

**GUIDELINE UPDATE**

# What's the best approach for screening asymptomatic men for prostate cancer?

The evidence is still inconclusive. The most recent USPSTF guideline recommends a guarded approach.

- How should primary care physicians screen asymptomatic men <75 years of age for prostate cancer?
- How does the approach differ for men ages ≥75 years?
- Does prostate cancer screening affect overall patient outcome?

The answers to these questions are summarized on the next page and in the US Preventive Services Task Force (USPSTF) recommendation statement on prostate cancer screening, published in the August 5, 2008, issue of *Annals of Internal Medicine*.

Prostate cancer screening continues to be hotly debated between primary care physicians and their urologist and oncologist colleagues. Prostate cancer is the most common nonskin cancer and the second leading cause of cancer death among men in the United States.<sup>1</sup> Nevertheless, physicians struggle with prostate cancer screening recommendations for healthy, asymptomatic men. Because prostate cancer can progress slowly, it takes many years for men to reap the benefit of screening. Moreover, no consensus exists on how to treat prostate cancer after it is diagnosed. Authorities debate strategies ranging from watchful waiting to radical prostatectomy.

Until recently, no long-term prostate cancer screening mortality data were available. In 2009, published reports of 2 large, long-term studies reached different conclusions.

A randomized European study<sup>2</sup> of 182,000

men between the ages of 50 and 74 with a median follow-up of 9 years demonstrated a 20% reduction in prostate cancer death rates associated with prostate-specific antigen (PSA) screening. The screening group, whose participants were offered PSA serum screening once every 4 years, had a cumulative incidence of prostate cancer of 8.2%, vs a 4.8% incidence of prostate cancer in the control group (whose participants were not screened during the course of the study). The absolute risk reduction associated with PSA screening was 0.71 deaths per 1000 men, meaning that 1410 men would need to be screened and 48 additional cases of prostate cancer would need to be treated to prevent 1 death.

Another randomized screening trial from the United States studied 76,693 men over 10 years.<sup>3</sup> The study was conducted as part of the Prostate, Lung, Colorectal, and Ovarian (PLCO) Cancer Screening Trial. The screening group was offered annual PSA testing and digital rectal examinations (DREs). The control group received "usual care," which included PSA testing and DREs in some settings but not in others. Compliance with the screening protocol overall was 85% for PSA testing and 86% for DRE for the study group. In the control group, the rate of PSA testing was 40% in the first year and increased to 52% in the sixth year, and the rate of screening by DRE increased from 41% to 46%. At 7 years, screening was associated with a 22% increase in prostate cancer diagnosis, compared with the control group. However, no reduction in prostate cancer-related deaths was noted at 10 years.

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 Two recently published studies reached different conclusions about the benefits of screening asymptomatic men under the age of 75.

### Practice recommendations from the USPSTF for prostate cancer screening

#### ➤ Grade B recommendation

- **For men ≥75 years:**  
 The USPSTF recommends against screening for prostate cancer.

This is a USPSTF grade D recommendation. The task force found at least fair evidence that screening is ineffective or that harms outweigh benefits.

#### ➤ Grade C recommendation

- **For men <75 years:**  
 The USPSTF has found insufficient evidence to determine whether treatment for prostate cancer detected by screening improves health outcomes, compared with treatment after clinical detection.

This is a USPSTF “I” statement. The evidence is insufficient to recommend for or against routinely providing screening. Evidence on effectiveness is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.

#### Strength of recommendation (SOR)

- A** Good-quality patient-oriented evidence
- B** Inconsistent or limited-quality patient-oriented evidence
- C** Consensus, usual practice, opinion, disease-oriented evidence, case series

The 2008 USPSTF recommendation statement was published prior to these 2 studies. However, the findings are unlikely to lead to a revision, due to the differing results. For our purposes, the evidence rating was updated to comply with the strength of recommendation taxonomy (SORT).<sup>4</sup>

### Guideline relevance and limitations

Because men between the ages of 50 and 75 comprise a significant portion of a primary care physician’s practice, proper recommendations for prostate cancer screening are vital. Physicians must educate patients about the potential benefits and harms of any screening modality.

A PSA level of >4 can lead to an increase in office visits and in invasive procedures. Invasive

procedures increase the risk of erectile dysfunction, urinary incontinence, bowel dysfunction, and death. African American men and men with a family history of prostate cancer are at increased risk for diagnosis and death from prostate cancer. However, the previously described gaps in the evidence regarding potential benefits of screening also apply to these high-risk men.

### Guideline development and evidence review

The USPSTF developed the guideline to (1) summarize the current USPSTF screening recommendations and supporting scientific evidence on screening for prostate cancer, and (2) update the 2002 USPSTF recommendations.

The key questions were as follows:

- Does screening for prostate cancer with PSA, as a single-threshold test or as a function of multiple tests over time, decrease morbidity or mortality?
- What are the magnitude and nature of harms associated with prostate cancer screening other than overtreatment?
- What is the natural history of PSA-detected, nonpalpable, localized prostate cancer?

The guideline panel completed a systematic review with evidence tables. Literature searches were completed for the period between January 2002 and July 2007. Additional evidence was identified through a search of the Cochrane Library, expert recommendations, and a hand search of reference lists from major review articles and studies. The panel also compared guidelines from other professional organizations. Both external and internal peer review was completed.

### Source for this guideline

US Preventive Services Task Force. Screening for prostate cancer: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med.* 2008;149:185-191. Available at: <http://www.ahrq.gov/clinic/uspstf/uspSprca.htm>.

### Another guideline on prostate cancer screening

Lim LS, Sherin K, ACPM Prevention Practice Committee. Screening for prostate cancer in

U.S. men: ACPM position statement on preventive practice [published correction appears in *Am J Prev Med.* 2008;34:454]. *Am J Prev Med.* 2008;34:164-170.

This guideline from the American College of Preventive Medicine (ACPM) was revised in early 2008. ACPM reviewed the efficacy of DRE

and PSA for prostate cancer screening based on a literature review prior to July 2007. The group's recommendations concurred with the USPSTF recommendations, but did include consideration of screening of high-risk men (African Americans and patients with primary relatives with prostate cancer). **JFP**

References

1. US Preventive Services Task Force. Screening for prostate cancer: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med.* 2008;149:185-191.
2. Schroder FH, Hugosson J, Roobol MJ, et al; for the ERSPC Investigators. Screening and prostate-cancer mortality in a randomized European study. *N Engl J Med.* 2009;360:1320-1328.
3. Andriole GL, Crawford ED, Grubb RL 3rd, et al; for the PLCO Project Team. Mortality results from a randomized prostate-cancer screening trial. *N Engl J Med.* 2009;360:1310-1319.
4. Ebell M, Siwek J, Weiss BD, et al. Simplifying the language of evidence to improve patient care: Strength of recommendation taxonomy (SORT): a patient-centered approach to grading evidence in the medical literature. *J Fam Pract.* 2004;53:111-120.



Gaps in the evidence regarding the potential benefits of screening also apply to African American men and men with a family history of prostate cancer.