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Et al.

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Abstract

Introduction: This study evaluates the potential impact of the publication of conflicting prostate cancer (PCa) screening trial results in 2009 and changes to the US Preventive Services Task Force (USPSTF) guidelines to recommend against screening in 2012 on temporal trends in PSA testing at two participating sites in the NCI-funded Cancer Research Network.

Methods: Study participants were men aged 40-80 without a history of PCa who sought care at Fallon Health (Worcester, MA) or Henry Ford Health System (Detroit, MI) between 2000-2014. We used health claims and electronic health record data to identify men who underwent PSA testing per calendar year. We also examined trends in PSA testing among high-risk men (African-American, family history of PCa). Testing rates were compared between 2000-2008, 2009-2012, and 2013-2014.

Results: From a population of 279,350 eligible men, 133,038 (48%) had at least one PSA test during the study period. Mean age at PSA test was 57 years, which increased over time at both sites. Overall, PSA testing rates rose between 2000-2008 (27-32% of eligible men per year), but declined between 2009-2012 (25% of eligible men). Testing rates declined further in 2013-2014 (23% of eligible men). We observed similar rates of decline in testing for men aged 55-69 and those aged ≥70. High-risk men were less likely to be screened across all time periods, although data was limited.

Conclusions: This analysis of two population-based electronic health datasets provides evidence of a recent decrease in PSA testing, following an increase in the early 2000s. Although we are unable to determine causality, it is plausible that results of recent screening trials and/or changes to the USPSTF guidelines have impacted PSA testing practices over the past 14 years.

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