Specimen Identification Error Reduction: A Collaborative Interprofessional Approach

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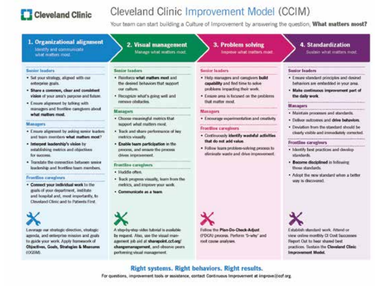
Background

Specimen identification errors are patient safety issues which can result in adverse events such as diagnostic errors, inappropriate treatments, or potentially life threatening consequences. In 2012, Marymount Hospital reported a total of 65 specimen errors. Correctly identifying and labeling specimens to prevent errors was identified as a hospital wide quality & patient safety initiative, with a goal of zero errors. Interprofessional caregivers collaborated in an evaluation of current clinical practices to identify quality improvement strategies.

Purpose

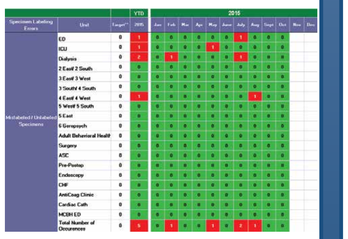
The Cleveland Clinic Improvement Model (CCIM) provided the framework for the review and analysis of specimen identification events. Using the Plan-Do-Check-Adjust process, it was determined that errors most frequently occurred as the result of unlabeled/mislabeled specimens or discrepancies between specimen labels and requisitions. Improving processes for specimen collection, as well as adherence to established policies, were identified as key elements in specimen error reduction.

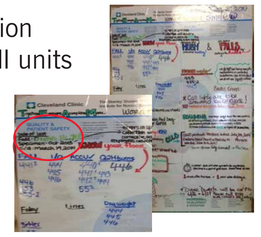


Methods

- Interprofessional Specimen Error Reduction Task Force met in June 2013 with membership including:
  - Patient Safety Manager
  - Laboratory staff
  - Direct care nurses
  - Nursing Leadership
  - Executive Leadership
  - Ancillary staff
- Guidelines and procedures for specimen collection were developed and distributed to hospital staff
- Nursing quality program manager and nurse managers developed educational references and established accountability guidelines based on a Just Culture philosophy
  - Nurse managers educated staff in August 2013
  - Remediation process for staff accountable for specimen errors was implemented

- Nursing Shared Governance decided that specimen error reduction was a priority goal for 2014
- The Nursing Clinical Practice Council received education regarding the Plan-Do-Check-Adjust performance improvement process to facilitate action plan development
- Nursing Clinical Practice Council Action Plans
  - Model behaviors for correct specimen collection by following established policies
  - Speak up when observing unsafe practices for specimen collection
  - Peer accountability when policy/protocol is not followed
  - Specimen errors discussed at unit meetings to increase staff awareness & develop unit based action plans
  - "Clinician collect" function added to all caregivers patient lists to facilitate requisition printing by specimen collector
  - Use of WOW at bedside during specimen collection
  - Develop reminder signs for specimen collection protocol
  - Strict adherence to dual signature process
- Visual Management tools were used to track progress for specimen error reduction
  - Nursing Quality Dashboard posted on all units to increase staff awareness of monthly specimen error data and monitor trends
  - Professional Practice Model (PPM) Huddle Boards include date of last specimen error

