Shared Decision Making in Breast and Prostate Cancer Screening

An Update and a Patient-Centered Approach

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Overview

• Epidemiology of Breast and Prostate Cancer
• Controversies Abound
• Current Guidelines – Breast Cancer Screening
• Current Guidelines – Prostate Cancer Screening
• Cancer Survivorship
• So What is Shared Decision Making?
• Practical Approaches in the Face of Controversy: Your Stories
Concept Review: Screening

• Screening is a form of secondary prevention
  – Designed to detect disease that already exists
  – In an asymptomatic population (CASE FINDING)
    – So that benefit of early intervention can be realized by patients
• If early intervention is not clearly helpful, screening may be harmful
• If no early intervention is effective, screening may be unethical

World Health Organization
Ten Principles for Screening Tests

1. The condition should be an important health problem
2. There should be an accepted treatment for patients with recognized disease
3. Facilities for diagnosis and treatment should be available
4. There should be a recognizable latent or early symptomatic stage
5. There should be a suitable test or examination
6. The test should be acceptable to the population
7. The natural history of the condition, including development from latent to declared disease, should be adequately understood
8. There should be an agreed policy on whom to treat as patients
9. The cost of case-finders (including diagnosis and treatment of patients diagnosed) should be economically balanced in relation to possible expenditure on medical care as a whole
10. Case finding should be a continuing process and not a "once and for all" project
Controversies Abound
• Conflicting recommendations and guidelines
• Patient fears and cultural expectations
• Concerns about failure to diagnose and other medicolegal issues
• Media response to changes in guidelines

Epidemiology: Breast Cancer, US
• 1 in 8 women (12%) will develop invasive breast cancer (BC) over their lifetime
• 252,710 new cases of invasive BC expected in 2017, along with 63,410 cases of non-invasive (in situ) breast cancer in women; about 40,000 women in US will die of BC in 2017
• 1 in 1000 men will develop breast cancer over their lifetime, with 2470 new cases of invasive breast cancer expected in 2017
• Incidence began decreasing about the year 2000, after increasing for 2 decades (may be related to reduced use of HRT)
• In women under 45, breast cancer is more common in African American women than white; AA women are more likely to die. Asian, Hispanic and Native American women have lower risk of developing and dying from BC.
• 5-10% of breast cancers can be linked to gene mutations (BRCA1 and BRCA2 are the most common)
• Most significant risk factors are gender (women) and age (growing older)
Current Guidelines: Breast Cancer Screening

- **USPSTF Guidelines (January 2016) for women**
  - Age 50-74 years: biennial screening mammography (B)
  - Age 40-49 years: individualized, shared decision making (C)
  - Age 75 years or older: insufficient evidence to assess benefits and harms (I)
  - Digital breast tomosynthesis; ultrasound, MRI and other tests for dense breasts (I)
  - Recommend AGAINST teaching BSE (D) AS A SCREENING TOOL
  - Insufficient evidence to support clinical breast exam (I)

- **American Cancer Society and American College of Radiology**
  - Age 40-45, shared decision making
  - Age 45-55, yearly mammograms
  - Age 55+, transition to biennial if desired, or continue annually, for as long as in good health (ACR recommends annually)
  - For high risk women (BRCA1 or BRCA 2, first degree relative with genetic mutations, other rare risks) – MRI and mammogram every year

- **American College of OBGYN**
  - Screening mammography annually over age 40 years
  - Breast self exam can be recommended
  - Clinical breast exam every year for women >age 19

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Patient-Oriented Evidence That Matters

All-Cause Mortality: RCT Findings

All trials reported all-cause mortality outcomes

No trial found a reduction in all-cause mortality with mammography screening either for the entire intervention group or by age:

- Combined RR (>600,000 women), all ages/trials: 0.99 (95% CI, 0.97-1.002)
  - 39-49 y: RR 0.99 (0.94-1.05)
  - 50-59 y: RR 1.02 (0.94-1.10)
  - 60-69 y: RR 0.97 (0.90-1.04)
  - 70-74 y: RR 0.98 (0.86-1.14)
Potential Benefits and Harms of Mammography

Potential Benefits
- Early detection of treatable cancer
- Early treatment of appropriately treatable cancer with reduced deaths from breast cancer among women ages 40-74

Potential Harms
- False positive test results (anxiety) as high as 50% of women screened for 10 years
- False positive tests with biopsy (many of those 50% above
- Overtreatment of carcinoma in situ
- False negative tests results (up to 20%, more common in younger women) and false security
- Radiation exposure

**Note bene:**
- No evidence for benefit for mammography before age 40, even for comparison films as a baseline
- No reduction of overall mortality

