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Pharmacology ATI Remediation

Management of Care

• Client Rights - (1)

- Complementary, Alternative, and Integrative Therapies: Alternative Therapy for Benign Prostate Hypertrophy (Active Learning Template - System Disorder,)
 1. Saw palmetto can decrease prostate manifestations of hyperplasia.
 2. Saw palmetto has Few adverse effects: can cause mild GI effects.
 3. Saw palmetto can interact with antiplatelet and anticoagulant medications.

Pharmacological and Parenteral Therapies

• Adverse Effects/Contraindications/Side Effects/Interactions - (6)

- Antibiotics Affecting the Bacterial Cell Wall: Adverse Reactions (Active Learning Template - Medication,)
 1. Antibiotics that affect the cell wall are bactericidal.
 2. Meds in this group are: penicillin's, cephalosporins, carbapenems, and monobactams.
 3. Bleeding tendencies from cefotetan and ceftriaxone.
- Antibiotics Affecting the Bacterial Cell Wall: Priority Finding to Report to Provider (Active Learning Template - Medication,)
 1. Cephalosporins: If indications of allergy appear (urticaria, rash, hypotension, dyspnea), stop immediately and notify provider.
 2. Carbapenems: Allergic reaction: dyspnea, rashes, pruritus. Notify provider.
 3. Notify provider if changes in hearing develop.
- Cardiac Glycosides and Heart Failure: Risk Factors for Digoxin Toxicity (Active Learning Template - Medication,)
 1. Quinidine increases the risk of digoxin toxicity when used concurrently by displacing digoxin from its binding site and reducing kidney excretion.
 2. Digoxin toxicity (fatigue, weakness, vision changes, GI effects)
 3. Digoxin Toxicity management: Stop digoxin and potassium-wasting diuretics immediately. Treat dysrhythmias with phenytoin or lidocaine.
- Chronic Neurologic Disorders: Medications That Interact with Carbamazepine (Active Learning Template - Medication,)
 1. Oral contraceptives, warfarin: Decrease in the effects of these meds due to stimulation of hepatic drug-metabolizing enzyme.
 2. Phenytoin decreases the effects of carbamazepine by stimulating metabolism.
 3. Carbamazepine decreases the effect of lamotrigine.

- 0 Medications Affecting Urinary Output: Reporting Adverse Effects of Furosemide (Active Learning Template - Medication, RM Pharm RN 8.0 Chp 19 Medications Affecting Urinary Output v2)
 1. Complications: dehydration, hyponatremia, hypochloremia (monitor electrolytes)
 2. Complications: Hypotension (Monitor blood pressure. Orthostatic hypotension)
 3. Hypokalemia (Monitor cardiac status and potassium levels)

- 0 Mycobacterial, Fungal, and Parasitic Infections: Interpreting Adverse Effects of Rifampin (Active Learning Template - Medication,)
 1. Rifampin and Isoniazid are two effective antituberculosis medications
 2. Discoloration of body fluids (orange color of urine, saliva, sweat, and tears.
 3. Monitor for liver function (hepatotoxicity: jaundice, anorexia, and fatigue).

• **Expected Actions/Outcomes - (4)**

- 0 Antilipemic Agents: Determining Effectiveness of Treatment (Active Learning Template - Medication, RM Pharm RN 8.0 Chp 24 Antilipemic Agents v2)
 1. Antilipemic agents work in different ways to help lower LDL cholesterol, raise HDL and possible decrease VLDL.
 2. It is important to obtain baseline cholesterol, HDL, LDL, and triglyceride levels, as well as liver and kidney function tests.
 3. Monitor periodically during treatment.

- 0 Antilipemic Agents: Medications for High Cholesterol (Active Learning Template - Basic Concept, RM Pharm RN 8.0 Chp 24 Antilipemic Agents v2)
 1. Bile Acid Sequestrants (colesevelam) decrease LDL
 2. Monoclonal Antibodies (Alirocumab) decrease LDL by binding to low density lipoprotein receptors.
 3. Fibrates (Gemfibrozil) decrease triglyceride levels.

- 0 Bone Disorders: Identifying Therapeutic Uses of Raloxifene (Active Learning Template - Medication, RM Pharm RN 8.0 Chp 34 Bone Disorders v2)
 1. Works as endogenous estrogen in bone, lipid metabolism, and blood coagulation
 2. Prevent and treat postmenopausal osteoporosis to prevent spinal fractures in female clients.

 3. Protect against breast cancer. c

- 0 Heart Failure and Pulmonary Edema: Priority Actions for a Client Who Has Heart Failure (Active Learning Template - System Disorder, RM AMS RN 11.0 Chp 32 Heart Failure and Pulmonary Edema)
 1. Prevention: exercise, diet low in sodium, fluid restriction, smoking cessation, medication regimen.
 2. Monitor daily weights and intake and output.
 3. Assess for dyspnea, position client in high Fowlers, encourage bed rest, energy conservation, dietary restrictions of fluid and sodium.

• **Medication Administration - (4)**

- O Airflow Disorders: Teaching About Fluticasone Metered-Dose Inhaler (Active Learning Template - Medication, RM Pharm RN 8.0 Chp 17 Airflow Disorders v2)
 1. Shake the inhaler vigorously 5 or 6 times.
 2. Hold 2 to 4 cm away from the front of your mouth
 3. Take deep breath and then exhale.

