Mammography Screening with Results

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STATUS
Completed

PROJECT START DATE
1/15/2014

PROJECT VISION

Benefits of population screening mammography are well established (mortality reduction 20% pooled RCT data; overall mortality reduction ~ 33% since 1990). Recent policy (i.e. USPSTF) has been informed by emphasizing harms over benefits. One of the most often mentioned harm is psychological harms (anxiety) of false positive exam. Subjective harms (i.e. anxiety) are difficult to quantify. Time a patient waits to receive final results of exam can be used as a quantifiable surrogate measure. Less time waiting = less time to experience anxiety.

- Historically, women presenting for screening mammography had to wait an average of 6 days to receive final normal results; for the 97-98% of women who can be given normal results after routine and/or additional views only, this in an unnecessary delay.
- Delay in receiving results, particularly if additional views are required, are a major source of anxiety (harm) for this population; Time to results serves as a surrogate target measure for reducing harm.

GOALS & MONITORING

1 Improve service outcome by reducing time to receive screening results in null from 2,880 minutes to 30 minutes by 8/26/2014

2 Maintain service by not reducing patient satisfaction in null from 99%

BASELINE ANALYSIS & INVESTIGATION

To examine & document the baseline state we used:
- Process map which showed delays caused by: (1)Radiologist batching exam worklist (2a) RN would call pts with abnormal results (10%) the next day to schedule follow-up appointment, then letter mailed, (2b) Coordinator would print and mail a letter for the normal results (90%) that would then wait for campus mail and USPS delivery, (3) additional follow-up appointments (recall rates) were delayed because of work list batching.
- Voice of the customer analysis which showed (via patient interview and survey) the average time in the Salt Lake Valley a patient would receive the normal results notification letter was 2-6 days.

To analyze the baseline state data we used:
- Descriptive statistics which showed women presenting for screening mammography had to wait an average of 6 days to receive final normal results; for the 97-98% of women who can be given normal results after routine and/or additional views only, this in an unnecessary delay.

To benchmark we used:
- Literature review

Summary
Major Findings:

Radiologist read screening mammograms in batches

The screening mammogram result didn't get to the coordinator until the next day

Internal mail and USPS mail delayed delivery of the results to the normal results patients due to standard shipping times

IMPROVEMENT DESIGN & IMPLEMENTATION

Design
A time-of-service screening mammography process was implemented.

1. Mammography technologist ask the patient if they would like to wait for their results, which are then given within 10 min. post exam.
2. Radiologist reads the exams as patient wait/get dressed in the room. Radiologist then provides verbal notification to the patient (or technologist) whe she is still in the clinic
3. A letter is then mailed to the patient at a later time
4. If additional tests need to be done, the patient is asked if she wants to do them then, or rescheduled. Having the patient in the premises saves them time and scheduling delays

The screen with results process is implemented first in HCI Mammography. South Jordan and Greenwood Clinic mammography will start to offer the service later in 2015. The HCI radiologists will read the exams and the on site technologists will give the verbal notification.

To communicate the improved design we used:
- Education, internal: A document was created highlighting the standard work for screening with results, and it was shared during staff meeting.

To support the improved process we designed the following forcing functions into the workflow:
- manual checklist (Manual Tool): was designed to help guide the flow of patient and information

To track progress and reflect on effectiveness of the improvement the team used:
- Quarterly Data distribution: staff used time study to collect data on how long it took for the patient to receive the results back.