Reducing Mislabeled Specimen through Lean Processes.

Kay Ruachfuss MSN, RN
Lehigh Valley Health Network

Follow this and additional works at: http://scholarlyworks.lvhn.org/patient-care-services-nursing
Part of the Nursing Commons

Published In/Presented At
Reducing Mislabeled Specimens through Lean Processes

Progressive Coronary Care Unit • LEHIGH VALLEY HEALTH NETWORK ALLENTOWN, PENNSYLVANIA

WHAT IS THE PROBLEM?
- Mislabeled Laboratory Specimens
  - Illegible and missing initials
  - Specimens with the wrong patient’s label
  - Presents serious risk to patients should it result in erroneous values reported
  - Delays created by rejected specimens or not collected specimens related to mislabeling
  - NETWORK WIDE this resulted in 1347 rejected specimens in FY 09

WHAT DID WE DO ABOUT IT?
GOING to the GEMBA
The Pennsylvania Safety Authority sponsored a collaborative of Northeast region hospitals to identify steps and system redesigns to reduce and, eventually, eliminate opportunities for phlebotomy specimen mislabeling. The following methods were utilized by staff on the Progressive Coronary Care Unit as a part of this collaborative:

LABEL MANAGEMENT – minimize opportunity for wrong label on a specimen
- Change label printing from ‘ICU style-at time of order entry’ to hourly
- Consistently store labels in the designated lab order book
- Monitor calls from lab for trends
- Assure unit clerk sends labels with transferring patients
- Gather all necessary supplies, inclusive of proper labels, prior to entering patient room
- Eliminate use of ‘demographic labels’ for specimens
- Establish ‘extra label’ procedure for when multiple tests are able to be run from one tube

IMPACT OF INTERRUPTIONS – CREAM interruptions
- Create awareness of the impact of interruptions as discovered through root cause analysis (RCA)
- Require staff interrupted in the process of identification to start the process at the beginning and repeat all steps
- Educate patients and visitors regarding the importance of accurate identification and the need to participate actively in the process
- Empower staff to respond regarding necessity to delay interruptions
- Minimize interruptions during high risk procedures

HOW IS IT RELATED TO PATIENT CENTERED CARE DELIVERY?
Phlebotomy is performed by decentralized unit based skilled technical partners also responsible for patient care provision.
- Schedule daily phlebotomy tests in collaboration with the patient’s individual preferred times
- Process specimens quickly, results readily available for the healthcare team on first rounds

VISIBILITY AND CELEBRATIONS
- Patient Safety Reports include a photograph of the actual tubes received, which aids staff acceptance of the error and participation in the RCA to discover how the error occurred
- Unit ‘Visibility Wall’ includes the detailed process step map for properly labeled laboratory specimens
- Monthly performance data is displayed on the ‘Visibility Wall’
- Results of the RCA’s for every labeling event is displayed on the process step map
- Participated in the Network Patient Safety Poster Fair

RESULTS
- Decreased number of events involving mislabeled specimens from 53 to 8 in the comparative time frame
- Decreased percentage of calls for labels from 18% to 9%
- Decreased duplicate and excess labels which were the result of ‘ICU style label printing’
- Decreased percentage of lab tests ordered STAT from 25 % to 10%

LAB LABELING ERRORS IN PCCU

<table>
<thead>
<tr>
<th>Month</th>
<th>2008-2009</th>
<th>2009-2010</th>
<th>2010-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCT</td>
<td>12.0</td>
<td>10.0</td>
<td>8.0</td>
</tr>
<tr>
<td>DEC</td>
<td>10.0</td>
<td>8.0</td>
<td>6.0</td>
</tr>
<tr>
<td>FEB</td>
<td>8.0</td>
<td>6.0</td>
<td>4.0</td>
</tr>
<tr>
<td>APRIL</td>
<td>6.0</td>
<td>4.0</td>
<td>2.0</td>
</tr>
<tr>
<td>JUNE</td>
<td>4.0</td>
<td>2.0</td>
<td>0.0</td>
</tr>
<tr>
<td>AUG</td>
<td>2.0</td>
<td>0.0</td>
<td></td>
</tr>
</tbody>
</table>

A PASSION FOR BETTER MEDICINE

610-402-CARE LVHN.org