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Primary care physicians' perceptions of an electronic medical record-embedded decision support tool for prostate cancer screening: a focus group study

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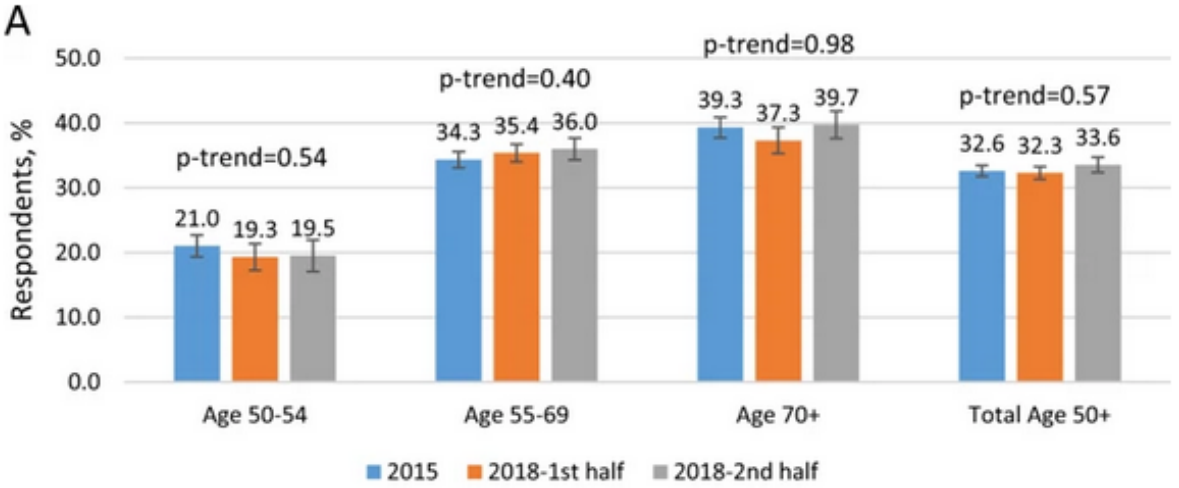
Background

- When used properly, prostate-specific antigen (PSA) screening can reduce prostate cancer mortality.
- However, screening remains relatively underused in younger, healthy men, and overused in the older, less healthy population.



National Health Interview Survey

Jiang C, et al. *Prostate Cancer Prostatic Dis*. 2020

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Hypothesis

- We hypothesized that the widespread failure to follow well-accepted PSA-screening guidelines is because:
  - the recommended algorithms are relatively complex
  - primary care physicians (PCPs) lack tools to efficiently employ shared decision-making procedures in their busy practices.

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Objective

- As a part of a larger project to develop and implement a digital clinical decision-support tool for PSA-screening for PCPs, we conducted a **focus group** to assess PCPs' attitudes toward PSA-screening algorithms, perceptions of using decision support tools, and assessing the feasibility of implementing such a tool in clinic.

Methods

- We assembled a multidisciplinary research team comprising experts in:
  - Primary care
  - Urology
  - Behavioral sciences
  - Bioinformatics

and developed a **version 1** of the decision support tool.

- The algorithm followed the NCCN guidelines

NCCN National Comprehensive Cancer Network®

- Narratives were developed using principles from behavioral economics, prompting PCPs to follow guideline-recommended directions.

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A provider-facing tool for shared decision making was also incorporated into the tool (Simple Schema)

http://annals.org/aim/fullarticle/1905132/simple-schema-informed-decision-making-about-prostate-cancer-screening

Table. **Decision Tool for Prostate Cancer Screening**

Key facts about prostate cancer and screening

- Prostate cancer is common; most men will develop it if they live long enough.
- Although only a small proportion of men with prostate cancer die of the disease, the best evidence shows that screening reduces the risk for prostate cancer death.
- Screening detects many low-risk or "indolent" cancer cases.
- In the United States, most low-risk cancer is treated and the treatment itself can lead to complications, such as incontinence, erectile dysfunction, and bowel problems.

Key take-home messages

- The goal of screening is to find aggressive prostate cancer early and cure it before it spreads beyond the prostate.
- Most cancer cases found by screening do not need to be treated and can be safely managed by a program of careful monitoring known as "active surveillance."
- If you choose to be screened, there is a good chance that you will be diagnosed with low-risk cancer and you may face pressure from your physicians or family to treat it.

Discrete decision

- If you are concerned that you would be uncomfortable knowing that you have cancer and not treating it, screening may not be for you.
- If you are confident that you would only accept treatment for aggressive cancer and would not be unduly worried about living with a diagnosis of low-risk disease, you are probably a good candidate for screening.

Vickers A. *Ann Intern Med*. 2014.

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Methods

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- The decision support tool was presented to a focus group of 10 PCPs from Brigham and Women's Primary Care, Boston.
- The focus group followed standard procedures.
- Open-ended questions were asked.
- A survey was distributed to obtain qualitative and quantitative feedback.
- Notes were taken during the focus group, which was audio-recorded, and transcribed verbatim through an independent service.
- Transcriptions were coded by two independent researchers.
- Notes and transcripts were analyzed inductively to develop codes and themes using thematic content analysis.

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Results

- The sample was representative of the demographic distribution of physicians in terms of age, gender, ethnicity, and years in practice.

- 3 major themes arose from the data

(1) Confirmatory reactions regarding the importance, innovation, and unmet need for a decision support tool embedded in the electronic medical record

"*That is the power of computers actually*"

"*Having this guideline makes me feel more comfortable with ordering the initial PSA*"

(2) Issues around implementation and application of tool in clinic workflow

"How many minutes do you have on average for your visits? Negative five"

And physicians own clinical bias coloring conversations:

"My grandfather and father had prostate cancer, they both had really awful side-effects from treatment…and I try to get rid of that bias."

(3) Attitudes/reflections regarding discrepant recommendations from various guideline groups that cause confusion

"*The guidelines all over the place*"

Results

- Physicians appreciated that the tool would allow documentation that shared decision making has taken place.
- An important feature of the tool was to allow for flexibility and leeway for clinical judgment:

  "*The clinician's judgment should be able to override or ignore whatever the tool tells*"
- Most clinicians agreed with the guideline-recommended ages to start and stop screening but described that family history and African-American race push clinicians toward starting screening earlier.
- There was a 50:50 split between whether or not clinicians also included digital rectal examination as a primary screening test in conjunction with the PSA-test.

Conclusions

- There was **overwhelmingly positive support** from for the need of a provider-facing decision support tool to assist with PSA screening decisions in primary care.
- Incorporation of the suggestions from the PCPs from this focus group into a version 2 of the decision support tool will be used in subsequent pilot testing in clinic.

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Thank you for your attention!
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