VIEWPOINT

The US Preventive Services Task Force 2017 Draft Recommendation Statement on Screening for Prostate Cancer
An Invitation to Review and Comment

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Supplemental content

The US Preventive Services Task Force (USPSTF) has issued a draft recommendation statement on screening for prostate cancer, based on an updated systematic evidence review and assessment of the evidence. The full draft recommendation is available for public comment on the USPSTF website[1] through May 8, 2017. The USPSTF has proposed the following draft summary language and grade:

The decision about whether to be screened for prostate cancer should be an individual one. The USPSTF recommends that clinicians inform men ages 55 to 69 years about the potential benefits and harms of prostate-specific antigen (PSA)–based screening for prostate cancer. Screening offers a small potential benefit of reducing the chance of dying of prostate cancer. However, many men will experience potential harms of screening, including false-positive results that require additional testing and possible prostate biopsy; overdiagnosis and overtreatment; and treatment complications, such as incontinence and impotence. The USPSTF recommends individualized decision-making about screening for prostate cancer after discussion with a clinician, so that each man has an opportunity to understand the potential benefits and harms of screening and to incorporate his values and preferences into his decision. (C recommendation)

In the absence of evidence to guide screening recommendation for African American men and men with a family history of prostate cancer, the C recommendation applies to the general population and these high-risk groups. For men 70 years and older, the draft recommends against PSA-based screening for prostate cancer (D recommendation). The evidence shows that prostate cancer is slow growing, and the 10-year survival rate is quite high. Rates of overdiagnosis are higher in older men, raising the concern that screening may result in more harm than benefit in this age group.

This draft recommendation statement is an update of the 2012 recommendation statement on the same topic.[2] In 2012, the USPSTF found that the evidence supported a potential benefit of PSA-based screening for prostate cancer, with the largest trial indicating that 1 man in 1000 screened may avoid death from prostate cancer with screening (relative risk [RR], 0.79 [95% CI, 0.68-0.91], after a median follow-up of 11 years). The evidence also identified frequent and serious harms that may occur in many men who undergo screening. The harms include treatment complications, such as impotence and incontinence, and overdiagnosis leading to overtreatment. The 2012 evidence review found that nearly 90% of men with PSA-detected prostate cancer in the United States had received early treatment with surgery, radiation, or androgen deprivation therapy. Based on this evidence, in 2012 the task force recommended that, on balance, the benefits of screening did not outweigh the harms and assigned a D grade, recommending against routine PSA-based screening for prostate cancer in all men. The 2012 recommendation statement acknowledged that screening was a common practice at the time and would likely continue and therefore advised that

some men will continue to request screening and some physicians will continue to offer it. The decision to initiate or continue PSA screening should reflect an explicit understanding of the possible benefits and harms and respect patients' preferences. Physicians should not offer or order PSA screening unless they are prepared to engage in shared decision making that enables an informed choice by patients. Similarly, patients requesting PSA screening should be provided with the opportunity to make informed choices to be screened that reflect their values about specific benefits and harms.[2]

What Is Different in 2017?

First, the change in grade is based on additional evidence published since the 2012 recommendation statement. Additional follow-up of the largest trial to show a benefit of prostate cancer screening increased the confidence in the benefits of screening, which continued to show a reduction in prostate cancer mortality, with slightly more than 1 man per 1000 offered screening avoiding death from prostate cancer (RR, 0.79 [95% CI, 0.69-0.91], after a median follow-up of 13 years).[3] There is also new evidence that 3 men per 1000 offered screening may avoid metastatic disease (RR, 0.70 [95% CI, 0.60-0.82], after a median follow-up of 12 years).[4] The USPSTF also reviewed evidence that some of the harms of treatment may be mitigated by a newer approach, known as "active surveillance," in which men diagnosed with lower-risk prostate cancer (based on clinical stage, tumor grade, and PSA level) are monitored with more frequent PSA testing and prostate biopsy rather than immediate treatment with surgery or radiation; treatment is reserved for men whose cancer progresses under surveillance. This approach has gained acceptance in the United States, with about 10% of men diagnosed with

