

Chapter 02: Patient Safety and Risk Management

Rothrock: Alexander's Care of the Patient in Surgery, 16th Edition

MULTIPLE CHOICE

1. Governmental and professional agencies and organizations, whether voluntary or involuntary, have a significant influence on patient safety policies in the healthcare setting. Select the agency or organization statement that presents a true reflection of its focus or purpose.
 - a. *The Joint Commission (TJC)*: Nonvoluntary bureau that tests healthcare institutions against evidence-based elements of performance
 - b. *Surgical Care Improvement Project (SCIP)*: Trends surgical site infection statistics
 - c. *American Society of Anesthesiologists (ASA)*: Professional organization of anesthesia providers and technologists
 - d. *World Health Organization (WHO)*: United Nations (UN)–based and supported authority on health throughout most of the world

ANS: D

The UN created WHO to function as its health oversight and coordination authority for all UN member nations who in turn have joined WHO. In 2004, WHO launched the World Alliance on Patient Safety, by which it began to examine patient safety in acute as well as in primary care settings relevant to all WHO member nations. WHO was created by and functions within the UN as the directing and coordinating authority for health throughout UN member nations.

2. Since its organization and establishment as a professional nursing association in the early 1950s, the Association of periOperative Registered Nurses (AORN) continues its endeavor to:
 - a. promote guidelines influencing patient safety.
 - b. create professional operating room (OR) nursing care delivery models.
 - c. interpret healthcare statistics critical to perioperative nursing care.
 - d. ensure risk reduction strategies are the foundation of perioperative education.

ANS: A

AORN provides an array of standards, recommended practices (RPs), guidelines, publications, videos, and tool kits that specifically address patient safety from the perioperative team's point of view.

3. A healthy 32-year-old nursing student is scheduled for excision of a left-sided subglottal cyst with frozen section and possible radical neck dissection. The preoperative verification process provides the opportunity to collect and verify information about the patient to ensure patient safety. Among the patient data that must be verified are:
 - a. emergency contact name.
 - b. laboratory and imaging results.
 - c. advance directive on file.
 - d. immunization records.

ANS: B

Preprocedure verification process ensures that all relevant documents (e.g., the history and physical examination, surgical consent, required laboratory studies) and imaging studies (properly labeled and displayed) are available before the start of the procedure. Preprocedure verification is best conducted when the patient can be involved and should be completed before the patient leaves the preprocedure area.

4. A patient was positioned, prepped, and draped following general endotracheal anesthesia induction. The team assembled to perform the time-out as described in the WHO surgical checklist. Successful employment of the time-out can only be ensured when:
 - a. the time-out is initiated by the surgeon.
 - b. each member of the team has an equal role and voice.
 - c. perioperative services have a physician champion and surgeon buy-in.
 - d. the checklist is committed to memory by all team members.

ANS: B

All members of the team must introduce themselves by name and role and participate in sharing critical elements of care. The team includes the surgeon, anesthesia provider, and nursing staff, plus any allied or ancillary care providers contributing to the procedure when the time-out is performed.

5. When unexpected events occur that have, or could have, compromised patient safety, a systematic investigatory process takes place. Significant information is gained through this meticulous exploration. The primary motive for carrying out a root cause analysis is to:
 - a. establish cause and trends based on who was involved.
 - b. determine precisely what happened and why.
 - c. find out what needs to take place to prevent a recurrence of the event.
 - d. uncover factors that contributed to the environment and the event.

ANS: C

Root cause analysis is a systematized process to identify variations in performance that cause, or could cause, a sentinel event. The analysis phase of root cause analysis progresses from “why” questions to “what can be done to prevent this” questions that flow and ultimately result in an action plan. Root cause analysis concentrates on systems and processes, not individuals.

6. The Joint Commission (TJC) designates sentinel events as unexpected occurrences involving death or risk of serious physical or psychologic injury. In 2003, TJC mandated the Universal Protocol to address perioperative sentinel events. This protocol includes:
 - a. improving the safety of using medications.
 - b. reporting critical results of tests in a timely manner.
 - c. performing a preprocedure verification process.
 - d. establishing alarm system safety as a priority.

