Utility of Requesting and Reviewing Prior Outside Imaging for Screening Mammograms performed at BIDMC

The Problem
Our current practice for new BIDMC patients undergoing screening mammography is for them to sign a release form at the time of the imaging study allowing BIDMC to acquire their outside mammograms for comparison. The technologist reflexively faxes this request to the outside institutions prior to radiologist interpretation. The radiologist then interprets the initial study without the comparisons. When prior outside images are obtained, the file room staff downloads and prepares images and reports for review by a radiologist. The study is then re-reviewed by another radiologist and an addendum is added to the initial mammography report. Many radiologists anecdotally observed that when the initial screening mammogram interpretation was negative for malignancy, subsequent comparison with prior outside mammograms did not impact or change the initial interpretation. Our concern is that the process of obtaining prior mammograms for these patients requires additional technical and professional resources that are of uncertain necessity.

Aim/Goal
The purpose of this study was to determine whether comparison mammograms automatically requested for all new BIDMC patients with screening mammograms initially interpreted as negative impacted patient care and management.

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- All technical and professional staff in the breast imaging department

The Interventions
We collected all cases from December 2014 in which outside mammograms were requested and obtained according to the current practice model. This includes cases initially interpreted as Breast Imaging Reporting and Data System (BI-RADS) codes 1, 2, or 0 where:

- BI-RADS 1 = negative: routine screening mammography
- BI-RADS 2 = benign findings: routine screening mammography
- BI-RADS 0 = incomplete assessment, comparison with prior mammograms or additional imaging is requested.

We compared initial and addendum BI-RADS codes interpretation for change in management.

The Results/Progress to Date
Out of 40 cases with outside imaging received for comparison in December 2014:
- 27/40 (68%) were initially coded as BI-RADS 1 or 2 and had no change in management after comparison
- 8/40 (20%) were initially interpreted as BI-RADS 0 and changed to BI-RADS 1 or 2 after comparison, alleviating need for additional work-up.
- 5/40 (12%) were initially interpreted as BI-RADS 0 and still required additional imaging after comparison.

Lessons Learned
1. When the initial interpretation was BI-RADS 1 or 2, there was no change in management or outcome for patients after comparison with outside mammograms.
2. When the initial interpretation was BI-RADS 0, comparison was important. Additional work up was prevented for 8/13 (20%), due to comparisons being made available. The other 5/13 (12%) proceeded to warranted additional work up.
3. Changing our department policy to request priors only for BI-RADS 0 cases would decrease time and resources needed for this process by 68%.

Next Steps/What Should Happen Next
We will continue to monitor outcomes of current practice for a total of 3 months. If results remain similar to December 2014, we propose to change current practice to:
- All new patients will continue to sign a release form
- Release will be faxed only for those cases read as BI-RADS 0 by the radiologist.

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