Rothrock: Alexander's Care of the Patient in Surgery, 14th Edition

Chapter 02: Patient Safety and Risk Management

Test Bank

MULTIPLE CHOICE

1. Governmental and professional agencies and organizations, whether voluntary (governmental) 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 based and supported authority on health throughout most of the world

   ANS: D
   WHO was created by and functions within the United Nations (UN) as the directing and coordinating authority for health throughout UN member nations.

   REF: Page 21

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 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
   The Association of Operating Room Nurses (now called the Association of periOperative Registered Nurses [AORN]) began organizing in the early 1950s. AORN's conferences and publications were replete with patient safety information. Its first conference in 1954 included programs on methods' improvement, explosion prevention, bacteria destruction, the surgeon-nurse relationship, and positioning.

   REF: Page 18

3. The perioperative environment is a dangerous place for both patients and staff. The surgical patient is at risk for harm, regardless of age, surgical diagnosis, or planned procedure. Select the physical risks.
   a. Chemical, thermal, and radiation burns
   b. Anxiety and knowledge deficit

c. Lost or mislabeled specimen
d. Breaches of confidentiality, privacy, and dignity

ANS: A
A physical risk is some damaging or noxious element that comes into contact with the patient to cause harm, such as electrosurgical/laser beam, pooled prep solution, glutaraldehyde retained in an endoscope, or a retained foreign object.

REF: Pages 34, 37-38

4. Sara Martin, 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. In addition to comfort and caring behaviors and reassurance from the perioperative nurse to mitigate Sara's nervousness and fears, the admission 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. allergies, history and physical report, level of anxiety.
   b. lab and imaging results, blood transfusion orders.
   c. signed consent, advance directives, and personal belongings.
   d. All of the options must be verified.

   ANS: D
   Key features of the Universal Protocol for perioperative patient care are performing a preoperative verification process, marking the operative site, and conducting a "time out" immediately before starting the procedure. A properly performed "time out" includes information about the patient and the procedure.

   REF: Page 19

5. Sara was positioned, prepped, and draped following general endotracheal anesthesia induction. The team assembled around Sara and the sterile field 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. the entire team stops and focuses attention together.
   c. perioperative services has a physician champion and surgeon buy-in.
   d. someone simultaneously checks the patient ID band.

   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.

   REF: Pages 21, 24

6. 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.

   REF: Page 19

7. The National Patient Safety Goals (NPSG) are intimately aligned with the perioperative nursing–sensitive interventions that define the daily role functions of the perioperative nurse. In the early days of the twentieth century (1900s), as perioperative nursing evolved as a specialty of nursing practice, history was chronicled when someone remarked that: _____.
   Select the quote that best relates perioperative nursing care to the NPSG.
   a. "Surgical nurses are the glue that holds surgical care together."
   b. "A nurse is always there to be the patient's advocate."
   c. "The primary role of the surgical nurse is to protect the patient from the surgery."
   d. "Primum non nocere" (first do no harm)."

   ANS: C
   Most perioperative nursing interventions are aimed at protecting patients from the unintended insults of regular surgical care and the risks inherent in surgery. Tightly coupled systems are most prone to accidents, and surgical suites, emergency departments, and intensive care units are examples of complex, tightly coupled systems.

   REF: Pages 18-20

8. After Sara Martin emerged from anesthesia and was extubated, she was transferred to the PACU by the anesthesia provider and perioperative nurse. She had an excision of a benign subglossal cyst. A hand-off report was given to the accepting PACU nurse. The anesthesia provider and perioperative nurse described the procedure, allergies, weight in kilograms, intake and fluid loss, anesthetics and medications, pain, and several other critical parameters of physiologic status. Choose the answer below that completes the blanks in this sentence: _____ is the first element of information that should be shared in the hand-off report; the _____ has the responsibility for the ultimate transfer of information.
   a. PACU bed space number; anesthesia provider
   b. The names and roles of the perioperative nurse and anesthesia provider; receiving

PACU nurse
c. Patient identification; receiving PACU nurse
d. Patient identification; anesthesia provider

ANS: C
All patient encounters should begin with patient identification verification. The receiving healthcare provider bears the responsibility of obtaining all of the information needed to safely care for the patient before the transferring staff leave 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.

