

# The Controversy Over Prostate Cancer Screening

Cancer of the prostate is a very common malignancy among men. It is estimated that in 2014, nearly a quarter million men will be diagnosed with prostate cancer in the US, and 30,000 men will die of the disease. Over the past several decades, considerable effort has been directed at reducing prostate cancer mortality. As in other cancers, early diagnosis is crucial for optimizing chances of treating prostate cancer for cure; and for prostate cancer we have a simple blood test, the prostate specific antigen (PSA) test that has proven very helpful in achieving early diagnosis of prostate cancer when PSA is used as a screening tool.

It may come as a surprise, then, that PSA screening for prostate cancer has become very controversial. The reason for controversy is three-fold: a) an elevated PSA leads to a prostate biopsy, which can be an uncomfortable procedure; b) a prostate cancer seen on biopsy leads to either radiation therapy or surgery, both of which can cause significant adverse side effects for bowel, urinary and sexual function; and, most notably, c) many prostate cancers will not rapidly progress and will not meaningfully affect the patient—those patients would die of other causes even though prostate cancer was present, even over many years. In other words, many patients who have had prostate cancer diagnosed by PSA screening undergo extensive treatment that was never needed. Those men are considered “over-diagnosed”.

As a result, some organizations, including the United States Preventive Services Task Force, recommend that PSA screening not be done routinely for men at average risk. Other organizations, including the American Cancer Society, still recommend yearly or bi-yearly PSA screening for most men beginning at age 50 or 55, and beginning at age 40 for men at high risk (African-Americans or those with a strong family history).

A recent study attempted to further clarify the best approach to prostate cancer screening using predictive computer models assessing prostate cancer deaths in three scenarios: discontinuation of all screening, or continued screening as per the American Cancer Society recommendations, or screening only men between the ages of 50 and 70 (between 40 and 70 for high risk men). The study showed that the age-restricted PSA screening approach (screening only men less than age 70) resulted in a two-thirds reduction of “over-diagnosis” of prostate cancers not requiring treatment, while still identifying about 60% of avoidable cancer deaths.

This approach of screening average risk males only between the ages of 50 and 70 may appear appealing given this marked reduction in the number of men avoiding unneeded treatment for prostate cancer. However, this approach would also fail to prevent about 20,000 avoidable cancer deaths. So, we still don't have any easy answers about how to approach prostate cancer screening. For now, our group prefers the American Cancer Society guidelines (yearly or bi-yearly PSA screening for men over age 50), but we recognize the real importance of discussing the consequences of aggressive PSA screening carefully with all patients, so they can make their own informed decision. We are optimistic that more effective screening tools, that might help us identify which patients with elevated PSA levels can be followed without intervention, will soon emerge.



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