

PSA Testing: Why the U.S. and Europe Differ

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Expert guidelines panels of the American Urological Association (AUA) and the European Association of Urology (EAU) have concluded that using the PSA test for prostate cancer (PCa) detection remains controversial. Still, different PSA screening patterns have evolved in the United States and Europe, observes Gerhard J. Fuchs, MD, Co-Director of Cedars-Sinai Urology Center in Los Angeles. Dr. Fuchs is certified through both the American and German boards of urology.

“Both guideline panels concluded as recently as 2009, that there is, to date, no evidence-based clinical data showing a survival benefit for a population-based PSA screening program for all men in a given population,” Dr. Fuchs said.

“In reality,” he added, “these differences are driven by the urologists' interpretation of the expert guideline recommendations, the role of prostate cancer awareness in the public, medical and economic concerns and interests of the urologists, and also to a great extent by patient demand as a result of public awareness.”

Generally speaking, the AUA supports prostate screening in men aged 40 years and older. Yet the EAU does not recommend mass screening.

“The AUA as well as the American Cancer Society (ACS) currently recommend that patients make informed decisions regarding screening,” said Richard Hoffman, MD, MPH, Professor of Medicine at the University of New Mexico (UNM) School of Medicine in Albuquerque and a staff physician at the Albuquerque VA Medical Center. “In the early 1990s these organizations did indeed recommend mass screening. At the time, the data suggested that PSA was far more sensitive than digital rectal examination in detecting cancer and more likely to detect cancers at an earlier stage—when men could be offered curative therapies.”

However, the benefit of screening had not been evaluated in randomized trials, and such organizations as the U.S. Preventive Services Task Force and the American College of Physicians did not endorse the practice. “Over time, evidence accumulated indicating that PSA testing could lead to overdiagnosis, thus unnecessarily subjecting men to the harms of treatment,” observed Dr. Hoffman, a general internist with a focus in prostate disease. “This led AUA and ACS to change their position away from mass screening towards informed decision making.”

The EAU policy on PSA screening isn't enacted uniformly throughout the continent. “Austria basically has a nationwide ability to screen, whereas in other countries you may have doctors that are saying, ‘I'm sorry, but we refuse to draw a PSA or do a screening on you at this age,’ and they

send the patient home,” observed J. Brantley Thrasher, MD, the William L. Valk Chair of the Department of Urology at the University of Kansas Medical Center in Kansas City and a member of the AUA board of directors.

Dr. Hoffman explained this. “The Europeans from the start recognized the lack of evidence for screening—and the potential harms—which is indicated in the wording of various European guidelines,” he said. “I think this is one of the major factors accounting for lack of European endorsements for screening.”

The United States, however, has enthusiastically supported prostate cancer screening. “The U.S. Postal Service even issued a stamp endorsing screening,” Dr. Hoffman pointed out. “Unfortunately, as Otis Brawley, chief medical officer of the ACS, pointed out in an October 20, 2009, New York Times interview, screening has probably been oversold: The actual benefits are far less than the public has been led to believe and there are indeed harms resulting from screening.”

Nevertheless, Dr. Brawley's words may not be strong enough to make much of a dent in our national prostate cancer consciousness. “In the USA, there is much more public awareness about prostate cancer through celebrity prostate cancer cases, prostate cancer support groups, public fundraising events, and television advertisements from pharmaceutical companies than there is in the European Union (EU),” Dr. Fuchs said. “This has led to a very significant direct patient demand to be tested. In the EU, patient awareness and patient advocacy for prostate cancer early detection is rudimentary in comparison.”

In addition, Dr. Fuchs noted, an increasing amount of government and private funding for targeted prostate cancer research has further fueled the interest of the academic urological community and public awareness, thereby raising again the demand for early detection in the hope of an eventual survival benefit.

“In comparison, prostate cancer awareness in the EU is more sporadic and geographically diverse, and by far not as much of a driver for PSA testing demand,” Dr. Fuchs concluded.

Medicolegal influence

Perhaps a less litigious environment in the United States would bring our testing practices more in line with that in Europe. As it is, however, U.S. physicians are better off toeing the line, as Dr. Thrasher illustrates with a hypothetical scenario.

“If I don't give a PSA test and the patient is diagnosed with prostate cancer, or if the patient asks for a test and I refuse him because he's not in the age range or high-risk group, and it turns out he does have prostate cancer, what sort of medicolegal problem do I get myself into?”

U.S. practitioners may have no choice but to think that way. “The fear of getting sued is much more of an issue here than just about anywhere else that I've been in the world,” Dr. Thrasher said. “When I was in Egypt, for example, the doctors there said that this is absolutely not an issue for them.”

Once a PSA test has been performed, many U.S. urologists feel obligated to conduct serial testing to avoid later legal issues should the patient eventually develop prostate cancer, a situation that could lay the groundwork for a claim of negligent follow-up. “In the EU, these issues are far less prominent, as health-care expenditures for the most part are not point-of-care but bundled, with no financial incentive, and patient demand is by far less,” Dr. Fuchs said.

UNM's Dr. Hoffman agrees that malpractice concerns are a driving force in American screening practices. “One of the issues is that discussing screening is challenging and time-consuming, and tests are often ordered without any discussion,” he said. “One remedy for this, pointed out by the [March 2010] ACS guidelines, is to provide patients with decision aids to support informed decision making. Some legal experts argue that a decision made after reviewing a decision aid is more binding than an informed consent.”

During a visit to Egypt, Dr. Thrasher heard many questions as to whether the nation should adopt PSA and mammography screening to help reduce the mortality rates for prostate and breast cancers—a prospect that could put Egypt's health-care system on a slippery slope. “You have to then start looking at where the lines cross between early detection and screening and end-of-life issues, and keeping these people alive or treating the latter part of their disease process, and how much it's costing the government,” Dr. Thrasher said.

“But I will say this,” he added. “In the places where PSA screening has not been done, such as Mexico or the continent of Africa, you still see death rates from prostate cancer climb. In countries where it is being done, you're seeing the prostate cancer death rate continue to decline.”

Economics has a hand in these survival trends in the United States, according to Dr. Hoffman. “PSA screening has detected millions of early-stage cancers, which has led to marked increases in building radiation therapy facilities, for which prostate cancer is the major indication; increased use of robotic surgeries—again, for which prostate cancer is the leading indicator; and increased use of androgen deprivation,” he confirmed. “Because prostate cancer is being diagnosed at such an early stage, all surgical treatments and radiation therapies will be associated with high five-year survivals, as is the option of no treatment—and we certainly lack sufficient evidence to conclude that the newer techniques lead to better outcomes than the older techniques.”

As Dr. Fuchs points out, large patient cohort PSA screening studies are under way here (the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial) and in the EU (the European Randomized Study of Screening for Prostate Cancer). Prostate cancer mortality is a main endpoint to be assessed, with analyses expected by 2013, he said.