ANS: C

Preprocedure verification process ensures that all relevant documents (e.g., the history and physical examination, surgical consent, required laboratory studies) and imaging studies (properly labeled and displayed) are available before the start of the procedure. Preprocedure verification is best conducted when the patient and/or guardian can be involved and should be complete before the patient leaves the preprocedure area. The surgical team must agree that this is the correct patient and the planned procedure on the specified side and site. The preprocedure verification process also includes confirming availability of necessary equipment, implants and prostheses, which is reconfirmed during the time-out.

7. A patient was transferred to the postanesthesia care unit (PACU) by the anesthesia provider and perioperative nurse. A hand-off report was given, using situation, background, assessment, recommendation (SBAR) format, to the accepting PACU nurse. The first element of information that should be presented in the hand-off report is:
 - a. the expected discharge criteria.
 - b. the names and roles of the nurse and anesthesia provider.
 - c. patient identification and procedure performed.
 - d. pain management orders.

ANS: C

All patient encounters should begin with patient identification verification. The receiving healthcare provider bears the responsibility for obtaining all of the information needed to safely care for the patient before the transferring staff leaves the area. Time for clarification and questioning must be provided. The purpose of hand-off communication and reports is to provide essential, up-to-date, and specific information about the patient. Standardized hand-off communication must include an opportunity to ask and respond to questions.

8. The OR is a danger-prone area for both patients and staff. Providing a safe environment of care for the patient involves identifying, mitigating, and managing the hazards inherent in surgical care. Choose the answer below that completes the blanks in this sentence: the risk of the surgical hazard of _____ can be mitigated through _____.
 - a. wrong patient, wrong site, and wrong side surgery; site marking and presurgical checklists
 - b. electrical and thermal burns; alcohol-free prep solution
 - c. surgical site infection; flash sterilization
 - d. surgical airway fire; fire extinguishers in every OR

ANS: A

Evidence shows that wrong site surgery not only can devastate the patient and family but also can impact the perioperative team adversely. All institutions accredited by TJC must follow the *Universal Protocol for Preventing Wrong Site, Wrong Procedure, Wrong Person Surgery*. The surgical team must agree that this is the correct patient and that the planned procedure is on the specified side and site. Marking the surgical site must be done so that the intended site of incision or insertion is clear and unambiguous.

9. Laparoscopic procedures that emergently convert to open procedures place the patient at risk for unintentional retained surgical items (RSIs). What new and evolving risk reduction strategy could prevent RSIs and frustrating, time-consuming miscount adventures at the end of these procedures?
- Creating precounted laparotomy sets with only the few necessary instruments
 - Performing radiologic surveillance on all conversion procedures at closure
 - Counting all instruments including a laparotomy set before the laparoscopy
 - Replacing or tagging sponges and laparotomy instruments with radiofrequency identification (RFID) chips

ANS: D

New sponge-tracking technologies have emerged that enhance risk reduction strategies to prevent inadvertent retention of retained surgical items (RSIs). These include sequentially numbered sponges, bar coding, and RFID products. Researchers suggest that, given medical and liability costs of more than \$200,000 per incident, sponge tracking technologies can substantially reduce the incidence of retained surgical sponges at an acceptable cost. At a minimum, all facilities should have a “count” policy that reflects AORN’s *Recommended Practices for Sponge, Sharp, and Instrument Counts*.

10. Demands of the perioperative environment impact how staff dispense and administer medications. Safe perioperative medication practices include:
- optimizing use of automated dispensing cabinets to obtain medications for multiple patients at one time.
 - retrieving medications well ahead of a planned use to prevent delays.
 - preloading syringes to improve efficiency.
 - transferring medications to the sterile field without distractions and one medication at a time.

ANS: D

AORN’s recommended practices for medication safety include obtaining medications for only one patient at a time, obtaining and preparing medications as close as possible to time of use, eliminating distractions, and transferring medications to the sterile field one medication at a time.

