

PSA Screening For Prostate Cancer: Yes Or No?

The United States Preventive Services Task Force issued a recommendation that healthy men should no longer receive PSA testing as part of routine cancer screening. As a urologist and a wellness advocate, I take great issue and have grave concerns about this recommendation. The following communication was created in order to help you understand the importance and benefits of the PSA test.

The USPSTF—a government-backed panel—counseled against the use of PSA testing in healthy men, positing that it does not save lives and leads to more tests and treatments that needlessly cause pain, incontinence and erectile dysfunction. They downgraded the efficacy of PSA screening from “I” (inconclusive) to “D” (recommending against the service).

The following is a direct quote from their report:

PSA-based screening is associated with detection of more prostate cancers; small to no reduction in prostate cancer–specific mortality after about 10 years; and harms related to false-positive test results, subsequent evaluation, and therapy, including over-diagnosis and over-treatment.

It should be well noted that the chairwoman of the USPSTF is a pediatrician and not one member of the task force included a urologist, the specialist who is at the forefront of treating prostate cancer! Two years ago, the same organization advised that women in their 40’s should no longer undergo routine mammography nor even breast self-exam, setting off a blaze of controversy. Their proposals were met with great resistance by many cancer organizations, women, and their physicians, many of whom continue to ignore their recommendations.

Over the past years, the USPSTF has issued many specific recommendations regarding screening for many types of cancers. When I did some research into some of their recommendations, I came up with the following:

- The U.S. Preventive Services Task Force (USPSTF) recommends against screening for testicular cancer in adolescent or adult males.
- They recommend against routine screening for ovarian cancer.
- They conclude that current evidence is insufficient to assess the balance of benefits and harms of using a whole-body skin examination by a doctor or patient skin self-examination for the early detection of melanoma, basal cell cancer, or squamous cell skin cancer in the adult general population.
- They recommend against routine screening for colorectal cancer in adults age 76 to 85 years
- They conclude that current evidence is insufficient to assess the balance of benefits and harms of screening for visual acuity for the improvement of outcomes in older adults.

The aforementioned recommendations are rather interesting—one gets the feeling that as a general theme, this organization is not interested in proactive, pre-emptive, preventative screening measures. It is not entirely clear what their motivation might be, although I have suspicions that it might just have something to do with economics and the rationing of healthcare.

I, along with other members of the American Urological Association, ardently disagree with the assertions of the task force that prostate cancer screening with the PSA test provides no clear benefits. Urologists, radiation oncologists, and medical oncologists—those physicians in the know who are in the “trenches” and take care of prostate cancer on an everyday basis—understand how devastating prostate cancer can be, and the essential importance of early detection. 95% of male urologists and 80% of primary care physicians older than 50 undergo PSA screening themselves—clearly those in the know feel that screening is beneficial.

Confidently and unequivocally, I can state that when interpreted appropriately, the PSA test provides important information in the diagnosis, pre-treatment staging, risk assessment and monitoring of prostate cancer patients. Marginalizing this important test does a great disservice to those who may benefit from early prostate cancer detection.

The recommendations of the task force will ultimately do more harm than good to the many men at risk for prostate cancer. Denying patients the opportunity to participate in decisions regarding their health care because of concerns regarding treatment they may never get is a stick-your-head-in-the-sand approach to medicine that will cost lives. Sadly, this recommendation needlessly puts into harm’s way the men who are most at risk: the underinsured, those who have a family history of prostate cancer and, especially, African-American men (who have the highest incidence of and death rates from prostate cancer).

I have practiced urology for 25 years, in addition to 7 years of residency and fellowship training before entering practice. I am old enough to have served as a physician in both the pre-PSA era and the post-PSA era. In my early years of training at the University of Pennsylvania School of Medicine, I was often called to the emergency room to advise and treat men who could not urinate (acute urinary retention) whom on digital rectal exam were found to have rock-hard prostate glands and on imaging studies to have spread of prostate cancer to their bones—metastatic prostate cancer with a grim prognosis. In the post-PSA era, that scenario—fortunately—occurs on an extremely infrequent basis thanks to PSA screening. Generally, the only men who do present that way these days are those who have opted NOT to obtain a screening PSA as part of their annual physical exams.

Prostate cancer starts out as a small focus that is not detectable on digital rectal exam and is only capable of being diagnosed by the PSA test. It will then gradually progress to the point that it can be felt on rectal exam. In the pre-PSA era, this was the only way to detect prostate cancer. If left untreated, prostate cancer will

then advance locally. Ultimately it will spread to peripheral organs, most often the bony skeleton.

There is little debate that successful prostate cancer outcomes depend on early detection, and studies demonstrate that screening can effectively detect the disease. Annual screening with PSA and rectal exams has resulted in *downward stage migration*—picking up cases of prostate cancer in an early, curable stage before they spread and become incurable. I have little doubt that PSA testing saved the life of my own father, who underwent prostate surgery for cancer 15 years ago and is now a healthy, thriving and active 80-year-old.

The task force suggests that men without symptoms do not need to be screened, but every urologist knows this is a tragic error — by the time prostate cancer has symptoms, it is generally too late to cure. Adoption of these recommendations will undo more than two decades of progress and result in the needless deaths of thousands of men.

