

Kristin Pitts

Repeat drugs Phenytoin, ASA, Propofol

Generic Name- lorazepam

Pharmacology Classification- benzodiazepine

Therapeutic Reason- Antianxiety, Insomnia, Anxiety prior to surgery

Dose, Route Schedule- Injection: 2 mg/mL, 4 mg/mL Oral solution: 2 mg/mL Tablets: 0.5 mg, 1 mg

Adult 2-3mg per day in divided doses not to exceed 10mg per day

IVP dilutant solution, volume, rate of administration/ IVPB- list concentration and rate of administration- 2 mg IV total or 0.044 mg/kg IV may dilute in sterile water, 5% dextrose or 0.9% NaCl in 1:1 ratio

Adverse effects- Anaphylaxis, respiratory depression

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)- 1. Category D for pregnancy 2. If you miss a dose take your next dose do not double doses 3. Education on addiction 4. Avoid driving or operating heavy equipment

Generic Name- Albuterol

Pharmacology Classification- Adrenergics

Therapeutic Reason- Bronchodilators

Dose, Route Schedule- Inhalation aerosol: 100 mcg/actuation, 108 mcg/actuation Inhalation powder: 108 mcg/actuation Solution for inhalation: 0.021% (0.63 mg/3 mL), 0.042% (1.25 mg/3 mL), 0.083% (2.5 mg/3 mL), 0.5 mg/mL, 1 mg/mL, 2 mg/mL, 0.5% (5 mg/mL) Syrup: 2 mg/5 mL Tablets: 2 mg, 4 mg Tablets (extended-release): 4 mg, 8 mg

IVP dilutant solution, volume, rate of administration/ IVPB- list concentration and rate of administration- To prevent or treat bronchospasm in patients with reversible obstructive airway disease Tablets (extended-release) Adults and children older than age 12: 4 to 8 mg PO every 12 hours. Maximum, 32 mg daily. Children ages 6 to 12: 4 mg PO every 12 hours. Maximum, 24 mg daily. Tablets Adults and children older than age 12: 2 to 4 mg PO t.i.d. or q.i.d. Maximum, 32 mg daily. Children ages 6 to 12: 2 mg PO t.i.d. or q.i.d. Maximum, 24 mg daily. Solution for inhalation Adults and children age 12 and older: 2.5 mg by nebulizer, given over 5 to 15 minutes,

t.i.d. or q.i.d. To prepare solution, use 0.5 mL of 0.5% solution diluted with 2.5 mL of NSS. Or, use 3 mL of 0.083% solution. Children ages 2 to 12 weighing more than 15 kg: 2.5 mg by nebulizer given over 5 to 15 minutes t.i.d. or q.i.d., with subsequent doses adjusted to response. Don't exceed 2.5 mg t.i.d. or q.i.d. Children ages 2 to 12 weighing 15 kg or less: 0.63 mg or 1.25 mg by nebulizer given over 5 to 15 minutes t.i.d. or q.i.d. with subsequent doses adjusted to response. Don't exceed 2.5 mg t.i.d. or q.i.d. Syrup Adults and children older than age 14: 2 to 4 mg PO t.i.d. or q.i.d. Maximum, 32 mg daily. Children ages 6 to 14: 2 mg PO t.i.d. or q.i.d. Maximum, 24 mg daily. Children ages 2 to 5: Initially, 0.1 mg/kg PO t.i.d. Starting dose shouldn't exceed 2 mg t.i.d. Maximum, 12 mg daily. Inhalation aerosol Adults and children age 4 and older: 1 to 2 inhalations every 4 to 6 hours as needed. Regular use for maintenance therapy to control asthma symptoms isn't recommended. Adjust-a-dose: For elderly patients and those sensitive to sympathomimetic amines, 2 mg PO t.i.d. or q.i.d. as oral tablets or syrup. Maximum, 32 mg daily. Inhalational powder Adults and children age 4 and older: 2 inhalations every 4 to 6 hours. In some patients, 1 inhalation every 4 hours may be sufficient. To prevent exercise-induced bronchospasm Adults and children age 4 and older: 2 inhalations 15 to 30 minutes before exercise. Adjuvant therapy for acute treatment of moderate to severe hyperkalemia Adults: 10 to 20 mg via nebulization over 10 minutes, given in combination with other recommended therapy

Adverse effects- CNS: tremor, nervousness, headache, hyperactivity, insomnia, dizziness, weakness, CNS stimulation, malaise. CV: tachycardia, palpitations, HTN, chest pain, lymphadenopathy, edema. EENT: conjunctivitis, otitis media, dry and irritated nose and throat (with inhaled form), nasal congestion, epistaxis, hoarseness, pharyngitis, rhinitis. GI: nausea, vomiting, heartburn, anorexia, altered taste, increased appetite. GU: UTI. Metabolic: hypokalemia. Musculoskeletal: muscle cramps, back pain. Respiratory: bronchospasm, cough, wheezing, dyspnea, bronchitis, increased sputum. Other: hypersensitivity reactions, flulike syndrome, cold symptoms.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. May decrease potassium level.
2. Drug may decrease sensitivity of spirometry used for diagnosis of asthma
3. If patient is also using a corticosteroid inhaler, instruct patient to use the bronchodilator first and then to wait about 5 minutes before using the corticosteroid
4. Tell patient to remove canister and wash aerosol inhaler with warm, soapy water at least once a week

Generic Name- Alendronate

Pharmacology Classification- Bisphosphonates

Therapeutic Reason- Antiosteoporotics

Dose, Route Schedule-Oral solution: 70 mg/75 mL Tablets: 5 mg, 10 mg, 35 mg, 40 mg, 70 mg Tablets (effervescent): 70 mg

Osteoporosis in postmenopausal women; to increase bone mass in men with osteoporosis Adults: 10 mg PO daily or 70-mg tablet or solution PO once weekly. Paget disease of bone (osteitis deformans) (excluding Binosto and oral solution) Adults: 40 mg PO daily for 6 months. To prevent osteoporosis in postmenopausal women (excluding Binosto and oral solution) Adults: 5 mg PO daily or 35-mg tablet PO once weekly. Glucocorticoid-induced osteoporosis in patients receiving glucocorticoids in a daily dose equivalent to 7.5 mg or more of prednisone and who have low bone mineral density (excluding Binosto and oral solution) Adults: 5 mg PO daily. For postmenopausal women not receiving estrogen, recommended dose is 10 mg PO daily

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- NO IV FORM available

PO Give drug with 180 to 240 mL of plain water at least 30 minutes before patient's first food or drink of the day to facilitate delivery to the stomach and reduce esophageal irritation risk. Dissolve effervescent tablet in 120 mL of plain room-temperature water. Give at least 60 mL of water after oral solution. Don't allow patient to lie down for 30 minutes after taking drug and until after first food of the day.

Adverse effects- CNS: headache. GI: abdominal pain, nausea, dyspepsia, constipation, diarrhea, flatulence, acid regurgitation, esophageal ulcer, vomiting, dysphagia, abdominal distention, gastritis, taste perversion, melena. Musculoskeletal: pain.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor patient's calcium and phosphate levels throughout therapy
2. Advise patient to take supplemental calcium and vitamin D if dietary intake is inadequate
3. Warn patient not to lie down for at least 30 minutes after taking drug to facilitate delivery to stomach and to reduce risk of esophageal irritation.
4. Contraindicated in patients hypersensitive to drug and in those with hypocalcemia or abnormalities of the esophagus that delay esophageal emptying.

Generic Name- allopurinol

Pharmacology Classification- Xanthine oxidase inhibitors

Therapeutic Reason- Antigout

Dose, Route Schedule-allopurinol Tablets (scored): 100 mg, 200 mg , 300 mg allopurinol sodium Injection: 500 mg/30 mL vial

If CrCl is 10 to 20 mL/minute, give 200 mg PO or IV daily; if CrCl is 3 to 10 mL/minute, give 100 mg PO or IV daily; if CrCl is less than 3 mL/minute, give a maximum of 100 mg PO or IV at extended intervals. Gout or hyperuricemia Adults: Initially, 100 mg PO daily; then titrate in 100-mg increments weekly until serum urate concentration falls to 6 mg/dL or less. Maximum, 800 mg daily. Dosage varies with severity of disease; can be given as single dose or divided, but doses greater than 300 mg should be divided. Hyperuricemia caused by malignancies Adults and

children older than age 10: 200 to 400 mg/m² daily IV as a single infusion or in equally divided doses every 6, 8, or 12 hours beginning 24 to 48 hours before initiation of chemotherapy. Maximum, 600 mg daily. Children age 10 and younger: Initially, 200 mg/m² daily IV as single infusion or in equally divided doses every 6, 8, or 12 hours beginning 24 to 48 hours before initiation of chemotherapy. Then titrate according to uric acid levels. For children ages 6 to 10, give 300 mg PO daily or in three divided doses; for children younger than age 6, give 150 mg PO daily. To prevent uric acid nephropathy during cancer chemotherapy Adults: 600 to 800 mg PO daily for 2 to 3 days, with high fluid intake. Recurrent calcium oxalate calculi Adults: 200 to 300 mg PO daily in single or divided doses.

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-When possible, initiate therapy 24 to 48 hours before the start of chemotherapy known to cause tumor lysis. Dissolve contents of each 30-mL vial in 25 mL of sterile water for injection. Dilute solution to desired concentration (no greater than 6 mg/mL) with NSS for injection or D5W. Can give as a single daily infusion or in equally divided infusions at 6-, 8-, or 12-hour intervals. Rate of infusion depends on volume of infusate. Store solution at 68° to 77° F (20° to 25° C) and use within 10 hours. Don't use solution if it contains particulates or is discolored. Incompatibilities: Amikacin, amphotericin B, carmustine, cefotaxime, chlorpromazine, cimetidine, clindamycin, cytarabine, dacarbazine, daunorubicin, diphenhydramine, doxorubicin, doxycycline, droperidol, floxuridine, gentamicin, haloperidol, hydroxyzine, idarubicin, imipenem-cilastatin, mechlorethamine, meperidine, methylprednisolone, metoclopramide, minocycline, nalbuphine, ondansetron, prochlorperazine, promethazine, sodium bicarbonate (or solutions containing sodium bicarbonate), streptozocin, tobramycin, vinorelbine

Adverse effects- GI: nausea, vomiting, abdominal pain, diarrhea. GU: renal failure. Musculoskeletal: acute gout attack. Skin: rash, maculopapular rash

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. To avoid risk of severe cutaneous adverse reactions (SCAR), avoid use of allopurinol in HLA-B*5801-positive patients
2. Monitor uric acid level to evaluate drug's effectiveness. Monitor fluid intake and output; daily urine output of at least 2 L and maintenance of neutral or slightly alkaline urine are desirable.
3. Periodically monitor CBC and hepatic and renal function, especially at start of therapy.
4. To minimize GI adverse reactions, tell patient to take drug with or immediately after meals

Generic Name- Alteplase

Pharmacology Classification- Enzymes

Therapeutic Reason- Thrombolytic

Dose, Route Schedule- Cathflo Activase injection: 2-mg single-patient vials Injection: 50-mg, 100-mg vials

