Advanced Prostate Cancer Rates Continued to Rise after Guideline Change

Rise accompanied by drop in early-stage cancers

A new study finds rates of advanced prostate cancer continued to increase in men aged 50 and over in the United States, five years after the United States Preventive Services Task Force (USPSTF) recommended against prostate-specific antigen-based screening for all men. The study, led by American Cancer Society investigators, says the rise in cancers that had spread beyond the prostate gland was accompanied by drops in early-stage disease during the same time period. The study appears in JNCI, the Journal of the National Cancer Institute.

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The USPSTF began recommending against prostate-specific antigen-based screening for men 75 and older in 2008 and for all men in 2012. In 2018, the USPTF recommended individual decision-making for men 55 to 69 and said men 70 and over should not be screened.

National self-reported survey data found past-year routine PSA testing rates among men aged 50 and over declined from 40.6% in 2008 to 38.3% in 2010, to 31.5% in 2013, and remained unchanged in 2015.

Previous studies reported that prostate cancer incidence rates in the U.S. declined for local-stage disease and increased for regional- and distant-stage disease soon after the USPSTF recommendations against routine screening. The new study looked at whether these patterns persisted in the longer-term, through 2016.

Researchers led by Ahmedin Jemal, DVM, Ph.D. used data from the U.S. Cancer Statistics Public Use Research Database to look at trends- annual percent change- in invasive prostate cancer incidence from 2005 to 2016 in men 50 and older stratified by stage, age group, and race/ethnicity.

They found that for all races/ethnicities combined, incidence for local-stage disease decreased by 6.4% per year from 2007-2016 in men 50 to 74. In men 75 and older, incidence declined by 10.7% per year from 2007-2013 then stabilized during 2013 to 2016.

In contrast, incidence for prostate cancer spread beyond the gland (regional- and distant-stage disease) increased in both age groups during the study period. For example, distant-stage incidence in men 75 and older increased by 5.2% per year from 2010-2016.

“These data illustrate the trade-off between higher screening rates and more early-stage disease diagnoses (possibly overdiagnosis and overtreatment) and lower screening rates and more late-stage (possibly fatal) disease,” write the authors. “Several modeling studies, however, showed that the harms associated with higher PSA screening rates can be mitigated while preserving the benefit of screening through PSA-stratified strategies including longer screening interval based on baseline PSA, higher PSA threshold for biopsy referral in older men, and restricting routine testing to men aged ≤70 years.”

The study did not cover the period after 2018, when USPTF recommendations changed again to include screening as an option for men 55 to 69, and against screening for men 70 and over. The impact of that most recent change on prostate cancer rates has yet to be seen, as cancer registry data is not yet available.

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