Importantly, prostate cancer is a remarkably heterogeneous disease with every single case being unique—literally as different as snowflakes—thus, the management of prostate cancer must be individualized. The major challenge for those of us who treat prostate cancer is to distinguish between clinically significant and clinically insignificant disease and to decide the best means of eradicating clinically significant disease to maintain both quantity and quality of life.

Not all prostate cancers require active treatment and not all prostate cancers are life threatening. The decision to proceed to active treatment is one that men should discuss in detail with their urologists to determine whether active treatment is necessary, or whether surveillance may be an option for their prostate cancer.

One very useful test we have to help predict whether a prostate cancer will behave in an indolent vs. aggressive fashion is the Gleason score. The pathologist uses the microscope to grade the cancer architecture on a score from 1-5, using the two most predominant areas of cancer to come up with a total score of 2-10. Gleason 2-4 usually acts in a slow-growing manner; 5-7 in an intermediate manner; 8-10 in an aggressive manner. Integrating the Gleason score, the PSA level, the number of biopsies showing cancer, and the percentage involvement of each biopsy can aid us in predicting the potential risk of the prostate cancer and help us in guiding treatment.

What exactly is the PSA test?

It's just a simple blood test that is sent out to a laboratory with results available in a few days. It measures the level of PSA in the blood and is the best tool currently available for detecting prostate cancer in its earliest— and most curable—stages. Prostate-specific antigen (PSA) is a protein produced by the prostate gland. It is an enzyme that functions to liquefy semen following ejaculation.

Although PSA is widely accepted as a tumor marker, it is prostate *organ-specific* but not *cancer-specific*. In other words, it can be elevated due to the presence of prostate cancer; but not all elevated PSA tests mean that prostate cancer is present—benign prostate conditions can elevate it as well; the most common of these are *prostatitis* (inflammation of the prostate) and *benign prostatic hyperplasia* (*BPH*, an enlargement of the prostate gland).

It is very useful to compare the PSA values from year to year. Generally, the PSA will increase by only a small increment, reflecting benign prostate growth. If the PSA accelerates at a greater rate than anticipated—a condition known as accelerated PSA velocity—an ultrasound/biopsy is indicated.

The PSA test is extremely helpful to monitor patients with a history of prostate cancer to check the status of the cancer. If the PSA level begins to rise, it may be the first sign of recurrence. Such a biochemical relapse typically precedes clinical relapse by months or years.

In 2009, there were two studies published in the *New England Journal of Medicine* with respect to screening for prostate cancer. The results were summarized on the front pages of many newspapers, resulting in confusion for many patients. Andriole, in the United States, reported no mortality benefit from combined digital rectal exam and PSA screening after 7-10 years. Schroeder in Europe reported that PSA screening alone (without rectal exams) resulted in a 20% decrease in the death rate at a median follow up of 9 years. It is the consensus of many urologists that these studies were published prematurely, with ambiguous results.

The following are the hard, indisputable facts upon which all experts agree:

- More than 30,000 men die of prostate cancer each year in the USA—it is the 2nd leading cause of death for American men
- The PSA test provides information to doctors and patients with virtually no risk; it does not cause erectile dysfunction or incontinence. The USPSTF has conflated risks of treatment with risks of screening—screening is not treatment and is not even diagnostic, it is simply screening.
- USA death rates from prostate cancer have fallen 4% annually since 1992, the beginning of the PSA era. Medicare database analysis has shown a 75% decrease in metastatic disease at diagnosis during the PSA era and a 40% decrease in the death rate. 1992: 51,000 deaths; 2011: estimated 33,700 deaths (and this with a significantly increased population over 20 years).
- Generally, urologists do not screen or treat men who have a life expectancy less than 10 years for the very reason that prostate cancer rarely causes mortality in the first decade after diagnosis and that other competing

medical issues will cause death before the prostate cancer has a chance to.

- Prostate cancer is a slow-growing process for which detection and treatment is directed at extending life well beyond the decade following diagnosis! The aforementioned studies will not prove meaningful until carried out for 15, 20, and 25 years and beyond—the time reference in which we expect treatment to make a meaningful difference. Drawing conclusions from 10-year data for a 20-year disease is ignorant at best!

In conclusion, when used properly, the PSA test is invaluable, allowing identification of men who merit a biopsy. A biopsy that reveals prostate cancer should then lead to an intelligent discussion between doctor and patient of options, including active surveillance—as some men will never require treatment. A biopsy done as a result of PSA screening can help identify which men require immediate aggressive treatment as a lifesaving measure.

If PSA screening is abandoned, these men will miss their chance for cure and become one of the 30,000 plus Americans who die each year from prostate cancer. I give the recommendations by the USPSTF an “F” grade—their nihilistic stance on PSA is a disservice to our society. In my humble opinion, the name of this organization would more aptly be The United States Preventive Services Task Farce!

PSA screening performed intelligently will save lives. There are essentially no risks to screening, and to deny patients the opportunity to participate in decisions regarding their own health care because of concerns regarding treatment they may never get is a scientific bait-and-switch of the worst order. Until Apple invents the iFinger, PSA is the next best thing!

For more information:

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click on “patient education” and then on *“Prostate Cancer: Second Opinion”* to read/download our comprehensive monograph.

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