11. Fires and explosions in the perioperative setting require three components, described as the “fire triangle.” The element of the triangle the perioperative nurse has the most control over is:
- the ignition sources.
 - the fuel.
 - the oxidizer.
 - static electricity.

ANS: B

Perioperative nurses have influence over fuel sources such as drapes and prep solutions. They should work to ensure that an ignition source does not come in contact with a fuel source through interventions such as ensuring prep solution is dry before the surgeon activates the electrosurgical device.

12. Surgical patients are at risk for development of pressure injuries due to extrinsic factors such as length of surgery and intrinsic factors such as co-morbidities and age. The *most important* factor in prevention of such pressure injuries is:

- a. use of a transfer sheet to decrease friction.
- b. use of sheets or blankets to position patients.
- c. completion of a preoperative risk assessment and skin assessment.
- d. reviewing the guidelines for patient positioning in surgery.

ANS: C

Completion of a risk assessment and skin assessment allows the team to plan appropriate preventive interventions. Sheets or blankets should not be used as they decrease the effectiveness of support surfaces.

13. Informed consent is both a requirement and a patient right. The perioperative nurse's responsibility in terms of informed consent is to:
 - a. ensure the consent is completed properly to prevent legal liability.
 - b. report to the physician any doubts or concerns regarding the patients understanding.
 - c. obtain the informed consent.
 - d. answer questions related to risks and benefits.

ANS: B

The perioperative nurse's role as a patient advocate means the nurse has a responsibility for identifying and addressing expressed fears and determining the patient's ability to understand. The informed consent process does not prevent legal liability if adverse events occur. The perioperative nurse is not responsible for obtaining the informed consent but is responsible for verifying the consent is correct and complete.

14. Which of the following situations requires informed consent from the patient/family?
 - a. Emergent surgery
 - b. Organ procurement
 - c. Starting an IV
 - d. Discharge to home

ANS: B

Except in emergencies, surgical procedures should not be performed without documentation of the patient's consent on the chart. The patient also must be informed who will perform the procedure and when practitioners other than the primary surgeon will perform important parts of the procedure, even when under the primary surgeon's supervision.

15. Proper care and handling of surgical specimens is imperative for correct diagnosis, treatment, and prognosis planning of the patient. Select the response that best reflects correct specimen care and handling.
 - a. Label consecutive specimens in alphabetical order for laboratory efficiency.
 - b. Send all specimens to the laboratory together as one pickup, including frozen sections.
 - c. Avoid placing specimens for frozen section in formalin.
 - d. Neutralize formalin/formaldehyde spills with glycerin sulfate, and call the hazmat team.

ANS: C

Specimens for frozen section should be sent fresh (e.g., without fixatives [formalin/formaldehyde]). Specimens for frozen section usually are placed on a nonstick pad or into a dry specimen container. They are never placed in saline solution or formalin, nor are they ever transported on a counted sponge. They should be sent immediately to the laboratory. Formalin, a combination of methanol, water, and formaldehyde, is frequently used to preserve specimens if they are not taken to the laboratory immediately.

16. Proper handling of specimens is crucial for patient safety. What is the most serious negative outcome that could occur as a result of the loss, mislabeling or mishandling of a surgical specimen?
 - a. The medical facility could be sued for negligence.
 - b. The patient might be unsatisfied with the treatment received.
 - c. The patient's condition could be misdiagnosed.
 - d. The medical facility's reputation could be damaged.

ANS: C

A mislabeled specimen may result in misdiagnosis and consequently inappropriate treatment of the patient. Communication errors pose significant risks to patients in the misidentification of a surgical specimen before its arrival in the pathology laboratory.

17. During a simulation on intraoperative counts in which peer "teams" competed, Team 2 was determined to have demonstrated best practice in performing surgical counts. This team, whose members included a RN, CNOR, and CST, reviewed the unit practice standard and current AORN evidence-based guidelines. Select the appropriate order of counts that they demonstrated to their peers.
 - a. The CST counted the back table, Mayo stand, and sterile field, while the RN counted the sponge bags and the items in the kick bucket.
 - b. The RN and CST counted aloud together as RN pointed to the sponges in the sponge bag and then as the CST touched each sponge, moving from back table to Mayo stand to sterile field.
 - c. The RN and the CST each counted aloud as the CST pointed to items on the floor and kick bucket, and back table. To expedite the count, the RN counted aloud as she pointed out the sponges in the sponge bag while the CST completed the back table.
 - d. The surgeon searched the wound as the RN and the CST counted the floor, sponge bag, kick bucket, back table, Mayo stand, sterile field, and the sponge wrapped around the new ostomy.

