Optimizing Screening Mammogram TAT: A Quality Improvement Mission

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Background

- Screening mammograms remain an important tool for the detection of breast cancer in asymptomatic women, 40 years and older
- The FDA requires that facilities provide patients with an easy-to-understand report within 30 days of their mammogram
- Reviewing prior imaging is paramount
- Challenges in obtaining prior imaging, especially from outside institutions, have led to reporting delays
- At our institution, all radiology studies must be reported within a certain time frame to prevent loss of departmental revenue

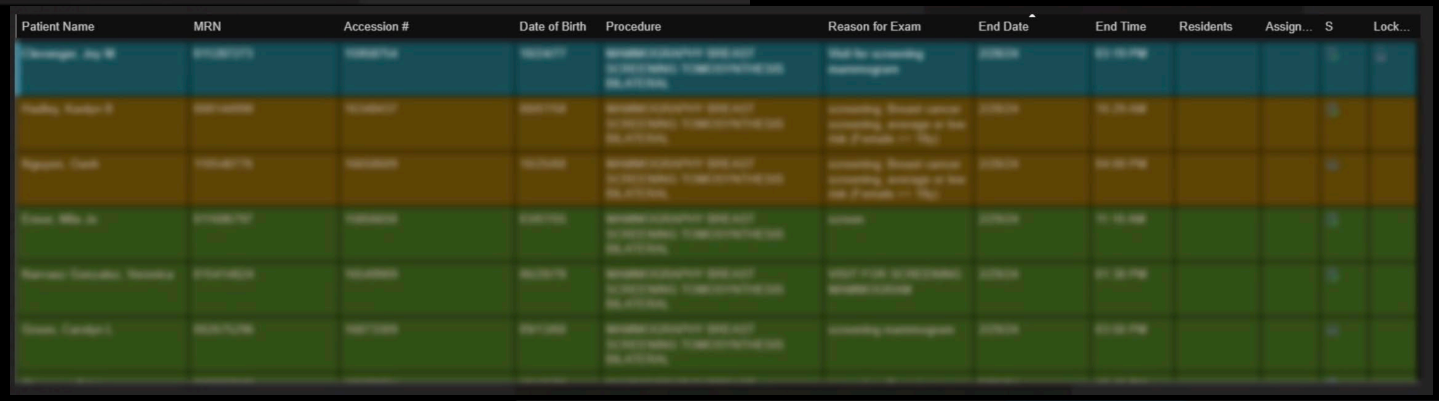
Objective

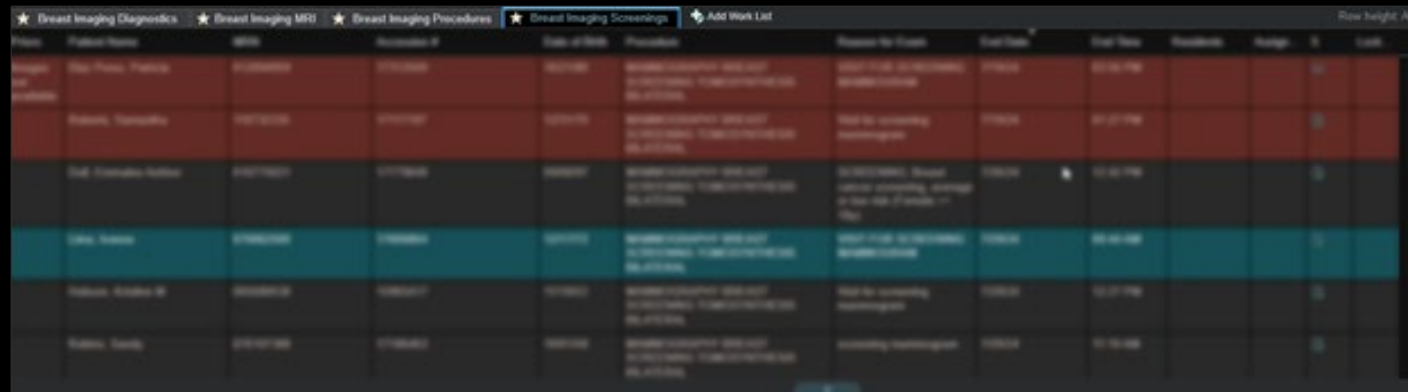
- The goal of this project was to improve identification of mammograms that were at risk of falling out of turn-around time (TAT) compliance. This would reduce lost revenue.
- The target was to improve reporting turn-around time of screening mammograms by 50% after the implementation of a color scheme interface.

