Nationwide Survey of Screening versus Diagnostic Mammography In Women With History Of Prior Breast Cancer
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Disclosures: None
Purpose

• To date, no large-scale study has assessed radiologists' use of diagnostic versus screening mammography in the setting of prior history of breast cancer.

• We performed a survey to explore whether, as suspected given lack of guidelines and the discretion afforded referring physicians and radiologist by CMS and the ACR, there is broad discrepancy in how these patients are imaged.
Materials/Methods

• An online survey was created to ascertain the percentage of women given a diagnostic or screening assessment in the setting of a personal history of breast cancer and if the use of a screen or diagnostic label was correlated to experience, facility, or region.

• An invitation was sent to 8,170 Lead Interpreting Radiologists for ACR accredited mammography facilities by e-mail in July, 2015.
Survey Questions

1. Description of practice setting
2. Geographic practice location
3. Description of individual practice: dedicated breast imager (>50% of your practice), read <50% of breast in your practice, or other
4. Practice considered urban, rural or both
5. Mammography volume
6. Number of radiologists in practice that read mammograms
7. What is the standard of care at your institution for mammographic imaging (screening versus diagnostic, frequency of follow-ups, interval follow-up before returning to screening) following lumpectomy or mastectomy
Results

- 849 of 8,170 (10.4%) complete responses were received
- After lumpectomy
  - 79% of respondents recommend a diagnostic mammogram
    - 65% at 6 month post operative
    - 14% at 12 months post operative
  - 40% of these breast imagers recommend diagnostic surveillance for up to 2 years before returning to screening
  - 19% of these breast imagers continue diagnostic surveillance for up to 5 years before returning to screening mammography
- After mastectomy
  - 20% of respondents recommend yearly diagnostic mammogram
  - 37% of respondents recommend diagnostic mammogram at first post mastectomy follow-up then return to screen
  - 43% of respondents recommend a screening mammogram
Figure 1: Survey Respondents Demographic Characteristics

Practice Setting
- Community: 44%
- Private Office: 29%
- Academic: 16%
- Other*: 11%

Reader Type
- <50% Breast/Other: 40%
- >50% Breast: 60%

Region
- Northeast: 21%
- West: 23%
- South: 32%
- Midwest: 24%

Practice Location
- Urban: 54%
- Rural: 19%
- Both: 27%

*Multispecialty clinics, HMOs, or government-based
Figure 2: Post Lumpectomy Responses

**Post Lumpectomy Timing**

- SM 6 months: 104 (13%)
- SM 12 months: 64 (8%)
- DM 6 months: 534 (65%)
- DM 12 months: 115 (14%)

**Post Lumpectomy BIRADS 1/2**

- Return to screening, no DM: 127 (18%)
- For 6 months - 1 year, screening: 95 (13%)
- Every year 2-5 years, screening: 175 (24%)
- Every 6 months for 1-2 years: 261 (36%)
- Always receives DM: 66 (9%)

SM, screening mammogram; DM, diagnostic mammogram
Figure 3: Post Mastectomy Responses

<table>
<thead>
<tr>
<th>History of Mastectomy</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial DM, then Screening</td>
<td>306 (37%)</td>
</tr>
<tr>
<td>Always SM</td>
<td>347 (43%)</td>
</tr>
<tr>
<td>Always DM</td>
<td>164 (20%)</td>
</tr>
</tbody>
</table>

SM, screening mammogram; DM, diagnostic mammogram
Figure 4: Post Lumpectomy and Mastectomy by Practice Setting

- DM, diagnostic mammogram; SM, screening mammogram

- **Post Lumpectomy Type**
  - p = 0.644
  - DM: 179, SM: 289

- **Post Lumpectomy Timing**
  - p < 0.001
  - 12 Months: DM: 53, SM: 53
  - 6 Months: DM: 68, SM: 86

- **Post Lumpectomy BIRADS 1/2**
  - p < 0.001
  - DM < 2 Years: 221, DM > 2 Years: 55

- **History of Mastectomy**
  - p < 0.001
  - DM: 220, SM: 135
Conclusions

• There is a need to better define the optimum surveillance mammography regimen.

• This preliminary study demonstrates the variability in diagnostic versus screening mammography in women with a personal history of breast cancer.

• Future studies will evaluate why these variations occur and how to tailor personalized imaging.