REF: Page 26

9. 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.

REF: Page 31

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

ANS: D

At a minimum, all facilities should have a "count" policy that reflects AORN's *Recommended Practices for Sponge, Sharp, and Instrument Counts*. While standard counting prevented 82% of retained sponges, bar-coded and RFID-tagged sponges prevented about 97.5% of retained sponges. The bar-coded sponges were the most cost-effective. 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.

REF: Page 34

11. Norma Miller, a 49-year-old long-distance runner with dysfunctional uterine bleeding, was scheduled for a hysteroscopy. During the procedure, sterile saline was used to expand the intrauterine compartment and enhance visualization. The perioperative nurse meticulously monitored fluid use and documented infiltration to the uterus and fluid collected as drainage from the uterus. The perioperative nurse was concerned that approximately 500 ml of fluid was unaccounted for and alerted the surgeon. The nurse's motive for this surveillance was to:
    a. determine the potential for intravascular uptake of fluid or third spacing.
    b. estimate the likelihood for fluid puddles on the floor, causing a fall hazard.
    c. determine the potential for dependent pooling under the patient and subsequent electrical burn.
    d. determine the potential for dependent pooling under the patient and sacral maceration.

    ANS: A
    Fluid and electrolyte imbalances may occur rapidly in the surgical patient, and can be caused by numerous factors, including preoperative fluid and food restrictions, intraoperative fluid loss, or the stress of surgery or uptake of surgery-infused diagnostic fluids. The surgical patient is unable to regulate body fluid and electrolyte requirements by normal activities of drinking, eating, excreting, and breathing unaided. It is therefore imperative that the perioperative nurse monitor and collaborate in controlling the fluid and electrolyte status of the patient intraoperatively.

    REF: Pages 42-44

12. Spencer Robertson is a 4-week-old frail neonate who had a rectal exam and dilatation under anesthesia following prior surgery for imperforate anus. When the drapes were removed from Spencer, the perioperative nurse noted an area of redness, swelling, and abrasions on the buttocks of the patient. Spencer had been positioned prone for 20 minutes. The nurse who noted the skin condition had relieved the circulating nurse and quickly reviewed the perioperative record and patient chart, but had not seen the patient before positioning. Which of the following safety factors may have contributed to this event?
    a. Neonates have extremely delicate skin prone to injury.
    b. Preoperative skin condition was not assessed and documented.
    c. The relieving nurse did not receive a hand-off report from the circulating nurse.
    d. All of these options are contributing factors.

ANS: D
All of the above factors could have collectively contributed to the skin injury. The skin condition could also have been present on admission to the OR and not seen or noted. Findings from sentinel event reports over the last 2 decades demonstrate that the individual efforts of the best nurses, surgeons, and anesthesia providers, combined with a recognized need for teamwork, may not be sufficient in the perioperative setting.

REF: Page 19

13. Weighing sponges is a valuable tool for meticulous calculation of blood and fluid loss when conducted correctly and used in appropriate circumstances. Select the response that correctly reflects the best practice in weighing sponges.
    a. Calculate all sponge weight results at the end of the case.
    b. Use the following to calculate loss: 1.5 grams = 1.2 milliliters = 1.5 cc.
    c. Consider saline-soaked sponges equal to blood-soaked sponges when urine is involved in the operative field.
    d. Combine sponge weight values with irrigation measurement values to calculate estimated blood loss.

    ANS: D
    When blood loss estimates must be more accurate, weighing sponges provides a reliable means of judging the amount of blood lost and of gauging the need for transfusion. Add the amount of blood loss calculated from suction canisters to the total recorded from sponges to obtain accurate blood loss estimates.

