Supplementary Online Content


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This supplementary material has been provided by the authors to give readers additional information about their work.


**eTable 1. Levels of Evidence: Breast Cancer Screening**

<table>
<thead>
<tr>
<th>Conclusion</th>
<th>Level of Evidence</th>
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| Mammography reduces mortality from breast cancer by about 19%.
  [1,2,3]                                                               | A                 |
| The cumulative risk of at least one false positive mammogram over 10 years of annual screening is about 50% or higher; up to 20% of these women require a biopsy.  [1,2,3] | B                 |
| About 19% of cancers diagnosed during a 10-year screening period represent overdiagnosis.  [4] | B                 |
| Risk factors other than age modify the risk to benefit ratio of mammography screening and should be used to inform screening decisions.  [5] | B                 |
| Decision aids can help promote informed decision-making by patients about mammography screening.  [b, 6, 7] | B                 |

**Levels of Evidence (from the ACCF/AHA Task Force on Practice Guidelines):**

- **A** = Multiple populations evaluated; data derived from multiple RCTs or meta-analyses
- **B** = Limited populations evaluated; data derived from a single randomized trial or nonrandomized studies
- **C** = Very limited populations evaluated; only consensus opinion of experts, case studies, or standard of care

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[b] Two RCTs of mammography decision aids have been published, both in Australian women. There is stronger data supporting the use of decision aids for other clinical decisions.
**Figure 1. Literature Search for Meta-analyses of RCTs**

- 525 citations retrieved from MEDLINE search and screened
- 416 records excluded:
  - 9 duplicates
  - 2 not English
  - 335 studies or reviews not focused on mammography screening
  - 14 reviews that did not include RCTs
  - 56 reviews that were not meta-analyses or systematic reviews

- 109 full text articles reviewed
- 90 articles excluded:
  - 8 articles not focused on mammography screening or without mortality as an outcome
  - 70 reviews that were not meta-analyses
  - 9 reviews that did not include RCTs or examine mortality as outcome
  - 3 meta-analyses with subsequent updates

- 19 articles remaining
- 1 relevant meta-analysis identified through review of reference lists

- 20 meta-analyses included in the review
eFigure 2. Literature Search for Reviews and Meta-analyses of Mammography Harms Published Before December 2008

53 citations retrieved from MEDLINE search and screened

25 records excluded:
14 studies or reviews not focused on mammography screening
10 articles that were not meta-analyses or systematic reviews
1 article about screening mammography that did not address harms of screening

14 articles excluded:
1 duplicate report
1 study that did not evaluate screening mammography
8 studies that were not systematic reviews or meta-analyses
4 studies that did not quantify the harms of interest

28 full text articles reviewed

14 articles included in the review
eFigure 3. Literature Search for Studies of Mammography Harms Published After December 2008

321 citations retrieved from MEDLINE search and screened

240 records excluded:
2 duplicate reports
191 studies or reviews not investigating the effects of screening mammography
30 studies that did not include assessment of the outcomes of interest
17 papers that were not a primary study report, systematic review, or meta-analysis

81 full text articles reviewed

18 articles excluded:
4 reports not investigating the effects of screening mammography
10 studies that did not include assessment of the outcomes of interest
4 papers that were not a primary study report, systematic review, or meta-analysis

63 articles remaining

9 articles identified through review of reference lists

72 articles included in the review
eFigure 4. Literature Search for Articles About Risk Communication and Decision Support

907 citations retrieved from MEDLINE search and screened

841 records excluded:
1 duplicate
713 articles not involving decision support or interventions to influence mammography decisions
101 studies evaluating interventions related to mammography screening, but with no discussion of individual risk profiles or of the risks/benefits of mammography
26 reports involving decision support but that did not evaluate an intervention

66 full text articles reviewed

43 articles excluded:
14 articles not involving decision support or interventions to influence mammography decisions
19 studies evaluating interventions related to mammography screening, but with no discussion of individual risk profiles or of the risks/benefits of mammography
10 reports involving decision support but that did not evaluate an intervention

23 articles remaining

2 relevant articles identified through review of reference lists

25 articles included in the review
1. Mammography screening and breast cancer mortality:


2. Harms of mammography screening

A. Citations post-12/2008:


B. Citations pre-12/2008:


3. Decision support for patients around mammography screening

eReferences