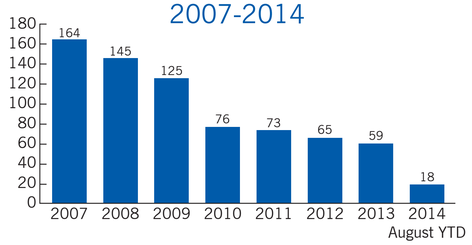




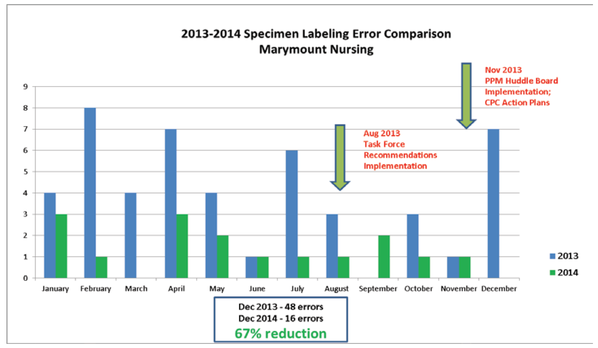
Outcomes

- Comparison of 2013 and 2014 August YTD data indicates a 61% reduction in specimen errors hospital-wide, with a 67% reduction in specimen errors for nursing staff.

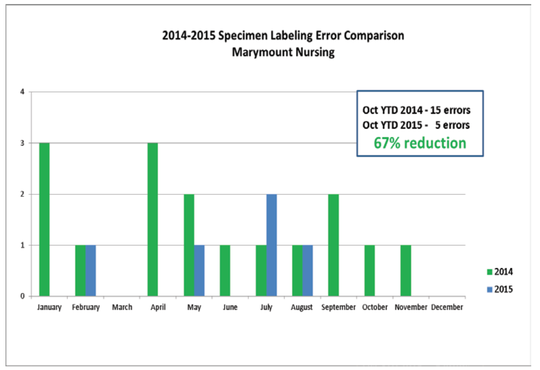
Marymount Hospital Specimen Integrity 2007-2014



- Number of specimen errors for nursing staff decreased from 48 in 2013 to 16 in 2014
- Most significant improvement occurred after initiatives developed by the Specimen Error Reduction Task Force and the Nursing Practice Council were implemented



- The CCIM Standardization process has resulted in sustainment of continued specimen error reduction by 67% in 2015



Days Since Last Specimen Error

Marymount Hospital: Date of Last Specimen Error

Unit	2015 Number of Specimen Errors	2015 Date of Last Specimen Error	2015 Days Since Last Specimen Error
2 East	0	7/30/13	832
2 South	0	1/31/14	647
3 East	0	2/9/13	1003
3 West	0	12/6/13	700
3 South	0	7/20/14	417
4 South	0	4/23/14	553
4 East	0	5/1/13	920
4 West	1	8/28/15	73
5 West	0	5/22/14	526
5 South	0	4/25/13	932
ICU	1	5/8/15	165
Dialysis	2	7/1/15	131
GyroPsych	0	9/13/14	432
BMC Q	0	2/6/14	641
BMC 1	0	2/24/13	988
ED	1	7/1/15	131
MCBH	0		
ASC	0	12/12/2013	637
Pre-Post Op	0	4/11/2013	942
Surgery	0	12/6/2011	1434
CHF Clinic	0	4/7/2014	581
Endoscopy	0	11/17/2014	357

Implications for Practice

The goal for specimen identification error reduction is in progress as the result of an interprofessional approach, with emphasis on involvement of direct care nurses and the Nursing Practice Council. Hospital and nursing leadership have provided education, oversight and adherence to Just Culture standards, including accountability for specimen errors. Quality improvement and patient safety supported by all caregivers are the organization's core values that sustain continued efforts for specimen identification error reduction. Frontline caregiver involvement is vital in the sustainment of adherence to work practices that support quality improvement initiatives such as specimen identification error reduction. The Cleveland Clinic Improvement Model is a valuable tool for frontline caregivers to ensure success with continuous improvement projects.

References

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2. Institute for Healthcare Improvement Website. http://www.ihi.org/resources/Pages/HowtoImprove/default.aspx. Accessed August 21, 2014 and July 30, 2015.
3. Cleveland Clinic Improvement Model, http://portals.ccf.org/cchscontinuousimprovement/ContinuousImprovementModel/tabid/6736/Default.aspx. Accessed August 06, 2015.