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lower-risk prostate cancer in 2005-2009 undergoing active surveillance and increasing to about 40% in 2010-2013.[5] The USPSTF reviewed evidence showing that active surveillance may be as effective as surgery or radiation in preventing death from prostate cancer in selected men, although additional studies with longer-term follow-up are needed to evaluate for an increase in metastatic disease, which was observed in 1 trial. Based on this new evidence, the USPSTF concluded that screening for prostate cancer results in a small net benefit overall, but the USPSTF continues to note that the important benefits of screening that may be realized in some men become apparent more than a decade after screening is initiated and that the harms of screening occur in many men throughout the screening process.

Second, although the USPSTF concluded that there may be a small net benefit to screening in men ages 55 to 69 years, the balance of benefits and harms in men remains close, and therefore the decision to initiate screening must be an individual one. The body of evidence reviewed underscores how closely balanced the benefits and harms of screening are and how the balance may shift from "net benefit" to "net harm," depending on how much value an individual places on the benefits vs the harms. Because of this close balance, the right decision for each man must be one that reflects his own values and preferences regarding the benefits and harms of screening. Some men will value reducing their chance of dying of prostate cancer or developing metastatic disease, even if the likelihood of benefit is small, and thus will be willing to risk the more common anticipated harms of screening, including overdiagnosis leading to overtreatment, and treatment complications (such as incontinence and impotence). Other men will conclude that because the likelihood of benefit from prostate cancer screening is small, they will not be willing to risk the potential harms that occur during the process of screening. The "right" approach is not screening *all* men for prostate cancer but rather choosing to screen (or not to screen) based on each man's values and preferences after an informed discussion. Empowering patients, and the clinicians who care for them, with scientific evidence to make informed decisions is the fundamental goal of the USPSTF.

Third, the USPSTF devoted particular attention to providing details about African American men and men with a family history of prostate cancer—groups who are disproportionately affected by prostate cancer and its consequences but are underrepresented in the prostate cancer screening research. A patient knowing that he is at increased risk for prostate cancer may be a factor in the decision to screen; the goal of the USPSTF is to highlight the risk for these men to give both patients and clinicians the tools to inform discussions about screening. However, there is not enough evidence to make a recommendation specific to these 2 groups. Only 4% of the participants in the largest US trial of screening were African American men, even though African Americans represent 12.6% of the US population and African American men have at least double the incidence of prostate cancer compared with white men.[6] The USPSTF has emphasized the critical need for more studies in these populations. Whether the differences in epidemiology in these groups may warrant screening earlier, more frequently, or with different modalities are all important areas for future study.

A flow diagram[1] (eFigure in the Supplement) is provided to help men understand the potential benefits versus risks for screening men 55 years and older. For example, over the next 10 to 15 years, if a 55-year-old man chooses not to get screened, his chance of dying from prostate cancer is about 0.6%. If he chooses to be screened, he reduces the chance of dying from prostate cancer to 0.5%—about a 20% relative reduction. Screening may provide him with the additional benefit of reducing his risk of metastatic disease. If he chooses to be screened, he has about a 25% chance of having a positive PSA test result at some point during screening that will likely require a biopsy with possible adverse effects of pain, bleeding, and infection. Overall, if he is screened, he has a 10% chance of being diagnosed with prostate cancer, with a substantial proportion of these cancers (20%-50%, based on the trials) unlikely to grow or spread. About 65% of men diagnosed with prostate cancer are treated with surgery or radiation soon after being diagnosed. An additional 15% have surgery or radiation treatment later, after their cancer is found to have progressed under active surveillance; 75% of all those treated experience impotence, incontinence, or both as a result of these treatments.

What has not changed is that the USPSTF welcomes comments. This is a *draft* recommendation. As with all draft recommendation statements, the USPSTF seeks comments from individuals and organizations, which can be submitted directly on the USPSTF website.[1] The USPSTF reviews all comments and incorporates relevant information into the final recommendation statement. The goal is to make the recommendations as accurate, clear, and useful as possible. The USPSTF encourages clinicians and patients to participate in the process.

ARTICLE INFORMATION

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