Planning a PI Project

A Media Oaker Example

Nathan D. Carlson, MD
April 30, 2015
PI Project planning exercise

• Based on a real problem, but a fictitious medical center you will:
  • Consider who you will invite to your PI Project kickoff meeting
  • Develop a SMART goal statement
  • Current state process map
  • List what you will measure
  • Brainstorm a test of change (or two)
  • Determine how you might sustain/spread your learnings
The Scenario

• Media Oaker Community hospital CEO Martha Jones is concerned:

I’m concerned!
Why she is concerned?

- 100 bed rural medical center
- New report that sentinel event rate, particularly wrong site surgeries, in Media Oaker Medical Center is four times the national average
- Martha was called by the local media for a comment on the new report.

- A call to her “QI desk” confirmed the finding: four wrong side mastectomies, one wrong side nephrectomy and a half dozen inappropriate wide skin excisions done because of pathology errors.
“We’ve got to fix this!”
Physician concerns

• The physicians expressed dissatisfaction with the EMR because the surgical pathology orders weren’t intuitive.

• There was no money to re-program the system, however.
Wasted time in the pathology dept...

- Pathology dept has two technicians logging in specimens each day.
- 25% of their workday was spent tracking down names, medical record numbers and other missing information.
Baseline data

• 25 patients reviewed
• 10% rate of left/right discrepancy with resident physicians
• 7% rate of left/right discrepancy with staff physicians

• Review of 100 specimens revealed a 43% rate of at least some kind of error in the biopsy process.
Multiple orders...

- Multiple orders placed for different specimens on the same day generated multiple billings leading to Medicare reimbursement denials.
Martha picks up the phone...

• “Hey, this is Martha, look, you are a trained improvement advisor, right?”
  • “I need to tell the press something about how we are making Media Oaker better.”
  • “Can you come up with something in the next few minutes?”

I’m still concerned!
Your job is to help improve surgical pathology ordering in the dermatology department:

1. Determine who would be the 2-3 most important people to have at your PI project kickoff meeting.
2. SMART goal statement
3. Current process map (from biopsy in the office to result in the computer), be creative, include the most basic steps
4. What are one or two things you would try to implement to improve the current state (tests of change)?
5. What will you measure?
6. Come up with one idea you would use to sustain/spread your best practices.
Now, go have fun!
# Project Charter

## Project Name: Dermatology Pathology Specimen Error Reduction

**Improvement Advisor:**

**Facility:** Fontana Medical Center Dermatology Department

**PI Director / Lead IA:**

**Mentor:**

**Charter Date:** September, 2014

### Project SMART Goal:

To reduce the % of Dermatology Pathology Specimen Errors from 3.7%(weekly average from April to August 23) to 2% by October 31st, 2014.

## Problem Statement and Business Case

### Problem Statement

Pathology receives weekly specimen errors from Dermatology which can lead to incorrect diagnosis, unnecessary treatment and increased work for staff.

### Customer Benefit

To ensure patient safety and best patient care practice.

### Expected Financial Impact

Increased reimbursement for processing each specimen.

### Other Business Benefit

Deliver world class healthcare throughout our organization and achieve high levels of patient safety and care.

## Project Timeline and Key Milestones

<table>
<thead>
<tr>
<th>Assess</th>
<th>Project Kick-Off: September 3, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline Data Obtained: August 22-26, 2014</td>
<td>Project Charter Completed: September 3, 2014</td>
</tr>
<tr>
<td>Voice of the Customer Obtained</td>
<td>Identify Changes:</td>
</tr>
<tr>
<td>Test</td>
<td>PDSA Action Plans Completed: Sept 28, 2014</td>
</tr>
<tr>
<td>Implement</td>
<td>Sustainability Plan Completed: October 15, 2014</td>
</tr>
<tr>
<td></td>
<td>Training and Communication Plans: October 15, 2014</td>
</tr>
<tr>
<td></td>
<td>Financial Impact Validated by Finance</td>
</tr>
<tr>
<td></td>
<td>Project Storyboard Complete and Submitted</td>
</tr>
<tr>
<td></td>
<td>Spread Plan</td>
</tr>
</tbody>
</table>

