Reduce the number of Operating Room requisition-to-specimen container mismatches by 50% over two PDSA cycles

University of Toronto, Institute for Health Care Improvement
Toronto East General Hospital

Alamjeet Chauhan, Elissa Downey, Tahrin Mahmood, Sarosh Tamboli, Monika Torio, Kyle Tsang

The Problem
- Mislabeled, damaged and lost specimen containers and requisitions continually occur despite patient safety incidences that have occurred in the past
- Approximately 70% of defective specimen errors occur when requisitions are inaccurately matched to specimen containers
- Requisition and specimen arrive at the lab separately hindering processing efficiency and disrupting workflow

Types of errors encountered in the transport and collection of defective specimen (Jan 2013 – Mar 2014)

Defective Specimen Error Run Chart (Jan 2013 – Mar 2014)

Impact
- The irretrievable nature of specimens collected in the Operating Room make defective specimen errors a training platform for patient safety
- Staff voice concerns about missing specimen containers however they have no clear understanding of the frequency of these errors
- The lab spends 2-3 hours per week resolving specimen defects

Our Approach
1. Operating Room observations
   - Followed collection and transport of specimen from OR to lab
2. Specimen Preparation Process Map
3. Cause and Effect Diagram
4. Defective Specimen Error Spreadsheet

5. Formation of a multidisciplinary OR Specimen Working Group
   - Met weekly with OR, Lab and portering staff to strategize on potential solutions to defective specimen errors

Potential route cause of requisition mismatches: Separation of requisition from specimen container in sold utility room

6. Completed two PDSA cycles

Key Overall Learnings
- Relationship building improves frontline staff buy-in
- Choose data collection tools wisely
  - Accurate data is difficult to obtain
  - Need staff to see its value
- Need to be available to support staff during PDSA cycles

Next Steps
- PDSA#1: Plastic bagging preparation to be tested in OR (June 2014)
- PDSA#2: Coloured file matching
  - Successful implementation of file options in OR (9/5/2014)

Acknowledgements
We would like to thank Karen Clancy Yee, Karen Clancy, Lanny Bowness, Dr. Nader Nader, and Dr. Tina for their ongoing support and assistance over the course of the project.