Perioperative Care

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Perioperative Care Consists of:

- Preoperative Care
- Preoperative Planning
- Preoperative Evaluations
- Postoperative Management
- Postoperative Problems
- Postoperative Complications
Preoperative Care

- Diagnostic Work Up
- Preoperative Evaluations
- Preoperative Preparations
Diagnostic Workup

- Determine the cause and extent of the illness
Preoperative Evaluations

- Overall assessment of patient’s health
- Identify significant abnormalities that may increase operative risk
- Should begin with a complete history and physical evaluation
- Routine laboratories pertinent to surgery
- Evaluation by the anesthesiologist
Specific Factors Affecting the Surgery

- History of angina or infarction
- History of anemia, lung disease, kidney disease, bleeding problems
- Nutritional status
Factors Affecting Wound Healing

- Steroids
- Malnutrition
- Radiation
- Diabetes
Factors Leading to Postop Infection

- Diabetes
- Renal failure
- Steroid medications
- Immunosuppressive agents
- Smoking
- Preoperative infection
Special Problems

- Diabetes
- Thyroid Disease
- Heart Disease
- Respiratory Disease
- Kidney Disease
- Hematologic Disease
  - Anemia
  - Thrombocytopenia
  - Abnormal bleeding
  - Medications (coumadin etc)
Dangerous Preoperative Herbal Medications

- Ask about all Herbal medications!
- Herbs that may interfere with bleeding time
  - Gingko
  - Feverfew
  - Ginger
  - Vitamin E
Dangerous Preoperative Herbal Medications

- Herbs that may trigger high blood pressure
  - Ginseng
- Herbs that may lower blood pressure
  - Garlic
- Herbs that can intensify or prolong anesthesia
  - St. John’s wort
  - Kava kava
Preoperative Preparations

- Informing the patient about the risks and benefits of the surgery
- Providing necessary pain control and discussing pain control options
Preoperative Preparations

- Patient should quit smoking at least 2 weeks before surgery
- Patient should quit herbal supplements mentioned at least 2 weeks before surgery
- Bowel preparation in advance might be helpful
Orders

- Nothing by mouth at least 8 hours before surgery
- Labs and xrays
- Prepare blood (if necessary)
- Sedation and pre-op anesthetic meds
- Hydration and IV access
- Enema, foley catheter
- Prophylactic antibiotics
- Invasive catheters
- Consent for surgery
Immediate Postoperative Period: First 1-2 hours

- Anesthesiologist in charge of cardiopulmonary functions
- Surgeon responsible for all the rest
Surgeon’s Responsibilities

- Monitor vital signs
- CVP, Swan-Ganz reading, ICP, distal pulse
- Fluid balance, electrolytes
- Respiratory care
- Position in bed
- Mobilization
- Drainage tubes
- Medications
- Diet
Postoperative Pain Control

- Parenteral opioid
  - Morphine 10 mg q 3-4° given IV or IM
  - Meperidine 75 – 100 mg q 3°
  - Hydromorphone 1-2 mg IM q 2-3°

- Non-opioid analgesic
  - Toradol 30 mg (no respiratory side-effects)

- Epidural anesthesia
Postoperative Pain Control

- **Oral analgesics**
  - Tylenol #3 (with codeine)
  - Darvocet N-50 (propoxyphene)
  - Vicodin (hydrocodone)

- **Patient-controlled analgesia**

- **Intercostal nerve block**
Postoperative Complications

- Wound complications
  - Hematoma
  - Seroma
  - Wound dehiscence
  - Infection
Postoperative Complications

- Pulmonary Complications
  - Atelectasis
  - Aspirations
  - Pneumonia
  - Post-operative pleural effusion
  - Pneumothorax
Postoperative Complications

- **Fat embolism**
- **Cardiac complications**
  - Arrhythmia
    - Frequently due to hypoxemia, hypokalemia, alkalosis
  - Postoperative myocardial infarction
  - Cardiac failure
- **Urinary complications**
  - Retention
  - Acute tubular necrosis
  - Urinary tract infection
Postoperative Complications

- Peritoneal complications
  - Hemoperitoneum
  - Peritonitis

- Cerebral complications
  - Cerebrovascular accident
  - Convulsions

- Psychiatric complications
  - ICU syndrome
  - Delerium
  - Sexual dysfunction
  - Delerium tremens (alcohol withdrawal)