Improving Central Service-Operating Room Collaboration

LEARNING OBJECTIVES
1. Define collaboration
2. Describe the use of the Dual Concern Model to promote collaboration
3. Explain the importance of collaboration for positive patient outcomes
4. Identify ways the Central Service department can collaborate with the Operating Room

OBJECTIVE 1: DEFINE COLLABORATION
Collaboration is the joining together of people, groups or departments with the goal of interacting to achieve well-defined, mutually-beneficial common goals.

Collaboration is also a relational commitment that fosters shared responsibility, mutual authority and accountability for success. Collaboration is only achievable when groups, people or departments set aside their singular objectives and find common ground through the use of creative thinking.

OBJECTIVE 2: DESCRIBE THE USE OF THE DUAL CONCERN MODEL TO PROMOTE COLLABORATION
Collaboration can be difficult to apply...
in the real world setting, especially when it involves separate departments. Both the CS/SP department and the OR generally have their own managers who manage and direct operations within the department. In most healthcare organizations, each department is responsible for its own budget, supplies and personnel.

Departments may be physically separated from one another and, sometimes, they are not even on the same floor. Common spaces such as locker rooms and staff lounges are rarely shared by both departments, which only further enhances the perception of separation. It is understandable why CS/SP and OR professionals can act, feel and operate as if the departments were two separate entities; this separation creates silos that can further isolate the departments. When silos are created, collaboration suffers because each department focuses on protecting its own interests. Before collaboration can truly take place there must be an understanding and realization that each department is an important component of Perioperative Services. Each department under the Perioperative Services umbrella is interdependent and cannot be successful without the collaborative efforts of the other departments.

In the business world, some negotiators use the Dual Concern Model when negotiating business transactions. The Dual Concern Model is a good representation of the relationship between oneself and others. Using this model can help provide a better understanding of what must be done for departments such as the CS/SP and the OR to achieve collaboration.

In the Dual Concern Model withdrawing may be associated with avoiding, retreating or removing investment. Withdrawing may be essentially pretending that the situation never occurred or that the problem does not exist. When withdrawing, there is very low regard for the department, as well as low regard for other departments. Compromise is nonexistent because of the belief that the problems do not exist; this creates a lose/lose situation for all departments.

Standing your ground is similar to competing. When competing between departments, a person’s department must always be the winner, regardless of any damage that could be caused. Standing your ground and competing usually offers short-term rewards that come with long-term damage to relationships. Standing your ground or competing means there is a high regard for the department, but low or little regard for other departments. Competing is one sided and only one department benefits. This one sidedness is thought of as a win/lose situation and, eventually, other departments will shy away from the competitive department, which may harm the relationship between the departments as a whole.

Giving in involves letting other departments take advantage of others. When a department gives in, it is accommodating others at the expense of self or the department. This may lead individuals in the “giving in” department to resent and distrust other departments. When the department gives in, it means there is a low regard for one’s own department and a high regard for other departments. Departments that are always accommodating to others do this at the expense of the own department. When other departments are moving forward, the accommodators get left behind and may be looked down upon or even bullied. Similar to the standing your ground category, the giving in quadrant of the Dual Concern Model is one sided but is thought of as a lose/win situation.

Collaboration is achieved when there is a high regard for other departments and a high regard for one’s own department. Each department is in agreement.
that problems do exist and the only way to effectively move forward is to work together by acknowledging each department’s perspective. When both departments strive for common ground and compromise, a win/win situation is created.

**OBJECTIVE 3: EXPLAIN THE IMPORTANCE OF COLLABORATION FOR POSITIVE PATIENT OUTCOMES**

Surgical site infections (SSIs) can be detrimental to patients and complicate or delay the healing process, and they represent the most common type of infection acquired in the healthcare setting. The OR team and the CS/SP team should collaborate to prevent SSIs and other negative patient outcomes.

Although SSIs can have many different causes, the use of sterile instruments for every surgical procedure is important for preventing patient infections. Having instrumentation sterilized and the patient ready for every case is a shared goal for both the CS/SP and OR teams. When instrumentation is rushed or sterilization processes are circumvented, there is potential for introducing a product that could create an SSI or other negative patient outcome.