ANS: B

As the first layer of closure begins, the scrub person and circulating nurse count all items consecutively in a standardized routine (e.g., proceeding from the sterile field to the Mayo stand to the back table and then off the field, or vice versa). The count is done audibly, visibly, and concurrently.

18. As the placenta was delivered and the uterus prepared for closure, the scrub person gathered up all of the sponges and dropped them in the kick bucket while the circulating nurse frantically stuffed them into sponge bag pockets. Sharps, sponges, and instrument counts were correct on closure of the uterus and again on closure of the peritoneum. On final sharps and sponge counts before skin closure, a needle was missing. Select the appropriate order of corrective action for the team.

- a. Count and verify suture packs, dump and count packs in sterile suture bag, check floor, check back table and Mayo stand, notify surgeon, and check linen and clean and red trash bags. Open clean trash bags tied up in the corner from sterile table setup.
- b. Recalculate numbers on whiteboard, check back table and Mayo stand, dump and check linen and trash, verify suture packs, notify team of possible missing needle.
- c. Notify team of needle discrepancy; recount needles on and off sterile field and whiteboard; check sterile field, Mayo stand, and back table; check floor, under OR table, bottoms of shoes, pants' cuffs, and sterile sleeve cuffs; check sponge bags and kick bucket.
- d. Recount needles on and off sterile field, check sterile field and Mayo stand and back table; check floor, wait to notify team until miscount verified; check red bag trash, compare empty suture packs, total number on whiteboard.

ANS: C

All incorrect closure counts should be reported immediately, and attempts made to resolve every discrepancy. If the count remains unresolved, the circulating nurse again notifies the surgeon of the unresolved count. A search of the surgical wound, field, floor, linen, and trash is made for the missing item (thus, the rationale that linen and trash not leave the OR until the end of the procedure). All personnel direct their immediate attention to locating the missing item.

19. Early on, during the preliminary sponge count on closure of a repair of a ruptured abdominal aortic aneurysm, the circulating nurse was unable to account for 2 lap sponges. He had maintained accountability for all sponges and instruments discarded from the sterile field and bagged each sponge carefully. He immediately turned and addressed the entire team in a clear voice. Select the appropriate communication that the circulating nurse must employ during this count discrepancy.
 - a. "Stop everything. I'm missing a couple of sponges. They are not in the trash or back table. Check the wound."
 - b. "I think you are missing 2 sponges. Shall I call X-ray while the scrub person checks her table again? Doctor, please check the incision."
 - c. "We have a count discrepancy. We started with 70 sponges and find only 68. We are missing 2 lap sponges. Everyone, please check your areas."
 - d. "I've called X-ray because we are short 2 sponges. I've called the charge nurse to get someone to help me check the trash and linen."

ANS: C

Note that the circulating nurse used SBAR format to alert the team of the critical situation. All incorrect closure counts should be reported immediately and attempts made to resolve every discrepancy. If the count remains unresolved, the circulating nurse again notifies the surgeon of the unresolved count. A search of the surgical wound, field, floor, linen, and trash is made for the missing item (thus, the rationale that linen and trash not leave the OR until the end of the procedure). All personnel direct their immediate attention to locating the missing item. If it is not found, an X-ray film may be taken and read by the radiologist or surgeon as specified in institutional policy.

