

Most men with low-risk prostate cancer receive aggressive treatment

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Most men who are diagnosed with prostate cancer appear to undergo aggressive therapy, even if they have a low prostate-specific antigen (PSA) level and low-risk disease, according to a report in the July 26 issue of *Archives of Internal Medicine*.

More than 90 percent of all prostate cancers are diagnosed before the disease has spread to other parts of the body, and the five-year survival rate for these patients diagnosed with localized disease is almost 100 percent, according to background information in the article. The five-year survival rate from all stages of disease increased from 69 percent in 1975 to almost 99 percent in 2003. "The tremendous improvement in survival has been attributed to early detection and treatment," the authors write. "However, there have been concerns about the potential overdiagnosis and overtreatment of localized prostate cancer. Despite these concerns, some researchers argue that the prostate-specific antigen (PSA) level is associated with a continuum of cancer risk and recommend lowering the 4-nanogram per milliliter threshold for [biopsy](#)."

To determine current risk profiles and treatment patterns of men with prostate cancer and PSA levels below this threshold, Yu-Hsuan Shao, Ph.D., of the Cancer Institute of New Jersey, New Brunswick, and colleagues used data from the Surveillance, Epidemiology and End Results system. Of 123,934 men with newly diagnosed prostate cancer from 2004 to 2006, 14 percent had PSA levels of 4 nanograms per milliliter or lower. "The patients in these cases were less likely to have

high-grade cancer, and more than half were classified as having low-risk cancer," the authors write.

"Despite their lower risk of having clinically significant disease, treatment rates for men with PSA values of 4.0 nanograms per milliliter or lower were comparable to those of men presenting with PSA values between 4.0 and 20.0 nanograms per milliliter." More than 70 percent of men with PSA values lower than 20 nanograms per milliliter had their prostates removed via radical prostatectomy or had radiation therapy. "Radical prostatectomy was performed on 44 percent of men with PSA values of 4.0 nanograms per milliliter or lower, 38 percent of men with PSA values between 4.1 and 10.0 nanograms per milliliter and 24 percent of men with PSA values between 10.1 and 20 nanograms per milliliter. Radiation therapy was performed on 33 percent of men with PSA values of 4.0 nanograms per milliliter or lower, 40 percent of men with PSA values between 4.1 and 10.0 nanograms per milliliter and 41.3 percent of men with PSA values between 10.1 and 20 nanograms per milliliter," the authors write.

The authors suggest that if the threshold PSA value for biopsy were decreased from 4.0 to 2.5 nanograms per milliliter, the number of men with abnormal PSA levels would double to approximately 6 million. "Estimates suggest that 32 percent of men with abnormal PSA levels would be diagnosed as having [prostate cancer](#) from their needle biopsy," they write. "Based on the results in the present study, 82.5 percent of these 1.9 million men would receive attempted curative treatments, while only 2.4 percent would have high-grade cancer. However, no evidence suggests that delaying biopsy until the PSA level reaches 4.0 nanograms per milliliter would result in an excessive number of potentially non-curable disease cases."

"These results underscore the fact that PSA level, the current biomarker, is not a sufficient basis for treatment decisions," the authors conclude.

"Without the ability to distinguish indolent from aggressive cancers, lowering the biopsy threshold might increase the risk of overdiagnosis and overtreatment."

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