Communication is vital to the collaboration process. A multidisciplinary approach to SSI prevention should include creating policies and procedures that address how instrumentation will be cleaned and sterilized. Policies and procedures should also include information on short cycle processing (e.g., immediate use steam sterilization) and justification for any deviation from standard reprocessing. When there is a reported case of patient infection, the CS/SP team, along with the OR and Infection Prevention teams, should review the suspected case to look for any gaps in the process. This investigation could involve:

- Examining the instrumentation used in the procedure for any obvious defects;
- Reviewing processes in the OR for breaks in aseptic technique;
- Observing cleaning and sterilization processes; and
- Recalling sterilization records and biological results to ensure sterilization parameters were met.

Preventing burns caused by surgical instrumentation is another important goal that requires CS/SP and OR collaboration. Laparoscopic procedures became popular in the 1990s as a minimally-invasive approach to performing common procedures such as appendectomies and cholecystectomy. Laparoscopic procedures have been shown to reduce surgical complications, length of hospital stay and post-operative pain; however, the introduction of these procedures also brought more complicated instrumentation that, if not inspected and reprocessed properly, may burn patients. If an instrument’s electrode is activated and has insulation defects, for example, the insulation may fail and cause patient burns. Patient burns may also occur from direct contact of the damaged instrument with the patient’s tissue or through a process called coupling. Coupling occurs when electricity travels through the active electrode and insulation to adjacent items that conduct electricity, such as trocars and the patient’s tissue. Coupling from instrumentation with damaged insulation has the potential to burn internal structures and harm the patient.

Preventing intraoperative burns is achievable when CS/SP and the OR work together to identify defective instrumentation. This process begins when the instrument technician assembles the laparoscopic instrumentation. Instrumentation should be thoroughly inspected according to the manufacturer’s instructions for use (IFU) to identify cracks, chips or exposed metal in the protective insulation on the instrument. Some instruments require use of a leak testing device to assist in the inspection process. Leak testing devices use electricity to find defects in laparoscopic insulation by completing the circuit from exposed metal; this, in turn, trips an alarm to alert the operator to a defect. It is important to follow the IFU of the testing device and perform competencies before using the device. Some devices require grounding before use to prevent an electrical shock to the user. Careful inspection of the insulation before sterilization can prevent patient burns.

In the OR, it is important for the surgical team to inspect each laparoscopic instrument to visually verify the integrity of the insulation of laparoscopic instrumentation. The OR team should also visually inspect camera cords and lighting cords for any damage, which could cause unintentional patient burns. Before, during and after any laparoscopic procedure, the OR team should actively inspect instrumentation for defects. A process and procedure should be in place for the OR team to report any instrumentation defect to CS/SP; both departments should collaborate and determine the most effective communication method for identifying and removing defective instrumentation. When a defective laparoscopic instrument is discovered in the OR, the instrument must be immediately removed from service and not be used on the patient. Communication and/or established processes should then be followed according to policy. When device defects are identified in CS/SP, the instrument should be removed from service and repaired or replaced, and communication with the OR team should occur. If an entire set must be removed from service, the CS/SP team should communicate
this to the OR team to help OR schedulers keep track of patient-ready instrumentation.

Retained surgical items are another serious preventable error that can harm patients; retained devices can lead to infection, local tissue reaction, puncture or obstruction of blood vessels, and even death. Patient outcomes depend on the instrument material and location or potential movement of the item inside the patient’s wound. Retained metallic items may cause patient harm if the patient undergoes a magnetic resonance imaging (MRI) procedure because the metal may move or become heated and cause damage to internal tissues. Although most unintentionally retained foreign objects are surgical sponges and instruments, broken device fragments have also been left inside patients. Device fragments can also cause patient harm when they are attempted to be removed. Such negative outcomes include tissue injury, nerve damage, exposure to radiation, increased surgical time, and conversion from laparoscopic procedures to open procedures.

CS/SP and OR teams should collaborate to prevent instrumentation breakage and risk for retained surgical items. Instruments, including labels, should be inspected, maintained and serviced by CS/SP in accordance with the manufacturer’s IFU. Defective instruments should not be sterilized or used during patient care. The OR team should inspect instruments and instrument labels before use for defects that could lead to breakage and cause fragments to be left behind in a patient’s wound. If damage is identified, the item must be immediately removed from service.

The CS/SP team should immediately notify the OR when a broken instrument with a missing fragment is discovered during cleaning or inspection processes.

Improved collaboration between the OR and CS/SP can also have a positive impact on surgical scheduling, the vendor or loaned tray program, and pre-cleaning of surgical instrumentation. Development of the surgical schedule provides the perfect setting for communication and collaboration for both the CS/SP and OR departments.