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-Lysis of thrombi obstructing coronary arteries in acute MI (Activase) 3-hour infusion Adults weighing 65 kg or more: 100 mg by IV infusion over 3 hours, as follows: 60 mg in first hour, 6 to 10 mg of which is given as a bolus over first 1 to 2 minutes. Then 20 mg/hour infused for 2 hours. Adults weighing less than 65 kg: 1.25 mg/kg in a similar fashion: 0.075 mg/kg bolus over 1 to 2 minutes, followed by 0.675 mg/kg in rest of first hour. Then 0.25 mg/kg/hour infused for 2 hours. Don't exceed total dose of 100 mg. Accelerated infusion Adults weighing more than 67 kg: 100 mg maximum total dose. Give 15 mg IV bolus over 1 to 2 minutes, followed by 50 mg infused over the next 30 minutes; then 35 mg infused over the next hour. Don't exceed total dose of 100 mg. Adults weighing 67 kg or less: 15 mg IV bolus over 1 to 2 minutes, followed by 0.75 mg/kg (not to exceed 50 mg) infused over the next 30 minutes; then 0.5 mg/kg (not to exceed 35 mg) infused over the next hour. Don't exceed total dose of 100 mg. To manage acute massive PE (Activase) Adults: 100 mg by IV infusion over 2 hours. Begin parenteral anticoagulation at end of infusion when PTT or thrombin time returns to twice normal or less. Don't exceed 100- mg dose. Higher doses may increase risk of intracranial bleeding. Acute ischemic stroke (Activase) Adults: 0.9 mg/kg by IV infusion over 1 hour with 10% of total dose given as an initial IV bolus over 1 minute. Maximum total dose is 90 mg. To restore function to CVADs (Cathflo Activase) Adults and children older than age 2: For patients weighing more than 30 kg, instill 2 mg in 2 mL sterile water into catheter. For patients weighing between 10 and 30 kg, instill 110% of the internal lumen volume of the catheter, not to exceed 2 mg in 2 mL sterile water. After 30 minutes of dwell time, assess catheter function by aspirating blood. If function is restored, aspirate 4 to 5 mL of blood in patients weighing 10 kg or more or 3 mL in patients weighing less than 10 kg to remove drug and residual clot, and gently irrigate the catheter with NSS. If catheter function isn't restored after 120 minutes, instill a second dose. Acute ischemic stroke presenting 3 to 4½ hours after symptom onset (Activase) Adults: 0.9 mg/kg by IV infusion over 1 hour with 10% of total dose given as an initial IV bolus over 1 minute. Maximum total dose is 90 mg. Note for clearing PICC catheter with draw total amount after inserted and left for 30 minutes, do not flush with administration

Adverse effects-CNS: cerebral hemorrhage, fever. CV: arrhythmias, hypotension, edema, cholesterol embolization, venous thrombosis. GI: bleeding, nausea, vomiting. GU: bleeding. Hematologic: spontaneous bleeding. Skin: ecchymosis. Other: anaphylaxis, sepsis (Cathflo Activase), bleeding at puncture sites, hypersensitivity reactions

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor vital signs and neurological symptoms
2. Monitor for symptoms of excessive bleeding
3. Avoid invasive procedures after use

Generic Name- amiodarone

Pharmacology Classification- Benzofuran derivatives

Therapeutic Reason- Antiarrhythmics

Dose, Route Schedule- Injection: 50 mg/mL, 150 mg/100 mL, 360 mg/200 mL, 450 mg/9 mL, 450 mg/200 mL, 750 mg/500 mL, 900 mg/18 mL, 900 mg/500 mL, 1,000 mg/500 mL Tablets: 100 mg, 200 mg, 400 mg

Dose: Adults: Give loading dose of 800 to 1,600 mg PO daily or divided into two equal doses daily for 1 to 3 weeks until first therapeutic response occurs; then 600 to 800 mg PO daily for 1 month, followed by maintenance dose of 400 mg PO daily or, for patients with severe GI intolerance, 200 mg PO b.i.d. Determine long-term maintenance dose according to antiarrhythmic effect **IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-** Mix first dose of 150 mg in 100 mL of D5W solution.

Adverse effects-CNS: fatigue, malaise, tremor, peripheral neuropathy, ataxia, paresthesia, insomnia, sleep disturbances, headache, dizziness. CV: hypotension, asystole, atrial fibrillation, bradycardia, arrhythmias, HF, heart block, sinus arrest, edema, flushing. EENT: asymptomatic corneal microdeposits, visual disturbances, optic neuropathy or neuritis resulting in visual impairment, abnormal smell. GI: nausea, vomiting, abnormal taste, anorexia, constipation, abdominal pain, diarrhea. Hematologic: coagulation abnormalities. Hepatic: hepatic failure, hepatic dysfunction. Metabolic: hypothyroidism, hyperthyroidism. Respiratory: ARDS, severe pulmonary toxicity, pulmonary edema, eosinophilic pneumonitis. Skin: photosensitivity, solar dermatitis, blue-gray skin. Other: decreased libido

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Drug may cause fetal harm.
2. Obtain baseline pulmonary, liver, and thyroid function test results and baseline chest X-ray.
3. Educate patient to wear sunscreen or protective clothing to prevent sensitivity reaction to the sun. Monitor patient for skin burning or tingling, followed by redness and blistering. Exposed skin may turn blue-gray.

Tell patient not to stop taking this medication without consulting with prescriber

Generic Name- Amoxicillin

Pharmacology Classification- Aminopenicillins

Therapeutic Reason-antibiotic

Dose, Route Schedule-Capsules: 250 mg, 500 mg Oral suspension: 50 mg/mL (pediatric drops), 125 mg/5 mL, 200 mg/5 mL, 250 mg/5 mL, 400 mg/5 mL (after reconstitution) Tablets: 500 mg, 875 mg Tablets (chewable): 125 mg, 250 mg

Dose: Adults and children weighing 40 kg or more: 500 mg PO every 12 hours or 250 mg PO every 8 hours. Children older than age 3 months weighing less than 40 kg: 25 mg/kg/day PO divided every 12 hours or 20 mg/kg/day PO divided every 8 hours. Neonates and infants up to age 3 months: Up to 30 mg/kg/day PO divided every 12 hours. Mild t

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-

Adverse effects-CNS: seizures, anxiety, confusion, agitation, dizziness, reversible hyperactivity, anxiety, insomnia, behavioral changes. GI: diarrhea, nausea, pseudomembranous colitis, vomiting. GU: interstitial nephritis, nephropathy. Hematologic: agranulocytosis, leukopenia, thrombocytopenia, thrombocytopenic purpura, anemia, eosinophilia, hemolytic anemia. Other: anaphylaxis, hypersensitivity reactions, overgrowth of nonsusceptible organisms

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Use cautiously in patient with allergies to cephalosporins
2. Take with food
3. Complete all medications even if feeling better
4. Monitor for signs and symptoms of an allergic reactions

Generic Name- Aspirin

Pharmacology Classification- Salicylates

Therapeutic Reason- NSAIDs

Dose, Route Schedule-Capsules: 325 mg Capsules (extended-release) : 162.5 mg Suppositories: 60 mg , 120 mg , 150 mg , 160 mg , 200 mg , 300 mg , 600 mg , 650 mg Tablets: 325 mg , 500 mg Tablets (chewable): 80 mg , 81 mg Tablets (delayed-release): 81 mg, 325 mg, 500 mg Tablets (enteric-coated) : 80 mg , 81 mg , 162 mg , 325 mg , 500 mg , 650 mg

Dosage:

Children 90-130mg/kg/day

Adults 50kg or more 325-650mg per day

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- No IV

Adverse effects-CNS: agitation, cerebral edema, coma, confusion, dizziness, headache, lethargy, seizures, subdural or intracranial hemorrhage. CV: arrhythmias, hypotension, tachycardia. EENT: tinnitus, hearing loss. GI: nausea, GI bleeding, dyspepsia, GI distress, occult bleeding,

pancreatitis, vomiting. GU: antepartum and postpartum bleeding, interstitial nephritis, papillary necrosis, prolonged pregnancy and labor, proteinuria, renal insufficiency, renal failure. Hematologic: prolonged bleeding time, leukopenia, thrombocytopenia, coagulopathy, DIC. Hepatic: hepatitis. Metabolic: dehydration, hyperkalemia, hyperglycemia; hypoglycemia (children), metabolic acidosis, respiratory alkalosis. Skin: rash, bruising, urticaria, hives. Other: angioedema, Reye syndrome, hypersensitivity reactions, low birth weight (infants), stillbirth.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Avoid in patient with history of GI bleed, may prescribed enteric coated
2. Take with food
3. Enteric coated are slowly absorbed
4. Urge pregnant patient to avoid aspirin during last trimester of pregnancy unless specifically directed by prescriber

Generic Name- Atorvastatin

Pharmacology Classification- HMG-CoA reductase inhibitors

Therapeutic Reason- Antilipemics

Dose, Route Schedule- Initially, 10 to 20 mg PO daily. May increase based on patient response and tolerance; usual dosage, 10 to 80 mg PO daily

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- No IV medication available

Adverse effects-CNS: insomnia. EENT: nasopharyngitis, pharyngolaryngeal pain. GI: abdominal pain, diarrhea, dyspepsia, flatulence, nausea. GU: UTI. Musculoskeletal: rhabdomyolysis, arthralgia, myalgia, extremity pain, muscle spasms, musculoskeletal pain. Skin: rash

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. 1.Educate over low cholesterol diet
2. Notify provider if pregnant or breast feeding and stop drug
3. Monitor LFT's prior to starting treatment
4. Notify provider if severe muscle pain occurs

Generic Name- atropine

Pharmacology Classification- Anticholinergics–belladonna alkaloids

Therapeutic Reason- Antiarrhythmics

Dose, Route Schedule-Adults: 0.5 mg IV push, repeated every 3 to 5 minutes, not to exceed a total of 3 mg or 0.04 mg/kg. Children and adolescents: 0.02 mg/kg IV. May repeat once in 3 to 5 minutes; maximum dose is 1 mg

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- Give into a large vein or into IV tubing over at least 1 minute. Slow delivery may cause slowing of the HR

Adverse effects- Atrioventricular arrhythmias.