- O Bipolar Disorders: Teaching About Lithium Carbonate (Active Learning Template - Medication,)
 1. Bipolar disorders are primarily managed with mood stabilizing meds (lithium carbonate).

 2. Lithium produces neurochemical changes in the brain, including serotonin receptor blockade.

 3. Lithium controls episodes of acute mania and helps prevent the return of mania and depression.

- O Medications Affecting Coagulation: Safe Administration of Enoxaparin (Active Learning Template - Medication, RM Pharm RN 8.0 Chp 25 Medications Affecting Coagulation v2)
 1. Enoxaparin is a low molecular weight heparin
 2. Enoxaparin: observe for bleeding
 3. Avoid Aspirin

- O Safe Medication Administration and Error Reduction: Preparing to Administer Digoxin (Active Learning Template - Nursing Skill, RM Pharm RN 8.0 Chp 2 Safe Medication Administration and Error Reduction v2)
 1. Monitor for dysrhythmias, a manifestation of cardiotoxicity.
 2. Measure apical heart rate before giving digoxin.
 3. Hypokalemia places clients at greater risk for digoxin toxicity.

• Parenteral/Intravenous Therapies - (5)

- O Electrolyte Imbalances: Findings Indicating Effective Hypertonic Infusion (Active Learning Template - Basic Concept, RM Fund 10.0 Chp 58 Electrolyte Imbalances)
 1. Sodium levels: 135 to 145
 2. Hyponatremia: Sodium less than 135
 3. Hyperkalemia risk factors: increased total body potassium.

- O Intravenous Therapy: Actions for an IV Infusion Infiltration (Active Learning Template - Nursing Skill,)
 1. Nurses administer large volume IV infusions on a continuous basis.
 2. Nurses administer medications as an IV bolus, giving meds in a small amount of solution, concentrated, or diluted, and injecting it over a short time (1 to 2 min or longer)
 3. The nurse regulates the IV infusion, either with an IV pump or manually, to be sure to deliver the right amount.

- O Intravenous Therapy: Expected Finding Following Albumin Administration (Active Learning Template - Therapeutic Procedure,)
 1. Medications compete for protein sites within the bloodstream, primarily albumin.
 2. Albumin expands circulating blood volume by exerting oncotic pressure.

- 3. Therapeutic uses: Hypoalbuminemia, burns, hypovolemia, respiratory distress,
- 0 Intravenous Therapy: Nursing Actions for IV Infiltration (Active Learning Template - Nursing Skill,)
 1. Infiltration findings: (pallor, local swelling at the site)
 2. Treatment: Stop the infusion and remove the catheter.
 3. Elevate the extremity
- 0 Intravenous Therapy: Selecting a Site to Initiate IV Therapy (Active Learning Template - Basic Concept, RM Fund 10.0 Chp 49 Intravenous Therapy)
 1. Carefully select the site and catheter
 2. Secure the catheter
 3. Inspect IV infusion site frequently for any findings of infiltration.

- **Pharmacological Pain Management - (2)**

- 0 Individual Considerations of Medication Administration: Risk Factors for Adverse Reactions in Older Adult Clients (Active Learning Template - Growth and Development, RM Pharm RN 8.0 Chp 6 Individual Considerations of Medication Administration v2)
 1. Older adults have reduced liver and kidney function.
 2. Older adults require proportionately smaller medication doses to compensate for their heightened sensitivities to meds.
 3. Some clients develop cross tolerance to another medication after they have become tolerant to a chemically similar medication.
- 0 Opioid Agonists and Antagonists: Adverse Effects of Epidural Morphine (Active Learning Template - Basic Concept, RM Pharm RN 8.0 Chp 36 Opioid Agonists and Antagonists v2)
 1. Opioids are classified as agonists, agonist-antagonists, and antagonists.
 2. Have naloxone and resuscitation equipment available.
 3. Avoid use of opioids with CNS depressant medications.

Reduction of Risk Potential

- **Changes/Abnormalities in Vital Signs - (1)**

- 0 Medications Affecting Coagulation: Monitoring for Adverse Effects of Heparin (Active Learning Template - Medication, RM Pharm RN 8.0 Chp 25 Medications Affecting Coagulation v2)
 1. Heparin toxicity: administer protamine.
 2. Protamine should be administered slowly IV, no faster than 20 mg/min or 50 mg in 10 minutes.
 3. Do not exceed 100 mg in a 2-hour period.

Physiological Adaptation

- **Fluid and Electrolyte Imbalances - (2)**

- 0 Bipolar Disorders: Assessing a Client Who Is Taking Lithium for an Electrolyte Imbalance (Active Learning Template - Medication,)

1. Administer lithium with meals or mild to prevent GI distress.
2. Reduced blood sodium decreases lithium excretion, which can lead to toxicity.
3. Concurrent use of NSAIDs will increase renal reabsorption of lithium, leading to toxicity.

O Medications Affecting Labor and Delivery: Treatment for Hypermagnesemia (Active Learning Template - Basic Concept, RM Pharm RN 8.0 Chp 32 Medications Affecting Labor and Delivery)

1. Magnesium sulfate: nonreactive NST, reduced fetal heart rate variability.
2. Magnesium sulfate: Maternal: hypocalcemia, hot flashes, dyspnea, transient hypotension
3. Monitor deep tendon reflexes