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Andrew Pham

University of Vermont Larner College of Medicine

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PSA-based Prostate Cancer Screening: What to Tell Our Patients

By: Andrew Pham

Project Mentor: Jeffrey Haddock, MD

Thomas Chittenden Health Center – April 2018

Problem Identification

- In the United States, prostate cancer is second only to non-melanoma skin cancer and lung cancer as the leading cause of cancer burden and mortality, respectively. ¹
- PSA testing for prostate cancer screening is a controversial practice. Current recommendations set forth by the U.S. Preventive Services Task Force (USPSTF) advises against PSA-based screening for prostate cancer (Grade D). ²
- However, new draft recommendations call for physicians to inform men ages 55 to 69 about the risks and benefits of PSA testing so that individualized screening strategies can be established based on patient values and personal preferences (Grade C). ²
- Without a standardized template, there is an increased burden placed on physicians to facilitate complex conversations outlining the key points of PSA-based prostate cancer screening in a short office visit.

Public Health Costs

- The National Cancer Institute (NCI) estimates that the annual expenditure of prostate cancer treatment to be almost \$10 billion (2006) with projected costs to reach \$12 billion by 2020. ^{3,4}
- About 1 in 9 men will be diagnosed with prostate cancer and 1 in 41 will die from it. ⁵
- Although Vermont generally has lower rates of prostate cancer compared to the national rate, the incidence of prostate cancer still comprises 25% of all cancer in Vermont men (excluding non-melanoma skin cancer). ⁶
- Over half (55.9%) of Vermont primary care physicians recommended PSA testing. ⁷
- However, there are not enough studies to quantify the economic burden of extraneous healthcare expenditures on the diagnostic evaluation and treatment of prostate cancer stemming from PSA testing.

Community Perspective (Part 1)

- In March 2018, the University of Vermont Medical Center's blog featured an interview with Dr. James Wallace, a radiation oncologist at UVM. He believes that physicians should continue to have informed conversations with patients in regards to PSA testing, as per USPSTF draft recommendations. ⁸
- Similarly, Dr. Robert Luebbers discussed UVM's "modern approach to prostate cancer screening" (MAPS) protocol in a February 2018 Family Medicine Grand Rounds. Here, he stressed the importance of ongoing shared decision-making in addition to a risk-adjusted, individualized approach that incorporates race, family history, and a baseline PSA to maximize the benefits of screening and minimize harms. ⁷

Community Perspective (Part 2)

- Dr. Jeffrey Haddock, a family medicine physician at Thomas Chittenden Health Center (TCHC), acknowledges that the PSA test is an imperfect method to screen for prostate cancer. However, he believes that it is the best measure we currently have, and as long as both physician and patients are aware of these limitations, it can be a useful tool.
- A 72 year-old male patient at TCHC who underwent a radical prostatectomy for Gleason 3+4 prostate cancer praises the PSA test as an important indicator for monitoring recurrent disease. He explains that a family member who also had prostate cancer was recently found to have elevated PSA levels after surgery and is now being treated for metastatic cancer. He understands that PSA testing is not perfect, but believes that all men should have their PSA checked at some point.

Intervention

- The goal is to create an educational pamphlet that can be used as a standardized template to give to age-appropriate male patients in primary care offices.
- The aim of this intervention is to not only provide patients with a knowledge base prior to seeing their physician, but to also decrease the burden placed on primary care physicians to facilitate these conversations without a standardized framework.
- The literature shows that using evidence-based patient information leaflets can affect health outcomes and, perhaps more importantly, bridge the knowledge gap in the patient-physician relationship.⁹

Results

- Using guidelines set forth by the USPSTF, American Urologic Association (AUA), and UVM MAPS protocol, I created an educational pamphlet to be distributed in the exam rooms and waiting area at Thomas Chittenden Health Center.
- The focus will be on outlining the following:
 - Benefits and harms of PSA-based prostate cancer screening
 - Encouraging shared-decision making with physicians based on patient values
 - Recommendations for baseline PSA testing at ages 45-55 and ongoing screening decisions at ages 55-69

Effectiveness and Limitations

- Studies have shown that patient decision aids for cancer screening are effective at improving patient knowledge regarding cancer and screening, increasing shared-decision making, and making patients more confident with their decision about whether to be screened or not. ¹
- Increasing patient knowledge about their health promotes autonomy of healthcare decisions.
- The effectiveness of this intervention can be assessed by testing patient knowledge concerning the benefits and harms of prostate cancer screening as well as rating the confidence with which patients come to their decisions on whether they chose to undergo PSA testing.
- Limitations:
 - Language barriers and illiteracy should be addressed when providing patients with written handouts.
 - Providers may have biases for or against PSA testing that may influence their patient's decisions.

Future Recommendations

- Patient handouts can be digitized into the electronic health record (EHR) to give to patients with their after-visit summary to ensure up-to-date information in line with current guideline recommendations.
- EHR risk calculators can be developed that take into account race, family history, and baseline PSA to categorize men into risk groups. This assessment can further streamline the decision-making process – similar studies using this risk-adjusted personalized approach is being done at UVM. ⁸

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