Anaphylaxis

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor intake and output
2. Monitor for cardiac arrhythmias
3. Monitor for urine retention

Generic Name- Baclofen

Pharmacology Classification- Gamma-aminobutyric acid derivatives

Therapeutic Reason- Skeletal muscle relaxants

Dose, Route Schedule-Intrathecal injection: 50 mcg/mL, 500 mcg/mL, 1,000 mcg/mL, 2,000 mcg/mL Tablets: 5 mg, 10 mg, 20 mg

Spasticity in MS; spinal cord injury Adults and children age 12 and older: Initially, 5 mg PO t.i.d. for 3 days; then 10 mg t.i.d. for 3 days, 15 mg t.i.d. for 3 days, 20 mg t.i.d. for 3 days. Increase daily dosage, based on response, to maximum of 80 mg (given as 20 mg q.i.d.) Adjust-a-dose: For patients with psychiatric or brain disorders and for elderly patients, increase dose gradually. To manage severe spasticity in patients who don't respond to or can't tolerate oral baclofen therapy Adults: For screening phase, after test dose to check responsiveness, give drug via implantable infusion pump. Give test dose of 1 mL of 50 mcg/mL dilution into intrathecal space by barbotage over 1 minute or longer. Significantly decreased severity or frequency of muscle spasm or reduced muscle tone should appear within 4 to 8 hours. If response is inadequate, give second test dose of 75 mcg/1.5 mL 24 hours after the first. If response is still inadequate, give final test dose of 100 mcg/2 mL after 24 hours. Patients unresponsive to the 100-mcg dose shouldn't be considered candidates for implantable pump. Children age 4 and older: Initial test dose is the same as that for adults (50 mcg); for very small children, initial dose is 25 mcg. For maintenance therapy: Adjust first dose based on screening dose that elicited an adequate response. Double this effective dose and give over 24 hours. However, if screening dose effectiveness was maintained for 8 hours or longer, don't double dose. After first 24 hours, increase dose slowly as needed and tolerated by 10% to 30% increments at 24-hour intervals in spasticity of spinal cord origin. In children with spasticity of spinal cord origin and adults and children with spasticity of cerebral origin, increase by 5% to 15% increments at 24-hour

intervals. During prolonged maintenance therapy, increase daily dose by 10% to 40% in spasticity of spinal cord origin, or increase daily dose by 5% to 20% in spasticity of cerebral origin, if needed; if patient experiences adverse effects, decrease dose by 10% to 20%. Maintenance dosages range from 12 to 2,003 mcg daily based on diagnosis, but experience with dosages of more than 1,000 mcg daily is limited. Most patients need 300 to 800 mcg daily for spasticity

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- Maintenance infusions that require dilution must be diluted with sterile preservative free sodium chloride for injection.

Adverse effects-CNS: agitation, drowsiness, dizziness, headache, weakness, fatigue, hypotonia, confusion, insomnia, seizures with intrathecal use, paresthesia, asthenia, pain, speech disorder, depression. CV: hypotension, peripheral edema. EENT: nasal congestion. GI: nausea, constipation, dry mouth, vomiting. GU: urinary frequency, urine retention, erectile dysfunction, incontinence. Metabolic: hyperglycemia, weight gain. Musculoskeletal: muscle rigidity or spasticity, muscle weakness. Respiratory: dyspnea, pneumonia. Skin: rash, pruritus, urticaria, excessive sweating. Other: chills, accidental injury. Use cautiously in patients with impaired renal function, respiratory disease, or seizure disorder or when spasticity is used to maintain motor function. • Use cautiously in patients with psychotic disorders, schizophrenia, or confusional states. Exacerbations of these conditions have occurred

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor for respiratory depression
2. Alter dose for renal patients
3. Tell patient to avoid activities that require alertness until CNS effects of drug are known. Drowsiness usually is transient.

Generic Name- beclametasone

Pharmacology Classification- Corticosteroids

Therapeutic Reason- Antiasthmatics

Dose, Route Schedule- Oral inhalation aerosol: 40 mcg/metered spray, 80 mcg/metered spray

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-Adults and children age 12 and older: Starting dose, 40 to 80 mcg b.i.d. when patient previously used bronchodilators alone, or 40 to 320 mcg b.i.d. when patient previously used inhaled corticosteroids. If patient doesn't respond adequately to initial dosage after 2 weeks, increasing dosage may provide additional asthma control. Maximum, 320 mcg b.i.d. Children ages 4 to 11: 40 mcg b.i.d. May increase to 80 mcg b.i.d. after 2 weeks if needed. Maximum, 80 mcg b.i.d.

Adverse effects-CNS: headache. EENT: hoarseness, throat irritation, fungal infection of throat, pharyngitis, rhinitis, sinusitis. GI: fungal infection of mouth, dry mouth. Musculoskeletal: back

pain. Respiratory: cough, URI, exacerbation of asthma, wheezing. Other: angioedema, facial edema, hypersensitivity reactions, adrenal insufficiency, suppression of HPA function

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Instruct patient to carry or wear medical identification indicating patient's need for supplemental systemic corticosteroids during stress.
2. Advise patient to hold breath for 5 to 10 seconds to enhance drug action.
3. Tell patient it may take up to 4 weeks to feel the full benefit of the drug.
4. Monitor for effectiveness

Generic Name- captopril

Pharmacology Classification- ACE inhibitors

Therapeutic Reason- Antihypertensives

Dose, Route Schedule- Tablets: 12.5 mg, 25 mg, 50 mg, 100 mg

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- No IV dose

Adverse effects-CNS: dizziness, fainting, headache, malaise, fatigue, fever, insomnia, paresthesia. CV: tachycardia, hypotension, chest pain, angina pectoris, palpitations. GI: abdominal pain, anorexia, constipation, diarrhea, dry mouth, dysgeusia, nausea, vomiting. Hematologic: leukopenia, agranulocytosis, thrombocytopenia, pancytopenia, anemia. Metabolic: hyperkalemia. Respiratory: dry, persistent, nonproductive cough; dyspnea. Skin: urticarial rash, maculopapular rash, pruritus, alopecia. Other: angioedema.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Use cautiously with individuals with renal impairment
2. For optimal absorption take 1 hour before with food
3. Tell female patient to notify prescriber if pregnancy occurs. Drug will need to be stopped.
4. Inform patient that light-headedness is possible, especially during first few days of therapy, and to rise slowly to minimize this effect and to report occurrence to prescriber. If fainting occurs, tell patient to stop drug and call prescriber immediately

Generic Name- ceftriaxone

Pharmacology Classification- Third-generation cephalosporin

Therapeutic Reason- antibiotic

Dose, Route Schedule infusion: 1 g, 2 g; 1 g/50 mL, 2 g/50 mL premixed Injection: 250 mg, 500 mg, 1 g, 2 g

Dose: Adults and children older than age 12: 1 to 2 g IM or IV daily or in equally divided doses every 12 hours. Total daily dose shouldn't exceed 4 g

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- Reconstitute drug with sterile water for injection, NSS for injection, D5W, or a combination of NSS and dextrose injection and other compatible solutions

Adverse effects-GI: pseudomembranous colitis, diarrhea. Hematologic: eosinophilia, thrombocytosis, leukopenia. Skin: pain, induration, tenderness at injection site, rash. Other: hypersensitivity reactions, serum sickness, anaphylaxis.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor PT and INR in patients with impaired vitamin K synthesis or low vitamin K stores. Vitamin K therapy may be needed.
2. Monitor patients for superinfection, diarrhea, and anemia and treat appropriately
3. If home care patient is diabetic and is testing urine for glucose, tell patient drug may affect results of cupric sulfate tests and to use an enzymatic test instead.
4. Tell patient to notify prescriber about loose stools or diarrhea.

Generic Name- ciprofloxacin

Pharmacology Classification-Fluoroquinolones

Therapeutic Reason- antibiotics

Dose, Route Schedule-Infusion (premixed): 200 mg in 100 mL D5W, 400 mg in 200 mL D5W Injection: 200 mg, 400 mg Suspension (oral): 250 mg/5 mL (5%), 500 mg/5 mL (10%) Tablets (extended-release, film-coated) : 500 mg, 1,000 mg Tablets (film-coated): 100 mg, 250 mg, 500 mg, 750 mg

Doses: Adults: 500 mg PO every 12 hours for 7 to 14 days. Or 1,000 mg extended-release tablets PO every 24 hours for 7 to 14 days. Children ages 1 to 17: 6 to 10 mg/kg IV every 8 hours for 10 to 21 days. Maximum IV dose, 400 mg. Or, 10 to 20 mg/kg PO every 12 hours. Maximum PO dose, 750 mg. Don't exceed maximum dose, even in patients who weigh more than 51 kg

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- Dilute drug to 1 to 2 mg/mL using D5W or NSS for injection

Adverse effects- CNS: seizures, confusion, headache, restlessness. GI: pseudomembranous colitis, diarrhea, nausea, vomiting. GU: crystalluria, interstitial nephritis. Hematologic: leukopenia, neutropenia, thrombocytopenia, eosinophilia. Musculoskeletal: tendon rupture. Skin: rash, SJS, toxic epidermal necrolysis. Other: hypersensitivity reactions.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor for tendon rupture
2. Tell patient to take drug as prescribed, even after feeling better.
3. Advise patient to drink plenty of fluids to reduce risk of urine crystals.
4. Advise patient not to crush, split, or chew the extended-release tablets.

Generic Name- Digoxin

Pharmacology Classification- Cardiac glycosides

Therapeutic Reason- Inotropes

Dose, Route Schedule- Oral solution: 0.05 mg/mL (pediatric) Injection* 0.1 mg/mL (pediatric), 0.25 mg/mL Tablets: 0.0625 mg, 0.125 mg, 0.25 mg

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- May administer undiluted or diluted with a fourfold or greater volume of D5W, NSS, or sterile water for injection; use immediately. Using less than a fourfold volume of diluent could lead to precipitation of the digoxin

Adverse effects-CNS: agitation, fatigue, generalized muscle weakness, hallucinations, dizziness, headache, malaise, paresthesia, stupor, vertigo. CV: arrhythmias, heart block. EENT: blurred vision, diplopia, light flashes, photophobia, yellow-green halos around visual images. GI: anorexia, nausea, diarrhea, vomiting

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor potassium levels
2. Monitor for signs and symptoms of toxicity
3. Tell patient to report pulse rate less than 60 bpm or more than 110 bpm or skipped beats or other rhythm changes.
4. Tell patient not to substitute one brand for another

Generic Name- dobutamine

Pharmacology Classification- Adrenergic–beta1 agonists

Therapeutic Reason-Inotropes

Dose, Route Schedule-Dobutamine in 5% dextrose: 1 mg/mL (250 or 500 mg); 2 mg/mL (500 mg); 4 mg/mL (1,000 mg) Injection: 12.5 mg/mL in 20-mL and 40-mL vials (parenteral)

Dose: Adults: 0.5 to 1 mcg/kg/minute IV infusion, titrating to optimum dosage of 2 to 20 mcg/kg/minute. Usual effective range to increase cardiac output is 2.5 to 15 mcg/kg/minute. Usual maximum dosage is 20 mcg/minute and, rarely, rates up to 40 mcg/kg/minute may be needed

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-Dilute concentrate before injecting. Compatible solutions include D5W, D10W,

D5W and NSS injection, D5W and half-NSS injection, D5W in lactated Ringer injection, NSS for injection, lactated Ringer solution for injection, Isolyte-M with D5W, Normosol-M in D5W, 20% mannitol in water for injection, and sodium lactate injection

Adverse effects-CNS: headache. CV: HTN, increased HR, angina, PVCs, phlebitis, nonspecific chest pain, palpitations, ventricular ectopy, hypotension. GI: nausea, vomiting. Respiratory: asthma attack, shortness of breath. Other: anaphylaxis, hypersensitivity reactions

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Continuously monitor ECG, BP, pulmonary artery wedge pressure, cardiac output, and urine output during therapy
2. Monitor electrolyte levels. Drug may lower potassium level
3. Tell patient to report all adverse reactions promptly, especially labored breathing, angina, palpitations, dizziness, and drug-induced headache.
4. Instruct patient to report discomfort at IV insertion site.

