ADULT HEALTH EXAM 1

Exam 1 Concept Review

Endotracheal Tube care

- ♥ Maintain patent airway by repositioning Q2H and PRN, perform passive range of motion, and apply protective barriers (soft wrist restraint) only if necessary to avoid extubation
- ♥ Assess respiratory status every 1-2 hr
    - o Breath sounds equal bilaterally
- ♥ Monitor VS, ABGs, CXRs, and LOC
- ♥ Monitor and document ventilator settings hourly
    - o Never turn off ventilator alarms
- ♥ Maintain adequate (but not excessive) volume in the cuff of the ET Tube
- ♥ Administer medications as prescribed
    - o Analgesics: Morphine and Fentanyl (pain management/respiratory effort)
    - o Sedatives: Propofol, Diazepam, Lorazepam, Midazolam (Sedation/Anxiety)
    - o Neuromuscular blocking agents: Pancuronium (Paralyze the muscle/suppress respiratory effort)
    - o Ulcer-preventing agents: Famotidine
    - o Antibiotics: For established infections

Incorrect position of ET tube

- ♥ Common issue in ET tube placement is placing the ET tube in the right main bronchus due to anatomy
    - o Common signs you are in the right main bronchus and not above carina:
        - ▪ Right-sided breath sounds heard but left-sided breath sounds are absent
        - ▪ Left-sided chest wall expansion is absent
        - ▪ Possible low spO2

Chest tube Care

- ♥ Always keep the chest tube system below the chest to allow gravity to assist with drainage
- ♥ Notify provider if drainage is >70 ml/hr

Pneumothorax

- ♥ Presence of air or gas in the pleural space that causes lung collapse
- ♥ Two types: Tension and Spontaneous
- ♥ Expected Findings:
    - o Pleuritic pain, signs of respiratory distress (tachypnea, tachycardia, hypoxia, cyanosis, dyspnea), reduced or absent breath sounds on affected side, asymmetrical chest wall movement, hyperresonance, dull percussion, subcutaneous emphysema
- ♥ Diagnostic Procedures:
    - o ABGs, CXR, Thoracentesis
- ♥ Nursing care:
    - o Administer O2
    - o Auscultate heart and lung sounds

Chest tubes (expected findings in the chambers)

- ♥ Water seal chamber – tidaling is normal
- ♥ Suction chamber – bubbling is normal

Blood Administration (important VS)

- ♥ Check temperature prior to administration for blood reaction

Blood Administration (administration times)

- ♥ RBC – Up to 4 hours
- ♥ Fresh Frozen Plasma – As fast as patient can tolerate

Blood Administration (monitoring times)

- ♥ Usually a reaction will happen in the first 15 minutes

Blood Administration (reactions)

- ♥ Acute Hemolytic
    - o Most dangerous – potentially life threatening
    - o LOW BACK PAIN, nausea, chest tightness, fever, chills, and anxiety
    - o Incompatibility is the main cause
- ♥ Febrile Nonhemolytic Reaction
    - o FEVER, flushing, anxiety, muscle pain, and headache

    - Use a filter to prevent reaction
- ♥ Allergic Reaction
    - Local erythema, hives, pruritis
- ♥ Bacterial Contamination
    - Tachycardia, hypotension, fever, chills, V/D, shock
- ♥ Transfusion-Associate Circulatory Overload (TACO)
    - Fluid overload
    - Cough, dyspnea, distended jugular pulmonary congestion, HTN, tachycardia, bounding pulse, restless

Blood Administration (fluids to infuse with)

- ♥ Normal saline

Blood Administration (consent, verification, nursing care)

- ♥ Type and cross will be completed
- ♥ 18 or 20 gauge needle
- ♥ Ask patient if they have had previous reaction to blood products
- ♥ 2 RNs must verify correct patient and product
- ♥ Administer blood 30 minutes after receiving from blood bank

Pulmonary embolism nursing care and medications

- ♥ Nursing care:
    - Administer O2 therapy to relieve hypoxemia and dyspnea
    - Assess respiratory status at least every 30 minutes
    - Assess breath sounds
- ♥ Medications:
    - Anticoagulants
        - Heparin, enoxaparin, warfarin
    - Direct factor Xa inhibitor
        - Rivaroxaban (Xarelto)
    - Thrombolytic Therapy (clot buster)
        - Alteplase, reteplase

Acute respiratory failure manifestations

- ♥ PaO2 less than 60 mm Hg (Hypoxemia)
- ♥ PaCO2 greater than 50 mm Hg (Hypercapnia)

- ♥ PH less than 7.35 (acidosis)

Priority care for complications (ABCs) – related to MI

- ♥ A – Anti-Thrombotic, Anti-Platelet
- ♥ B – Beta- Blocker
- ♥ C – Cholesterol (statin)

Identify dysrhythmias

- ♥ Tele/Strip
- ♥ PR interval: 0.12-0.20
- ♥ QRS complex:

