

Postoperative Care

Assumption

The student understands the normal and altered physiology of the cardiorespiratory, gastrointestinal, renal, immunological, neurological, and circulatory systems.

Goal

The student will be able to describe the postoperative care of patients including the identification and management of complications.

Objectives

By the end of the core surgical clerkship, the student will be able to describe the differential diagnosis and management of a patient with:

1. Wound complications
2. Postoperative Fever
3. Respiratory Distress
4. Acute Kidney Injury / Oliguria
5. Hypotension
6. Ileus
7. Stress Ulcers
8. Delirium
9. Postoperative Stroke

Problems

For each of the following problems, answer the following questions:

- What further data should be obtained from the patient's history?
 - What physical exam findings would you look for?
 - What is your differential diagnosis?
 - What work-up would you recommend (include laboratory tests and diagnostic interventions)?
 - What therapy or treatment would you recommend?
1. A 57-year-old patient is postoperative day 4 from colon resection. The nurse calls you because he is experiencing chest pain and shortness of breath.
 2. A 23-year-old man is postoperative day 7 from exploratory laparotomy for gunshot to the abdomen. He required small bowel resection and re-anastomosis.
 3. A 62-year-old woman is postoperative day 3 from ventral hernia repair with mesh. She was tolerating a clear liquid diet, but is now not passing flatus and is vomiting.

Skills

1. Conduct a focused postoperative assessment to include abdominal and rectal exams.
2. Demonstrate the ability to:
 - a. Place NG tubes, interpret Arterial Blood gas, place Foley catheters, trouble shoot an NG tube.

Teaching Hints

1. Discuss the clinical manifestations, appropriate diagnostic work-up, and management of each entity below:

Wound complications

- a. Wound infection
- b. Dehiscence
- c. Incisional hernia

Postoperative fever

- a. Atelectasis
- b. Pneumonia
- c. Catheter-related complications (IV-phlebitis, Foley-UTI)
- d. Malignant hyperthermia
- e. Intra-abdominal abscess, anastomotic Leak
- f. Wound infections

Respiratory distress and respiratory insufficiency

- a. Atelectasis
- b. Pneumonia
- c. Aspiration
- d. Pulmonary edema
- e. ARDS
- f. Pulmonary embolism (including deep venous thrombosis)
- g. Fat embolism

Postoperative hypotension

- a. Cardiac causes
- b. Bleeding
- c. Sepsis

Prevention

Discuss these preventive measures relating to postoperative care:

1. Perioperative antibiotic prophylaxis
2. Early mobilization and pulmonary toilet
3. Nutritional optimization
4. Fluid optimization

Special Considerations

Discuss populations at risk for increased risk for postoperative complications such as diabetics, patients with coronary artery disease, and COPD. Discuss strategies used to mitigate the development of complications in these populations.