Clinician’s Guide to Breast Cancer Screening in Older Women

Viktoriya Ovsepyan, BA; Sarina S克拉格, MD, MS
1. University of Wisconsin Department of Family Medicine & Community Health

Background

- Age is the major risk factor for late-life breast cancer
- Breast cancer accounts for 30% of all new cancer diagnoses in women
- Approximately 41% of all incident breast cancers and 57% of all breast cancer deaths occur among women aged 65 years and older, with breast cancer incidence peaking between the ages of 75-79
- Screening mammography recommendations for older women are lacking and remain controversial because randomized trials did not include women over the age of 74, and very few trials included women over the age of 70
- Observational data suggests that screening may be beneficial for older women with a life expectancy of over 10 years, since it takes about 11 years to prevent 1 breast cancer death per 1,000 women screened

Objective

The aim of this project was to develop a breast cancer screening guide for primary care clinicians who take care of women over the age of 74.

Methods

We reviewed screening mammography guidelines from the major medical organizations in the United States, Canada, Australia, and the UK, then completed an extensive literature review to find the supporting original research for these recommendations.

Screening Mammography Recommendations for Older Women at Average Risk

<table>
<thead>
<tr>
<th>Screening Mammography</th>
<th>Benefits of Screening</th>
<th>Risks of Screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Cancer Society (2015)**</td>
<td>Specificity &amp; sensitivity of mammography improves with older age</td>
<td>Overdiagnosis (increases w/ age)</td>
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<td>American College of Physicians (2018)**</td>
<td>The proportion of invasive versus ductal carcinoma in-situ cases rises with older age</td>
<td>False positives (even though they decrease with age)</td>
</tr>
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<td>Academy of Family Physicians (2009)**</td>
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<td>Follow-up procedures such as additional mammograms, ultrasounds, &amp; breast biopsies</td>
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<td>American College of Obstetricians &amp; Gynecologists (2009)**</td>
<td>Decision to stop screening should be based on a shared decision making process that includes a discussion of the patient’s health status and longevity</td>
<td>Older women may have cognitive impairment &amp; other comorbidities that make follow-up procedures more difficult</td>
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<td>American College of Radiology (2018)**</td>
<td>Screening recommendations should be tailored to individual circumstances such as life expectancy, comorbidities, and the intention to seek (and ability to tolerate) treatment if a lesion is detected</td>
<td>Negative psychological effects</td>
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</table>

Benefits of Screening

- Specificity & sensitivity of mammography improves with older age
- The proportion of invasive versus ductal carcinoma in-situ cases rises with older age
- Finding breast cancer at an early, asymptomatic stage reduces mortality

Risks of Screening

- Overdiagnosis (increases w/ age)
- False positives (even though they decrease with age)
- Follow-up procedures such as additional mammograms, ultrasounds, & breast biopsies
- Older women may have cognitive impairment & other comorbidities that make follow-up procedures more difficult
- Negative psychological effects

Results

Incorporate Elements of Shared Decision-Making

- Explain the need for a discussion, present the options
- Establish a partnership with the patient
- Explain harms & benefits of screening, check patients’ understanding, elicit patients’ preferences
- Discuss overall health & longevity, assess patients’ understanding, explore patients’ preferences
- Integrate the patients’ preferences into the decision-making process

Maximize Patients’ Understanding

- Explain risk with absolute risk reductions instead of relative risk reductions
- Utilize visual aids to convey risks, such as pictographs
- Frame discussions in terms of increasing harms in relation to decreasing benefit, especially when conveying to patients that they are unlikely to benefit from screening mammograms due to poor health (example below)

Conclusion

More online breast cancer screening health decision aids need to be developed for women over the age of 74, to facilitate and enhance the decision-making process.

National guidelines should be updated to provide clear guidance for screening older women, especially those with limited life expectancies.

Case Study: Using a Health Decision Aid and the Three Talk Model to discuss breast cancer screening in older women

Jane is a 76-year-old woman presenting for a physical. She has well-controlled HTN, lives on her own, and maintains a physically active lifestyle. Jane has been getting bi-annual screening mammograms for many years, and finds them reassuring, since she has personally known women with breast cancer. At this appointment, Jane is wondering if she needs to schedule a screening mammogram.

1. Choice Talk
   - You let Jane know that she can continue with biannual screening, or stop screening altogether, and that you can work with Jane to reach a decision that would be best for her. To start, you tell Jane that it’s unclear if screening mammograms benefit women over the age of 74, and you explain why. Then, you offer to discuss Jane’s overall health, life expectancy, and personal preferences together with her to decide whether to continue, or stop, bi-annual screening.

2. Open-Ended Opinion
   - Using the health decision aid, you review Jane’s medical history and answer questions about her ability to perform everyday physical tasks. Based on Jane’s lack of comorbidities, and good physical health, you see that she may benefit from screening mammograms. Before moving on, you ask Jane if she has any questions or concerns about what you have discussed so far.

Next, you use the health decision aid to review the harms and benefits of screening mammography in older women. You explain to Jane the risks of false positives and overdiagnosis, as well as the potential mortality benefit, and show her the pictographs that convey this information in the decision aid. Briefly, you review the treatment options for breast cancer, so that Jane considers whether or not she would choose treatment, if cancer was found on her mammograms. Afterwards, you ask Jane’s understanding.

3. Decision Talk
   - Note that you have discussed screening mammograms are likely to benefit Jane and reviewed the risks and benefits of screening with her, you ask Jane about her preferences for screening. Lastly, you integrate Jane’s preferences and values into the final decision and remind her that you can re-visit this discussion in the future as well.

References