Generic Name- donepezil

Pharmacology Classification- Acetylcholinesterase inhibitors

Therapeutic Reason- Anti-Alzheimer drugs

Dose, Route Schedule-Tablets : 5 mg, 10 mg, 23 mg Tablets (ODTs) : 5 mg, 10 mg

Mild to moderate Alzheimer dementia Adults: 5 mg PO once daily for 4 to 6 weeks; may then increase dosage to 10 mg PO once daily. Moderate to severe Alzheimer disease Adults: Initially, 5 mg PO once daily for 4 to 6 weeks; dose may then be increased to 10 mg PO once daily. The dose may be increased to 23 mg PO once daily after patient has been taking 10 mg daily for 3 months. ADMINISTRATION PO • Allow ODT to dissolve on tongue; then follow with water. • Give drug at bedtime, without regard for food. • Don't split or crush tablets.

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- No IV form

Adverse effects-CNS: headache, insomnia, seizures, dizziness, fatigue, depression, somnolence, syncope, pain, hallucinations, abnormal dreams. CV: chest pain, HTN, atrial fibrillation, edema, hypotension, bradycardia, heart block. EENT: cataract, blurred vision, eye irritation, sore throat. GI: nausea, diarrhea, vomiting, anorexia, fecal incontinence, GI bleeding, weight loss. GU: urinary incontinence, urinary frequency. Metabolic: weight loss, dehydration. Musculoskeletal: muscle cramps, arthritis, bone fracture. Respiratory: dyspnea, bronchitis. Skin: pruritus, urticaria, diaphoresis, ecchymoses. Other: toothache, influenza, increased libido.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. May increase CK level
2. Use cautiously in patients who take NSAIDs or have CV disease, are at risk for rhabdomyolysis and renal failure, or have asthma, obstructive pulmonary disease, seizure disorders, urinary outflow impairment, GI bleeding, or history of ulcer disease.

3. Stress that drug doesn't alter underlying degenerative disease but can temporarily stabilize or relieve symptoms. Effectiveness depends on taking drug at regular intervals.
4. Tell patient to avoid OTC cold or sleep remedies because of risk of increased anticholinergic effects

Generic Name- Dopamine

Pharmacology Classification- Adrenergic

Therapeutic Reason- Vasopressor- To treat shock and correct hemodynamic imbalances; to improve perfusion to vital organs; to increase cardiac output; to correct hypotension

Dose, Route Schedule-Adults: Initially, 2 to 5 mcg/kg/minute by IV infusion. Titrate dosage to desired hemodynamic or renal response. In seriously ill patients, start with 5 mcg/kg/minute and increase gradually in increments of 5 to 10 mcg/kg/minute to a rate of 20 to 50 mcg/kg/minute, as needed

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-Dilute with D5W, NSS, D5W in NSS or half-NSS, lactated Ringer solution, D5W in lactated Ringer solution, or sodium lactate injection. Mix just before use. Use a central line or large vein, as in the antecubital fossa, to minimize risk of extravasation. Use a continuous infusion pump to regulate flow rate. Avoid inadvertent administration of a bolus of the drug. Black Box Warning Watch infusion site carefully for extravasation; if it occurs, stop infusion immediately and call prescriber. To prevent sloughing and necrosis in ischemic areas, infiltrate the area with 5 to 10 mg phentolamine in 10 to 15 mL NSS as soon as possible. Because solution will deteriorate rapidly, discard after 24 hours or earlier if it's discolored. Don't use product if it's darker than slightly yellow or discolored in another way. Incompatibilities: Alkalies (including sodium bicarbonate), oxidizing agents, iron salts

Adverse effects- Contraindicated in patients with uncorrected tachyarrhythmias, pheochromocytoma, or ventricular fibrillation. Use cautiously in patients with occlusive vascular disease, cold injuries, diabetic endarteritis, and arterial embolism; in those with a history of sulfite sensitivity; and in those taking MAO inhibitors. Dialyzable drug: Unlikely. Overdose S&S: Excessive BP elevation

CNS: headache, anxiety. CV: hypotension, ventricular arrhythmias (high doses), ectopic beats, tachycardia, angina, palpitations, vasoconstriction. GI: nausea, vomiting. Metabolic: azotemia, hyperglycemia. Respiratory: asthmatic episodes, dyspnea. Skin: necrosis and tissue sloughing with extravasation, piloerection. Other: anaphylactic reactions.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Tell patient to report adverse reactions promptly. Instruct patient to immediately report discomfort at IV insertion site.
2. May increase catecholamine, glucose, and BUN levels.

3. During infusion, frequently monitor ECG, BP, cardiac output, central venous pressure, pulmonary artery wedge pressure, pulse rate, urine output, and color and temperature of limbs.
4. Monitor Blood pressure and evaluate previous trends

Generic Name- epinephrine

Pharmacology Classification- Adrenergics

Therapeutic Reason- vasopressor

Dose, Route Schedule- Injection: 0.1 mg/mL, 1 mg/mL Injection device: 0.15 mg/0.15 mL, 0.3 mg/0.3 mL

Dose: Adults and children weighing 30 kg or more: 0.3 to 0.5 mg IM or subcut, repeated every 5 to 10 minutes as needed. Maximum single dose is 0.5 mg.

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- mix with D5W or combinations of dextrose in saline solution.

Adverse effects-CNS: drowsiness, headache, nervousness, tremor, cerebral hemorrhage, stroke, vertigo, pain, disorientation, agitation, anxiety, apprehensiveness, fear, restlessness, dizziness, weakness, subarachnoid hemorrhage. CV: palpitations, ventricular fibrillation, shock, widened pulse pressure, HTN, tachycardia, anginal pain, cardiac arrhythmias, altered ECG (including decreased T-wave amplitude). GI: nausea, vomiting. Respiratory: dyspnea, respiratory difficulties. Skin: urticaria, hemorrhage at injection site, pallor, sweating. Other: tissue necrosis

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Drug interferes with tests for urinary catecholamines.
2. If BP increases sharply, give rapid-acting vasodilators, such as nitrates and alpha blockers, to counteract the marked pressor effect of large doses
3. If patient has acute hypersensitivity reactions (such as to bee stings), it may be necessary to teach patient how to self-inject.
4. Instruct patient in autoinjector use. Tell patient to give autoinjector in outer thigh and not into buttock

Generic Name- etanercept

Pharmacology Classification- TNF blockers

Therapeutic Reason- Antiarthritics

Dose, Route Schedule-Injection: 25-mg multiuse vial Prefilled autoinjector: 50 mg/mL Prefilled single-dose Sensoready pen: 50 mg/mL Prefilled single-dose syringe: 25 mg/0.5 mL, 50 mg/mL

Children ages 2 to 17: For children weighing 63 kg or more, 50 mg subcut once weekly. For children weighing less than 63 kg (Enbrel only), 0.8 mg/kg subcut once weekly as two injections, either on the same day or 3 or 4 days apart using the multiuse vial. Maximum dosage is 50 mg/week. Glucocorticoids, NSAIDs, or analgesics may be continued during treatment. Use with

methotrexate hasn't been studied in children. RA, ankylosing spondylitis Adults: 50 mg subcut once weekly. Methotrexate, glucocorticoids, salicylates, NSAIDs, and analgesics may be continued during treatment. Psoriatic arthritis (Enbrel only) Adults: 50 mg subcut once weekly. May continue methotrexate, glucocorticoids, salicylates, NSAIDs, and analgesics during treatment. Chronic moderate to severe plaque psoriasis in patients who are candidates for systemic therapy or phototherapy Adults: 50 mg (Enbrel) subcut twice weekly, 3 to 4 days apart, for 3 months. Then, reduce dosage to 50 mg subcut once weekly. Or, initially, 50 mg (Erelzi) subcut twice weekly for 3 months; then 50 mg subcut once weekly. Children age 4 and older: For patients weighing 63 kg or more, 50 mg subcut once weekly. For patients weighing less than 63 kg, 0.8 mg/kg subcut once weekly. Maximum dosage is 50 mg/week

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-Give 50-mg dose as one subcut injection using a 50-mg/mL single-use prefilled syringe or prefilled autoinjector or pen or as two 25-mg subcut injections using multiuse vial. Give the two 25-mg injections on the same day or 3 to 4 days apart. • There is no dosage form for Erelzi that allows weight-based dosing for children weighing less than 63 kg. • Store prefilled syringe or pen refrigerated at 36° to 46° F (2° to 8° C), but let it reach room temperature (15 to 30 minutes) before use. Don't remove needle cover while allowing syringe to reach room temperature. • Store prefilled autoinjector refrigerated at 36° to 46° F (2° to 8° C) but let it reach room temperature before use. Don't remove the needle cover while allowing syringe to reach room temperature. • Don't return an autoinjector, prefilled syringe, dose tray, or prefilled pen to the refrigerator after it has reached room temperature. Protect from light and heat and discard after 14 days (Enbrel) or 28 days (Erelzi). • Reconstitute multiple-use vial aseptically with 1 mL of supplied sterile bacteriostatic water for injection (0.9% benzyl alcohol). Use a 25G needle rather than the supplied vial adapter if the vial will be used for multiple doses, but use a 27G needle for injection. Don't filter reconstituted solution when preparing or giving drug. Inject diluent slowly into vial. Refrigerate reconstituted vial for up to 14 days at 36° to 46° F (2° to 8° C) and discard 14 days after reconstitution. • Minimize foaming by gently swirling during dissolution rather than shaking. Dissolution takes less than 10 minutes. • Don't use solution if it's discolored or cloudy, or if it contains particulate matter. • Separate injection sites by at least 1 inch (2.5 cm), rotate regularly, and never use areas where skin is tender, bruised, red, or hard. Use sites on the thigh, abdomen, and upper arm. Alert: Needle covers of diluent syringe and prefilled syringe and internal needle cover within cap of the pen contain latex and shouldn't be handled by persons sensitive to latex

Adverse effects-CNS: headache, asthenia, dizziness, fever. CV: peripheral edema. EENT: rhinitis, pharyngitis, sinusitis, mouth ulcers. GI: abdominal pain, dyspepsia, nausea, vomiting, diarrhea. Respiratory: URI, cough, respiratory disorder, pneumonia (Erelzi). Skin: injection-site reaction, rash, alopecia, urticaria, pruritus. Other: infections, antibody development, malignancies.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Children should be up to date with all immunizations before start of therapy

2. Don't start drug in patients with an active infection, patients who have been exposed to TB, or patients with a history of an opportunistic infection, including clinically important localized infections, because of the increased risk of the development of serious infections that may lead to hospitalizations or death.
3. Teach patient who is self-administering drug about mixing and injection techniques, including rotating injection sites.
4. Advise patient to report signs or symptoms of pancytopenia, such as bruising, bleeding, persistent fever, or pallor

Generic Name- fentanyl

Pharmacology Classification- Opioid analgesic

Therapeutic Reason- Inhibits pain pathway, alters pain

Dose, Route Schedule- IV, IVPB, transdermal q72 hours, nasal spray, injection

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- IV=50-100mcg/kg q1-2 hours

IVPB- 0.05-0.01mcg/kg/min

Transdermal-25mcg/hour

Adverse effects- Overdose, Anaphylaxis,

Increased risk for serotonin syndrome when used with SSRIS's

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor for respiratory depression
2. Monitor for GI upset, nausea vomiting and constipation
3. Reassess efficacy
4. Monitor for bradycardia

Generic Name- furosemide

Pharmacology Classification- Loop diuretic

Therapeutic Reason- Antihypertensives

Dose, Route Schedule-Injection: 10 mg/mL Oral solution: 10 mg/mL, 40 mg/5 mL Tablets: 20 mg, 40 mg, 80 mg, 500 mg

Adults: 20 to 80 mg PO daily in the morning. If response is inadequate, give a second dose, and each succeeding dose, every 6 to 8 hours. Carefully increase dose in 20- to 40-mg increments up to 600 mg daily. Once effective dose is attained, may give once daily or b.i.d. Or, 20 to 40 mg IV or IM, increased by 20 mg 2 hours after previous dose until desired effect achieved

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- For high-dose, intermittent infusion in adults, dilute with D5W, NSS, or lactated Ringer solution. To avoid ototoxicity, infuse at a rate no greater than 4 mg/minute.