Defibrillation & Cardioversion

- ♥ Defibrillation
  - o V-fib, V-tach without a pulse
  - o Emergency
  - o Patient has no cardiac output
  - o Client unconscious
  - o EKG monitor
- ♥ Cardioversion
  - o Atrial dysrhythmias
  - o Supraventricular v-tach
  - o V-tach with a pulse
    - Pre-procedure:
      - Consent form
      - Administer oxygen
      - Document pre-procedure rhythm
      - Have emergency equipment available
      - Digoxin is held for 48 hours prior to elective cardioversion
    - Post-procedure:
      - Monitor VS, assess airway patency, and obtain EKG, skin condition under the electrode
    - Complications:
      - Embolism
      - Decreased cardiac output and heart failure

Reducing CAD

- ♥ Modifiable risk factors (listed below)

Ventilator care/checklist

- ♥ HOB less than 30 degrees (aspiration check list)
- ♥ Temperature (VAP risk)
- ♥ DVT prophylaxis (clotting/bleeding)
- ♥ Ulcer prophylaxis (break down of stomach muscles (ulcers))
- ♥ WBC count (infection)
- ♥ fiO2 and PEEP

Myocardial infarction labs

- ♥ Troponin I and T, CK-MB, and Myoglobin

Myocardial infarction manifestations

- ♥ Chest pain
- ♥ SOB
- ♥ Nausea
- ♥ Anxiety
- ♥ Cool, pale skin
- ♥ Increased HR and RR

Alteplase nursing tasks

- ♥ Assess for contraindications (bleeding disorders, uncontrolled HTN, PUD, stroke, trauma, pregnancy)
- ♥ Monitor for evidence of bleeding, thrombocytopenia, and anemia
- ♥ Monitor VS before, during, and after administration of medication

Sedative and paralytic medications

- ♥ Propofol, diazepam, lorazepam, midazolam

Atelectasis manifestations

- ♥ Dyspnea
- ♥ Diminished breath sounds in lower lobes
- ♥ Cough and sputum production
- ♥ Tachycardia and tachypnea

- ♥ Pleural pain

Flail chest manifestations

- ♥ Unequal chest expansion
- ♥ Paradoxical chest moves inward during inspiration and bulges out during expiration
- ♥ Tachycardia, hypotension, dyspnea, cyanosis, anxiety, chest pain

Chest tube indications

- ♥ Pneumothorax (air or gas in the pleural space that causes lung collapse)
- ♥ Chest trauma
- ♥ Hemothorax (accumulation of blood in the pleural space)

Intubation respiratory monitoring

- ♥ Monitor for hypoxemia, dysrhythmias, and aspiration

Valvular heart disease nursing care

- ♥ Monitor current weight and note recent changes
- ♥ Assess heart rhythm (can be irregular or bradycardic, assess for murmur)
- ♥ Administer oxygen and medications as prescribed
- ♥ Assess hemodynamic monitoring; maintain fluid and sodium restrictions
- ♥ Assist the client to conserve energy

Pacemaker education

- ♥ Do not put cell phone in pocket
- ♥ Do not go through medal detectors

Modifiable and nonmodifiable risk factors for CAD

- ♥ Non-modifiable:
  - o Increasing age
  - o Gender (more common in men)
  - o Ethnicity (more common in whites)
  - o Genetic predisposition and family hx of heart disease
- ♥ Modifiable:
  - o Serum lipids
  - o BP >140/90
  - o Diabetes

- Tobacco use
- Physical inactivity
- Obesity
- Depression

Pericarditis treatment

- ♥ DO NOT ADMINISTER Indomethacin (decreases coronary blood flow)
- ♥ Administer NSAIDs, colchicine (most common), and corticosteroids

Hypertensive crisis treatment

- ♥ IV vasodilators, beta-blockers, ACE inhibitors
- ♥ GOAL: Normalize BP within 24-48 hours of treatment

AAA manifestations

- ♥ Constant gnawing feeling in abdomen
- ♥ Flank or back pain – pressure on the nerves cause this pain
- ♥ Pulsating abdominal mass (DO NOT PALPATE)
- ♥ Bruit over the area of aneurysm
- ♥ Elevated blood pressure
- ♥ Indications of AAA Rupture:
  - Constant, intense back pain; falling blood pressure, and decreasing hematocrit

Bronchoscopy (diagnostic/nursing care)

- ♥ Permits visualization of larynx, trachea, and bronchi
- ♥ Nursing care:
  - Informed consent
  - Remove dentures
  - Assess gag reflex
  - Monitor VS

Cardiac Catheterization nursing care

- ♥ Administer sedatives and analgesics
- ♥ Monitor vital signs and heart rhythm
- ♥ Assess the groin site for bleeding
- ♥ Maintain bed rest in supine position

Fixed Rate: Fires at a constant rate without regard for the heart electrical activity

Demand Mode: Detects the heart’s electrical impulses and fires at a present rate only if the heart’s intrinsic rate is below a certain level.