

## ATI – Proctored Pharmacology Remediation

### Management of Care (1)

- Complementary, Alternative, and Integrative Therapies: Alternatives for benign prostate hypertrophy (BPH)
  - Saw palmetto is a natural/herbal therapy that can decrease the manifestations of prostate hyperplasia.
  - Saw palmetto causes few adverse effects – including mild gastrointestinal effects.
  - Saw Palmetto can interact with antiplatelet and anticoagulant medications, and should be used cautiously.

### Safety and Infection Control (1)

- Medication Affecting Coagulation: Reviewing laboratory findings for a client receiving heparin
  - For a client receiving heparin, baseline aPTT, platelets, and hematocrit levels should be obtained prior to medication initiation.
  - aPTT levels should be monitored every 4-6 hours to determine the appropriate dose, then monitored daily.
  - Heparin can be determined to be effective with an aPTT level of 60-80 seconds.

### Pharmacological and Parenteral Therapies (15)

- Adverse Effects, Interactions, and Contraindications: Priority Treatment for Anaphylaxis
  - Anaphylaxis is systemic reaction that is potentially life-threatening to the client.
  - Early manifestations of anaphylaxis are anxiety, weakness, itching, and hives.
  - Priority treatment for anaphylaxis involves protecting the client's airway and monitoring for manifestations of potential respiratory failure.
- Angina: Teaching about a nitroglycerin transdermal patch
  - Nitroglycerin patches should be placed on a hairless area.
  - Patches should be removed at night to decrease dependence on the medication.
  - Patches should be placed on different sites on the body to decrease irritation risk.
- Bipolar Disorders: Teaching about lithium carbonate
  - Lithium carbonate is a first-line treatment for bipolar disorders.
  - Lithium carbonate is also used to treat mania, and can help prevent the return of mania or depression.
  - Lithium toxicity can happen while using the medication – early manifestations are nausea, vomiting, diarrhea, confusion, and sedation.
- Bone Disorders: Identifying therapeutic uses of raloxifene
  - Raloxifene is a selective estrogen receptor modulator.
  - The medication works by decreasing bone resorption, slowing bone loss, and preserving bone density.
  - Raloxifene is indicated for use in postmenopausal osteoporosis, and also protects against breast cancer.

- Cardiac Glycosides and Heart Failure: Risk factors for digoxin toxicity
  - Digoxin levels need to be monitored to ensure therapeutic levels are maintained.
  - Multiple medications interact with digoxin and increase risk for toxicity, including diuretics, ACE inhibitors, ARBs, and dopamine.
  - Older adults are at a higher risk for developing digoxin toxicity.
- Chronic Neurologic Disorders: Medications that interact with carbamazepine
  - Carbamazepine is indicated for bipolar disorders, and trigeminal and glossopharyngeal neuralgias.
  - The medication can interact with oral contraceptives and warfarin and decrease their effects.
  - Carbamazepine also interacts with phenytoin and can increase the medication's effects.
- Heart Failure and Pulmonary Edema: Priority actions for a client who has heart failure
  - Clients with heart failure should have daily weights and strict intake and output monitoring.
  - Shortness of breath should be monitored and oxygen administered as ordered.
  - Position the client to encourage maximum ventilation, like high-Fowler's.
- Individual Considerations of Medication Administration: Risk factors for adverse reactions in older adult clients
  - Older adults clients are at higher risk for medication accumulation due to decreased liver and kidney function.
  - Gastric motility and emptying time decrease in older adults, slowing absorption times and therapeutic actions of medications.
  - Blow flow is also decreased in older adults, slowing distribution and increasing risk for local effects.
- Intravenous Therapy: Actions for an IV Infusion Infiltration
  - When an IV infiltrates, the first action is to stop the infusion and remove the catheter.
  - After, the extremity should be elevated.
  - Depending on the type of solution being infused, apply a warm or cold compress to the site.
- Intravenous Therapy: Nursing actions for IV infiltration
  - The nurse should inspect IV sites frequently for signs of infiltration.
  - If a vesicant solution infiltrates, the nurse should notify the provider immediately.
  - In general, when an IV infiltrates the nurse should provide treatment according to facility protocols.
- Medications Affecting Coagulation: Safe Administration of Enoxaparin
  - Enoxaparin is contraindicated for patients with low platelet count and possibility for uncontrolled bleeding.
  - Enoxaparin should be administered subcutaneously at least 2 inches away from the umbilicus.
  - A small needle should be used to administer the medication – specifically a 25 to 26 gauge needle.

- Mycobacterial, Fungal, and Parasitic Infections: Evaluating Use of anti-infective medications
  - Nurses can evaluate medication effectiveness by monitoring the improvement of manifestations.
  - For tuberculosis, negative sputum cultures indicate that medication is effective.
  - For superficial fungal infections, medication effectiveness should be noticeable on external parts of body (nails, skin, mucous membranes).
- Opioid Agonists and Antagonists: Administering medications for breakthrough pain
  - For breakthrough pain, short-acting medications should be administered.
  - To prevent breakthrough pain, medications should be administered regularly, around the clock.
  - For all opioids, medication doses should be double-checked before administration.
- Opioid Agonists and Antagonists: Adverse effects of epidural morphine
  - It is important to monitor respiratory depression with the use of morphine and other opioids.
  - Constipation is a common side effect of morphine use, and can be initially treated by increasing fluid intake and physical activity.
  - Orthostatic hypotension is another common side effect of morphine – the nurse should instruct the client to change positions slowly.
- Psychotic Disorders: Teaching a client about clozapine
  - Clozapine is an atypical antipsychotic, often used for treatment of schizophrenia.
  - Common side effects of the medication are weight gain, hyperglycemia, and hyperlipidemia.
  - White blood cell count should be monitored regularly with clozapine use, per facility protocol.