Screening for Bladder Cancer in Adults

Recommendation Statement

U.S. Preventive Services Task Force

This statement summarizes the U.S. Preventive Services Task Force (USPSTF) recommendations on screening for bladder cancer in adults and the supporting scientific evidence, and updates the 1996 recommendations contained in the *Guide to Clinical Preventive Services,* second edition.[1] In 1996, the USPSTF recommended against screening for bladder cancer with microscopic urinalysis, urine dipstick, or urine cytology in asymptomatic persons (D recommendation).[1] Since then, the USPSTF criteria to rate the strength of the evidence have changed.[2] Therefore, this recommendation statement has been updated and revised based on the current USPSTF methodology and rating of the strength of the evidence. Explanations of the current Task Force ratings and of the strength of overall evidence are given in Appendix A and Appendix B, respectively.

The complete information on which this statement is based, including evidence tables and references, is contained in the brief update on this topic[3] on the USPSTF Web site (www.preventiveservices.ahrq.gov). The recommendation statement and brief update are also available in print from the Agency for Healthcare Research and Quality (AHRQ) Publications Clearinghouse (call 1-800-358-9295, or e-mail ahrqpubs@ahrq.gov). The recommendation is also posted on the Web site of the National Guideline Clearinghouse™ (www.guideline.gov).

Recommendations made by the U.S. Preventive Services Task Force 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.

Summary of the Recommendation

The U.S. Preventive Services Task Force (USPSTF) recommends against routine screening for bladder cancer in adults. **D recommendation.**

The USPSTF found fair evidence that screening with available tests can detect bladder cancer in asymptomatic individuals. The potential benefit of screening would be small, at best, for the following reasons: there is fair evidence that many of the cancers detected by screening have a low tendency to progress to invasive disease; there is a relatively low overall prevalence of asymptomatic bladder cancer that would eventually lead to important clinical consequences; and there is limited evidence that early treatment of bladder cancer detected through screening improves long-term health outcomes. The potential harms of screening are at least small: screening tests have a low positive predictive value and yield many false positive results, leading to unnecessary invasive procedures. As a result, the USPSTF concluded that the potential harms of screening for bladder cancer outweigh any potential benefits.

Clinical Considerations

- Bladder cancer is 2 to 3 times more common in men than in women and is unusual before age 50. Bladder cancer is heterogeneous; it is a spectrum of conditions, most of which are not life-threatening.
- Screening tests—such as microscopic urinalysis, urine dipstick, urine cytology, or such new tests as bladder tumor antigen (BTA) or nuclear matrix protein (NMP22) immunoassay—can detect bladder cancers that are clinically

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unapparent. However, because of the low prevalence of bladder cancer, the positive predictive value of these tests is low.

- Smoking increases the risk for bladder cancer; about 50% of all cases of bladder cancer occur in current or former smokers. Smokers should be counseled on quitting smoking.
- People in occupations that involve exposure to chemicals used in the dye or rubber industries may also have increased risk for bladder cancer. The USPSTF did not review the evidence for targeted screening for those with occupational exposure.

References

1. U.S. Preventive Services Task Force. *Guide to Clinical Preventive Services,* 2nd ed. Washington, DC: Office of Disease Prevention and Health Promotion; 1996.
2. Harris RP, Helfand M, Woolf SH, Lohr KN, Mulrow CD, Teutsch SM, Atkins D; Methods Work Group, Third U.S. Preventive Services Task Force. Current methods of the U.S. Preventive Services Task Force: a review of the process. *Am J Prev Med.* 2001;20(3S):21–35.
3. Screening for bladder cancer: a brief evidence update for the U.S. Preventive Services Task Force. Agency for Healthcare Research and Quality. 2004. Available at http:\\www.preventiveservices.ahrq.gov.

Appendix A
U.S. Preventive Services Task Force—Recommendations and Ratings

The Task Force grades its recommendations according to one of 5 classifications (A, B, C, D, I) reflecting the strength of evidence and magnitude of net benefit (benefits minus harms):

A. The USPSTF strongly recommends that clinicians provide [the service] to eligible patients. *The USPSTF found good evidence that [the service] improves important health outcomes and concludes that benefits substantially outweigh harms.*

B. The USPSTF recommends that clinicians provide [the service] to eligible patients. *The USPSTF found at least fair evidence that [the service] improves important health outcomes and concludes that benefits outweigh harms.*

C. The USPSTF makes no recommendation for or against routine provision of [the service]. *The USPSTF found at least fair evidence that [the service] can improve health outcomes but concludes that the balance of benefits and harms is too close to justify a general recommendation*.

D. The USPSTF recommends against routinely providing [the service] to asymptomatic patients. *The USPSTF found at least fair evidence that [the service] is ineffective or that harms outweigh benefits.*

I. The USPSTF concludes that the evidence is insufficient to recommend for or against routinely providing [the service]. *Evidence that [the service] is effective is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.*

Appendix B
U.S. Preventive Services Task Force—Strength of Overall Evidence

The USPSTF grades the quality of the overall evidence for a service on a 3-point scale (good, fair, poor):

Good: Evidence includes consistent results from well-designed, well-conducted studies in representative populations that directly assess effects on health outcomes.

Fair: Evidence is sufficient to determine effects on health outcomes, but the strength of the evidence is limited by the number, quality, or consistency of the individual studies, generalizability to routine practice, or indirect nature of the evidence on health outcomes.

Poor: Evidence is insufficient to assess the effects on health outcomes because of limited number or power of studies, important flaws in their design or conduct, gaps in the chain of evidence, or lack of information on important health outcomes.

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