Screening Mammograms in Women Aged 75 and Older

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BACKGROUND

- There is currently lack of consensus guidelines for upper age limits for screening mammograms.
- The USPSTF recommends screening mammography for women until the age of 74, however the American College of Radiology (ACR) establishes no upper age limit unless severe comorbidities limit life expectancy.
- Despite its benefit, screenings can pose potential harms including risk of overdiagnosis and overtreatment which can increase with patient age.
- Screening mammography is still routinely performed at our institution in women 75 years and older, with no upper age limit used to stop screening.
- Understanding screening mammogram outcomes in women 74 years and older within our integrated healthcare system can offer valuable insights to help delineate recommendations in this age group.

OBJECTIVE

- Investigate the outcomes of screening mammograms requiring additional imaging in women ages 75 years and over in our integrated healthcare system.

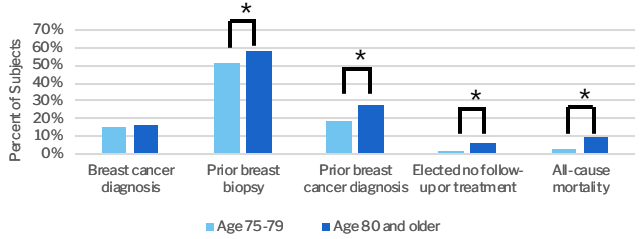
METHODS

- A retrospective study was conducted in women ages 75 years and over with a BI-RADS 0 on screening mammogram from 2018-2023 in our integrated healthcare system.
- Follow-up imaging, biopsy results, treatment election, and mortality were recorded.
- Subjects were categorized by age groups of 75-79 years and 80 years and older.
- Data analysis was performed using a significance level set at $p<0.05$. Chi-square and Wilcoxon rank-sum tests were used for categorical data. T-test was used for continuous data.

RESULTS

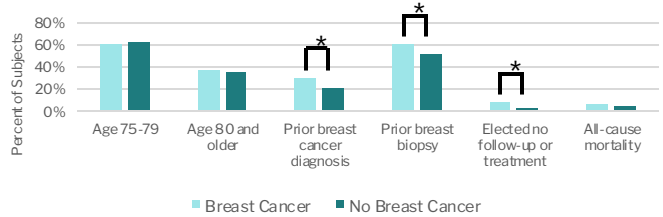
- During the study years, 19035 (9.1%) of screening mammograms were performed in subject sage 75+
- Of these, 1276 (6.7%) studies resulted in BIRADS 0. There were 807 subjects who were ages 75-79, and 469 who were age 80 and over.
- Biopsies were performed in 434 (2.3%) of these subjects, resulting in 202 breast cancer (BCA) diagnoses.
- There were 66 total deaths, with 3 deaths due to breast cancer.

Fig 1: Characteristics of subjects 75 years and older with BI-RADS 0 by age



- Subjects in the 80+ age group were more likely to have a prior BCA diagnosis (27.2% vs. 19.1%, $p<0.001$), prior breast biopsy (58.2% vs. 51.2%, $p=0.02$), and elected no follow-up (6% vs. 2.1%, $p<0.001$).
- There were 42 deaths in the 80+ age group and 24 deaths in those age 75-79 (9% vs. 3%, $p<0.001$). Only 3 total deaths were due to BCA, with 1 death in the 80+ age group and 2 deaths in those age 75-79.

Fig 2: Characteristics of subjects with BI-RADS 0 diagnosed with breast cancer versus without breast cancer



- Subjects diagnosed with BCA were significantly more likely to have a prior BCA diagnosis (31.2% vs. 20.6%, $p=0.001$) and prior breast biopsy (61.9% vs. 52.2%, $p=0.012$) than those without BCA.
- There were significantly more subjects diagnosed with BCA who elected no further follow-up or treatment compared to subjects without a diagnosis of BCA (8.4% vs. 2.6%, $p<0.001$).

DISCUSSION

- Similar to prior studies, subjects in our study who were diagnosed with breast cancer were more likely to have had a prior breast cancer diagnosis or prior biopsy.
- Our study demonstrated an increased overall mortality within the 80 years and older age group, with nearly 10% of subjects dying in this age group and only 1 of these deaths due to breast cancer.
- In addition, subjects in the 80+ age group were more likely to opt out of further follow-up or breast cancer treatment. This may reflect that women 80 years and older may have multiple additional comorbidities or be of increased frailty, which may limit their decision to pursue additional workup or treatment for breast cancer.
- While our study suggests benefit for women aged 75-79 to continue screening mammograms, as they are more likely to elect for follow-up imaging and breast cancer treatment, continuing screening mammography should be discussed thoroughly with those 80 years and older.
- Limitations of the study include lack of follow-up of the study subjects in addition to limited generalizability, as the findings may not apply to populations outside of our healthcare system.

CONCLUSION

- Careful consideration should be given to the patient's history of breast cancer or biopsy, current overall health status, and preferences regarding further interventions when deciding to continue screening mammograms.
- Our findings highlight the necessity of informed shared decision making between patient and provider when counselling about screening mammograms, especially for those over the age of 80.

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