**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.**

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**Number of breast cancer deaths at 10 years**

- **Without mammography:** 30 deaths
- **With mammography:** 25 deaths

**Number of Lumpectomies or Mastectomies**

- **Without mammography:** 130 procedures
- **With mammography:** 175 procedures

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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.

| High | Moderate | Low | Very low |
| +++++ | +++++ | +++++ | +++++ |

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

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