



Preoperative nursing care


Dr. Kareem Waheed Abu Kheta
Al-Mustaqbal University College
Department of Anesthesiology

Nursing

Lecture: 5

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- **Perioperative** include three phases:

Preoperative, Intraoperative, and Postoperative.



Preoperative phase: begins when the decision to have surgery and ends when the client is transferred to the operating table.

Intraoperative phase: begins when the client is transferred to the operating table and ends when the client is admitted to the recovery room (RR).

Postoperative phase: begins with the admission of the client to the post anesthesia area and ends when healing is complete.

- **Surgery** is an invasive process because an incision is made into the body or a part is removed.

- **Types of Surgery**

According to:

- (a) Purpose
- (b) Degree of urgency
- (c) Degree of risk.

• A- Purpose

Diagnostic	Confirms or establishes a diagnosis; for example, biopsy of a mass in a breast.
Palliative	Relieves or reduces pain or symptoms of a disease; it does not cure; for example, resection of nerve roots.
Ablative	Removes a diseased body part; for example, removal of a gallbladder (cholecystectomy).
Constructive	Restores function or appearance that has been lost or reduced; for example, cleft palate repair.
Transplant	Replaces malfunctioning structures; for example, kidney transplant.



- **B- Degree of Urgency**

1- Emergency surgery is performed immediately to preserve function or the life of the client.

- **2-Elective surgery** : to improve the client's life, that is not imminently life threatening.

- **Degree of Risk**
- **Major surgery:** Prolonged, large losses of blood may occur, example: organ transplant, open heart surgery, and removal of a kidney.
- **Minor surgery:** Normally involves little risk for examples: breast biopsy, removal of tonsils.



- **The degree of risk is affected by the following:**

- **1- Age**

Neonates/infants and older clients are greater surgical risks than children and adults.



- **2- General Health**

Any infection increases the risk. When a client is at high risk for infection, antibiotics may be administered parenterally within 1 hour of surgery and continued for 24 to 72 hours after surgery.



- **3- Nutritional Status**

Adequate nutrition is required for normal tissue repair.

The body's need for nutrients that help with the tissue healing and prevention of infection.

Clients with obesity are also more likely to have delayed wound healing and wound infection because adipose tissue impedes blood circulation and its delivery of nutrients

• 4- MEDICATIONS

The regular use of certain medications can increase surgical risk such as:

- ***Anticoagulants***: increase blood coagulation time.
- ***Tranquilizers*** may interact with anesthetics, increasing the risk of respiratory depression.
- ***Corticosteroids*** may interfere with wound healing and increase the risk of infection.
- ***Diuretics*** may affect fluid and electrolyte balance



- **5- Mental Status**

Disorders that affect cognitive function, affect the client's ability to understand and cope with the stresses of surgery.



- **Physical Preparation of patient**

Preoperative preparation includes the following areas:



- **1- Nutrition and Fluids**

- Adequate hydration and nutrition promote healing.
- Nurses need to identify and record any signs of malnutrition or fluid imbalance.
- Nurses must recorded the fluid intake and output.

• **Guidelines for preoperative fasting in clients**

undergoing elective procedures:

- 1• The consumption of clear liquids up to 2 hours before surgery requiring general anesthesia, regional anesthesia.
- 2• The consumption of breast milk 4 hours before surgery.
- 3• A light breakfast (e.g., formula, milk, light meal such as tea and toast) 6 hours before the procedure
- 4• A heavier meal (fried or fatty foods) 8 hours before surgery



- **2- Elimination**

- Giving enemas if bowel surgery is planned.
- The enemas help prevent postoperative constipation and contamination of the surgical area (during surgery) by feces.
- Insert Foley catheter to ensure that the bladder remains empty.



- **3- Hygiene**

The purpose of hygienic measures is to reduce the risk of wound infection by reducing the amount of bacteria on the client's skin.



- **4- Medications**

The anesthetist may order routinely taken medications to be held the day of surgery. However, recent studies recommend continuing beta-blocker therapy for all clients taking a beta-blocker before admission for surgery

- *Sedatives* such as lorazepam (Ativan) to reduce anxiety and ease anesthetic induction.
 - *Narcotic analgesics* such as morphine provide client sedation and reduce the required amount of anesthetic.
 - *Anticholinergics* such as atropine, scopolamine, and glycopyrrolate (Robinul) reduce oral and pulmonary secretions and prevent laryngospasm.
 - *Antiemetic agents* to prevent nausea and vomiting.
 - *antihistamines* such as cimetidine (Tagamet) and ranitidine (Zantac) reduce gastric fluid volume and gastric acidity.
 - *Neurolept analgesic* agents such as Innovar induce general calmness and sleepiness



- **5- Sleep**

Adequate sleep helps the client manage the stress of surgery and helps healing.



- **5- Valuables**

Removing jewelry because there is a risk of injury from burns if an electrosurgical unit is used.



- **6- Prostheses**

Artificial body parts, dentures, contact lenses, artificial eyes, and artificial limbs and eyeglasses, must be removed before surgery.



- **7- Special Orders**

Insertion of a nasogastric tube prior to surgery, and administration of medications.



- **8- Skin Preparation**

The surgical site is cleansed with an antimicrobial to remove soil and reduce the resident microbial.



- **9- Vital Signs**

In the preoperative phase the nurse assesses and documents vital signs for baseline data.



- **10- Antiemboli Stockings**

compress the veins of the legs and thereby facilitate the return of venous blood to the heart. They also improve arterial circulation to the feet and prevent edema of the legs and feet, and deep venous thrombosis (DVT).



- *Thank you*