Reducing Specimen Labeling Errors in a Large Metropolitan Emergency Department: A Quality Improvement Initiative

Benjamin Verbil

**Background:** Studies have established specimen mislabeling as a significant cause of adverse events and increased cost within health systems. Current solutions such as barcode scanning and strict laboratory acceptance policy have not eliminated the problem.

**Local problem:** In a large metropolitan emergency department (ED), increasing specimen mislabeling errors have persisted which are refractory to current solutions.

**Purpose:** Communication is often a weak point among system failures, and no formalized manager-staff communication process exists for ED staff regarding mislabeling errors. Improvement in communication may effectively reduce errors and provide information about cause.

**Methods:** Qualitative analysis of debriefing tool and survey data was performed to assess tool viability and track errors. Error incidence during the pilot project was compared with incidence during a similar timeframe prior to implementation to assess for improvement. Incidence rates were calculated using ED census data.

**Intervention:** The IOWA Evidence-Based Practice Model facilitated development of a pilot debriefing tool designed to improve manager-staff communication after a mislabeling error, as well as pre- and post-intervention assessment surveys to gauge effectiveness. The use of the debriefing tool created an opportunity for supportive, consistent, and structured communication as well as a root cause analysis of the error.
**Results:** Survey analysis revealed that among multiple measures communication and satisfaction improved. Reduction in errors per 1000 patients was achieved during the project period (3.25) versus comparison period (3.47).

**Conclusion:** The debriefing tool shows promise in enhancing manager-staff communication regarding mislabeling events and may have contributed to error reduction during the project.