

Serious Unintended Consequences of Prostate Cancer Screens and Biopsies



By Alex Berezow, PhD — April 22, 2017



Credit: Shutterstock [1]

Last year, the U.S. Preventive Services Task Force (USPSTF) [finalized a controversial recommendation](#) [2] that general breast cancer screening should begin at age 50, not before then. The decision was controversial not just because of its implications for health insurance coverage but because society has been conditioned to believe that screening is a valuable part of preventive medicine. Unfortunately, that's not necessarily true.

The reason is due to false positives. If an initial screen produces a positive result, a doctor is likely to recommend a more invasive test. Not only does this cost the patient in terms of psychological distress and money, it also poses new medical risks. As it turns out, "invasive procedures" are called that for a reason.

This isn't just a theoretical concern. A new paper published in the journal *Open Forum Infectious Diseases* showed that 3% of men who undergo prostate biopsies end up being hospitalized within a month. Worse, half of those hospitalizations are due to an infection.

Infections from Prostate Biopsies

The authors used insurance records to obtain data on 515,045 prostate biopsies that occurred from 2005 to 2012. Then, they determined how many of these patients were admitted to the hospital within 30 days. Roughly 3% of those patients were hospitalized, half of whom for conditions such as sepsis (blood infection) or prostatitis (prostate inflammation). Forty-five patients died.

In addition to the pain and suffering caused by the biopsy, the median hospital stay was 3 days,

and the average bill was about \$15,000. Extrapolating their results, the authors estimate that infections acquired from prostate biopsies cost Americans \$623 million every year.

There are two weaknesses to this study. First, the authors did not compare the hospitalization rate for men who received prostate biopsies with a control group (i.e., men who did not receive a prostate biopsy). Second, it is not possible to unambiguously conclude that all hospitalizations were due to the biopsy, though limiting the study to a 30-day window increases the likelihood that the biopsy was to blame.

The Trouble with Cancer Screens

The PSA (prostate-specific antigen) test, which measures a blood protein that potentially indicates the existence of prostate cancer, has a high false positive rate. In fact, according to the [National Cancer Institute](#) [3], *only 25% of men with a positive PSA test who go on to receive a biopsy actually have prostate cancer.*

That is just one of many reasons why the [USPSTF](#) [4] recommends against the PSA screen for people aged 70 and over, and it remains wishy-washy on a recommendation for men aged 55-69, suggesting that these patients consult with their doctors*. And it provides a counterintuitive lesson applicable to all such health screens: The risk associated with screening for a disease sometimes outweighs the risk associated with the disease itself.

**Note: This text was updated on April 27, 2017 to reflect updated USPSTF recommendations. Also, the USPSTF offers its recommendation in blatant defiance of [Ben Stiller's medical advice](#) [5].*

Source [6]: Richard Evans, Aram Loeb, Keith S. Kaye, Michael L. Cher, Emily T. Martin. "Infection-Related Hospital Admissions After Prostate Biopsy in United States Men." *Open Forum Infect Dis* 4(1): ofw265. Published: 13-Jan-2017. DOI: 10.1093/ofid/ofw265

COPYRIGHT © 1978-2016 BY THE AMERICAN COUNCIL ON SCIENCE AND HEALTH

Source URL: <https://www.acsh.org/news/2017/04/22/serious-unintended-consequences-prostate-cancer-screens-and-biopsies-11174>

Links

[1] <https://www.shutterstock.com/image-photo/nervous-patient-about-be-examined-by-94281856>

[2] <http://www.reuters.com/article/us-usa-mammogram-guidelines-idUSKCN0UP2GB20160111>

[3] <https://www.cancer.gov/types/prostate/psa-fact-sheet#q5>

[4] <https://screeningforprostatecancer.org/>

[5] <https://health.spectator.co.uk/ben-stiller-says-it-saved-his-life-but-heres-why-top-doctors-avoid-the-psa-test/>

[6] <https://academic.oup.com/ofid/article-lookup/doi/10.1093/ofid/ofw265>