Prostate Cancer: Why Screen?

by Thomas E. Moody, MD, Urology Centers of Alabama

The U.S. Preventive Services Task Force's (USPSTF) recent recommendation against PSA-based screening for prostate cancer[1] has sparked renewed controversy over the value of screening. Understandably, this has put many primary care physicians in a difficult position to know what to do in advising their patients.

As a member of a large urology group that extensively uses PSA testing in our everyday practice, I believe it is ill-advised to adopt a "one-size-fits-all" policy that recommends against screening for all patients. Here's why:

Prostate cancer is the most common cancer in American men after skin cancer.[2] It is the second-leading cause of cancer death among American men behind lung cancer.[3] This year, it is expected that 241,740 new cases of prostate cancer will be diagnosed in the United States, and about 28,000 men will die from this disease.[4]

In Alabama, prostate cancer is particularly lethal. The death rate from prostate cancer in Alabama is the *third-highest* in the nation, and for African-American men in this state, the death rate due to prostate cancer is the highest in the nation.[5] We believe that the reason for these disturbing statistics is that many men in Alabama don't have the opportunity for early detection and treatment.

Consider this:

Since the advent of widespread screening, the death rate from prostate cancer has declined more than 40 percent.[6] In addition, the reduction in advanced disease has been truly remarkable: in 1991, before PSA testing was widely available, 20 percent of men were diagnosed with prostate cancer that had metastasized; today, that number is less than 4 percent.[7]

A recent study published in *Cancer* (July 30, 2012) concluded that, if pre-PSA-era rates were present in the modern U.S. population, the total number of men presenting with metastatic prostate cancer would be approximately three times greater than the number actually observed.[8]

So why the controversy?

In May 2012, the USPSTF recommended against PSA-based screening for prostate cancer.[9] The Task Force said that the reduction in prostate cancer mortality is at most very small and that there is a moderate certainty that the benefits of PSA-based screening do not outweigh the harms.

The USPSTF's recommendation was based on two studies that appeared in *The New England Journal of Medicine* in 2009: the U.S. PLCO (Prostate, Lung, Colorectal and Ovarian) Cancer Screening Trial[10] and the ERSPC (European Randomized Study of Screening for Prostate Cancer).[11]

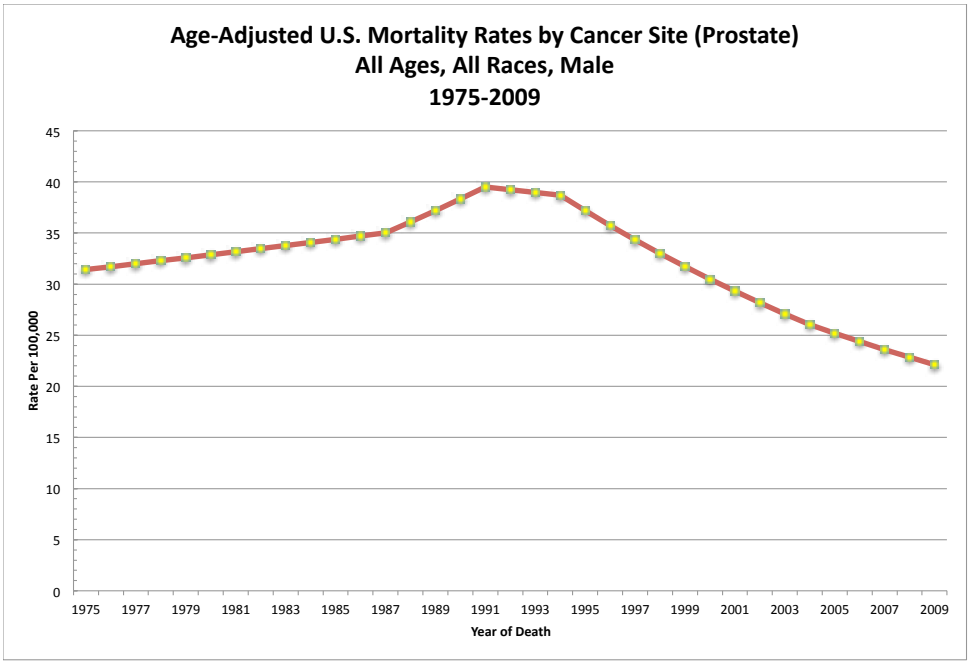
The PLCO study showed no survival benefit from prostate cancer screening after seven years of follow-up, but for prostate cancer, that time period is too short to see any meaningful difference between treated and untreated groups. Also, 40 percent of the "unscreened" patients were screened prior to entering the study, and at 10 years, the data were only 67 percent complete.

