

Responsibility of Nurse Perioperative Practice

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Abstract

Perioperative care is the entire span of care that includes what occurs before, during, and after the actual operation. It is the period that begins when the patient has been informed of the need for surgery includes the surgical procedure, recovery and continues until the patient resumes his or her usual activities. identifying comorbidities that may lead to patient complications during the anesthetic, surgical, or postoperative period. The assessment contains height and weight, ability to communicate, level of consciousness, confusion, ability to ambulate, etc. The medical staff carefully explains to the patient about surgery. This includes why the patient requires surgery, any risks the surgery has, and what the patient can expect after surgery. Intraoperative Care-Intraoperative care starts from the admission of the patient to the operating room to the client is transported to the recovery room or post anesthesia care unit after surgery.

Surgical Team: The surgeon is the leader of the surgical team. He performs surgery effectively and safely.

Scrub Nurse: The scrub nurse assists the surgeon during the procedure and provides required instruments and sets up in the sterile table.

Circulating Nurse: The circulating nurse manages the operating room and protects safety by monitoring the activities of the surgical team.

Postoperative Care: Postoperative care is the care given after a surgical procedure. It begins immediately after surgery and lasts for the duration of the hospital stay and may continue after the patient has been discharged.

Keywords: Intraoperative Care; Perioperative Care; Postoperative Care; Scrub nurse; Circulating nurse.

Introduction

Perioperative care is the entire span of care that includes what occurs before, during, and after the actual operation. Perioperative nursing was introduced in the US by the Association of perioperative Registered Nurses (AORN) as

nursing activities performed during the pre, intra, and postoperative phases of a patient's surgery.¹ It is the period that begins when the patient has been informed of the need for surgery includes the surgical procedure, recovery and continues until the patient resumes his or her usual activities. The important goal of perioperative care is to provide care to patients and give support to his or her families and this care given by a registered nurse is called perioperative nursing care. This care includes mainly three phases which are Pre operative, Intraoperative, and Post operative.

Preoperative Care

The care is given to the patient from the time patient is admitted to any health center to the time that surgery begins. This care includes physical and psychological preparation. The main purpose

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of preoperative care is to prepare the patient to get better outcomes after surgery. During this period nurses have a vital role to educate the patient and should assess carefully to reduce physical and psychological risks that may increase surgical risk.² Preoperative education is the main phase that includes significant teaching, providing guidelines regarding surgery, instructing and demonstrating postop exercises, planning for discharge, and adapting lifestyle due to surgery. The role of the nurse in the preoperative stage includes the following.

- Preoperative assessment.
- Obtain informed consent.
- Preoperative teaching.
- Preparation of patient.
- Psychological supporting of a patient.

Preoperative Assessment

Preoperative assessment means identifying comorbidities that may lead to patient complications during the anesthetic, surgical, or postoperative period. Patients selected for elective surgery normally attend a preoperative assessment 2-3 weeks before the date of surgery. It will start a brief history collection that includes a disease or any condition requiring surgery that is important for the anesthetic to be aware of. A full past medical history that includes cardiovascular, respiratory, renal endocrine, gastro oesophageal reflux, and pregnancy conditions. Past surgical history, past anesthetic history, drug history, family and social history are also important for best patient care.

Preoperative examination: Preoperative examination means identifying any undiagnosed condition and airway examination. Physical and psychological assessment of the patient.

The preoperative investigations: The preoperative investigation has a vital role that will help anesthetic care for the patient during and after surgery. Each hospital has its own guidelines for preoperative investigations. The normal laboratory tests are complete blood tests, urea and electrolytes, liver function test, clotting screen, viral markers, chest X-ray, electrocardiogram, and group test.

Assess physical needs: The physical assessment contains height and weight, ability to communicate, level of consciousness, confusion, ability to ambulate, etc.

Nutritional status: In nutritional status patient's dietary habits, age, chronic illness, BMI (body mass index) will be assessed.

The psychological needs: The emotional condition of the patient is very important during perioperative care. A clear explanation of the surgery and its complication will reduce the anxiety of the patient. It is very important to give psychological support to the patient during the pre and post operative phases.

Obtaining Informed Consent: The medical staff carefully explains to the patient about surgery. This includes why the patient requires surgery, any risks the surgery has, and what the patient can expect after surgery. After all these explanations patient is asked to sign the consent form. The patient can ask any doubt related to surgery to the staff before signing the consent. Legally two or more persons are said to consent when they agree upon the same thing in the same sense. Written consent must be obtained for all major surgeries. It should be done sometime before the procedure that will reduce the anxiety of the patient. On the day of surgery, the patient may be under pressure. Consent remains valid for an indefinite period. Consent should be taken from the patient himself unless he or she is a minor. Before taking consent make sure that the patient should have the capacity and competence to consent. It should be informed, voluntary and procedure specific. In the case of a minor patient, the consent should be signed by the father, mother, or immediate relative.

Preoperative Teaching: The purpose of preoperative teaching is to provide teaching content for nursing personnel instructing the preoperative patient and provide standards for documentation in the medical record. The main things include in teaching are as follows.

1. Avoid taking aspirin-containing products for 2 weeks before surgery.
2. Discontinue no steroid anti inflammatory drugs 48 to 72 hours before surgery.
3. Discuss the type of anesthesia.
4. Instruct the patient on NPO after midnight including water prior to the surgery.
5. Instruct patient to perform oral hygiene on the morning of surgery.
6. Inform patient that before going to surgery remove the following.

