Mammography Screening

Mammography screening is of uncertain benefit in women age 40-49.

Why is this important?

Screening for breast cancer in women age 40-49 is controversial and the United States Preventive Services Task Force (USPSTF) recommends against universal screening and that clinicians discuss the issue with patients.¹

Facts:

Trials including over 600,000 women followed for 13 years have found that mammography leads to a small reduction in breast cancer mortality.² Potential harms include overdiagnosis of clinically unimportant breast cancer, unnecessary testing and procedures, and false-positive screening tests. For every 10,000 women at average risk of breast cancer over 10 years:

- Screening will result in 45 additional women undergoing lumpectomy or mastectomy
- At least 1000 screened women will have a false positive screen requiring further work-up.
- 30 who are not screened will die from breast cancer
- 25 who are screened will die from breast cancer

Screening 10,000 women aged 40-49 with mammography for 10 years will prevent 5 breast cancer deaths.

The Bottom Line

Screening mammography in women aged 40 and 49 leads to a small reduction in breast cancer mortality at the expense of an increase in unnecessary testing and procedures. The evidence does not support universal screening. Decisions about mammography should include a discussion of the patient’s values and preferences.
**Strength of Evidence**

(Adapted from Guyatt G BMJ, 26 April 2008, Volume 336)

This refers to the degree to which the findings of this study are likely to be free of bias.

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**Tips for Discussion of Results with Patients**

Explore patient concerns, preferences, and values.

Consider asking:

- Do you have any personal experience with someone who had breast cancer?
- Are you the type of person that would want to know if you had breast cancer even if the treatment wouldn’t help you?
- How do you feel about medical tests including biopsies?

Use graphic representation on the front of the sheet to help patient visualize risks and benefits

- Compare the changes with and without screening
- Use natural frequencies (e.g. 5 in 10,000) in your discussion
- Make sure that the patient understands the time frame for benefit or harm

**References**

1. [http://www.uspreventiveservicestaskforce.org/uspsf/uspsbrca.htm](http://www.uspreventiveservicestaskforce.org/uspsf/uspsbrca.htm)


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The Bottom Line summaries reflect the expertise and opinions of the SGIM EBM Task Force as of the date of release of this summary.