## Project Team

- **Sponsors:**
- **Champions:** Dr. Linda Tolbert, Michelle Rathfelder
- **Project Co-Leads [Process Owners]:** Sharon Preston, Natalie Estillore, Lorna Davis
- **Front-Line: Dermatology Staff:** Rachel Del Moral, Rosemary Rodriguez, Constance Becerra, Wendy Monterrosa, Sandra Ramirez, Eva Marquez, Wendy Perez, Luz Montez, Mia Booth, Elizabeth Sandoval
- **Project Oversight:** QLC/SSQI

## Project Measures

- **Outcome Measures:** Percentage of Weekly Dermatology Pathology Errors
- **Process Measures:** Percentage of Double Verification of Pathology Specimens
- **Balancing Measure:** Incidental Overtime Hours

## Project Scope

- **In Scope:** Fontana Dermatology Department
- **As Needed:** Inpatient Hospital Areas
- **Out of Scope:** Other Fontana Ambulatory Departments
Inefficiencies/Variations in Process:
1. Variation for notification of biopsy taking place from MD to assigned MA/LVN. Some docs stay in room with specimens some leave room and go to next patient with specimen left in room.
2. Specimens not left in patient room after biopsy for labeling. Labeling may occur outside of patient room after labels made by MA/LVN.
3. Specimens may be brought out of the patient room by MD and handed to MA/LVN after procedure done. Some teams verify out of room.
4. Source of specimen not always being placed onto jar by MD. MA/LVN not in room to verify source but still sending specimens without source.
5. No double check with a second verifier that specimens/labels and path sheet are correct.
6. MA/LVN not capturing missing line specimen items when verifying and still sending to pathology.
7. No double check of carrier of specimens that each requisition matches each specimen to all items on pathology requisition.
8. Lab receives specimens just signing Dermatology’s pathology specimen sheet but no verification of samples given per what is on sheet.
Assessment Results

MAN (HUMAN FACTORS)
- Physician entry error - line error
- Incorrect labeling of specimens by nursing
- MD not labeling site on specimens
- Physician culture - resistance to change
- Communication issues between nursing and physicians
- Floats come into department to work at times
- High volume of patients daily
- Difficulty for staff to confront MDs
- Daily changes of staff working with MD's

MATERIAL (SUPPLIES)
- Jars difficult to write on after biopsy

MACHINE (TECHNOLOGY)
- Health Connect - Ordering Confusion
- Labels for printing outside of patient room
- Variation in labeling by Physicians / nursing
- Sending specimens that aren't correct
- Labels placed on log before specimen received
- Variation by nursing staff for verification
- Pathology calls Derm to report errors for correction
- No double check of specimen to order prior to taking to lab

PROCESS (METHOD)

ENVIRONMENT

IMPROVEMENT INSTITUTE

© 2013 Kaiser Permanente – Internal Use Only – Do not distribute without permission
Dermatology Pathology Errors 3.29-8.23

Number of Errors

106 59.2% 35

D-CPOE: Multiple Specimens/single line order (source of specimen/part type)
E-CPOE: Wrong source of specimen (part type)
H-CPOE: Right/Left designation incorrect or missing
K-CPOE: Multiple orders for one encounter/Misc or release orders/Clinical Hx partially hand written
6-Info on requisition and container not matching F-CPOE: Specimens listed out of sequence on order
9-No/wrong history I-CPOE: No Surg Path Order placed (nothing ordered in computer)
10-Other J-Computer Error
11-no site written on container K-CPOE: Multiple orders for 1 encounter/Misc OR release orders/c clinical Hx partially hand-written

Error Type
Baseline Data 3.29-8.23 Average 3.7% Error Rate achieving drop to 0.9% average error rate.

Outcome Measure

Derm Specimen Errors / Total Derm Specimens Weekly p Chart

Week
Lessons Learned

• Key to Success:
  • Frontline engagement
  • Input from Staff
  • Visibility in Department daily
  • Coaching and Mentoring of Staff
  • One on one coaching with physician staff
  • Listening to Concerns of physicians
  • Standardization of Process for labeling jars
  • Standardizing Verification of Requisitions and Specimens with all staff
  • Standardizing Second Verification Process RN accountability
  • Team Approach
  • Department ownership of project

• Barriers
  • Culture-overcome by working closely with the physicians and nursing staff plus buy in from the Chief of Dermatology
  • In-Consistency in Practice of Collection of Specimens-Overcome by standardizing process and support of Chief to follow correct process and policy for specimen collection.
Department of Family Medicine
Pathology Error Reduction Project

Gabriel E. Lopez, M.D.