The ERSPC study showed a 20 percent higher death rate in unscreened patients, and the median follow-up was nine years. The study concluded that prostate cancer screening decreased the death rate but resulted in significant overdiagnosis. Removing the data contamination in the ERSPC study showed that there was a 31 percent reduction in prostate cancer deaths.[12]

More recent studies demonstrate a clear advantage to prostate cancer screening. For example, the Gőteborg study showed that prostate cancer mortality was reduced almost by half as a result of PSA testing; this study involved 20,000 men during a 14-year period and was partially funded by the NIH.[13] A 2012 update of the ERSPC study showed a 38 percent survival advantage in screened patients during years 10 and 11 of follow-up.[14]

Other research points to a conclusion that, while many prostate cancers are cured, not all need to be cured. A recent article in *The New England Journal of Medicine* showed that for some patients with low-risk prostate cancer, the survival without treatments was equal to the survival with radical prostatectomy.[15]

At present, being able to distinguish the aggressive cancers from the "insignificant" cancers is somewhat problematic. We clearly need better methods to determine the differ-



Cancer sites include invasive cases only unless otherwise noted. Mortality source: U.S. Mortality Files, National Center for Health Statistics, CDC. Rates are per 100,000 and are age-adjusted to the 2000 U.S. Standard Population (19 age groups — Census P25-1130). Regression lines are calculated using the Joinpoint Regression Program Version 3.5, April 2011, National Cancer Institute.

ence in the cancers that need to be treated and those that don't.

We can certainly hasten that day by advocating more forcefully for increased funding for prostate cancer research. Recent data shows that breast cancer research is funded at a rate of more than twice that for prostate cancer.[16]

Until a better screening test is developed, more can be done to make PSA screening more selective. For example, if a man's PSA is less than 1 at age 40 — the American Urological Association's recommended starting age for prostate cancer screening[17] — then he probably doesn't need to be screened on a yearly basis until he reaches age 50.

As with all things in medicine, our knowledge of prostate cancer and its detection is evolving. But should we abandon PSA-based screening just because it has some shortcomings?

I, along with other urologists I practice with, think not. We strongly believe that the PSA test, when properly interpreted, continues to be a useful test in the early detection of prostate cancer and that patients should have the right to decide whether to be screened after consultation with their physician.

Should you recommend prostate cancer screening for your patients? Look at the objective data, and you be the judge.

References

1. U.S. Preventive Services Task Force. Screening for prostate cancer: U.S. Preventive Services Task Force recommendation statement. Release date: May 2012. Accessed at www.uspreventiveservicestaskforce.org/prostatecancerscreening/prostatefinalrs.htm on August 5, 2012.

2. American Cancer Society. Prostate Cancer. Accessed at www.cancer.org/Cancer/ProstateCancer/DetailedGuide/prostate-cancer-key-statistics on August 5, 2012.

3. Id.

4. Id.

5. Centers for Disease Control and Prevention. National Center for Health Statistics. Health Data Interactive. Accessed at www.cdc.gov/nchs/hdi.htm on May 16, 2012.

6. National Cancer Institute. Surveillance Epidemiology and End Results. Accessed at http://seer.cancer.gov/faststats/selections.php on August 6, 2012.

