



Nursing Science

Perioperative nursing care (Part Two)

Learning objectives

After completing this lecture, the students will be able to:

- Describe the interdisciplinary approach to the care of the patient during surgery.
- Describe the roles of the surgical team members during the intraoperative phase of care.
- Identify adverse effects of surgery and anesthesia.

The Surgical Team Member & Roles:

Care of a patient during surgery requires careful preparation and knowledge of the events that will occur during a surgical procedure.

1. The Patient:

- The intraoperative patient is susceptible to injury because of loss of pain sense, reflexes, and ability to communicate; the nurse is the patient advocate while surgery proceeds.
- As patient advocates, intraoperative nurses monitor factors that can cause injury, such as patient positioning, equipment malfunction, and environmental hazards, and they protect the patient's dignity and interests while the patient is anesthetized.

2. Anesthesiologist:

- Assesses the patient before surgery, selects the anesthesia, administers it, intubates the patient if necessary, manages any technical problems related to the administration of the anesthetic agent, and supervises the patient's condition throughout the surgical procedure.

3. Surgeon

- Performs the surgical procedure, heads the surgical team.

4. The Circulating Nurse:

- A qualified registered nurse, works in collaboration with surgeons, anesthesia providers, and other health care providers to plan the best course of action for each patient.
- The circulating nurse manages the OR and protects the patient's safety and health by monitoring the activities of the surgical team, checking the OR conditions, and continually assessing the patient for signs of injury and implementing appropriate interventions. The main responsibilities of the circulating nurse:
 - ✓ Verifying consent
 - ✓ It is imperative that the correct patient identity, surgical procedure, and surgical site be verified prior to surgery.
 - ✓ Ensuring cleanliness, proper temperature, humidity, lighting, safe function of equipment, and the availability of supplies and materials
 - ✓ The circulating nurse monitors aseptic practices
 - ✓ Implementing fire safety precautions.

5. The Scrub Role

- Scrub role includes performing a surgical hand scrub; setting up the sterile tables; preparing sutures, ligatures, and special equipment
- As the surgical incision is closed, the scrub person and the circulator count all needles, sponges, and instruments to be sure they are accounted for and not retained as a foreign body in the patient
- Returns instruments for cleaning and sterilization after the procedure.

6. Registered nurse: The RNFA will practice under the direct supervision of the surgeon. Assists the surgeon by:

- Controlling bleeding.
- Using instruments.
- Handling tissue, providing exposure at the operative field
- Suturing during the procedure.

