Title: Screening for Oral Cancer

Literature Surveillance Date: May 2018

Recommendation Summary: In 2013, the Task Force concluded that the current evidence was insufficient to assess the balance of benefits and harms of screening for oral cancer in asymptomatic adults (Grade: I statement).

Summary of New Evidence: Literature scans were conducted in the MEDLINE, DARE, and PubMed databases and the Cochrane Library. Results were limited to articles in English-language journals that were published 2011 to present.

Systematic Reviews
We identified two reviews on screening for oral cancer.1,2 A 2013 Cochrane review on the effectiveness of current screening methods in decreasing oral cancer mortality (search through July 2013) included only one trial from India with a high risk of bias and limited applicability to U.S. practice that was addressed in the 2013 USPSTF recommendation on the topic.1 A 2015 Cochrane review on screening for nasopharyngeal cancer found no eligible studies to include (search through July 2015).2

We found 5 reviews on the diagnostic accuracy of screening tests for oral cancer.3-7 A 2013 Cochrane review estimated the diagnostic accuracy of various methods of detecting oral cancer, including conventional oral examination, vital rinsing, light-based detection, biomarkers, and mouth self-examination (search through April 2013, included 13 studies).3 The majority of included studies focused on the diagnostic accuracy of conventional oral examination, with wide variation in estimates of sensitivity (0.50 to 0.99) over the range of prevalence levels. Six of the studies addressed in this review were included in the previous USPSTF review on the topic. The other four diagnostic accuracy reviews compared autofluorescence, chemiluminescence, oral brush cytology, and/or toluidine blue test and included a range of 24 to 46 studies.4-7

Primary Studies
We identified no new primary studies on the benefits or harms of screening for oral cancer.

Our scan found eight new studies on the diagnostic accuracy of various tests for the detection of oral cancer.8-15 These studies examine mucosal brush smears, fluorescence spectroscopy, oral rinse-based smears, serum antibodies, Cobas human papillomavirus test on oral rinse, toluidine blue test, swabs using droplet digital polymerase chain reaction, and a chemiluminescence device.

References


