

FROM THE FAMILY PRACTICE INQUIRIES NETWORK

# When should we stop mammography screening for breast cancer in elderly women?

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## ■ EVIDENCE-BASED ANSWER

There is insufficient evidence to recommend for or against routine screening mammography beyond the age of 69 years. The best candidates to stop screening are elderly women who have significant comorbidities, poor functional status, low bone mineral density (BMD), little interest in preventive care, or an unwillingness to accept the potential harm of screening. (Grade of Recommendation: C, based on retrospective cohort studies.)

## ■ RECOMMENDATIONS FROM OTHERS

Guidelines from other groups regarding mammographic screening of older women are not consistent. Neither the American Academy of Family Physicians and the American College of Radiology make specific recommendations.

## ■ EVIDENCE-BASED ANSWER

Screening mammography for women aged up to 70 years is widely recommended. However, its role in older women is unclear, even though average life expectancy of elderly women is lengthy (eg, 9 years at age 80). Patients with 3 or more major comorbidities (ie, hypertension, diabetes, arthritis, myocardial infarction, stroke, respiratory disease, or other cancers) are 20 times more likely to die of a cause other than breast cancer within 3 years.<sup>5</sup> Although half of all cancers are diagnosed in women older than 65 years, screening these women poses some risks. For every 1000 women older than 70 years who are screened, 81 mammograms will show an abnormal result, requiring 79 follow-up tests and 26 biopsies to detect 11 cancers.<sup>6</sup> The picture is further complicated by the possibility that these cancers may be less aggressive. Cancers may grow more slowly with age,<sup>7</sup> and 25% of all tumors in elderly women are ductal carcinoma in situ, which are unlikely to cause morbidity or death within their life spans.<sup>8</sup>

Unfortunately, the randomized trials of screening mammography have enrolled few women aged 70 to 74 years and none older than 74. Two studies retrospectively compared cohorts of elderly women who did and did not have screening. Smith-Bindman and colleagues<sup>9</sup> studied 690,000 Medicare beneficiaries in California and found a 43% reduction in the risk of metastatic breast cancer in the screened group. A 13-year Dutch study found a 20% breast cancer mortality reduction that first appeared 7 years after initiating screening. The cohorts were not randomly assigned in either study, leading to possible differences in baseline risk.

In a cost-effectiveness analysis, Kerlikowske and coworkers<sup>10</sup> included BMD in the model, which is positively associated with breast cancer risk. They found a small benefit to screening for women with the highest quartile BMD (highest cancer risk) and virtually no benefit in screening the lowest quartile BMD. Mandelblatt and colleagues<sup>11</sup> incorporated comorbidities in another model and found a small benefit for women older than 69 years that gradually diminished as they approached the age of 85. This benefit was halved in the presence of a major comorbidity. Both of these models assumed that the efficacy of screening in younger women applies to older women.

Since there are no randomized trials in this age group, the true efficacy of screening is unknown. Therefore, other factors must be considered, including the patient's age, comorbidities, and preferences. The evidence suggests that the best candidates to stop screening mammography are elderly women who have significant comorbidities, poor functional status, low BMD, little interest in preventive care, or an unwillingness to accept the potential harm of screening.

#### **CLINICAL COMMENTARY**

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The evidence reviewed and the recommendations presented fit my clinical experience. I focus particularly on the issue of patient preference, because many of my elderly patients would be insulted if I recommended not getting a screening mammogram. After a woman reaches 75 years of age I address mammography screening only if the patient initiates the topic.

#### **R E F E R E N C E S**

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