The Surgical Environment

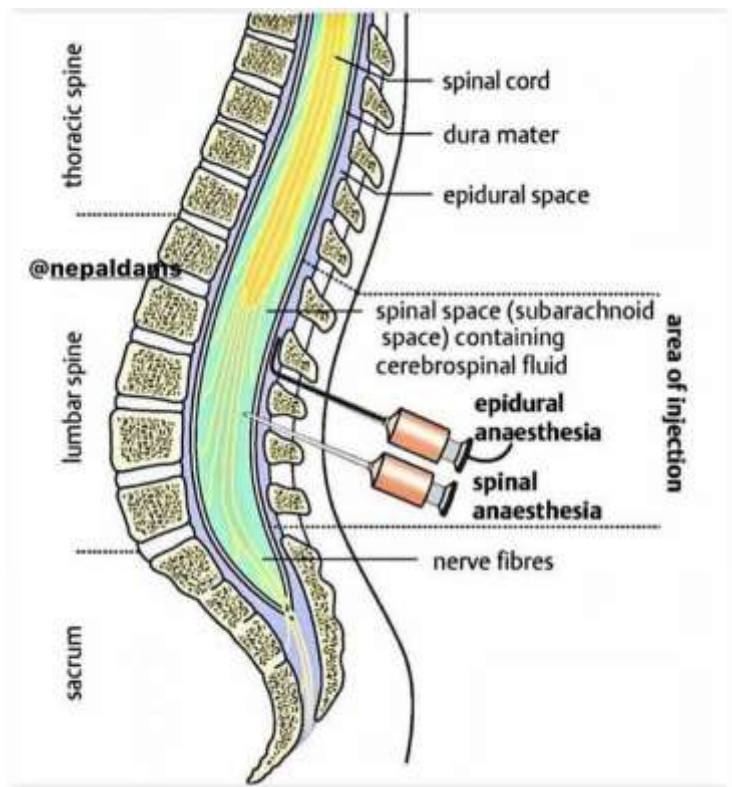
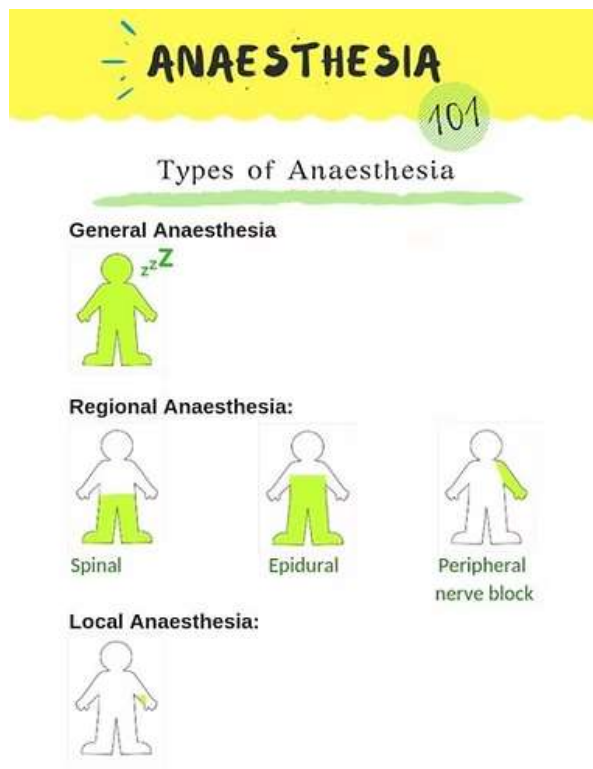
- The surgical suite is behind double doors, and access is limited to authorized personnel

- Precautions include adherence to principles of surgical asepsis; strict control of the OR environment
- The OR has special air filtration devices to screen out contaminating particles, dust, and pollutants.
- A room temperature of 20° to 23°C (68° to 73°F), humidity between 30% and 60%,
- To help decrease microbes, the surgical area is divided into three **zones**:
 - ✓ **Unrestricted zone**: where street clothes are allowed
 - ✓ **Semi-restricted zone**: where attire consists of scrub clothes and caps
 - ✓ **Restricted zone**: where scrub clothes, shoe covers, caps, and masks are worn at all times.

Types of Anesthesia

1. **General Anesthesia**: Anesthesia is a state of narcosis (severe central nervous system depression produced by pharmacologic agents) ,analgesia, relaxation, and reflex loss
 - ✓ They lose the ability to maintain ventilatory function and require assistance in maintaining a patent airway.
2. **Regional Anesthesia**: an anesthetic agent is injected around nerves so that the region supplied by these nerves is anesthetized

Includes: [Epidural Anesthesia](#), [Spinal Anesthesia](#), [Local Conduction Blocks](#).



Potential Intraoperative Complications

- **Nausea and Vomiting**
- **Anaphylaxis:** reaction can occur in response to many medications, latex, or other substances
- **Hypoxia and Other Respiratory Complications**
- **Malignant Hyperthermia**
- **Hypothermia**
- **Infection**

References

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2. Kozier, B., Erb, G., Berman, A., Snyder, SH., & Frandsen, G., Buck, M., Ferguson, L., Yiu, L., and Stamler, L. (2018). Fundamentals of Canadian Nursing: Concepts, Process, and Practice. 4th edition. Pearson Canada Inc., Pp. 984-1019
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