	Registered	n/a
OMNIGUIDE COMMUNICATIONS INC.	OMNIGUIDE BEAMPATH CO2 MARK I LASER BEAM DELIVERY	SE	5/9/2005
OMNIGUIDE, INC.	OMNIGUIDE BEAM PATH CO2 MARK	Registered	n/a
OPHTHALMED LLC	20G SMA LASER FIBER MODEL LF100	SE	9/21/2005
OPHTHALMED LLC	A1x010x (20g, 23g, 25g ILLUM PROBE); A4xx010 (20g LASER/ASP PROBE); A5xx100 (20g LASER/ILLUM PROBE); A6xx110 (20g LASER/ILLUM/ASP PROBE); OPHTHALMED LASER-ILLUMINATION	Registered	n/a
OPTIMEDICA CORPORATION	PASCAL STREAMLINE PHOTOCOAGULATOR	SE	5/4/2010
OPTIMEDICA CORPORATION	PASCAL STREAMLINE PHOTOCOAGULATOR	SE	9/25/2009
OPTIMEDICA CORPORATION	PASCAL STREAMLINE PHOTOCOAGULATOR	Registered	n/a
OPTIMEDICA CORPORATION	PASCAL STREAMLINE	Registered	n/a
OPTO ELETRONICA S.A.	OPTO ADVANT YAG LASER	Registered	n/a
PEREGRINE SURGICAL LTD.	PEREGRINE SOFT TIP ASPIRATING LASER PROBE MODEL PD720.60	SE	6/21/2006
PEREGRINE SURGICAL LTD.	PEREGRINE ILLUMINATING LASER PROBE MODEL PD600.10	SE	6/27/2003
PEREGRINE SURGICAL LTD.	LASER, OPHTHALMIC (NOT SPECIFIED)	Registered	n/a
PEREGRINE SURGICAL LTD.	LASER, OPHTHALMIC (NOT SPECIFIED)	Registered	n/a
PEREGRINE SURGICAL LTD.	ASPIRATING LASER PROBE	Registered	n/a
PFIZER LASER SYSTEMS	CENTAURI	SE	2/11/1991
QUANTEL MEDICAL	Q-SWITCHED ND:YAG OPHTALMIC LASER (WITH SLIT LAMP)	SE	3/24/2005

Company	Product	FDA Status”	Approval Date
	MODEL OPTIMIS II		
QUANTEL MEDICAL	FREQUENCY DOUBLED ND: YAG PHOTOCOAGULATOR MODEL VITRA	SE	2/7/2005
QUANTEL MEDICAL	SUPRA OPHTHALMIC LASER PHOTOCOAGULATOR	SE	4/24/2007
QUANTEL MEDICAL	SUPRA TWIN OPHTHALMIC LASER PHOTOCOAGULATOR	SE	3/25/2009
QUANTEL MEDICAL	SUPRA 577.Y LASER	SE	6/16/2009
QUANTEL MEDICAL	IRIDIS OPHTHALMIC PHOTOCOAGULATOR	SE	12/17/2002
QUANTEL MEDICAL	IRIDIS; OPTIMIS-II, VIRIDIS; SUPRA; VIRIDIS TWIN; VITRA	Registered	n/a
QUANTEL MEDICAL	LASER, OPHTHALMIC (NOT SPECIFIED)	Registered	n/a
SOLX INC.	SOLX 790 TITANIUM SAPPHIRE LASER	SE	9/12/2008
SOLX INC.	SOLX 790 TITANIUM SAPPHIRE LASER	Registered	n/a
STALLION MEDICAL, INC.	OPHTHALMIC PHOTOCOAGULATOR LASER	Registered	n/a
STEFANOVSKY & ASSOC.	LASER PROTECTIVE EYESHIELD	SE	12/30/1983
STERILMED, INC.	LASER, OPHTHALMIC (NOT SPECIFIED)	Registered	n/a
SUMMIT TECHNOLOGY INC.	LASER AND EMPHASIS SCLEROSTOMY TIP	SE	7/22/1993
SUNRISE TECHNOLOGIES, INC.	SUNRISE TECHNOLOGIES HYPERION(TM) HOLMIUM LASER SYSTEM FOR LASER THERMAL KERATOPLASTY (LTK) (PMA Number P990078)	PMA	3/16/2001
SUNRISE TECHNOLOGIES, INC.	HYPERION LTK SYSTEM (PMA Number P990078)	PMA	12/11/2000
SURGICAL LASER TECHNOLOGIES INC.	SLT CONTACT LASER SYSTEM OCULOPLASTICS	SE	6/6/1988
SURGICAL LASER TECHNOLOGIES INC.	SLT CL60 CONTACT LASER SYSTEM CUTTING & COAGULA.	SE	9/30/1988
SYNEMED INC.	DERMATOLOGY HANDPIECE-OPHTH LASER	SE	12/3/1983

Company	Product	FDA Status”	Approval Date
TARACAN PTY. LTD.	LASEREX ERA ARTICULATED ARM KIT MODEL LQP4106-AA	SE	7/6/2000
TOP CON	TOPCON EC-200 ENDO-PHOTOCOAGULATOR LASER	SE	12/18/1990
VISITEC CO.	HESSBURG GLIDE UNTRAOCULAR LENSGUIDES	SE	9/24/1985