

# Clarity PSO Learning Series

## Topic: Surgical Errors

### What We Learned

Surgery is an integral part of healthcare with an estimated 234 million operations performed annually worldwide (Weiser et al., 2008); it is a regular occurrence in healthcare as operations are performed in every community and on everyone, and the procedures can range from the very basic to the complex.

While there is a considerable amount of risk when it comes to surgery, surgical complications are common and often preventable. Event reporting from our clients presented Clarity PSO the opportunity to look deeper at events related to surgery and anesthesia practices. We analyzed both aggregate and facility-specific data spanning a quarter to better understand the themes and contributing factors related to surgical events.

From data related to near misses, the following themes emerged:

- Compromised sterility: specialty trays not being sterilized properly or on time, insects in the OR, compromised field sterility, high room temperature and humidity, etc.
- Expired items: blood, mesh, etc.
- Count discrepancies

Data also showed that contributing factors and events that were considered certainly preventable contained similar traits to events identified in the previous quarter. This is important to note because that means that trends may begin to appear as the data continues to mature. By looking at the events' contributing factors and the event descriptions, we identified the following themes:

- Communication issues
- Discrepancies in regards to counts (count sheets not matching actual count)
- Sterility issues (holes in wrapper, vendor trays requiring flash sterilization and biologics)
- Lack of consent (some, but not all, were emergent situations)
- Safety culture – deviation from policy

To dig deeper into the data and to get to the root of some of these issues, we looked at those events that the reporter listed as “almost certainly could have been prevented.” Although the total number of these events was minimal, we found the following themes in event descriptions:

- Communication issues
- Sterility concerns
- Vendor trays not being ready on time for procedure
- Trays/instruments not clean after being sterilized
- Time/opportunity to perform a count

## Discussion and Recommendations

Through our research, we recognized that many of the near misses and preventable errors were related to communication and protocol issues.

One event in particular highlighted the significance of having the proper protocols in place for the event of emergent returns to the OR. In this event, the patient was unstable when brought from the unit to pre-op due to re-bleeding. The patient was kept in pre-op for an additional length of time during which he/she arrested. Pre-op was unaware of the patient's condition prior to him/her arriving in pre-op. The OR staff was not informed of the situation and was unable to accept the patient due to another emergency. There was a lack of communication and awareness of the situation between all three areas.

Similar responses of confusion and lack of communication occur throughout the OR leading to delay in case times, supplies and treatment. These responses also caused an increase in anesthesia time, costs and time wasted. To reduce error and improve patient safety, consider your facilities' processes;

- Can frontline staff easily and quickly implement the necessary steps in order to smoothly admit and begin a procedure? What information goes to whom? Consider mapping out the process of how emergent cases go through pre-op, intra-op and post-op. What barriers do staff have to overcome in order to get a patient into and out of the OR?
- Who gathers the supplies for the procedure? Are emergency case carts (carts containing all instruments needed for a particular case such as a chest cart, thoracic cart, vascular AAA or peripheral cart, neuro cart, abdominal cart, etc.) accessible? Are traveling carts with supplies specific to that type of procedure available and accessible? Are lists available for staff to help them pick all necessary equipment, machines, etc.?
- What is the hierarchy/communication pathway within your facility? Are phones or pages used to keep all those in charge aware of what is going on within the hospital (i.e., an alert sent out about a trauma coming in or a rapid response team responding to a patient)? Is there a formal handoff process (SBAR)? Are there "stop the line" phrases recognized throughout the organization at all levels to ensure patient safety?

Sterility and count issues were also common themes identified in the data. If you find your organization is having issues with sterility, it may be beneficial to map out your entire process of where and how dirty instruments, tools and implants go from the previous OR through processing to packaging and finally to the next OR case. And while emergency situations may preclude a count from being performed, it is of utmost importance that a culture of safety is created within each OR room and the entire operating team make performing a count a priority.

A culture of safety provides the foundation of patient safety improvements and teamwork plays a big role in this area. The article, [\*Building Cohesive Anesthesia Care Teams\*](#) (Chandler, 2012), details the need

for cohesive anesthesia care teams. This concept can be broadened to encompass the entire operating room team, other units, and even the entire healthcare organization to create one cohesive, patient-centered team. We all recognize the need for team; it's just a matter of building an infrastructure for effective teams and sustaining it.

**Additional Resources:**

- [WHO Surgical Safety Checklist](#) and the [Checklist Implementation Manual](#)
- [WHO Guidelines For Safe Surgery: Safe Surgery Saves Lives](#)
- The Joint Commission's [Reducing the Risk of Wrong Site Surgery](#) Video Presentation
- The Joint Commission's [Safe Surgery Solutions](#)
- [Current preventive measures for health-care associated surgical site infections: a review](#)
- [Current challenges and future perspectives for patient safety in surgery](#)

**Conclusion**

In the world of emergency surgery and anesthesia, two of the most vital tools are detailed communication and efficient protocols. Having clear communication; effective, efficient, and easy to follow protocols not only achieves good patient outcomes, but also allows staff to feel comfortable, confident, and knowledgeable when a situation does arise. By providing staff with easily implemented, relevant, and applicable protocols, both communication and clinical, they feel supported leading to staff retention and satisfaction. These positive outcomes will ultimately affect patient satisfaction, outcomes, and safety.

Chandler, C. (2012). *Building cohesive anesthesia care teams*. Retrieved November 25, 2014, from <https://www.asahq.org/For-Members/Publications-and-Research/Newsletter-Articles/2012/March2012/Building-Cohesive-Anesthesia-Care-Teams.aspx>

Weiser, T., Regenbogen, S., Thompson, K., et al. (2008). An estimation of the global volume of surgery: a modelling strategy based on available data. *The Lancet*, 372 (9633), 139-144. doi:10.1016/S0140-6736(08)60878-8