Adverse effects-CNS: vertigo, headache, dizziness, paresthesia, weakness, restlessness, fever. CV: orthostatic hypotension, thrombophlebitis with IV administration. EENT: blurred or yellowed vision, transient deafness, tinnitus. GI: abdominal discomfort and pain, diarrhea, anorexia, nausea, vomiting, constipation, pancreatitis. GU: azotemia, nocturia, polyuria, frequent urination, oliguria. Hematologic: agranulocytosis, aplastic anemia, leukopenia, thrombocytopenia, anemia. Hepatic: hepatic dysfunction, jaundice, increased liver enzyme levels. Metabolic: volume depletion and dehydration, asymptomatic hyperuricemia, impaired glucose tolerance, hypokalemia, hypochloremic alkalosis, hyperglycemia, dilutional hyponatremia, hypocalcemia, hypomagnesemia. Musculoskeletal: muscle spasm. Skin: dermatitis, purpura, photosensitivity reactions, transient pain at IM injection site, toxic epidermal necrolysis, SJS, erythema multiforme. Other: gout

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor weight, BP and urine output
2. Monitor BUN
3. Monitor for signs of hypokalemia
4. Advise patient to take in the morning

Generic Name- glipizide

Pharmacology Classification- Sulfonylureas

Therapeutic Reason- antidiabetic

Dose, Route Schedule-Adults: Initially, 5 mg PO daily 30 minutes before breakfast. Titrate by 2.5- to 5-mg increments no less than every few days based on blood glucose levels. Maximum oncedaily dose is 15 mg. Divide doses of more than 15 mg. Maximum daily dose is 20 mg. Adjust-a-dose: For patients with hepatic or renal insufficiency, patients older than age 65, or debilitated or malnourished patients, initially give 2.5 mg PO daily. Extended-release tablets Adults: Initially, 2.5 to 5 mg PO with breakfast daily. Increase by 5 mg every 3 months, depending on level of glycemic control. Maximum daily dose is 20 mg. To replace insulin therapy Adults: If insulin dosage is 20 units or less daily, insulin may be stopped when glipizide starts. If insulin dosage is more than 20 units daily, start patient at usual dosage in addition to 50% of insulin dose. In some cases, especially if insulin dose is more than 40 units daily, it may be advisable to transition to glipizide in a hospital setting.

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- No IV form

Adverse effects-CNS: dizziness, headache, syncope, asthenia, nervousness, tremor, anxiety, depression, insomnia, pain. EENT: blurred vision. GI: nausea, dyspepsia, flatulence,

constipation, diarrhea, vomiting. GU: polyuria. Hematologic: leukopenia, hemolytic anemia, agranulocytosis, thrombocytopenia, aplastic anemia. Metabolic: hypoglycemia. Musculoskeletal: arthralgia, leg cramps. Respiratory: rhinitis. Skin: pruritus, photosensitivity reactions

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Drug may cause hypoglycemia in breastfed infants. Patient should discontinue breastfeeding or discontinue drug.
2. Tell patient to carry candy or other simple sugars to treat mild low-glucose episodes. Patient experiencing severe episode may need hospital treatment.
3. Instruct patient not to change drug dosage without prescriber's consent and to report abnormal blood or urine glucose test results.
4. Tell patient not to take other drugs, including OTC drugs, without first checking with prescriber.

Generic Name- Insulin glargine

Pharmacology Classification- Insulin

Therapeutic Reason- antidiabetic

Dose, Route Schedule- Injection: 100 units/mL in 10-mL vials and 3-mL pens, 200 units/mL in 3-mL pens, 300 units/mL in 1.5-mL pens

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- Give subcut once daily at same time every day, at any time during the day. • If converting from insulin detemir to insulin glargine, maintain the same unit dose. Monitor glucose level closely during transition. • If changing from once-daily Toujeo 300 units/mL to a different insulin glargine product, recommended initial dose is 80% of the Toujeo dose that's being discontinued. • If changing from another insulin glargine product, 100 units/mL, to Basaglar, Basaglar dose should be the same as the other insulin glargine product, 100 units/mL, and prescriber should determine the time of day for administration. • If changing from a treatment regimen with an intermediate- or long-acting insulin (other than an insulin glargine product, 100 units/mL) to a regimen with Basaglar, a change in the basal insulin dosage may be required and the amount and timing of shorter-acting insulins and dosages of any antidiabetic drugs may need adjustment. • If switching from once-daily NPH insulin to once-daily Lantus, the recommended initial glargine dose is the same as the dose of NPH that is being discontinued. • If switching from b.i.d. NPH insulin to once-daily Lantus or Basaglar, the

Adverse effects- CNS: headache, pyrexia. CV: peripheral edema, HTN. EENT: pharyngitis, rhinitis, cataract, retinopathy. GI: abdominal pain, gastroenteritis, nausea, vomiting, diarrhea. GU: UTI. Metabolic: hypoglycemia, sodium retention, weight gain. Musculoskeletal: back pain. Respiratory: URI, bronchitis, cough. Skin: injectionsite reactions, lipodystrophy, pruritus, rash. Other: allergic reactions, flulike symptoms, infection.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Contraindicated during episodes of hypoglycemia or diabetic ketoacidosis
2. Monitor patients taking other medications with insulin more closely because other drugs can mask signs and symptoms of hypoglycemia or cause an increase or a decrease in blood glucose level.
3. Adjust dosages regularly, depending on patient-specific glucose measurements.
4. Monitor patient carefully for signs and symptoms of hypoglycemia, especially in longstanding disease. Treat according to individual facility policy and procedure if necessary

Generic Name- Insulin Regular

Pharmacology Classification- Insulin

Therapeutic Reason- antidiabetic

Dose, Route Schedule-Injection: 100 units/mL in 3-mL, 10-mL vials; 500 units/mL in 3-mL pens and 20-mL vials

Adults and children: Total daily insulin requirements vary and are usually between 0.5 and 1 unit/kg/day subcut in three or more divided doses. Novolin R hasn't been studied in children with type 2 diabetes. Initial doses may be lower, and maintenance doses in obese patients and children during puberty may be higher. Give 30 minutes before start of a meal. May give IV under medical supervision with close monitoring of blood glucose and potassium levels to avoid hypoglycemia and hypokalemia. Alert: U-500 concentrate is used for the treatment of insulin-resistant patients with diabetes who require daily doses of more than 200 units because a large dose may be given subcut in a reasonable volume. Don't give U-500 concentrated insulin IV or IM

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-Don't use if solution is viscous or cloudy; use only if clear and colorless. IV administration requires close monitoring of blood glucose and serum potassium levels.

Appropriate medical supervision is required. Onset of action when administered IV is more rapid in comparison to subcut administration. Use of regular insulin in insulin pumps isn't recommended because of risk of precipitation. For IV use, Humulin R U-100 should be used at a concentration of 0.1 to 1 unit/mL in NSS using polyvinyl chloride infusion bags. Novolin R should be used at concentrations of 0.05 to 1 unit/mL in infusion systems using polypropylene infusion bags and one of the following infusion solutions: NSS, 5% dextrose, or 10% dextrose with potassium chloride 40 mmol/L. Always administer IV infusions using an infusion pump. Infusion bags prepared with Humulin R are stable when stored in refrigerator for 48 hours at 36° to 46° F (2° to 8° C) and may be used at room temperature for up to an additional 48 hours. Infusion bags prepared with Novolin R are stable at room temperature for 24 hours. Incompatibilities: Don't mix regular insulin with any other insulin except NPH; don't mix regular concentrated insulin with any other insulin.

Adverse effects- CV: peripheral edema. Metabolic: hypoglycemia, hypokalemia, weight gain. Skin: injection-site reactions, lipodystrophy, pruritus. Other: allergic reactions, anaphylaxis, insulin antibody production

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor blood glucose level and adjust insulin dosage as needed for patient-specific goals.
2. Monitor potassium levels in patients at risk for hypokalemia, including those taking potassium-depleting drugs.
3. Instruct patient that when mixing two types of insulin, to always draw up the shorteracting insulin first, followed by NPH, and inject immediately.
4. Explain importance of checking insulin label before each injection; accidental mix-ups among insulin types have been reported

Generic Name- Ipratropium

Pharmacology Classification- Anticholinergics

Therapeutic Reason- Bronchodilator

Dose, Route Schedule- Inhaler: 17 mcg/metered dose Nasal spray: 0.03% (21 mcg/metered dose), 0.06% (42 mcg/metered dose) Solution (for inhalation): 0.02% (500 mcg/vial)

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-Bronchospasm in chronic bronchitis and emphysema Adults: Usually, 2 inhalations q.i.d.; patient may take additional inhalations as needed but shouldn't exceed 12 inhalations in 24 hours. Or, 500 mcg every 6 to 8 hours via oral nebulizer. Children age 12 and older: 500 mcg every 6 to 8 hours (t.i.d. to q.i.d.) via oral nebulizer. Rhinorrhea caused by allergic and nonallergic perennial rhinitis Adults and children age 6 and older: Two 0.03% nasal sprays (42 mcg) per nostril b.i.d. or t.i.d. Rhinorrhea caused by the common cold Adults and children age 12 and older: Two 0.06% nasal sprays (84 mcg) per nostril t.i.d. or q.i.d. Children ages 5 to 11: Two 0.06% nasal sprays (84 mcg) per nostril t.i.d. Rhinorrhea caused by seasonal allergic rhinitis Adults and children age 5 and older: Two 0.06% nasal sprays (84 mcg) per nostril q.i.d. Total dose is 672 mcg/day. Acute asthma exacerbations, in combination with a short-acting beta agonist Adults and adolescents age 13 and older: 500 mcg via oral nebulizer every 20 minutes for three doses, then as needed; or 8 inhalations of inhalation aerosol every 20 minutes as needed for up to 3 hours. Children ages 6 to 12: 250 to 500 mcg via oral nebulizer every 20 minutes for three doses, then as needed; or 4 to 8 inhalations of inhalation aerosol every 20 minutes as needed for up to 3 hours. Children age 5 and younger: 250 mcg via oral nebulizer every 20 minutes for 1 hour; or 2 inhalations of inhalation aerosol every 20 minutes if needed for 1 hour.

Adverse effects- CNS: dizziness, headache. CV: palpitations, chest pain, HTN. EENT: blurred vision, epistaxis, rhinitis, pharyngitis, sinusitis, nasal dryness. GI: nausea, dyspepsia, dry mouth, bitter taste, constipation. GU: UTI. Musculoskeletal: back pain. Respiratory: URI, bronchitis, bronchospasm, cough, dyspnea, increased sputum. Skin: rash. Other: flulike symptoms, hypersensitivity reactions. INTERACTIONS Drug-drug. Anticholinergics: May increase anticholinergic effects. Avoid using together.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Warn patient that drug isn't effective for treating acute episodes of bronchospasm when rapid response is needed.
2. Advise patient who is also using a corticosteroid inhaler to use ipratropium first and then to wait about 5 minutes before using the corticosteroid. This lets the bronchodilator open air passages for maximal effectiveness of the corticosteroid.
3. Instruct patient to sniff deeply after each spray and to breathe out through mouth.
4. Tell patient to tilt head backward to allow drug to spread to back of nose.

