Clinical Safety & Effectiveness
Cohort # 9
Improving rate of mammograms of the patients of the Red Team in the UHS Medicine Clinic at Downtown UHS.

CENTER FOR PATIENT SAFETY & HEALTH POLICY
UT Health Science Center™
San Antonio
Educating for Quality Improvement & Patient Safety
Financial Disclosure

Deborah Cardell, MD has no relevant financial relationships with commercial interests to disclose.
The Team

• UHS Downtown Medicine Clinic

CS&E Participant: Deborah Cardell, MD
Team Members: Clinic Manager: Teresa Walsh, RN
Andrew Chavez, MA
Rita Mc Coy, LVN
Gerardo Montes, MA
UHS Quality Improvement, Senior Analyst: Carol Mancinas, MHA, CHES
Facilitator: Amruta D. Parekh, MD, MPH
Sponsor Department
  – Department of Medicine – David Hillis, MD
  – Division of Gen Med – Andy Diehl, MD
What We Are Trying to Accomplish?

OUR AIM STATEMENT

Increase appropriate mammograms in women patients > 50 yrs, on the Red Team in the UHS Medicine Clinic by 10% by January 31st 2012.
Project Milestones

• Team Created
  August 2011
• AIM statement created
  August 2011
• Weekly Team Meetings
  Sept 2011 - Feb 2012
• Background Data, Brainstorm Sessions
  Aug 2011- Nov 2011
• Workflow
  October 2011
• Fishbone Analyses
  October 2011
• Interventions Implemented
  Nov 7th 2011
• Data Analysis
  Nov 2011- Jan 2012
• CS&E Presentation
  February 24th 2012
September 22
Aim Statement and Team created

October 2011
Flowchart/ Cause and Effect diagram

November 2011
Intervention planned and executed

December – January 2011
Data collection and analysis

February 2011
Graduation
Background

• USPSTF estimated that in 2009, 193,370 women in the United States would develop invasive breast cancer

• ~40,170 of them would die of this disease

• Randomized trials of mammography have demonstrated reductions in breast cancer mortality associated with screening from ages 50 to 74 years. (21-32% reduction in mortality)

www.uspreventiveservicestaskforce.org
Background

Percentage of U.S. Women Aged 40 Years and Older Who Have Had a Mammogram in the Last 2 Years by Race* and Ethnicity†

<table>
<thead>
<tr>
<th>Race* or Ethnicity</th>
<th>2000</th>
<th>2003</th>
<th>2005</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>White only</td>
<td>71.4</td>
<td>70.1</td>
<td>67.4</td>
<td>67.9</td>
</tr>
<tr>
<td>Black only</td>
<td>67.8</td>
<td>70.4</td>
<td>64.9</td>
<td>68.0</td>
</tr>
<tr>
<td>American Indian/Alaska Native only</td>
<td>47.4</td>
<td>63.1</td>
<td>72.8</td>
<td>62.7</td>
</tr>
<tr>
<td>Asian only</td>
<td>53.5</td>
<td>57.6</td>
<td>54.6</td>
<td>66.1</td>
</tr>
<tr>
<td>Hispanic or Latina†</td>
<td>61.2</td>
<td>65.0</td>
<td>58.8</td>
<td>61.2</td>
</tr>
</tbody>
</table>
Percentage of U.S. Women Aged 40 Years and Older Who Have Had a Mammogram in the Last 2 Years by Education Level

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No high school diploma or GED</td>
<td>57.7</td>
<td>58.1</td>
<td>52.8</td>
<td>53.8</td>
</tr>
<tr>
<td>High school diploma or GED</td>
<td>69.7</td>
<td>67.8</td>
<td>64.9</td>
<td>65.2</td>
</tr>
<tr>
<td>Some college or more</td>
<td>76.2</td>
<td>75.1</td>
<td>72.7</td>
<td>73.4</td>
</tr>
</tbody>
</table>

www.cdc.gov
Red Team

- 2 Faculty: Cardell, Montemayor
- 6 Interns with ~55 pts each
- 4 PGY 2 with ~70 pts each
- 3 PGY 3 with ~75 pts each
- Rita McCoy LVN
- Gerardo Montes MA
- Andrew Chavez MA
What Changes Can We Make That Will Result in an Improvement?

• Educating staff and patients of the importance of mammograms
• Reports of patients needing a mammograms were made available
• LVN/MA s used orderset to order mammograms outside clinic visit
• LVN/MA called patients and with a conference call with Radiology scheduled the visit
Selected Decision Making Tools

• Brainstorming as a team
• Ishikawa diagram
• Flowchart
• Pivot table for patient data entry
Pre-Intervention Process

Patient Arrives for appointment

Physician reviews chart

Is Mammogram due?

Patient Handed the order

Patient must call Radiology to schedule appt

Is mammo done?