Epidemiology: Prostate Cancer, US

- Prostate cancer is the most common non-skin cancer

- 1 in 6 men will be diagnosed with prostate cancer at some point in their lives

- 1 in 36 men will die from the disease

- African American men are 1.5 times more likely to develop prostate cancer and nearly 2.5 times as likely to die from the disease as compared to Caucasian men
High-Risk Groups for Prostate Cancer

• Those men with a relative who has prostate cancer are twice as likely to develop the disease
• Those with two or more relatives are nearly four times as likely to be diagnosed
• Risk is highest in men whose family members were diagnosed before the age of 65
• Other risk factors include:
  – Fatty diet
  – Obesity
  – Above average height
  – Smoking
  – Sedentary lifestyle

Current Guidelines: Prostate Cancer Screening

• USPSTF Guidelines (May 2012)
  – Grade (D) recommendation AGAINST prostate-specific antigen (PSA)-based screening for prostate cancer

• UPDATE IN PROGRESS CURRENTLY (DRAFT)
  – For men ages 55-69, the decision should be individualized, with discussion of potential risks and benefits undertaken by patient and his clinician, incorporating the patient values and preferences into his decision (Grade C Recommendation)
  – For men age 70 and older, recommendation AGAINST PSA-based screening (Grade D Recommendation)

• Other organizations, with an emphasis on American Cancer Society Guidelines from 2010
  – Asymptomatic men with at least a 10-year life expectancy should be given an opportunity to make an informed decision with their health care provider after receiving information on the uncertainties, risks and benefits of screening at the following ages:
    • Age 50 for those at average risk of developing prostate cancer
    • Age 45 for those at high risk, including African Americans and men with a first-degree relative diagnosed before age 65
    • Age 40 for those at higher risk (more than one first degree relative diagnosed with prostate cancer at an early age)
Current Guidelines: Prostate Cancer Screening

Digital rectal examination is not generally recommended for prostate cancer SCREENING. It remains an important diagnostic tool in symptomatic patients and may be valuable as an adjunct to screening for some men who prefer that over a PSA test or in tandem. ACS Guidelines indicate that it is an option for screening.

Patient-Oriented Evidence That Matters

- European Randomized Study of Screening for Prostate Cancer (ERSPC) found that prostate cancer mortality was 21 percent lower in the group offered screening

- Absolute rates were 0.43 versus 0.54 deaths per 1000 person-years. NNS = 781 men who have to be screened to prevent one cancer death over 13 years

- **There was no reduction in all-cause mortality for the group that was screened**
Potential Benefits and Harms of Prostate Cancer Screening

**Potential Benefits**
- Possible detection of an aggressive form of prostate cancer that is potentially curable at an early stage
- Early detection of aggressive cancer may lead to prevention of symptoms related to prostate cancer, its treatment, or death from prostate cancer

**Potential Harms**
- Anxiety over diagnosis of a less aggressive form of prostate cancer that might never have caused a problem
- Anxiety and discomfort from additional testing and/or surveillance
- Overtreatment of low-grade or less aggressive prostate cancer, resulting in sexual dysfunction, urinary incontinence or other complications
- False positive tests with biopsy that might not have been needed
- False negative tests results and false sense of security

**Recommendations from Duke Cancer Institute**
- **NOT SCREENING**
  - Average-risk men under the age of 50 years
  - Men over the age of 70 years (unless very healthy and with a long family life expectancy)
  - Men with a life expectancy of less than 10-15 years

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Survivorship and Long-Term Management of Cancer as a Chronic Illness

- Screening is not the same as monitoring for cancer follow-up
- The fact that people are surviving long-term impacts screening decisions
- Remember that screening is CASE-FINDING for ASYMPTOMATIC people who have disease that has not yet been discovered
Shared Decision Making

So What Is Shared Decision Making?

• A process for exploring and comparing potential benefits and harms with the patient
• Arriving at the patient’s preference through meaningful dialogue about what matters most to the patient
Key Steps in Shared Decision Making

1. Seek your patient’s participation in making a decision about screening
2. Explore with patient the potential benefits and harms of screening. Use teach-back to be sure the patient understands
3. Assess your patient’s values and preferences about screening
4. Reach a decision together with your patient about whether to screen.
5. Have a follow-up discussion with your patient about how they feel about their decision

Teach-Back Phrases

• “I know I have given you a lot of information. Tell me in your own words what you have heard.”

• “What are your thoughts about this screening decision?”

• “Let’s stop here for a moment. What questions or comments do you have about the information I have given you?”
Your Stories

• What are the toughest parts of these decisions?

• Do you have tips for your colleagues about how to handle them?

• Your case scenarios