## Screening for Breast Cancer Using Film Mammography

### Clinical Summary of 2009 U.S. Preventive Services Task Force Recommendation*

<table>
<thead>
<tr>
<th>Population</th>
<th>Women Aged 40–49 Years</th>
<th>Women Aged 50–74 Years</th>
<th>Women Aged ≥75 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recommendation</strong></td>
<td>Individualize decision to begin biennial screening according to the patient's context and values.</td>
<td>Screen every 2 years.</td>
<td>No recommendation.</td>
</tr>
<tr>
<td>Grade</td>
<td>Grade: C</td>
<td>Grade: B</td>
<td>Grade: I (insufficient evidence)</td>
</tr>
</tbody>
</table>

### Risk Assessment

This recommendation applies to women aged ≥40 years who are not at increased risk by virtue of a known genetic mutation or history of chest radiation. Increasing age is the most important risk factor for most women.

### Screening Tests

Standardization of film mammography has led to improved quality. Refer patients to facilities certified under the Mammography Quality Standards Act (MQSA), listed at www.fda.gov/cdrh/mammography/certified.html.

### Timing of Screening

Evidence indicates that biennial screening is optimal. A biennial schedule preserves most of the benefit of annual screening and cuts the harms nearly in half. A longer interval may reduce the benefit.

### Balance of Harms and Benefits

There is convincing evidence that screening with film mammography reduces breast cancer mortality, with a greater absolute reduction for women aged 50 to 74 years than for younger women.

Harms of screening include psychological harms, additional medical visits, imaging, and biopsies in women without cancer, inconvenience due to false-positive screening results, harms of unnecessary treatment, and radiation exposure. Harms seem moderate for each age group.

False-positive results are a greater concern for younger women; treatment of cancer that would not become clinically apparent during a woman's life (overdiagnosis) is an increasing problem as women age.

### Rationale for No Recommendation (I Statement)

Among women 75 years or older, evidence of benefit is lacking.

### Relevant USPSTF Recommendations

USPSTF recommendations on screening for genetic susceptibility for breast cancer and chemoprevention of breast cancer are available at www.preventiveservices.ahrq.gov.

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*The Department of Health and Human Services, in implementing the Affordable Care Act under the standard it sets out in revised Section 2713(a)(5) of the Public Health Service Act, utilizes the 2002 recommendation on breast cancer screening of the U.S. Preventive Services Task Force.*
## Screening for Breast Cancer Using Methods Other Than Film Mammography

### Clinical Summary of 2009 U.S. Preventive Services Task Force Recommendation

<table>
<thead>
<tr>
<th>Population</th>
<th>Women Aged ≥40 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Screening Method</strong></td>
<td>Digital Mammography</td>
</tr>
<tr>
<td><strong>Recommendation</strong></td>
<td>Grade: I (insufficient evidence)</td>
</tr>
</tbody>
</table>

### Rationale for No Recommendation or Negative Recommendation
- Evidence is lacking for benefits of digital mammography and MRI of the breast as substitutes for film mammography.
- Evidence of CBE’s additional benefit, beyond mammography, is inadequate.
- Adequate evidence suggests that BSE does not reduce breast cancer mortality.

### Considerations for Practice

#### Potential Preventable Burden
- For younger women and women with dense breast tissue, overall detection is somewhat better with digital mammography.

#### Potential Harms
- It is not certain whether overdiagnosis occurs more often with digital than with film mammography.
- Contrast-enhanced MRI requires injection of contrast material. MRI yields many more false-positive results and potentially more overdiagnosis than mammography.
- Harms of CBE include false-positive results, which lead to anxiety, unnecessary visits, imaging, and biopsies.
- Harms of BSE include the same potential harms as for CBE and may be larger in magnitude.

#### Costs
- Digital mammography is more expensive than film.
- MRI is much more expensive than mammography.
- Costs of CBE are primarily opportunity costs to clinicians.
- Costs of BSE are primarily opportunity costs to clinicians.

#### Current Practice
- Some clinical practices are now switching to digital equipment.
- MRI is not currently used to screen women of average risk.
- No standard approach or reporting standards are in place.
- The number of clinicians who teach BSE to patients is unknown; it is likely that few clinicians teach BSE to all women.

For a summary of the evidence systematically reviewed in making these recommendations, the full recommendation statement, and supporting documents, please go to [http://www.preventiveservices.ahrq.gov](http://www.preventiveservices.ahrq.gov).

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