MD gets results via the Secure Health Message Inbox (SMH)

Continue with visit

May have to wait till next pt visit
## Timeline

<table>
<thead>
<tr>
<th>Number</th>
<th>Task</th>
<th>Custom</th>
<th>Start</th>
<th>End</th>
<th>% Complete</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Create the list of patients that need mammograms (female, over 50, no mmg within 2 years) using the &quot;Physician Report Card&quot; report from Sunrise</td>
<td>Dr. Cardell</td>
<td>10/27/2011</td>
<td>11/3/2011</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Train LVNs/MA on the Red Team to use the LVN/MA order set</td>
<td>Theresa Walsh &amp; Lorri Savoie</td>
<td>10/27/2011</td>
<td>11/3/2011</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Train Dr. Cardell how to acknowledge the LVN/MA orders</td>
<td>Theresa Walsh &amp; Lorri Savoie</td>
<td>10/27/2011</td>
<td>11/3/2011</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Finalize the LVN/MA process</td>
<td>Dr. Cardell &amp; team</td>
<td>10/27/2011</td>
<td>11/3/2011</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Calculate the baseline mammogram rate for Red Team patients who are females over 50, using the &quot;Physician Report Card&quot; report from Sunrise</td>
<td>Carol Mancinas</td>
<td>10/27/2011</td>
<td>11/9/2011</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Order &amp; Schedule mammograms for patients who need them</td>
<td>Red Team LVNs/MA</td>
<td>11/7/2011</td>
<td>1/31/2012</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Document communication for data analysis</td>
<td>Red team LVNs/MA</td>
<td>11/7/2011</td>
<td>1/31/2012</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Data Analysis</td>
<td>Dr. Cardell &amp; Carol Mancinas</td>
<td>2/1/2012</td>
<td>2/17/2012</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
START

LVN/MA chooses next patient who needs mammogram from the list

LVN/MA orders screening mammogram

Call patient

Does patient answer phone?

Yes

Identify self, explain purpose of call. Ask if patient would like to schedule a mammogram.

Does patient want to schedule mammogram?

Yes

Place patient in conference call & conference in Radiology Scheduler

Did Radiology answer?

Yes

Schedule appointment

Document in Sunrise on Patient Communication Form, include date/time of mammogram appointment. Change the Name Type of Patient Communication to MMG

On Excel list of patients, document that patient is scheduled

Create a chart check for 2 days after the scheduled mammogram

Conduct chart check

Did patient have mammogram?

Yes

Success. End.

No

Has the patient missed 2 mammogram appointments?

Yes

Need remains. End

No

Call Patient

Find issue. Attempt to resolve issue.

Document refusal in Sunrise on Patient Communication Form. Change the Name Type to MMG

Document refusal on Excel.

Need remains. End

No

Make arrangements to call back. Then call back.
Data Collection by the MAs

<table>
<thead>
<tr>
<th>Age</th>
<th>Gender</th>
<th>Over 50</th>
<th>Calculation Base Date</th>
<th>MMG Need To Order</th>
<th>Phone Contact Date</th>
<th>MMG Appointment Date</th>
<th>MMG Refusal Date</th>
<th>Date of 1st Unsuccessful Attempt</th>
<th>Date of 2nd Unsuccessful Attempt</th>
<th>Date of 3rd Unsuccessful Attempt</th>
<th>Chart Check</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>Female</td>
<td>Yes</td>
<td>11/1/2011</td>
<td>Order</td>
<td></td>
<td></td>
<td></td>
<td>12/23/2011</td>
<td>1-26-2012; Not a working number</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PCP: 16405
Challenges/changes

- EMR does not allow registry function
- EMR does not have a direct reporting function
- Report had to be pulled for each doctor and then compiled for the whole team
- Not all MAs had access to the sharedrive
- Pivot table was read only
- LVN/MA order set did not work on dismissed visits
- Radiology could not see orders written by the MA/LVN
Snapshot of patients extracted for the study on 11/1/11

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Total no. of patients on Red Team</td>
<td>560</td>
</tr>
<tr>
<td>Women over the age of 50</td>
<td>382</td>
</tr>
<tr>
<td>Require mammogram #/%</td>
<td>68/17.8</td>
</tr>
<tr>
<td># Contacted during the intervention period #/%</td>
<td>20/28%</td>
</tr>
<tr>
<td># of women who completed mammogram</td>
<td>4</td>
</tr>
</tbody>
</table>
Results/Impact

Nov 1-Jan 31: 51 phone calls made
20 calls made contact with patient
6 women agreed to mammo
7 women declined
1 was canceled by radiology
1 missed her appt
4 scheduled and completed the mammogram
This decreased the number of women needing a mammo from 68/382 to 64/382
A decrease of 17.8→16.6%