Generic Name- levetiracetam

Pharmacology Classification- Pyrrolidine derivatives

Therapeutic Reason- anticonvulsants

Dose, Route Schedule- Injection: 500 mg/5 mL single-use vials Injection (premixed in NSS): 500 mg/100 mL (5 mg/mL), 1,000 mg/100 mL (10 mg/mL), 1,500 mg/100 mL (15 mg/mL) Oral solution: 100 mg/mL Tablets : 250 mg, 500 mg, 750 mg, 1,000 mg Tablets (extended-release) :500 mg, 750 mg Tablets for oral suspension: 250 mg, 500 mg, 750 mg, 1,000 mg

For immediate-release and oral solution, in adults with CrCl of 50 to 80 mL/minute, give 500 to 1,000 mg every 12 hours; if CrCl is 30 to 50 mL/minute, give 250 to 750 mg every 12 hours; if CrCl is less than 30 mL/minute, give 250 to 500 mg every 12 hours. For ESRD dialysis patients, give 500 to 1,000 mg every 24 hours. Give a 250- to 500-mg dose after dialysis. For extended-release tablets, if CrCl is 50 to 80 mL/minute, give 1,000 to 2,000 mg every 24 hours. If CrCl is 30 to 50 mL/minute, give 500 to 1,500 mg every 24 hours. If CrCl is less than 30 mL/minute, give 500 to 1,000 mg every 24 hours. Adjunctive therapy for myoclonic seizures of juvenile myoclonic epilepsy Adults and adolescents age 12 and older: Initially, 500 mg PO or IV b.i.d. Increase by 1,000 mg/day every 2 weeks to a dose of 1,500 mg PO or IV b.i.d. (3,000 mg/day). Adjunctive therapy for primary generalized tonic-clonic seizures Adults and adolescents age 16 and older: Initially, 500 mg PO or IV b.i.d. Increase dose by 500 mg b.i.d. every 2 weeks to dose of 1,500 mg b.i.d. Children ages 6 to younger than 16: Initially, 10 mg/kg PO or IV b.i.d. Increase dose by 10 mg/kg b.i.d. at 2-week intervals to dose of 30 mg/kg b.i.d. For children weighing more than 20 kg, use either tablets or oral solution. For children weighing 20 kg or less, use oral solution. Adjunctive therapy for primary generalized tonic-clonic seizures (Spritam) Adults and children age 6 and older weighing more than 40 kg: 500 mg PO b.i.d.;

increase as needed and tolerated by 500 mg PO b.i.d. every 2 weeks to a maximum recommended dose of 1,500 mg b.i.d. Children age 6 and older weighing 20 to 40 kg: 250 mg PO b.i.d.; increase by 250 mg PO b.i.d. every 2 weeks to a maximum of 750 mg b.i.d. Adjunctive treatment for partial-onset seizures in patients with epilepsy Adults and adolescents age 16 and older: Initially, 500 mg PO or IV b.i.d. Increase dosage by 500 mg b.i.d., as needed, for seizure control at 2-week intervals to maximum of 1,500 mg b.i.d. Children ages 4 to younger than 16: Initially, 10 mg/kg PO or IV b.i.d. Increase dose by 10 mg/kg b.i.d. at 2-week intervals to recommended dose of 30 mg/kg b.i.d. If patient can't tolerate this dose, reduce it. For children who weigh 20 kg or less, use the oral solution. Children ages 6 months to younger than 4 years: Initially, 10 mg/kg PO or IV b.i.d. Increase by 10 mg/kg b.i.d. at 2-week intervals to recommended dosage of 25 mg/kg b.i.d. Reduce dosage if patient can't tolerate total daily dose of 50 mg/kg. Children ages 1 month to 6 months: Initially, 7 mg/kg PO or IV b.i.d. Increase by 7 mg/kg b.i.d. at 2-week intervals to recommended dosage of 21 mg/kg b.i.d. Adjunctive treatment for partial-onset seizures in patients with epilepsy (Spritam) Adults and children age 4 and older weighing more than 40 kg: 500 mg PO b.i.d.; increase as needed and tolerated by 500 mg PO b.i.d. every 2 weeks to a maximum recommended dose of 1,500 mg b.i.d. Children age 4 and older weighing 20 to 40 kg: 250 mg PO b.i.d.; increase by 250 mg PO b.i.d. every 2 weeks to a maximum of 750 mg b.i.d. Adjunctive treatment for partial-onset seizures in patients with epilepsy (extended-release) Adults and children age 12 and older: Initially, 1,000 mg PO once daily. May adjust once-daily dosage in increments of 1,000 mg every 2 weeks to maximum recommended once-daily dose of 3,000 mg.

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- Dilute drug before giving. For adults and adolescents receiving adult dosages, dilute 500-mg, 1,000-mg, or 1,500-mg dose in 100 mL NSS, D5W, or lactated Ringer injection to maximum levetiracetam concentration of 15 mg/mL of diluted solution, and infuse within 4 hours over 15 minutes. For children and patients requiring a smaller volume, calculate the amount of diluent to not exceed a maximum levetiracetam concentration of 15 mg/mL of diluted solution; infuse within 4 hours over 15 minutes. Drug is compatible with diazepam, lorazepam, and valproate sodium for 4 hours at a controlled room temperature. Store premixed solution for infusion at 68° to 77° F (20° to 25° C); don't dilute. Store vials for injection at 77° F (25° C); excursions permitted to 59° to 86° F (15° to 30° C). Incompatibilities: Unknown with other drugs or antiepileptics besides diazepam, lorazepam, and valproate sodium. Consult a drug incompatibility reference for more information.

Adverse effects-CNS: asthenia, headache, somnolence, amnesia, anxiety, ataxia, depression, dizziness, emotional lability, hostility, nervousness, paresthesia, pain, vertigo, hypersomnia, irritability, insomnia, confusion, falls, sedation, abnormal gait, incoordination. EENT: diplopia, conjunctivitis, ear pain, rhinitis, sinusitis, nasal congestion, pharyngitis. GI: anorexia, vomiting, upper abdominal pain, diarrhea, constipation, gastroenteritis. Hematologic: leukopenia, neutropenia. Musculoskeletal: neck pain, joint sprain. Respiratory: cough. Skin: contusion. Other: infection, head injury, flulike symptoms

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Tell patient to seek medical attention for emerging or worsening depression, suicidal thoughts or behavior, or unusual changes in mood or behavior and to report such symptoms as anxiety, agitation, hostility, mania, and hypomania, which may be precursors to emerging suicidality
2. Inform patient that drug can be taken with or without food.
3. Tell patient not to chew, crush, or break tablets.
4. Teach patient how to use tablets for oral solution correctly.
5. Advise patient not to stop drug abruptly because seizure activity may increase.

Generic Name- levothyroxine

Pharmacology Classification- Thyroid hormone

Therapeutic Reason- Thyroid hormone replacement

Dose, Route Schedule- Capsules : 13 mcg, 25 mcg, 50 mcg, 75 mcg, 88 mcg, 100 mcg, 112 mcg, 125 mcg, 137 mcg, 150 mcg Powder for injection: 100 mcg, 200 mcg, 500 mcg Tablets: 25 mcg, 50 mcg, 75 mcg, 88 mcg, 100 mcg, 112 mcg, 125 mcg, 137 mcg, 150 mcg, 175 mcg, 200 mcg, 300 mcg

Adults: In otherwise healthy, nonelderly individuals who have been hypothyroid for only a short time (such as a few months), initiate drug at approximately 1.6 mcg/kg PO once daily. (See individual manufacturer's instructions.) Monitor TSH level and adjust dosage every 4 to 6 weeks in 12.5- to 25-mcg increments until patient is euthyroid and TSH level normalizes. Adults: For elderly patients or patients with underlying cardiac disease, initiate dose at 12.5 to 25 mcg PO daily. Adjust dosage every 6 to 8 weeks, if needed, until patient is euthyroid and TSH level normalizes. Children in whom growth and puberty are complete: 1.6 mcg/kg PO once daily. (See individual manufacturer's instructions.) Children older than age 12 in whom growth and puberty are incomplete: 2 to 3 mcg/kg PO daily. Children ages 6 to 12: 4 to 5 mcg/kg PO daily. Children ages 1 to 5: 5 to 6 mcg/kg PO daily. Children ages 6 months to 1 year: 6 to 8 mcg/kg PO daily. Children ages 3 to 6 months: 8 to 10 mcg/kg PO daily. Infants and neonates birth to age 3 months: 10 to 15 mcg/kg PO daily. In neonates at risk for cardiac failure, consider a lower initial dose, and increase every 4 to 6 weeks as needed. Children at risk for hyperactivity: Initiate at one-fourth the recommended full replacement dose, and increase weekly by one-fourth the full recommended replacement dose until the full recommended replacement dose is reached.

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-Reconstitute by adding 5 mL NSS injection only. Shake vial. Use immediately after reconstitution. Discard any unused portion. Incompatibilities: Don't mix or give with anything other than NSS injection

Adverse effects-CNS: insomnia, tremor, headache, fever, fatigue, anxiety, emotional lability. CV: tachycardia, palpitations, arrhythmias, angina pectoris, cardiac arrest, HTN, HF, MI. GI: diarrhea, vomiting, abdominal cramps. GU: menstrual irregularities. Metabolic: weight loss, increased appetite. Musculoskeletal: decreased bone density, muscle weakness, tremors.

Respiratory: dyspnea. Skin: allergic skin reactions, diaphoresis, hair loss. Other: heat intolerance, impaired fertility

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Contraindicated in patients hypersensitive to drug and in those with acute MI uncomplicated by hypothyroidism, untreated subclinical or overt thyrotoxicosis, or uncorrected adrenal insufficiency.
2. Tell patient using tablets to take them with plenty of water to avoid choking, gagging, or getting the pill stuck in throat.
3. Advise patient who has achieved stable response not to change brands.
4. Tell patient to report unusual bleeding and bruising or any other adverse reaction.
5. Advise patient not to take herbal products or OTC or other prescription drugs without first consulting prescriber.
6. Advise patient to tell prescriber about all medications, both OTC and prescription, and herbal products being taken.

Generic Name- Lidocaine

Pharmacology Classification- Local anesthetic

Therapeutic Reason- Analgesic

Antidysrhythmic

Dose, Route Schedule- Cream: 2% , 3%, 3.88%, 4% , 5% Gel: 2% , 5% Jelly: 2% Ointment: 5% Ophthalmic gel: 3.5% Patch: 5% Powder for injection: 0.5-mg single-use intradermal injection system Topical solution: 2%, 4% Topical spray: 0.5% Viscous oral solution: 2%, 4%

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-1-2.5 ml/kg/hr

Use 1-2% solution for IV bolus

Adverse effects- Monitor for toxicity

Assess for ECG changes, monitor for malignant hypothermia

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)- Monitor for therapeutic levels

1. Monitor as contraindicated for use in severe heart blocks
2. If mixed with epinephrine and use for numbing discuss pregnancy and use lidocaine without epinephrine.