    REF: Pages 39-40

14. During a particularly long and bloody spinal fusion procedure for scoliosis, the perioperative nurse collected, monitored, and spun down the blood collected in the autotransfusion cell salvage system. She was able to provide the anesthesia provider with three units of packed red blood cells (PRBCs) by the end of the procedure. As the team calculated the estimated blood loss (EBL) as wound closure ended, the perioperative nurse also:
    a. added the total from the suction canister.
    b. excluded the suction canister since cell salvage returned blood to the patient.
    c. included suction content, subtracting irrigation amount used.
    d. requested hemoglobin and hematocrit levels to quantify EBL.

    ANS: C
    Measure blood in the suction canister(s) at regular intervals, subtracting the amount of any irrigating solution used.

    REF: Page 39

15. As the pediatric cardiac team prepared to cannulate for a coarctation repair, their neonate patient presented with a sudden dysrhythmia, ectopy, and failure to respond to digitalis. Point-of-care serum electrolyte measurements revealed low potassium, sodium, and magnesium levels. On anesthesia induction, only 35 minutes earlier, these values were at normal levels and the patient status was secure. The electrolyte levels were treated to normal and the patient was cannulated and placed on cardiopulmonary bypass. As the procedure continued the team pondered the cause to prevent a recurrence. What possible event could have caused, or contributed to, this loss of electrolytes?
    a. Unreported patient diarrhea before surgery
    b. Unnoticed arterial bleeding from disconnected arterial line
    c. Sterile water from back table switched with heparinized saline
    d. Missed breast-feeding 2 hours before procedure

    ANS: C
    Intravascular infusion of a hypotonic solution would cause hypokalemia, hyponatremia, and hypomagnesemia. Signs and symptoms of hypokalemia include cardiac effects, such as ectopy, dysrhythmias, conduction abnormalities, and altered sensitivity to digitalis. Sterile water is a hypotonic solution.

    REF: Pages 42-44

16. Informed consent is both a requirement and a patient right. The perioperative nurse's responsibility in terms of informed consent is to:
    a. obtain verbal consent when the written consent is unavailable.
    b. ensure that the consent is in the medical record, correct, signed and witnessed.
    c. withhold preoperative medication until the consent is witnessed.
    d. review the procedure and expected outcome with the patient.

    ANS: B
    On the patient's arrival in the OR, the circulating nurse and anesthesia provider are responsible for verifying that documentation of the consent is in the chart and is correct, properly signed, and witnessed before the administration of anesthesia.

    REF: Page 45

17. Which of the following situations requires informed consent from the patient/family?
    a. Elective cosmetic surgical procedure
    b. Organ procurement
    c. Permission to photograph medically-related images during the procedure
    d. All of the options require consent.

    ANS: D
    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.

    REF: Page 45

18. Select the appropriate order for administering blood and blood products.
    a. Verify informed consent for blood, separate blood bag from identification slips, sign slips, verify identification numbers and expiration dates with second licensed person, verify patient with blood tag and requisition slips
    b. Verify informed consent for blood, verify patient identification and blood type and unit numbers against blood tag and requisition slip with second licensed person, sign slips
    c. Check blood bag for damage, clots, and bubbles with second licensed person; identify patient and blood expiration date against all slips and tags; remove slips and tags from blood bag
    d. Verify patient identification, blood unit number, and blood type between patient chart and blood tags and slips; check blood for bubbles and clots; spike blood bag with filtered tubing; sign blood slip while still on blood bag; remove when bag is infused without reaction

    ANS: B
    A patient having an elective surgical procedure for which blood has been requested should not be anesthetized without verification that the requested blood products are typed, crossmatched, and available and that informed consent to receive blood products has been documented. Before administration of any blood product, the circulating nurse and anesthesia provider (or a second licensed individual) must confirm the following: (1) The unit number on the blood product corresponds with the unit number on the blood requisition. Facilities using electronic records will return a “transfusion card” or “cross-match card” as verification that this unit can be given to this patient in lieu of the requisition. (2) The name, birth date, and number on the patient’s identification band agree with the name, birth date, and number on the blood product. (3) The patient’s name on the blood product corresponds with the name on the requisition. (4) The blood group indicated on the blood product corresponds with that of the patient. (5) The date and time of expiration has not been reached. (6) The blood product bag is free of leaks, damage, or signs of possible bacterial contamination (e.g., presence of fine gas bubbles, discoloration, clots, or excessive air in the bag). Both individuals who verify this information must sign the slip that comes with the blood product.

