

Screening for Testicular Cancer: U.S. Preventive Services Task Force Reaffirmation Recommendation Statement

U.S. Preventive Services Task Force*

Description: Reaffirmation of the 2004 U.S. Preventive Services Task Force (USPSTF) recommendation statement on screening for testicular cancer.

Methods: The USPSTF performed a targeted literature search for benefits and harms of screening for testicular cancer in asymptomatic males and found no new studies.

Recommendation: The USPSTF does not recommend screening for testicular cancer in asymptomatic adolescent or adult males. (Grade D recommendation)

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www.annals.org

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* For a list of the members of the USPSTF, see the **Appendix** (available at www.annals.org).

The U.S. Preventive Services Task Force (USPSTF) makes recommendations about preventive care services for patients without recognized signs or symptoms of the target condition.

It bases its recommendations on a systematic review of the evidence of the benefits and harms and an assessment of the net benefit of the service.

The USPSTF recognizes that clinical or policy decisions involve more considerations than this body of evidence alone. Clinicians and policymakers should understand the evidence but individualize decision making to the specific patient or situation.

SUMMARY OF RECOMMENDATION AND EVIDENCE

The USPSTF recommends against screening for testicular cancer in adolescent or adult males. This is a grade D recommendation.

The **Figure** summarizes the recommendation and suggestions for clinical practice.

Table 1 describes the USPSTF grades, and **Table 2** describes the USPSTF classification of levels of certainty about net benefit.

RATIONALE

Importance

Testicular cancer (a primary germ-cell tumor of the testis) is the most common cancer among males aged 15 to 34 years. However, with an annual incidence rate of 5.4 cases per 100 000 males, testicular cancer is relatively rare compared with other types of cancer.

Detection

Most cases of testicular cancer are discovered accidentally by patients or their partners. There is inadequate evidence that screening by clinician examination or patient

self-examination has a higher yield or greater accuracy for detecting testicular cancer at earlier (and more curable) stages.

Benefits of Detection and Early Intervention

Based on the low incidence of this condition and favorable outcomes of treatment, even in cases of advanced disease, there is adequate evidence that the benefits of screening for testicular cancer are small to none.

Harms of Detection and Early Intervention

Potential harms associated with screening for testicular cancer include false-positive results, anxiety, and harms from diagnostic tests or procedures. The USPSTF found no new evidence on potential harms of screening and concluded that these harms are no greater than small.

USPSTF Assessment

The USPSTF concludes that there is moderate certainty that screening for testicular cancer has no net benefit.

CLINICAL CONSIDERATIONS

Patient Population Under Consideration

This recommendation applies to asymptomatic adolescent or adult males. The USPSTF did not review the evidence for screening males with a history of cryptorchidism.

See also:

Print

Summary for Patients. I-36

Web-Only

Appendix

Conversion of graphics into slides

Screening Tests

The sensitivity, specificity, and positive predictive value of testicular examination in asymptomatic patients are unknown. Screening examinations performed by patients or clinicians are unlikely to provide meaningful health benefits because of the low incidence and high survival rate of testicular cancer, even when it is detected at symptomatic stages (1).

Treatment

Management of testicular cancer consists of orchiectomy and may include other surgery, radiation therapy, and chemotherapy, depending on the disease stage and tumor type. Regardless of disease stage, more than 90% of all newly diagnosed cases of testicular cancer will be cured (2).

Useful Resources

The National Cancer Institute’s Physician Data Query, available at www.cancer.gov/cancertopics/pdq, is a comprehensive database that contains summaries on a wide range of cancer-related topics for health professionals and patients, including testicular cancer screening and treatment.

DISCUSSION

In 2004, the USPSTF reviewed the evidence for screening for testicular cancer and recommended against screening adolescent or adult males (3). In 2009, the USPSTF per-

formed a brief literature review (4) and found no new evidence that would warrant a change in its recommendation. Therefore, the USPSTF reaffirms its recommendation against screening adolescent or adult males for testicular cancer by clinician examination or patient self-examination. The previous recommendation statement and evidence report, as well as the summary of the updated literature search, are available at www.uspreventiveservicestaskforce.org/uspstf/uspstest.htm (5).

Response to Public Comments

A draft version of this recommendation statement was posted for public comment on the USPSTF Web site from 21 September through 19 October 2010. Some comments requested clarification about whether the USPSTF’s definition of *screening* includes patient self-examination in addition to clinician examination. Other comments expressed concern that this statement might discourage patients with testicular symptoms from seeking appropriate care. In response, the USPSTF revised the Clinical Considerations section to address these issues.

Recommendations of Others

The American Academy of Family Physicians recommends against routine screening for testicular cancer in asymptomatic adolescent and adult males (6). The American Academy of Pediatrics does not include screening for testicular cancer in its recommendations for preventive

Figure. Screening for testicular cancer: clinical summary of USPSTF reaffirmation recommendation.



SCREENING FOR TESTICULAR CANCER

CLINICAL SUMMARY OF U.S. PREVENTIVE SERVICES TASK FORCE REAFFIRMATION RECOMMENDATION

Population	Adolescent and Adult Males
Recommendation	Do Not Screen
	Grade: D
Screening Tests	There is inadequate evidence that screening asymptomatic patients by means of self-examination or clinician examination has greater yield or accuracy for detecting testicular cancer at more curable stages.
Interventions	Management of testicular cancer consists of orchiectomy and may include other surgery, radiation therapy, or chemotherapy, depending on stage and tumor type. Regardless of disease stage, more than 90% of all newly diagnosed cases of testicular cancer will be cured.
Balance of Harms and Benefits	Screening by self-examination or clinician examination is unlikely to offer meaningful health benefits, given the very low incidence and high cure rate of even advanced testicular cancer. Potential harms include false-positive results, anxiety, and harms from diagnostic tests or procedures.
Relevant USPSTF Recommendations	Recommendations on screening for other types of cancer can be found at www.uspreventiveservicestaskforce.org/ .