The OR team should promptly investigate and follow its policies and procedures for reconciling a potentially retained surgical item. For example, the reporting process when a CS/SP technician identifies a broken surgical instrument may include the following:

- The CS/SP technician notifies the OR charge nurse;
- The CS/SP team uses an instrument tracking barcode system to trace the set back to the patient whom it was last used;
- The OR team determines whether the item was potentially retained; and
- The OR team obtains radiographic imaging, if indicated, to rule out the possibility of a retained device fragment.

The facility should also establish a policy and procedure for documenting and reporting device fragments. If the device fragment is associated with a patient death or another serious adverse event, it must be reported to the US Food and Drug Administration’s (FDA’s) MedWatch program. The CS/SP team, OR team and facility’s risk management team should determine a retained device/fragment policy and procedure for investigation by the manufacturer. For example, the process for addressing/documented a retained device/fragment incident may include the following:

- Decontaminating the device/fragment;
- Labeling the damaged instrument;
- Storing the damaged item for a minimum of one year; and
- Recording the item in a database that is monitored by the perioperative quality council.

**OBJECTIVE 4: IDENTIFY WAYS THE CENTRAL SERVICE DEPARTMENT CAN COLLABORATE WITH THE OPERATING ROOM**

Improved collaboration between the OR and CS/SP can also have a positive impact on surgical scheduling, the vendor or loaned tray program, and pre-cleaning of surgical instrumentation. Development of the surgical schedule provides the perfect setting for communication and collaboration for both the CS/SP and OR departments. CS/SP is able to provide valuable input when it comes to instrument coordination and quantities. For example, there might be two OR rooms scheduled with six total knees in each running simultaneously and each case requires a powered drill set; however, the facility only has eight power drill sets in inventory. CS/SP should be involved in the logistics of providing the eight drill sets for the 12 scheduled cases. By consulting CS/SP in the initial scheduling, the CS/SP team can help determine if it is possible to reprocess the power drills sets in the allotted time. Through this communication, it may be determined there is sufficient time, or that obtaining a loaned set will be required. Improved interdepartmental collaboration allows
issues to be addressed days before the scheduled cases, as opposed to on the day of the scheduled procedures.

It is essential for every CS/SP and OR team to establish a loaned instrument/tray program that meets the needs of both departments. Policies and procedures should be developed collaboratively to ensure that expectations can be met. Expectations of the vendor/loaned tray program could include:

- Notification of instrumentation needs prior to receiving the loaned instruments;
- Length of time the tray should be received before the scheduled case (48 to 72 hours);
- Availability of the manufacturer’s IFU for each set;
- Identification of trays, including the tray name, surgeon, date and time of surgery, and patient name;
- Procedure for when trays are not delivered in the allotted time; and
- Signed agreements from vendors to ensure they will follow the facility policies and procedures.

By developing joint policies and procedures, both the CS/SP and OR teams can improve accountability and support one another when expectations are not met (e.g., when a vendor forgets to drop off an implant tray for a case that begins in two hours, even though the vendor was notified several times prior to the day of surgery). Per the collaborative policy, all vendor trays must arrive at the facility 72 hours prior to the procedure. Instead of this being only a CS/SP issue, the CS/SP and OR teams should have already established a collaborative process for handling this situation. In this case, the OR can support the recommendation by CS/SP to postpone or cancel the procedure.

Pre-cleaning instrumentation is a vital step in instrument reprocessing. When instrumentation does not receive adequate pre-cleaning, there is a potential for blood and other body fluids to dry and harden, which makes the task of removing the bioburden even more difficult and time consuming for CS/SP staff. Some instrumentation could become permanently damaged and result in its need to be discarded – an outcome that can affect set quantities and inventory. By working collaboratively on establishing policies and procedures and providing education and competencies, CS/SP and the OR teams can reduce incidents of missed pre-cleaning opportunities and reduce costs associated with premature replacement of instrumentation.

Through greater collaboration, CS/SP and the OR should determine the following:

- Who will be responsible for pre-cleaning;
- Where and when pre-cleaning will take place;
- Which wetting or enzymatic agents will best meet the needs of CS/SP and the OR;
- How long instrumentation will sit after pre-cleaning; and
- How education will be delivered.

**CONCLUSION**

Collaboration between the CS/SP and OR is vital to the success of perioperative services. Effective collaboration can strengthen relationships between CS/SP and OR teams by establishing common goals, shared responsibility, mutual authority and accountability for success. Successful collaboration can result in stronger, more effective policies and procedures and, most importantly, more favorable patient outcomes.

**RESOURCES**