    REF: Page 41

19. 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 lab efficiency.
    b. Send all specimens to the lab 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 Telfa 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 lab. Formalin, a combination of methanol, water, and formaldehyde, is frequently used to preserve specimens if they are not taken to the laboratory immediately.

REF: Page 37

20. Loss or mishandling of a surgical specimen could be considered negligence and could result in:
    a. another surgical procedure.
    b. improper specimen analysis.
    c. improper specimen preparation.
    d. All of the above

    ANS: D
    Communication errors pose significant risks to patients in the misidentification of a surgical specimen before its arrival in the pathology lab. These errors include the following: specimen not labeled, empty specimen container, incorrect laterality, incorrect tissue site, incorrect patient, no patient name, no tissue site.

    REF: Page 37

21. Ann Ames, RN, CNOR, and Joy Toll, CST, participated in a simulation on intraoperative counts, performing in their usual roles with Ann as the circulating nurse and Joy as the scrub person. They were determined to demonstrate best practice in performing surgical counts. They reviewed the unit practice standard and current AORN evidence-based guidelines. Select the appropriate order of counts that Ann and Joy demonstrated to their peers.
    a. Joy counted the back table, Mayo stand, and sterile field while Ann counted the sponge bags and 3 in the kick bucket.
    b. Joy and Ann counted aloud together as Ann pointed to the sponges in the sponge bag and then as Joy touched each sponge, moving from back table to Mayo stand to sterile field.
    c. Ann and Joy each counted aloud as Joy pointed to items on the floor and kick bucket, and back table. To expedite the count Ann counted aloud as she pointed out the sponges in the sponge bag while Joy completed the back table.
    d. The surgeon searched the wound as Ann and Joy counted the floor, sponge bag, dip basin, 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.

REF: Page 36

22. As the placenta was delivered and the uterus prepared for closure, the scrub person gathered up all of her 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 white board, check back table and Mayo stand, dump and check linen and trash, verify suture packs, notify team of possible missing needle; however, it probably is an error in transcription.
    c. Notify team of needle discrepancy; recount needles on and off sterile field and white board; 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 white board.

    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, and a search is made for the missing item, including the surgical wound, field, floor, linen, and trash (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.

    REF: Page 36

23. 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 meticulously maintained accountability for all sponges and instruments discarded from the sterile field and bagged each sponge carefully. He immediately turned and addresses 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 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." "The rapid response team is on

their way."

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, and a search is made for the missing item, including the surgical wound, field, floor, linen, and trash (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.

REF: Page 36

24. Sandra Williams 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 all of the tenets of 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. Sandy was exercising her:
    a. understanding and rights under the Patient Self-Determination Act.
    b. right to informed consent.
    c. autonomy to protect herself from negligence and malpractice.
    d. hope that everyone would honor 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.

    REF: Page 45

25. Monica Sorensen, a patient with end-stage pancreatic cancer, was admitted from hospice for a celiac plexus block to treat intractable pain. She had a Whipple procedure 18 months earlier and enjoyed good quality of life until 3 weeks ago. 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. Monica insisted that her Do Not Resuscitate (DNR) status NOT be rescinded. She was conscious and competent and knew what was best for herself. Monica was taking full advantage of what provision for her care?
    a. Patient Self-Determination Act
    b. Advance directives
    c. Informed consent

d. Patient Self-Determination Act 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 Patient Self-Determination Act (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.

REF: Page 45