Generic Name- Lispro insulin

Pharmacology Classification- antidiabetic

Therapeutic Reason- Inhalation powder (Afrezza): 4-unit, 8-unit, 12-unit single-use cartridges
Injection (aspart): 10-mL vials, 3-mL prefilled pens and cartridges
Injection (glulisine): 10-mL vials, 3-mL prefilled pens
Injection (lispro): 10-mL vials, 3-mL prefilled pens and cartridges

Dose, Route Schedule Adults and children age 2 and older (aspart), age 3 and older (lispro), age 4 and older (glulisine): For insulin aspart, initially, 0.2 to 0.6 unit/kg/day in divided doses subcut immediately (5 to 10 minutes) before a meal. Usual maintenance dose is 0.5 to 1 unit/kg/day subcut in divided doses. When continuous subcut infusion pump is used, follow health care provider recommendations when setting basal and mealtime infusion rates. Usual IV concentration is 0.05 to 1 unit/mL in NSS infused under close medical supervision. For insulin glulisine, usual maintenance dose is 0.5 to 1 unit/kg/day subcut in divided doses within 15 minutes before a meal or 20 minutes after starting a meal. When continuous subcut infusion pump is used, base initial dosing on total daily insulin dose of the previous regimen. Usual IV concentration is 0.05 to 1 unit/mL in NSS infused under close medical supervision. For lispro, usual maintenance dose is 0.5 to 1 unit/kg/day subcut in divided doses within 15 minutes before a meal or immediately after a meal. When continuous subcut infusion pump is used, follow health care provider recommendations when setting basal and mealtime infusion rates. Usual IV concentration is 0.1 to 1 unit/mL in NSS infused under close medical supervision.

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- Rapid-acting insulin may be administered IV with close monitoring of blood glucose and serum potassium levels under appropriate medical supervision. Flush IV tubing with priming infusion of 20 mL from insulin infusion whenever new IV tubing set is added to insulin infusion container, to avoid adsorption to IV tubing. Use NSS and polyvinyl chloride or polypropylene infusion bags for IV infusions. Always administer IV infusions using an infusion pump. **0.1 U/kg/h**

Adverse effects- CNS: headache, seizures, asthenia, fever, fatigue (inhalation), sensory disturbance. CV: HTN, peripheral edema. EENT: nasopharyngitis. GI: nausea, diarrhea. GU: UTI, dysmenorrhea. Metabolic: hypoglycemia, hypokalemia, weight gain. Musculoskeletal: myalgia. Respiratory: URI, cough; bronchospasm, throat pain or irritation, bronchitis, decreased pulmonary function (inhaled product). Skin: injection or infusion-site reactions, lipodystrophy, pruritus, rash. Other: allergic reactions, anaphylaxis, insulin antibody production, flu-like symptoms.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Use prefilled pens cautiously in patients with visual impairment who may rely on audible clicks to dial their dose.
2. Closely monitor patients at risk for DKA from acute illness or infection; consider changing from inhaled product to alternative route of insulin delivery.
3. Advise patient to keep a log of glucose levels.

4. Instruct patient on the long-term sequelae of diabetes if not managed properly. Instruct patient to carry identification or wear jewelry indicating that patient has diabetes

Generic Name- losartan

Pharmacology Classification-ARBs

Therapeutic Reason- antihypertensive

Dose, Route Schedule- Tablets: 25 mg, 50 mg, 100 mg

Children age 6 and older: 0.7 mg/kg (up to 50 mg) PO daily, adjusted as needed up to 1.4 mg/kg/day (maximum 100 mg).

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- No IV dose available

Adverse effects-Patients with HTN or left ventricular hypertrophy CNS: dizziness, asthenia, fatigue, headache, insomnia. CV: edema, chest pain. EENT: nasal congestion, sinusitis, pharyngitis, sinus disorder. GI: abdominal pain, nausea, diarrhea, dyspepsia. Musculoskeletal: muscle cramps, myalgia, back or leg pain. Respiratory: cough, URI. Other: angioedema. Patients with nephropathy CNS: asthenia, fatigue, fever, hypoesthesia. CV: chest pain, hypotension, orthostatic hypotension. EENT: cataract, sinusitis. GI: diarrhea, dyspepsia, gastritis, nausea. GU: UTI. Hematologic: anemia. Metabolic: hyperkalemia, hypoglycemia, hyponatremia, weight gain. Musculoskeletal: back pain, leg or knee pain, muscle weakness. Respiratory: cough, bronchitis. Skin: cellulitis. Other: flulike syndrome, diabetic vascular disease, angioedema, infection, trauma, diabetic neuropathy

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor patients who are also taking diuretics for symptomatic hypotension.
2. Regularly assess patient's renal function (via creatinine and BUN levels).
3. Monitor BP and pulse
4. Advise patient not to breastfeed while taking drug

Generic Name- Magnesium

Pharmacology Classification- electrolyte

Therapeutic Reason- Anticonvulsant, laxative, antacid

Dose, Route Schedule-Injectable: 4%, 8%, 50% in 2-, 10-, 20-, and 50-mL ampules, vials, and prefilled syringes Injection solution: 1% in D5W; 2% in D5W or NSS; 4% in water for injection, D5W, or NSS; 8% in water for injection, D5W, or NSS

Adjust-a-dose (for all indications): In severe renal impairment, reduce dosage and obtain frequent serum magnesium levels. Note: 1 g = 8.12 mEq of magnesium. Mild hypomagnesemia

Adults: 1 g IM every 6 hours for four doses, depending on magnesium level. Symptomatic severe hypomagnesemia, with magnesium level of 0.8 mEq/L or less Adults: 5 g IV in 1 L of D5W or NSS over 3 hours. Base subsequent doses on magnesium level. Magnesium supplementation in total parenteral nutrition (TPN) Adults: 8 to 24 mEq IV daily added to TPN solution. Infants: 2 to 10 mEq/day IV added to TPN solution. Seizures in preeclampsia or eclampsia Adults: Total initial dose is 10 to 14 g IV. To accomplish this, give 4 to 5 g IV in 250 mL of solution and simultaneously give up to 10 g IM (5 g or 10 mL of the undiluted 50% solution in each buttock). After initial IV dose, some clinicians administer 1 to 2 g/hour by constant IV infusion. Base subsequent doses on magnesium level; serum magnesium level of 6 mg/100 mL is considered optimal for seizure control. Don't exceed 40 g in a 24-hour period. Maximum dose in patients with severe renal insufficiency is 20 g/48 hours.

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- IV/IM • Store between 68° and 77° F (20° and 25° C). Protect from freezing. • Discard unused portion. IV Dilute concentration to concentrations of 20% or less. Inject bolus dose slowly at a rate of 150 mg/minute or less, or use infusion pump for continuous infusion to avoid respiratory or cardiac arrest. Maximum infusion rate is 150 mg/minute. Rapid drip causes feeling of heat. For severe hypomagnesemia, watch for respiratory depression and evidence of heart block. Respirations should be better than 16 breaths/minute before giving dose. Incompatibilities: Alcohol (in high concentrations); alkali carbonates, bicarbonates, and hydroxides; aminophylline; amiodarone; amphotericin B; barium; calcium chloride; calcium gluconate; cefuroxime; clindamycin; cyclosporine; dexamethasone sodium phosphate; diazepam; heavy metals; hydrocortisone sodium succinate; procaine; salicylates; soluble phosphates; strontium; tartrates. IM Undiluted 50% solutions may be given by deep IM injection to adults. Dilute solutions to 20% or less for use in children. **The rate of I.V. infusion should generally not exceed 150 mg/minute,**

Adverse effects- CNS: toxicity, weak or absent deep tendon reflexes, paralysis, drowsiness, stupor. CV: slow, weak pulse; arrhythmias; hypotension; circulatory collapse; flushing. GI: diarrhea. Metabolic: hypocalcemia. Respiratory: respiratory distress. Skin: diaphoresis. Other: hypothermia.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Contraindicated in patients with myocardial damage, heart block, or coma
2. Keep IV calcium available to reverse magnesium intoxication.
3. Check magnesium level after repeated doses. Monitor levels hourly in patients with severe hypomagnesemia. Normal plasma magnesium level is 1.5 to 2.5 mEq/L.
4. Tell patient about warning signs of high or low magnesium level. Encourage patient to report all adverse effects

Generic Name- Mannitol

Pharmacology Classification- Osmotic diuretics

Therapeutic Reason- Diuretics

Dose, Route Schedule-Injection: 5%, 10%, 15%, 20%, 25% Solution for irrigation: 5 g/100 mL

Oliguria Adults and children older than age 12: 50 to 100 g IV as a 20% solution over 90 minutes to several hours. To prevent or treat oliguria or acute renal failure Adults and children older than age 12: 50 to 100 g IV of a 5% to 25% solution. Determine exact concentration by fluid requirements. To reduce intraocular or intracranial pressure or cerebral edema Adults and children older than age 12: 1.5 to 2 g/kg as a 15%, 20%, or 25% IV solution over 30 to 60 minutes. For maximum IOP reduction before surgery, give 60 to 90 minutes preoperatively. Diuresis in drug intoxication Adults and children older than age 12: 5% to 25% solution continuously up to 200 g IV, while maintaining 100 to 500 mL urine output/hour and a positive fluid balance. Irrigating solution during transurethral surgical procedures Adults: Irrigate bladder with 2.5% to 5% solution

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-V Change IV administration apparatus every 24 hours. To redissolve crystallized solution (crystallization occurs at low temperatures or in concentrations higher than 15%), warm bottle or bag by appropriate means to approximately 140° F (60° C) with occasional shaking. Cool to body temperature before giving. Don't use solution with undissolved crystals. Give as intermittent or continuous infusion at prescribed rate, using an inline filter and an infusion pump. Don't give as direct injection. Don't use plastic container in series connections. Check patency at infusion site before and during administration. Monitor patient for signs and symptoms of infiltration; if it occurs, watch for inflammation, edema, and necrosis. Incompatibilities: Blood products and other drugs. **1.5 to 2 g/kg bw (10 to 13 ml/kg bw)**, infused over 30 to 60 minutes

Adverse effects- CNS: seizures, dizziness, headache, fever. CV: edema, thrombophlebitis, hypotension, HTN, HF, tachycardia, angina pectoris, vascular overload. EENT: blurred vision, rhinitis. GI: thirst, dry mouth, nausea, vomiting, diarrhea. GU: urine retention. Metabolic: dehydration, fluid and electrolyte imbalance. Respiratory: pulmonary edema. Skin: local pain, urticaria, injection-site reaction (infection, phlebitis, venous thrombosis). Other: chills, thirst.

Drug-drug. Lithium: May increase urinary excretion of lithium. Monitor lithium level closely. Nephrotoxic drugs (aminoglycosides, cyclosporine): May increase risk of toxicity and renal failure. Avoid use together. Opioid analgesics: May increase diuretic-related adverse effects and diminish therapeutic effects of diuretics. Monitor therapy. Sodium phosphates: May enhance nephrotoxic effect of sodium phosphates. Consider therapy modification. Tobramycin: Mannitol (systemic)

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Don't give electrolyte-free solutions with blood. If blood is given simultaneously, add at least 20 mEq of sodium chloride to each liter of drug solution to avoid pseudoagglutination.

