Double reading of screening mammography: effect on reducing false positive rates

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DISCLOSURES

- Authors have nothing to disclose.
PURPOSE

• False positive rates of screening mammography, and their adverse effects on patient anxiety and rising healthcare costs has been a subject of a heated ongoing scientific debate.

• Data from the National Cancer Institute’s “Breast Cancer Surveillance Consortium” determines that the national average recall rate is approximately 10% and suggests that this number should be used by the breast radiologists as the target recall rate in their practice.

• Upon review of our practice data, and addressing concerns of our referring physicians regarding a high call back recall rates for their patients and resultant patient anxiety, our group has determined that our breast center recall rate is significantly higher than the national average.
PURPOSE

• Initial combined group callback rate was 22% with individual radiologist’s callback rates ranging from 19% to 27%.

• A Practice Quality Improvement Project was implemented on June 1, 2014, to reduce the false positive call back rates.
MATERIALS/METHODS

• Our practice employs 2 full time dedicated breast imagers and 4 part time fellowship trained breast imagers, with combined years of experience ranging from 1 – 22 years.

• Patients with BI-RADS 0 assessment were identified and callback rates from November 1, 2012 - May 12, 2014 were analyzed through our mammography reviewing system (MRS7).

• Group as well as individual recall rates were reviewed by the radiologists and the practice management.

• A number of factors were established as elements contributing to an elevated recall rate, such as:
  
  ❖ lack of experience of more junior radiologists
  
  ❖ high number of screening patients presenting without prior comparison exams
  
  ❖ high number of symptomatic patients presenting for a screening instead of a diagnostic mammogram
MATERIALS/METHODS

- Our plan for improvement consisted of the introduction of double reading of all screening callback cases.

- During the project period, all BIRADS-0 exams were additionally reviewed by a different, usually more senior radiologist and the consensus was either immediately established or the case was further discussed.

- The dissenting radiologist would report the case as the primary reader and assign final assessment and recommendations.

- Group management conducted supplementary training of the front desk staff to encourage patients to obtain previous exams prior to their scheduled screening appointments, and to assist the symptomatic patients with getting proper prescriptions from their referring physicians.

- All ABR guidelines for meeting the current Maintenance of Certification standards were followed during the project period.
RESULTS

- From the start of project implementation on June 1, 2014 through December 31, 2015, the combined group recall rate has decreased to 13% from 22% previously, with a reduction of individual recall rates for all breast radiologists, ranging from 9% to 18% for the core faculty.
RESULTS

• During the project initiation period, we have also discovered a technical flaw in the way our reporting software (MRS7) was generating callbacks, with an artificially elevated recall rates being generated by the system as a result of assigning BIRADS-0 to all screening mammography and ultrasound exams performed on the same day and combined in the same report.

• This system error was promptly addressed and fixed by the MRS7 engineers.
CONCLUSION

• Introduction of the peer review of all screening call back cases has resulted in:
  ❖ reduction of the combined group as well as individual recall rates to a number close to the national average
  ❖ assisted in improving patient satisfaction
  ❖ served as an invaluable educational tool for our practice, residents and fellows.

• We are confident that introduction of breast tomosynthesis in the upcoming month will help to further reduce the recall rates.
REFERENCES