- Dentures/Partial plates
 - Glasses/contact lenses
 - Prosthesis/ Appliances
 - Nail polish
 - Hairpins
 - Undergarments
7. Inform patient to remove valuables and jewelry.
 8. Inform the patient's family to wait for the waiting area on the day of surgery.
 9. Teach about incentive spirometer, Diaphragmatic breathing, coughing, splinting, foot and leg exercise, and early ambulation.

Physical Preparation of Patient

Nutrition and Fluids: Normally 'NPO after midnight' followed because if anesthetic depress gastrointestinal functioning and there was a danger that the client would vomit and aspirate during the administration of anesthesia. Adequate hydration and nutrition promote good wound healing.

Bowel And Bladder Elimination: Before the surgery enema may be ordered if bowel surgery is planned. It will help to prevent contamination of the surgical area and the foley's catheter will help to empty the bladder, this will help to prevent bladder injury.

Preoperative Medications The preoperative medications that are commonly used are as follows

- A. Narcotics
- B. Antiemetics
- C. Anticholinergic
- D. Sedatives
- E. Antibiotics
- F. Sleep

Adequate sleep helps the client to manage the stress of surgery. The nurse should help the client to sleep the night before surgery. Often a sedative is ordered.³

Eg: Alprazolam

Prepare the Patient in the Evening before Surgery: Hair should be removed with 1-2 mm of skin to avoid skin breakdown and part preparation is very important before surgery and will avoid infection in the surgical site. After that patient should empty his/her bowel and have a bath with an antiseptic solution. Avoid alcohol and cigarette smoking for

at least 24 hours before surgery.

Preparing the Patient on the Day of Surgery: The patient should awake one hour before preoperative medications and do a morning bath and mouth wash. After that confirm that the bowel and bladder are empty. Then wear a clean gown and remove hairpins and cover hair with a cap. Remove dentures, cooled nail polish, hearing aid, contact lenses and jewellery. Take baseline vital signs and shift the patient to the preoperative area.

Intraoperative Care

Intraoperative care starts from the admission of the patient to the operating room to the client is transported to the recovery room or post anaesthesia care unit after surgery. In this phase nurse functions as the patient's chief advocate and it starts from the time the patient is prepared for the forthcoming surgical procedure to the preoperative period and into the operative and recovery room from anaesthesia. The patient needs security that someone is providing protection during surgery as it is a stressful experience.

Surgical Team: The surgeon is the leader of the surgical team. He performs surgery effectively and safely. Anaesthesiologist provides induction of patient's anaesthesia to prevent pain. During surgery anaesthesiologists continuously monitor the physiological status of the patient. Another member of the surgical team is a scrub nurse who assists the surgeon maintains surgical asepsis while draping and handling instruments. Circulating nurses manage the operating room.

Nursing Functions During Intraoperative Period

Scrub Nurse: It is the responsibility of scrub nurses to ensure appropriate preparation of skin before posting patient to the operation theatre.⁴ The scrub nurse assists the surgeon during the procedure and provide required instruments and sets up in the sterile table. He/she will scrub for surgery, prepare sutures and special equipment, checks equipment and materials such as needles, sponges and instruments and be responsible to maintain the checklist before and after surgery.⁵

Circulating Nurse: The circulating nurse manages the operating room and protects safety by monitoring the activities of the surgical team. He/she should assure the cleanliness in the operating room, guarantee the proper room temperature, humidity and lightening in OT. He/she ensure the supplies

of materials during the procedure, monitor sterile technique and monitor the patient throughout the operative procedure to ensure the person's safety and well being.

Postoperative Care

Postoperative care is the care given after a surgical procedure. It begins immediately after surgery and lasts for the duration of the hospital stay and may continue after the patient has been discharged. In another way, we can say that the postoperative phase begins when the client is admitted to the PACU or a nursing unit and ends with the client's postoperative evaluation in the physician's office.⁶ The main goals of postoperative care are as follows

- Restore homeostatic and prevent complications.
- Maintain adequate respiratory function.
- Maintain tissue perfusion and cardiovascular function.
- Balance fluid and electrolyte balance.
- Maintain adequate nutrition and elimination.
- Maintain adequate renal function.
- Promote rest, comfort, and safety.
- Promote adequate wound healing.
- Encourage activity and mobility.
- Provide adequate psychological support.

After surgery, the patient will be shifted to the recovery room for a couple of hours while the patient wakes up from anaesthesia. The nursing staff will monitor the patient's vital signs and record them in the care plan. After that check the surgical site for any signs of bleeding or infection. The nurse will also watch for signs of an allergic reaction. Once the patient becomes stable he/she will be shifted to a hospital room or elsewhere to beginning to his/her discharge process.

The main postoperative assessments include the following

- A-Airway.
- B-Breathing.
- C-Circulation.
- C-consciousness.

- S-Safety.
- D-Dressing.
- D-Drainage.
- D-Drugs.
- E-Elimination.
- F-Food.
- F-Fluids.
- P-Pain.

For checking post anaesthesia recovery score there will be Aldrete's score which includes Activity, breathing, circulation, consciousness and colour. Before discharging the patient the nurse should demonstrate that patient must be able to breathe normally, drink and urinate. He or she won't be allowed to drive immediately following surgery after anaesthesia.

Conclusion

Nursing practice while giving perioperative care is highly excellence and knowledge oriented. Nursing practice at the operative room the nurse have minimal interpersonal relationship with patients. That minimal interaction level characterised by inflexibility and isolation in nursing practice. Therefore nurses should refocus their skills in perioperative care.

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