مراقبت‌های پرستاری قبل و بعد از عمل جراحی

گروه پژوهش پرستاری بیمارستان کودکان مفید
Postoperative Assessment And Patient Transfer
Overview

- This tutorial composed of two topics:
  - Post-op care
  - Post-op surgical complications

Post operative Care

- Objective
  - Understand the principles of patient management in the recovery phase immediately after surgery
  - Understand the general management of the surgical patient in the ward
  - Consider the initial management of common acute complications during postop period.
The goal of postoperative care:

1. to prevent complications such as bleeding,
2. to promote healing of the surgical incision,
3. and to return the patient to a state of health.
• Post op care has 3 phases:

- Immediate post-op care (Recovery phase)
- Care in the ward
- Continued care after discharge from the hospital
Post operative care

- The amount of time the patient spends in the PACU depends on the length of surgery, type of surgery, status of regional anesthesia (e.g., spinal anesthesia), and the patient's level of consciousness. Rather than being sent to the PACU, some patients may be transferred directly to the critical care unit.
Assessment Post operative care

airway patency + respiratory status, vital signs, and level of consciousness.

Other assessment categories:
- surgical site (intact dressings with no signs of overt bleeding)
- patency (proper opening) of drainage tubes/drains
- body temperature (hypothermia/hyperthermia)
- patency/rate of intravenous (IV) fluids
- circulation/sensation in extremities after vascular or orthopedic surgery
- level of sensation after regional anesthesia
- pain status
- nausea/vomiting
Assessment

• If the patient at risk of deterioration he need frequent assessment.

• Risk factors for deterioration are:
  ➢ ASA grade $\geq 3$
  ➢ Emergency or high risk surgery.
  ➢ Operation takes hours.
General risk factors

- Age both extremes (Very young & Very old)
- Obesity
- Smoking
- Co-morbid conditions
- Drug therapy
- e.g. steroids, immunosuppressant, antibiotics and contraceptive pills
Complications due to surgery:

- Hemorrhage
- Wound
- Cardiovascular
- Respiratory
- Gastrointestinal
- Urinary tract
- Cerebral
Check list for 1st postoperative assessment

• Respiratory assessment status:
  ➢ O2 saturation.
  ➢ Effort of breathing ..
  ➢ Respiratory rate.
  ➢ Symmetry of inspiration and expiration.
  ➢ Breath sounds.
Potential Alterations in Respiratory Function

- **Airway obstruction** (tongue!, laryngospasm, laryngeal edema)
- **Hypoxemia** ($\text{SaO}_2 < 90\%$; agitation $\rightarrow$ somnolence)
- **Atelectasis** (alveolar collapse)
- **Pulmonary edema** (fluid-filled alveoli)
- **Aspiration of gastric secretions**
- **Bronchospasm**
- **Hypoventilation**
Etiology and relief of airway obstruction caused by patient’s tongue
Nursing Management
Respiratory Complications

• Nursing Implementation
  ➢ Positioning
  ➢ Oxygen therapy as appropriate
  ➢ Physiotherapy
  ➢ Suctioning
Pneumothorax

May follow insertion of a subclavian catheter, positive pressure ventilation or after an operation which has damaged the pleura.

Symptoms/Signs:
- Pleuritic chest pain, dyspnea, tachycardia and hyper-resonant lungs.

Investigations:
- CXR and ABG.

Treatment:
- Thoracotomy tube.
Check list for 1st postoperative assessment

- **Volume status assessment:**
  - Hands - warm or cool pink or pale.
  - Pulse rate, volume and rhythm.
  - blood pressure.
  - Conjunctival pallor.
  - Urine color & Output.
  - Drainage from drains, wound & NG tube.
Potential Complications in Cardiovascular Function

Most common complications

- Hypotension
- Hypertension
- Dysrhythmia

Greatest risk:

- Cardiac history
- Elderly
- Debilitated or critically ill
Potential Complications in Cardiovascular Function

• Hypotension
  ➢ Indications?
  ➢ Causes?

