Reducing Breast MRI Cancellations and No Shows

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Background

The efficient and appropriate scheduling of imaging studies is a vital part of any radiology practice.

This is especially true for higher cost, more time consuming modalities such as MRI; where empty slots are more difficult to fill, improperly vetted patients are more difficult to reschedule, and potential for revenue loss is greater.

Background

Our breast imaging department schedules up to 5 breast MRIs per day.

We estimate the combined no show and cancellation rate to be between 20-30%, with these slots oftentimes going unfilled due to lack of prior notice.
Aim Statement

1. Determine the reasons for breast MRI cancellations and no shows
2. Reduce the percentage of cancellations and no shows for breast MRIs to 10% or less
3. Decrease the percentage of unused breast MRI slots to 5% or less

Preliminary Data

15.7% of patients scheduled for breast MRI appointments either cancelled or did not show.

12.21% of breast MRI slots go unfilled.
First, we created a flowchart outlining the steps involved in getting a breast MRI, from our institution scheduling the study to the patient arriving for the study.

We then identified steps in the process that might potentially lead to an MRI being cancelled or a patient not showing and MRI slots consequently being left unfilled.

**Ideal scenario:**
Sometimes the precert is done in time and everything with the insurance company goes smoothly, but the patient still cancels or does not show.
The Pareto principle states that 20% of the variables are responsible for 80% of the results.

A Pareto chart helps to properly order variables to concentrate on factors that have the greatest impact.

Then, we created a Pareto chart to highlight the most common reasons for cancelling or not showing.

We called all of the cancellations and no shows from the past 6.5 months to ask why they cancelled or did not show.

Using the flowchart and patient survey, we created a fishbone diagram to help guide our intervention methodology.
**Intervention**

Call patients 3 days in advance to remind them of their appointment, answer any questions, and resolve any conflicts.

If there is an issue with scheduling, refer them to our scheduler.

Three days gave us enough time to handle conflicts and fill the MRI slot if the patient notified us of a cancellation.

According to our Pareto Chart, conflicts accounted for almost 50% of the reasons for patients cancelling or not showing.

**Results**

<table>
<thead>
<tr>
<th></th>
<th>No Shows/Cancellations</th>
<th>Unfilled Slots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Intervention</td>
<td>15.7%</td>
<td>12.21%</td>
</tr>
<tr>
<td>Post-Intervention</td>
<td>9.8%</td>
<td>8.0%</td>
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</tbody>
</table>

Test of Change: Call patients 3 days in advance

What did we learn? Our intervention led to a decrease in both no shows/cancellations and unfilled slots.
An SPC (or Shewart) chart is used to control, monitor, and enhance process performance.

A line is used to represent deviations of the data from the average.

On our chart, the line represents average unfilled MRI slots.

Our test of change was implemented at this time point.


Next Steps

Continue to call patients 3 days prior to MRI.

Change department policy from calling 1 day prior to calling 3 days prior.

Extend recommendation to other MRI appointments (not just breast MRI.)
Thank you!
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