DEAR DOCTOR: I’m a 45-year-old man. Do I really need a PSA test every year?

DEAR READER: The short answer: Only in certain situations. Prostate cancer is the second-leading cause of cancer death among men, and in an effort to spot it early, doctors have long used the PSA test to measure prostate specific antigen, or PSA, a glycoprotein produced within the prostate. PSA production increases in prostate cancer, as does the release of the protein into the bloodstream.

Since the inception of the PSA test in 1986, prostate cancer diagnoses have increased so much that one in six men will now be diagnosed with prostate cancer in their lifetimes. One might think it is a good test, but not so fast.

The PSA test is problematic in three ways. The first is that it will detect many prostate cancers that will never be clinically significant, meaning they will never cause symptoms. Autopsy studies have shown that 30 percent of men have some form of prostate cancer by age 55, and 60 percent of men have prostate cancer by the age of 80. The majority of these cancers would have gone unnoticed, with no ill effects.

The second problem with the test is that investigating an elevated PSA with a prostate biopsy can cause significant side effects, including prostate infections, impotence, incontinence and, occasionally, death. These side effects are magnified when a patient has either prostate surgery or radiation treatment for prostate cancer, a type of treatment that may be unnecessary for a low-grade prostate cancer.

The third problem with the test is that PSA levels also increase in men who have enlarged prostates or inflamed prostates -- but not cancer. Men can be subjected to biopsies and their inherent risks simply because they have another condition entirely.

Based on these problems, some professional organizations now recommend that doctors not perform the PSA test. What appears to counter this logic is a large European study with 162,243 men ages 55 to 69 that showed the prostate cancer death rate decreased by 21 percent in men who were offered a PSA test every four years.

The American Urologic Association (AUA) has taken this study into account and varied its recommendations by age and risk. It does not recommend screening for average-risk men between the ages of 40 to 54, but says that higher-risk men -- typically those with a family history of prostate cancer or who are African-American -- may benefit at that age.

For men ages 55 to 69, the association recommends that doctors explain the risks and benefits of the PSA test and conduct it every two years. This recommendation changes for men with an elevated PSA, between 4 and 7. In these men, testing should be more frequent to make sure that the level does not rise beyond 7, which may be an indication for biopsy. However, if the PSA level is consistently low and at a level of 1 or less by the age of 60, there may be no need for further screening tests.

So my feeling is that the PSA is a useful test for average-risk men between the ages of 55 to 69, but it doesn’t have to be repeated yearly if it is normal. The test could be done every two to four years.

Another variable that may add to decision-making -- and take some of the fear out of the follow-up -- is the advent of the prostate MRI, which can both detect prostate cancers in men with an elevated PSA and decrease the complications from prostate biopsy. That technology suggests that the pros and cons of the PSA will continue to evolve.

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