For a summary of the evidence systematically reviewed in making these recommendations, the full recommendation statement, and supporting documents, please go to www.uspreventiveservicestaskforce.org/.

health care (7). Finally, the American Cancer Society does not recommend testicular self-examination (8).

From the U.S. Preventive Services Task Force, Rockville, Maryland.

Disclaimer: Recommendations made by the USPSTF are independent of the U.S. government. They should not be construed as an official position of the Agency for Healthcare Research and Quality or the U.S. Department of Health and Human Services.

Financial Support: The USPSTF is an independent, voluntary body. The U.S. Congress mandates that the Agency for Healthcare Research and Quality support the operations of the USPSTF.

Potential Conflicts of Interest: None disclosed.

Requests for Single Reprints: Reprints are available from the USPSTF Web site (www.uspreventiveservicestaskforce.org/).

References

1. U.S. Preventive Services Task Force. Screening for testicular cancer. In: Guide to Clinical Preventive Services, 2nd ed. Washington, DC: U.S. Department of

Health and Human Services; 1996:153-7.

2. National Cancer Institute. Testicular Cancer Treatment (PDQ) Summary: Health Professional Version. Bethesda, MD: National Cancer Institute; 2010. Accessed at www.cancer.gov/cancertopics/pdq/screening/testicular/HealthProfessional on 19 August 2010.

3. U.S. Preventive Services Task Force. Screening for Testicular Cancer: Recommendation Statement. Rockville, MD: Agency for Healthcare Research and Quality; 2004.

4. Lin K, Sharangpani R. Screening for testicular cancer: an evidence review for the U.S. Preventive Services Task Force. *Ann Intern Med.* 2010;153:396-9. [PMID: 20855803]

5. U.S. Preventive Services Task Force. Screening for Testicular Cancer: Brief Evidence Update. Rockville, MD: Agency for Healthcare Research and Quality; 2004.

6. American Academy of Family Physicians. Summary of Recommendations for Clinical Preventive Services. Leawood, KS: American Academy of Family Physicians; 2010. Accessed at www.aafp.org/online/etc/medialib/aafp_org/documents/clinical/CPS/rcps08-2005.Par.0001.File.tmp/June2010.pdf on 19 August 2010.

7. American Academy of Pediatrics Committee on Practice and Ambulatory Medicine and Bright Futures Steering Committee. Recommendations for preventive pediatric health care. *Pediatrics.* 2007;120:1376.

8. American Cancer Society. American Cancer Society Guidelines for the Early Detection of Cancer. Atlanta: American Cancer Society; 2010. Accessed at www.cancer.org/Healthy/FindCancerEarly/CancerScreeningGuidelines/american-cancer-society-guidelines-for-the-early-detection-of-cancer on 19 August 2010.

Table 1. What the USPSTF Grades Mean and Suggestions for Practice

Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer/provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer/provide this service.
C	The USPSTF recommends against routinely providing the service. There may be considerations that support providing the service in an individual patient. There is moderate or high certainty that the net benefit is small.	Offer/provide this service only if other considerations support offering or providing the service in an individual patient.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	Read the clinical considerations section of the USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

Table 2. USPSTF Levels of Certainty Regarding Net Benefit

Level of Certainty*	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by such factors as: the number, size, or quality of individual studies; inconsistency of findings across individual studies; limited generalizability of findings to routine primary care practice; lack of coherence in the chain of evidence. As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.
Low	The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of: the limited number or size of studies; important flaws in study design or methods; inconsistency of findings across individual studies; gaps in the chain of evidence; findings that are not generalizable to routine primary care practice; a lack of information on important health outcomes. More information may allow an estimation of effects on health outcomes.

* The USPSTF defines *certainty* as “likelihood that the USPSTF assessment of the net benefit of a preventive service is correct.” The net benefit is defined as benefit minus harm of the preventive service as implemented in a general primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

APPENDIX: U.S. PREVENTIVE SERVICES TASK FORCE

Members of the U.S. Preventive Services Task Force at the time this recommendation was finalized[†] are Ned Calonge, MD, MPH, *Chair* (The Colorado Trust, Denver, Colorado); Kristin Bibbins-Domingo, MD, PhD (University of California, San Francisco, San Francisco, California); Adelita Gonzales Cantu, RN, PhD (University of Texas Health Science Center, San Antonio, Texas); Susan Curry, PhD (University of Iowa College of Public Health, Iowa City, Iowa); Allen J. Dietrich, MD (Dartmouth Medical School, Hanover, New Hampshire); Glenn Flores, MD (University of Texas Southwestern, Dallas, Texas); David Grossman, MD (Group Health Cooperative, Seattle, Washington); George Isham, MD, MS (HealthPartners, Minneapolis, Minnesota); Michael L. LeFevre, MD, MSPH (University of Missouri School of Medicine, Columbia, Missouri); Rosanne

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[†] For a list of current Task Force members, go to www.uspreventiveservicestaskforce.org/members.htm.