Methods

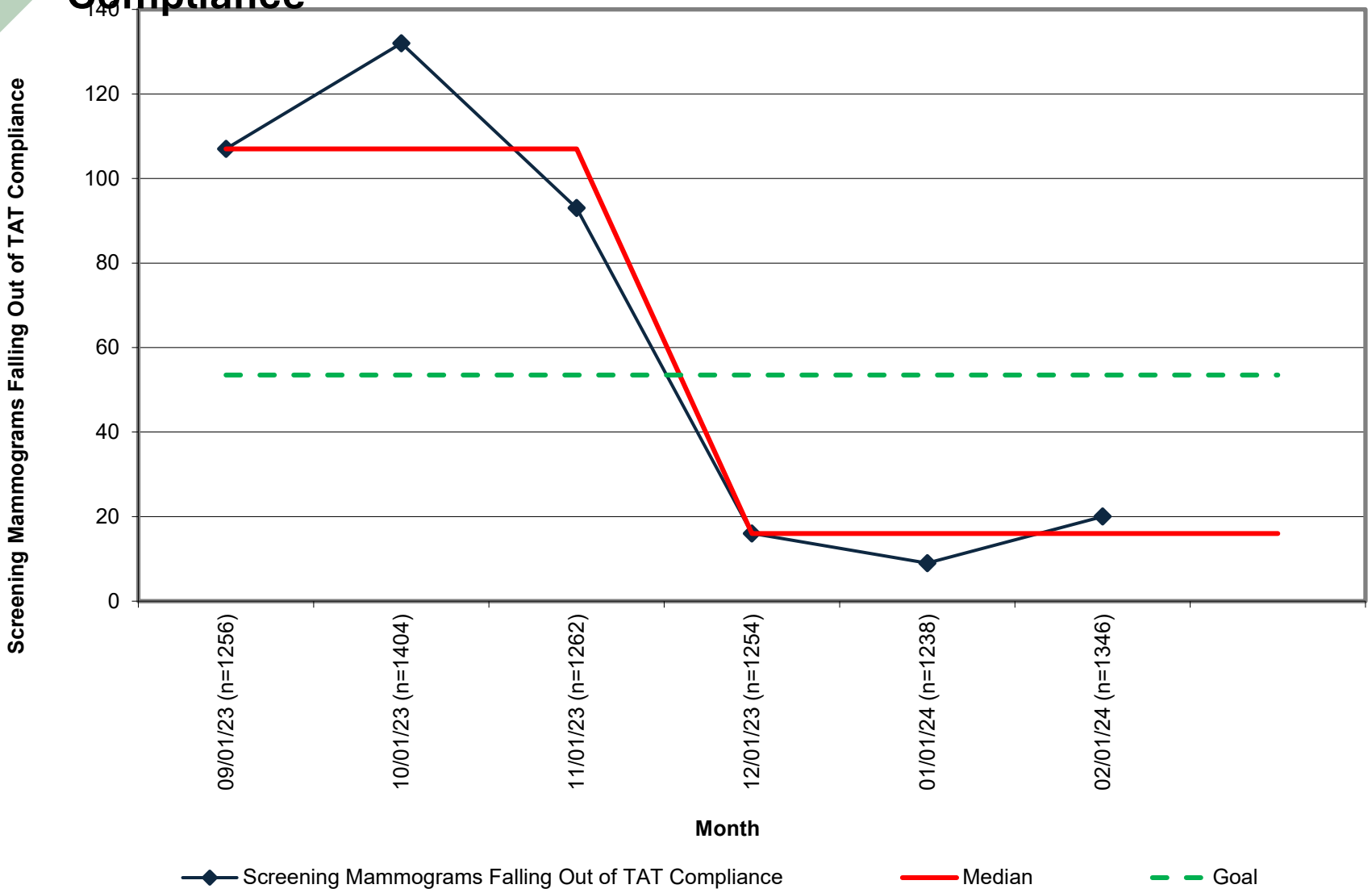
- The implementation of a color-coded interface for the screening mammogram list was created to provide a quick visual representation of which studies needed to be read before falling out of TAT compliance
- Red - 1 day to TAT violation
- Yellow - 2-3 days to TAT violation
- Green - 4 days to TAT violation
- Grey was used for the remaining studies on the list
- All breast radiologists were made aware of the new color-coding scheme
- The change was implemented on 12/1/2023
- The 3 months prior to and after the change were analyzed to gauge impact

Example of color-coded interphase with grey (above), green and yellow (center) and red (below). Blue depicts the study that is being read.





Run Chart depicting Screening Mammograms Falling Out of TAT Compliance



Results

- The number of screening mammograms performed before and after the change were similar i.e. 3922 from September 2023 to November 2023 (pre-implementation) and 3838 from December 2023 to February 2024 (post-implementation)
- There was an 86.45% decrease in the number of screening mammograms that fell out of TAT compliance exceeding the 50% target
- There was a decrease in lost revenue by 81.81%

Discussion

- The implementation of a simple, quick and cost-effective change to the worklist user interface greatly impacted the detection of at-risk screening mammograms and hence improved departmental revenue capture
- This project highlights how a color-coded interface can capture the attention of the reader and thus facilitate efficiency
- This process could be easily adopted by other radiology divisions or at satellite centers to help prioritize specific studies on the worklist

Next Steps

- The TAT for screening mammograms and associated reimbursement will continue to be monitored for potential areas of improvement
- Incorporating a specific color label that identifies studies for which outside priors are being sought would perhaps help to further improve the turn-around time
- As Artificial Intelligence is further implemented into the radiologist's workflow, studies which have been identified as potentially having a critical finding could be visually tagged to decrease the time from imaging to communication of the critical result to clinical providers