7. The James Buchanan Brady Urological Institute. Response to The United States Preventive Services Task Force (USPSTF) Recommendation Against PSA Testing For the Early Diagnosis of Prostate Cancer in Healthy Men. Accessed at http://urology.jhu.edu/PSA-controversy.php on August 9, 2012.

8. Scosyrev E, Wu G, Mohile S, Messing EM. Prostate-specific antigen screening for prostate cancer and the risk of overt metastatic disease at presentation: Analysis of trends over time. Cancer. *2012 Jul 30. [Epub ahead of print].*

9. U.S. Preventive Services Task Force. Screening for prostate cancer: U.S. Preventive Services Task Force recommendation statement. Release date: May 2012. Accessed at www.uspreventiveservicestaskforce.org/prostatecancerscreening/prostatefinalrs.htm on August 5, 2012.

10. Andriole GL, Crawford ED, Grubb RL 3rd, et al. Mortality results from a randomized prostate-cancer screening trial. N Engl J Med. *2009 Mar 26;360(13):1310-9.*

11. Schröder FH, Hugosson J, Roobol MJ, et al. Screening and prostate-cancer mortality in a randomized European study. N Engl J Med. *2009 Mar 26;360(13):1320-8.*

12. Roobol MJ, Kerkhof M, Schröder FH, et al. Prostate cancer mortality reduction by prostate-specific antigen-based screening adjusted for nonattendance and contamination in the European Randomised Study of Screening for Prostate Cancer (ERSPC). Eur Urol. *2009 Oct;56(4):584-91.*

13. Hugosson J, Carlsson S, Aus G, et al. Mortality results from the Göteborg randomised population-based prostate-cancer screening trial. Lancet Oncol. *2010 Aug;11(8):725-32.*

14. Schröder FH, Hugosson J, Roobol MJ, et al; ERSPC Investigators. Prostate-cancer mortality at 11 years of follow-up. N Engl J Med. *2012 Mar 15;366(11):981-90.*

15. Wilt TJ, Brawer MK, Jones KM, et al. Radical prostatectomy versus observation for localized prostate cancer. N Engl J Med. *2012 Jul 19;367(3):203-13.*

16. National Cancer Institute FactSheet. Cancer Research Funding. Accessed at http://cancer.gov/cancertopics/factsheet/NCI/research-funding on August 8, 2012.

17. American Urological Association, Prostate-Specific Antigen Best Practice Statement: 2009 Update.

2012 Resident Member "Starting Your Practice" Workshop and Poster Presentation

The Alabama Academy of Family Physicians will be hosting two events for our resident members in conjunction with our Life Stages '12 Fall Form meeting, which will be held December 8-9 at the Embassy Suites, Hoover, Alabama.

We will hold our fourth annual Poster Presentation program for our resident members on December 8. The selection of a topic is up to you. We will supply a mounting station for you to use to present your posters. Setup time will be from 8 until 8:45 a.m., and they will be located in the lobby outside the CME meeting rooms. During the lunch and afternoon break, we will encourage our attendees to visit the posters and discuss them with you. This is regarded as a scholarly activity by the Residency Review Commission.

Later on December 8, from 9 a.m. until 12:30 p.m., we will hold our annual "Starting Your Practice" seminar, full of information you need to know before going out on your own to establish your medical practice. We will present such topics as managing your money and basic finance information; selecting the right kind of practice for you (solo, group, employee, etc.); selecting insurance coverage (from medical liability to coverage for your building or employees health); avoiding licensure problems with the Board of Medical Examiners; dealing with all kinds of contracts; dealing with personnel and employee issues; and other things that will help you. Following the seminar will be the business meeting with the election of the 2012-2013 officers.

There is no cost to attend the seminar or to participate in the poster presentations, and we will even provide lunch and refreshment breaks. Please mark your calendar for December 8-9, 2012, and make plans to be with us.

We look forward to seeing you in Hoover.