

Adverse Event Analysis: Operating Room Distractions and Interruptions

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Structured Abstract

Background

Distractions and interruptions are an impediment in safe workflow and surgical team performance. Along with human distractions, electronic devices can contribute to failures in communication as well as processes established to improve patient safety. Adverse outcomes in the operating room are not only a result of surgical skill, but a breakdown in systems of communication and teamwork. Distractions affect cognitive clinical decision making. Operating room teams are interrupted or distracted approximately 9.82 times per hour. Staff entering and exiting the room is a primary distractor, followed by telephone calls and beeper pages. There is an average of one communication failure every 7.7 minutes. Breaks in communication are implicated in 88.7% of flow and safety errors.

A 62-year-old male presented for laparoscopic inguinal hernia repair. During the surgical procedure the scrub technologist (scrub tech) appeared emotionally distressed due to being recently notified that her family was involved in a motor vehicle collision. The scrub tech accepted personal phone calls on speaker phone with assistance of the circulating nurse. Communication failures were noted as a poor report was given to the oncoming scrub tech when she excused herself. Discussion of the scrub tech's personal matter distracted each member of the team through unrelated conversation, phone use, and staff entering and exiting the operating room.

Prior to transporting the patient to the post anesthesia care unit, the initial scrub tech discovered additional surgical supplies that were not included appropriately in the original supply count. One device that was found was possibly used in a previous patient's case. This finding necessitated an x-ray to rule out retained foreign body as well as prophylactic antibiotic administration. The patient required additional narcotic and benzodiazepine post-operatively for sedation and pain control during the additional thirty minutes needed in the operating room. During this process, the patient required airway support and supplemental oxygenation.

Surgical equipment counts are a vital safety process in every case. In 1%-13% of cases there is a surgical count discrepancy. Surgical count discrepancies are a costly adverse event which can lead to inefficacy in room turn-over, retained foreign bodies, anxiety for the patient, as well as prolonged sedation and anesthesia requirements.

Clinical Question

How do distractions and interruptions impact teamwork, communication, and patient safety in the operating room?

Evidence Based Discussion

Performing the surgical count as a time out requiring silence and focus of the entire team has shown to reduce errors and prevent the need for re-counts and x-rays. Missed items in the surgical count are most commonly due to distraction. The anesthetist can contribute to the count processes by supporting a quiet environment and being aware of the supplies and their location in the room if that should come into question.

The first step in reducing distractions and adverse events is to identify risk factors unique to yourself and your facility. Some distraction is unavoidable; but protocols should be implemented to reduce the number and frequency. Personal mobile device use is mandatory in some operating rooms for necessary anesthesia care team communications. If it is needed, the anesthetist must be judicious with the device's use.

The anesthetist is interrupted on average 4.85 times per surgical case. Interruptions are a known cause of communication failures which increase the incidence of adverse safety events. Administering anesthesia is a high stakes practice, which could result in patient morbidity and mortality if not executed safely. The distracted anesthetist is more likely to commit or participate in patient safety errors.

Translation to Practice

It is the responsibility of each member of the OR team to be vigilant and reduce interruptions and distractions, especially during critical case events like time-outs and instrument counts. As an advocate for patient safety, the nurse anesthetist is responsible for voicing concerns when patient care could be affected. The distracted anesthetist has a profound impact on patient safety and should avoid distractions. Distraction limiting protocols should be implemented such as restricting entering and exiting during surgery as well as a distraction free supply count. Each operating room and facility have their unique distractions. Distraction mitigation efforts must be specific to each operating room. In a facility where the anesthetist must use his or her personal cellular phone to contact care team members, a personal phone free operating room policy is not feasible. Cell phone use in the operating room should be limited and reserved for communication related to patient care with the understanding that their use is not risk free. Distractions such as loud music and personal conversations should be carefully assessed and reduced when interfering with communication. To prevent communication errors during hand off of care, a standardized format should be implemented. Although many surgical cases are low stress and low risk, every case should receive hyper-vigilant focus and attention to detail with as few distractions and interruptions as possible.

Keywords: operating room, distraction, interruption, communication

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