

# Did Change in PSA-Based Screening Recommendation Hinder Prostate Cancer–Specific Survival? ( YES!!! Peter Moon's Comment)

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**Prostate-specific antigen (PSA)** screening recommendations made by the may have led to worse outcomes for insured patients with prostate cancer, according to data presented at the 2021 ASCO Quality Care Symposium.<sup>1</sup> Findings from the retrospective study of nearly 300,000 patients diagnosed with prostate cancer showed a significant decrease in survival among insured patients following the 2012 PSA screening recommendations.

Although the underlying reasons for these findings are unclear, the study authors noted that the USPSTF recommendations may have hindered insured patients from being regularly screened for prostate cancer. As a result, that may have selectively led to worse outcomes for insured patients without improving the survival of uninsured patients.

“The USPSTF’s 2012 PSA screening recommendation may have had unintended detrimental effects on socioeconomic disparities, suggesting that alternative approaches to screening may be necessary for improved survival among patients across all socioeconomic backgrounds,” said lead study author **Isaac Elijah Kim, BS**, a fourth-year medical student at the Warren Alpert Medical School of Brown University, Providence, Rhode Island.

## Background

**Prostate cancer** is the most diagnosed cancer and the second most common cause of cancer death for men in the United States. As Mr. Kim reported, studies prior to 2012 have demonstrated significant disparities in prostate cancer based on socioeconomic factors, such as insurance status and marital status. For example, studies have reported that uninsured patients with prostate cancer suffer mortality rates almost twice as high as those of insured patients.

PSA screening for prostate cancer was adopted in 1987, but its reliability as such has long been debated, said Mr. Kim, largely due to the contradicting results of two major randomized clinical trials. In contrast to the European randomized study of screening for prostate cancer, which reported a survival benefit, the United States' Prostate, Lung, Colorectal, and Ovarian Cancer Screening trial did not find a survival benefit.<sup>2</sup> Based on these data showing a lack of benefit and the many potential harms of screening—complications from biopsies and subsequent treatment as well as the risk of overdiagnosis and overtreatment—the USPSTF recommended against PSA-based screening for prostate cancer in 2012.

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— *Isaac Elijah Kim, BS*

“The recommendation swiftly precipitated criticism from the American Urological Association and the Society of Urological Oncology, which expressed concerns that the new recommendation would prevent early diagnosis and proper treatment of prostate cancer and fail to prevent otherwise avoidable cancer deaths,” said Mr. Kim. “In fact, following the recommendation, several studies did report decreases of low-grade prostate cancer and increases in intermediate- and high-risk cancers.”

### **Study Methods**

**Mr. Kim** and colleagues sought to assess the effect of the recommendation on existing survival disparities based on four socioeconomic factors: insurance status, socioeconomic quintile, marital status, and housing status. The study examined patients with prostate cancer from the Surveillance, Epidemiology, and End Results (SEER) database, with a primary outcome of prostate cancer-specific survival based on diagnostic period and insurance status. Patients diagnosed between 2010 and 2012 were designated as belonging to the pre-USPSTF era, whereas those diagnosed between 2014 and 2016 were designated as being in the post-USPSTF period.

### **Key Results**

**Mr. Kim** and colleagues identified 282,994 patients diagnosed with prostate cancer. During the pre-USPSTF era, uninsured patients experienced worse prostate cancer-specific survival than insured patients, after controlling for factors such as age and race (hazard ratio [HR] = 1.250). During the post-USPSTF era, however, this disparity in survival difference between insured and uninsured patients disappeared (HR = 0.943).

“The drop in prostate cancer–specific survival of insured patients from the pre-USPSTF era to the post-USPSTF era was statistically significant, whereas there was no statistically significant change in prostate cancer–specific survival for uninsured patients,” said Mr. Kim. “Thus, the disappearance of the survival disparity was likely accounted for by the decrease in survival of insured patients coupled with the lack of change among uninsured patients from the pre- to the post-USPSTF era.”

According to Mr. Kim, these findings suggest that prior to the USPSTF’s change in recommendation, insured men were more likely to be screened for prostate cancer than uninsured men. This discrepancy in screening was likely due to more consistent urologic care and insurance coverage of PSA screening, noted Mr. Kim. In addition, he added, other studies have reported that insurance status was the most protective factor against presenting with metastatic prostate cancer.

“In recommending against PSA-based screening, the USPSTF may have inadvertently discouraged more insured patients from being screened for prostate cancer, whereas uninsured patients were just as likely to remain unscreened for prostate cancer,” he continued. “Under such a scenario, insured patients would experience greater increases in PSA, clinical Gleason score, and stage.”

## KEY POINTS

- Insured patients with prostate cancer experienced a significant decrease in survival following the U.S. Preventive Services Task Force 2012 recommendation against prostate-specific antigen–based screening for prostate cancer.
- Study investigators suggest that screening recommendations may have hindered insured patients from being regularly screened for prostate cancer and selectively led to worse outcomes.

Although insured patients are more likely to have a primary care provider, previous studies have shown that the USPSTF’s screening recommendation led to a 39% decrease in PSA testing by primary care physicians.

“Collectively, we propose that as a result of the USPSTF’s recommending against PSA-based prostate screening, insured patients are essentially behaving similar to uninsured patients with respect to prostate cancer screening,” he concluded.

**DISCLOSURE:** Mr. Kim reported no conflicts of interest.

## REFERENCES

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[2. Zhu CS, Pinsky PF, Kramer BS, et al: The prostate, lung, colorectal, and ovarian cancer screening trial and its associated research resource. J Natl Cancer Inst 105:1684-1693, 2013.](#)