• Hypertension (pain, anxiety, bladder distension, hx of HTN, hypothermia)

• Dysrhythmia
Nursing Management
Cardiovascular Complications

- Nursing Assessment
  - V/S Q 15 minute or more often until stable, then less frequent (compare with what?)
  - Skin color, temp, LOC

- Notify if:
  - SBP < 90 or > 160
  - HR < 60 or > 120
  - Narrowing pulse pressure (SBP-DBP)
  - Dysrhythmia (irregular heart rhythm)
  - Change from pre-op
Nursing Management
Cardiovascular Complications

• Nursing Implementation
  ➢ Oxygen and fluid for hypotension
  ➢ Dysrhythmias – medications, tx cause
  ➢ HTN – treat cause (pain, anxiety, etc.)
Potential Alterations in Cardiovascular Function

- Fluid and electrolyte imbalances contribute to alterations in CV fxn
  - Stress response post-op → retention
  - (ADH and aldosterone)
  - Too much/too fast IV fluid
  - Renal or cardiac disease
Potential Alterations in Cardiovascular Function

- **Deep vein thrombosis (DVT)**
  - Most common in older adults, obese patients, immobilized patients

- **DVT → Pulmonary embolus (potentially fatal)**
  - S/S: chest pain, tachypnea, tachycardia, hypotension, hemoptysis, dysrhythmias
Postoperative Leg Exercises

- **Essential**
  - Gastrocnemius (calf) pumping

- **Desirable**
  - Foot circles

- **Quadriceps (thigh) setting**

- **Hip and knee movements**
Check list for 1st postoperative assessment

• **Neurologic status assessment:**
  - Patient conscious and normally responsive? (AVPU: Alert, respond for Verbal & Painful stimuli, unresponsive)

• **Finally RECORD any significant symptoms (e.g. chest pain, breathlessness)** Pain and pain adequacy control.
Nursing Management

Neurologic Complications

• **Nursing Assessments**
  - LOC, orientation, ability to follow commands
  - Pupils
  - Sensory and motor status
Nursing Management
Neurologic Complications

• Agitation
  ➢ Hypoxemia is most common cause
  ➢ Oxygen therapy
  ➢ Protect the client
Pain and Discomfort

• Assessment

• Nursing Diagnoses
  ➢ Acute pain
  ➢ Anxiety

• Nursing Implementation
Pain and Discomfort

• Postoperative pain caused by a number of physiologic and psychologic interactions
  ➢ Traumatization of skin and tissues
  ➢ Reflex muscle spasms
  ➢ Anxiety/fear increase muscle tone and spasm
Potential Alterations in Gastrointestinal Function

- Nausea and vomiting may be caused from anesthetic agents or narcotics, delayed gastric emptying, slowed peristalsis, resumption of oral intake too soon after surgery.
- Abdominal distention from decreased peristalsis caused by handling of bowel during surgery.
Potential Alterations in Gastrointestinal Function

• **Nursing Implementation**
  - Regular mouth care when NPO
  - Antiemetics administered for nausea

• **NG tube if symptoms persist**
  - Early and frequent ambulation to prevent abdominal distention
  - Assess patient regularly for resumption of normal peristalsis
Allergic reactions to the anesthetic agent:

- **Minor effects**
  - e.g. Postoperative nausea & vomiting

- **Major effects**
  - e.g. Cardiovascular collapse   respiratory depression)
Hemorrhage

• A- primary Hemorrhage :
  ➢ Inadequate hemostasis.
  ➢ Unrecognized damage to blood vessels.
  ➢ Defective vascular anastomosis.
  ➢ Clotting factor deficiency.
  ➢ Intraoperative anticoagulants

• Early recognition & management

• Surgical re-exploration is usually required
Wound Complications

Hematoma
Localized collection of blood.

Treatment:
Small hematoma: spontaneously absorbed
Large hematoma: may required drainage
Hypothermia

- Body temperature below 35°C.
- Causes: Trauma, Exposure, Cool Fluids – IV / Irrigation
- Hypothermia could lead to:
  - Coagulopathy
  - Platelet dysfunction
  - Increased O2 consumption due to shivering
- Mild: 32 – 35C
- Mod: 28 – 32C
- Severe: 25 – 28C
- Treatment with warmers like forced air devices and warm fluids.
- Meperidine (opioid analgesic) in small doses can be used to stop the shivering.
Postoperative Fever

- Body temperature greater than 38.5°C
- Occurs in about 40% of patients after a major surgery.
- In most patients it resolves without specific treatment, however a patient must be evaluated for the following causes:
  - Pneumonia
  - Atelectasis
  - Wound Infections
  - UTI
  - Deep vein thrombosis\Pulmonary embolism
  - Abscess
  - Medication
Postoperative Fever

Regular work up includes:

- CBC
- Blood cultures
- Urine analysis and urine cultures
- CXR
- Sputum cultures
Urinary Complications

Urinary Retention:
- Enlarged bladder from spinal anesthesia or medication.

Symptoms/Signs:
- Palpable bladder and inability to void.

Treatment:
- Foley catheter.
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