Stop, Debrief! A Surgical Specimen Depends on It

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Background

Surgical specimens are utilized to identify diseases and develop treatment plans for patients. Correctly managing the handling of specimens intraoperatively is a crucial step in ensuring that the specimen makes it to the proper destination for testing without error.

In 2024 a Level 1 trauma center in Eastern North Carolina saw an uptick in surgical specimen errors compared to the previous two years. Mislabeling, incorrect transport, and incorrect specimen ordering contributed 39 specimen-related opportunities.

In addition, five specimens were lost, causing a lack of diagnosis for patients and sometimes additional procedures. While this may not sound like a lot, specimen errors and lost specimens have financial implications for the hospital and personal/life altering implications for the patient.

Project Design/Strategy

An interprofessional Specimen Charter was launched to include stakeholders from the laboratory, operating room, and nursing informatics.

The objective of the Specimen Charter was to identify opportunities for improvement by:

- Observing workflows of the lab and operating room to understand processes
- Auditing current practices in real time
- Exploring evidence-based strategies for enhancing specimen management

Opportunities were identified; the most reoccurring were those that highlighted deviations from standard practice during the surgical debrief. Findings were:

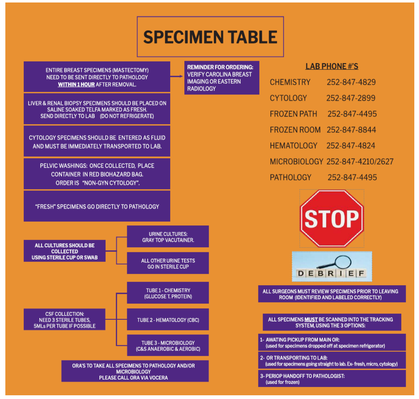
- Lack of full participation in the post-surgery debrief or no debrief being conducted
- Reasons for non-adherence included a feeling of insufficient time, surgeon leaving the room before debrief took place, and nurses feeling intimidated to speak up

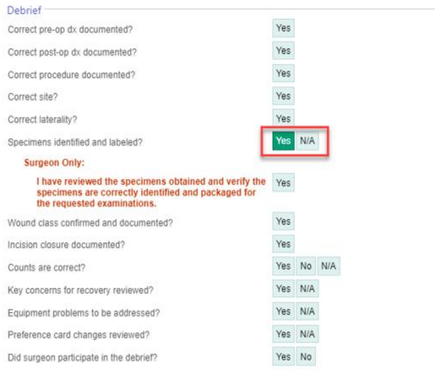
These findings led leadership to turn their attention to developing quality improvement initiatives that would improve compliance with the surgical debrief for team members and surgeons.

Methods and Process

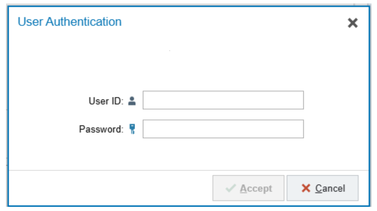
- Specimen handling audits performed 50 times per week
- 1:1 training on specimen and debrief policies for >180 team members
- Perioperative Safety Pause conducted across all surgical services disciplines
  - Highlighted top safety concerns and ways to prevent errors
- Customized specimen tables in each operating room with tips
  - Allowed a place for specimens to be placed with a reminder to debrief
- Debrief requiring dual signatures in the electronic medical record

Specimen Audit	Yes	No	N/A
1.) Uses a read-back method to review specimens during the hand-over process between circulator and scrub (specimens anticipated; name, type, and location of specimens on the sterile field, in the room, or sent to the laboratory).			
2.) Facilitates direct communication between the pathologist and the surgeon when diagnosis or specific information about specimens is communicated.			
3.) Uses a read-back method with the surgeon to verify patient and specimen identification on the specimen label, pathology requisition form, and patient health care record before transfer of the specimen from the sterile field			
4.) Transfers the specimen as soon as possible after collection of the specimen			
5.) Selects an appropriate container for the specimen and preservative to ensure the specimen is not damaged or compromised (i.e. culture-sterile cup)			
6.) Labels the container immediately with: * two patient identifiers * the specimen name *the specimen site including laterality if applicable			
7.) Immediately transports specimens to the receiving department when possible			
8.) Discards all labels before ethe next patient enters the room			
9.) Scan specimen to lab			
10.) Scan specimen to fridge (awaiting pickup) in the specimen room			



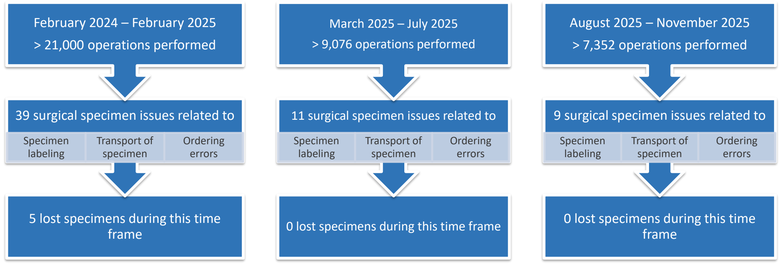


Pop up box w/ surgeon username/ID & Surgeon will need to enter network password as Verification



Results and Outcomes

- Initial data collection was from February 2024 – February 2025
- First Safety Pause February 2025, with a second Safety Pause August 2025
  - Date collected Feb March 2025 – July 2025 and August 2025 – November 2025, to align with the Safety Pause events



- Reports created to show compliance with physician dual sign off during the debrief
  - Compliance goal being 100% with audit reports indicating provider fallouts
- Debrief audits from September 2025 to October 2025 show 100% compliance with specimen components of the debrief (audits ongoing)
- Maintenance audits of specimen collection performed 10 times per week
- Further initiatives implemented/planned for addressing gaps discovered during audits
  - Translucent specimen cups for better specimen visualization
  - Electronic display boards budgeted in FY26 for each OR to allow specimen charting and debrief to be displayed on a large screen
  - Simplified OR RN to PACU RN handoff to reduce perceptions of being rushed by OR RN during room turnover

Discussion and Implications

Fostering a safety-focused culture during the surgical debrief has begun to reduce errors. By performing a robust audit process, identifying key gaps, and refining the post-surgical debrief specimen events have been reduced and there have been no missing specimens. Nurses can identify and address discrepancies before the patient leaves the OR, minimizing downstream harm to patients. These initiatives can be easily adapted to other procedural departments.

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