20. A patient was presented with the prepared informed consent form during the discussion with her surgeon concerning her scheduled vaginal-assisted laparoscopic hysterectomy. She demonstrated and verbalized that she understood the procedure, risks, expected outcome, complications, and procedural process. Before she signed the consent form, she informed the surgeon that she did not want any medical students or surgical residents performing any parts of the procedure other than assisting and did not want any photographs of her body taken. The surgeon agreed, and she crossed out those portions of the form and initialed them before she signed. The patient was exercising her:
- understanding and rights under the Patient Self-Determination Act (PSDA).
 - right to informed consent.
 - autonomy to protect herself from negligence and malpractice.
 - hope that everyone would honor the Health Insurance Portability and Accountability Act (HIPAA).

ANS: B

Every adult has the right to determine what happens to his or her body. In perioperative practice settings, these rights are protected via informed consent processes for the procedure itself and/or for any research interventions, and via patient wishes expressed in advance directives for healthcare. The patient also must be informed who will perform the procedure and when practitioners other than the primary surgeon will perform important parts of the procedure, even when under the primary surgeon's supervision.

21. A female patient with end-stage pancreatic cancer was admitted from hospice for a celiac plexus block to treat intractable pain. She wanted to be able to complete "getting her things in order" and saying good-bye to her friends and family while enjoying her last days pain-free. The patient insisted that her Do Not Resuscitate (DNR) status NOT be rescinded. She was conscious and competent and knew what was best for herself. The patient was taking full advantage of what provision for her care?
- PSDA
 - Advance directives
 - Informed consent
 - PSDA and advance directives

ANS: D

Many individual states had statutes that allowed patients to dictate their future healthcare wishes in a legally recognized fashion if they were unable to do so when a life-threatening situation arose. Then, in the wake of the first U.S. Supreme Court case to deal with the issue—*Cruzan v. Director, Missouri Department of Health*, 497 U.S. 261 (1990)—the U.S. Congress in 1991 passed the PSDA to extend legal protection to all U.S. citizens and residents. Under the Act, patients have the legal right to accept or refuse medical treatment, including resuscitation, even if refusal will likely result in death.

22. Researchers in the area of patient safety have proposed an emphasis on transparent systems, asserting that adverse patient events cannot be effectively prevented until the legal and professional licensure systems discontinue their focus on individual error and blame. In order for a transparent system to exist and thrive, it requires:
- human factor reliance.
 - confidentiality.
 - open reporting.
 - disciplinary guidelines.

ANS: C

They urged an emphasis on transparent systems that required open reporting, investigation, innovation, and dissemination. The aviation and nuclear systems' parallel examination of human factors served as models for ideas that led to relative success in preventing injury attributable to human error.

23. A key factor in promoting patient safety is:
- emphasis on individual responsibility.
 - elimination of distractions and noise from the perioperative environments.
 - standardized checklists.
 - continuous monitoring.

ANS: C

Using surgical safety checklists is most important in promoting patient safety. Data suggests that checklist use may also improve adherence to lifesaving processes during OR patient crises such as cardiac arrest and massive hemorrhage. Studies confirm tangible improvements in safety outcomes after implementation of a checklist and found a nearly 75% reduction in failure to adhere to critical steps in management of a simulated surgical crisis.

24. Which nonprofit organization improves patient care through applied research into effectiveness and safety of devices, drugs, procedures, and processes?
- The Joint Commission (TJC)
 - National Institute for Occupational Safety and Health (NIOSH)
 - Consumers Advancing Patient Safety (CAPS)
 - Emergency Care Research Institute (ECRI)

ANS: D

ECRI is a nonprofit organization dedicated to using the discipline of applied scientific research to discover which medical procedures, devices, drugs, and processes, including fire safety, best improve patient care.

MULTIPLE RESPONSE

1. In the perioperative environment, patient hand offs occur at multiple points during the continuum of care. Best practices for patient hand offs include: (*Select all that apply.*)
- completing urgent tasks before beginning the hand-over process.
 - tailoring communication steps as needed to manage efficiency.
 - using a structured tool to facilitate consistency.
 - using a broad definition for hand offs.
 - integrating technology into the hand-off process.

ANS: A, C, D, E

The Joint Commission's attributes of effective hand offs include establishing a setting that limits interruptions, use of a standardized process or tools, verification of received information, and integration of technologies into all hand-off processes. Deviating from established procedures to accommodate time constraints may cause unnecessary risk to patients.