2. Monitor intake and outputs
3. Report increasing oliguria

Generic Name- Meloxicam

Pharmacology Classification- NSAID

Therapeutic Reason- Antirheumatics

Dose, Route Schedule- Capsules: 5 mg, 10 mg Tablets: 7.5 mg, 15 mg Tablets (ODTs): 7.5 mg, 15 mg

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- Adjust-a-dose (for all indications): Use isn't recommended in patients with CrCl of less than 20 mL/minute as drug hasn't been studied in this population. If patient is receiving hemodialysis, give no more than 7.5 mg tablet/ODT or 5-mg capsule once daily. To relieve signs and symptoms of osteoarthritis or RA Adults: 7.5 mg PO once daily. May increase as needed to maximum dosage of 15 mg daily. For osteoarthritis only, give 5 mg Vivlodex PO once daily. May increase to 10 mg in patients who require additional analgesia. Use lowest effective dose for shortest duration consistent with individual patient treatment goals. To relieve signs and symptoms of pauciarticular or polyarticular course juvenile RA Children weighing 60 kg or more: 7.5 mg PO daily.

Adverse effects- Increased risks for peptic ulcers.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor for GI upset.
2. Contraindicated for CABG procedures
3. Discuss stopping medications prior to procedures
4. Do not take with other NSAID therapies

Generic Name- memetamine

Pharmacology Classification- N-methyl-D-aspartate receptor antagonists

Therapeutic Reason- Anti- Alzheimer drug

Dose, Route Schedule- Capsules (extended-release) : 7 mg, 14 mg, 21 mg, 28 mg Oral solution: 2 mg/mL Tablets: 5 mg, 10 mg

Adults: Initially, 5 mg PO once daily. Increase by 5 mg/day every week until target dose is reached. Maximum, 10 mg PO b.i.d. Doses greater than 5 mg should be given in two divided doses. Or, for extended-release capsules, initial dose is 7 mg PO once daily. Increase as tolerated

by 7-mg increments each week to target dosage of 28 mg PO once daily. To convert from immediate-release to extended-release form: Patients taking immediate-release 10 mg b.i.d. may switch to extended-release 28 mg once daily the day following the last immediate-release tablet. Patients with severe renal failure taking immediate-release 5 mg b.i.d. may switch to extended-release 14 mg once daily the day following the last immediate-release tablet. Adjust-a-dose: For immediate-release form, no dosage adjustment is recommended for patients with mild to moderate renal impairment; target dosage of 5 mg b.i.d. is recommended for patients with severe renal impairment (CrCl of 5 to 29 mL/minute). For extended-release form, no dosage adjustment is recommended for patients with mild to moderate renal impairment; a target dosage of 14 mg/day is recommended for patients with severe renal impairment (CrCl of 5 to 29 mL/minute).

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- No IV form

Adverse effects-CNS: aggressiveness, agitation, anxiety, ataxia, confusion, depression, dizziness, fatigue, hallucinations, headache, hypokinesia, insomnia, pain, somnolence, syncope, vertigo, drowsiness. CV: HF, edema, HTN, hypotension. EENT: cataracts, conjunctivitis. GI: anorexia, constipation, diarrhea, nausea, vomiting, abdominal pain. GU: incontinence, urinary frequency. Hematologic: anemia. Metabolic: weight loss or gain. Musculoskeletal: arthralgia, back pain. Respiratory: bronchitis, coughing, dyspnea, flulike symptoms, pneumonia, URI. Skin: rash. Other: abnormal gait, falls, injury, flulike symptoms.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Use cautiously in patients who may have an increased urine pH (from drugs, diet, renal tubular acidosis, or severe UTI)
2. Explain that drug doesn't cure Alzheimer disease but may aid patient to maintain function for a longer period of time.
3. Tell patient or caregiver to report adverse effects.
4. Urge patient to avoid alcohol during treatment.
5. To avoid possible interactions, advise patient not to take herbal or OTC products without consulting prescriber.

Generic Name- meropenem

Pharmacology Classification- Carbapenems

Therapeutic Reason- antibiotics

Dose, Route Schedule- Powder for injection: 500 mg, 1 g

Dose: Adults and children weighing more than 50 kg: 500 mg IV every 8 hours. Children age 3 months and older weighing 50 kg or less: 10 mg/kg IV every 8 hours; maximum dose is 500 mg IV every 8 hours.

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-Use freshly prepared solutions of drug immediately whenever possible. Stability of drug varies with form of drug used (injection vial, infusion vial, or ADD-Vantage container). For bolus, add 10 mL of sterile water for injection to 500-mg vial or 20 mL to 1-g vial. Shake to dissolve, and let stand until clear. Give over 3 to 5 minutes. May be stored for up to 3 hours at up to 77° F (25° C) or for 13 hours at up to 41° F (5° C). For infusion, an infusion vial (500 mg/100 mL or 1 g/100 mL) may be directly reconstituted with a compatible infusion fluid. Or, an injection vial may be reconstituted and the resulting solution added to an IV container and further diluted with an appropriate infusion fluid. Don't use ADD-Vantage vials for this purpose. Give over 15 to 30 minutes. Solutions prepared with NSS at 1 to 20 mg/mL may be stored for 1 hour at up to 77° F (25° C) or 15 hours at up to 41° F (5° C); use solutions prepared with D5W immediately. 100ml/hour

Adverse effects-CNS: headache. CV: phlebitis, thrombophlebitis, peripheral vascular disorder. EENT: oral candidiasis, pharyngitis. GI: CDAD, constipation, diarrhea, glossitis, nausea, vomiting. GU: hematuria. Hematologic: anemia. Hepatic: hyperbilirubinemia. Respiratory: apnea, pneumonia. Skin: injection-site inflammation, pruritus, rash. Other: anaphylaxis, sepsis, hypersensitivity reactions, inflammation, pain

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor for seizures
2. Advise patient to report loose stools to prescriber.
3. Monitor renal and kidney function
4. Monitor for allergic reaction if suspected stop the medication.

Generic Name- metformin

Pharmacology Classification- Biguanides

Therapeutic Reason- antidiabetics

Dose, Route Schedule-Oral solution: 500 mg/5 mL Tablets: 500 mg, 850 mg, 1,000 mg Tablets (extended-release) : 500 mg, 750 mg, 1,000 mg

Obtain patient's eGFR before starting drug. Contraindicated in patients with eGFR below 30 mL/minute/1.73 m². Starting drug in patients with eGFR between 30 and 45 mL/minute/1.73 m² isn't recommended. If eGFR falls below 45 mL/minute/1.73 m² in patients taking drug, assess benefits and risks of continuing treatment. Discontinue if eGFR falls below 30 mL/minute/1.73 m². Obtain eGFR at least annually in all patients taking drug. In patients at increased risk for development of renal impairment such as the elderly, assess renal function more frequently.

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- No IV forms available

Adverse effects-CNS: asthenia, headache, dizziness, chills, light-headedness. CV: chest discomfort, palpitations. EENT: rhinitis. GI: diarrhea, nausea, vomiting, abdominal bloating, flatulence, anorexia, taste disorder, abnormal stools, constipation, dyspepsia, weight loss. Metabolic: hypoglycemia. Musculoskeletal: myalgia, limb pain. Respiratory: URI. Skin: flushing, nail disorder, diaphoresis. Other: accidental injury, infection

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Not indicated for use in patients with type 1 diabetes mellitus or diabetic ketoacidosis.
2. Monitor patient's glucose level regularly to evaluate effectiveness of therapy. Notify prescriber if glucose level increases despite therapy
3. Tell patient that inactive ingredients may be eliminated in the stool as a soft mass resembling the original tablet.
4. Advise patient not to take other drugs, including OTC drugs, without first checking with prescriber.

Generic Name- Methotrexate

Pharmacology Classification- Folate antagonists

Therapeutic Reason- Antineoplastics

Dose, Route Schedule- Autoinjector: 7.5 mg/0.15 mL, 7.5 mg/0.75 mL , 10 mg/mL , 10 mg/0.2 mL, 10 mg/0.4 mL, 12.5 mg/0.25 mL, 12.5 mg/0.4 mL, 15 mg/1.5 mL , 15 mg/0.3 mL, 15 mg/0.4 mL, 17.5 mg/0.35 mL, 17.5 mg/0.4 mL, 20 mg/0.4 mL, 22.5 mg/0.4 mL, 22.5 mg/0.45 mL, 25 mg/0.4 mL, 25 mg/0.5 mL, 30 mg/0.6 mL Injection: 25 mg/mL preservative-free vials; 25 mg/mL in 2-mL and 10-mL vials containing benzyl alcohol Lyophilized powder: 1,000-mg preservative-free vials Oral solution: 2.5 mg/mL Tablets: 2.5 mg, 5 mg, 7.5 mg, 10 mg, 15 mg

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- IV Preparing and giving parenteral drug may be mutagenic, teratogenic, or carcinogenic. Follow facility policy to reduce risks. Dilution of drug depends on product, and infusion guidelines vary, depending on dose. Reconstitute 20-mg vial to a concentration no greater than 25 mg/mL. Reconstitute 1- g vial with 19.4 mL of diluent to obtain a concentration of 50 mg/mL. If giving infusion, dilute total dose in D5W. Reconstitute solutions without preservatives with NSS or D5W immediately before use, and discard unused drug. For methotrexate therapy with leucovorin rescue, patients should be well hydrated. Administer 1 L/m² of IV fluids over 6 hours before initiation of methotrexate infusion. Continue hydration at 125 mL/m²/hour during the methotrexate infusion and for 2 days after infusion has been completed. Incompatibilities: None listed by manufacturer. Consult a drug incompatibility reference for more information.

Adults: 15 to 30 mg PO or IM daily for 5 days. Repeat after 1 or more weeks, based on response or toxicity. Number of courses is three to maximum of five. Acute lymphocytic leukemia (except Otrexup, Rasuvo) Adults and children: 3.3 mg/m² daily PO (tablets), IV, or IM with 60 mg/m² prednisone daily for 4 to 6 weeks or until remission occurs; then 30 mg/m² PO or IM weekly in two divided doses or 2.5 mg/kg IV every 14 days. Or, for oral solution use in children, give 20 mg/m² once weekly. Meningeal leukemia (except Otrexup, Rasuvo) Adults and children age 3 and older: 12 mg intrathecally every 2 to 5 days until CSF is normal. Children ages 2 to younger than 3: 10 mg intrathecally every 2 to 5 days. Children ages 1 to younger than 2: 8 mg intrathecally every 2 to 5 days. Children younger than age 1: 6 mg intrathecally every 2 to 5 days. Lymphoma (Burkitt tumor stage I, II) (except Otrexup, Rasuvo) Adults: 10 to 25 mg PO daily for 4 to 8 days, with 7- to 10-day rest intervals; commonly given with other agents. Lymphosarcoma (stage III) (except Otrexup, Rasuvo) Adults: 0.625 to 2.5 mg/kg daily PO, IM, or IV; commonly given with other agents. Osteosarcoma (except Otrexup, Rasuvo) Adults: Initially, 12 g/m² IV (maximum dose, 20 g) as 4-hour infusion. If dose isn't sufficient to produce peak serum methotrexate concentration of 1,000 mcM (10–3 mol/L), may increase subsequent doses to 15 g/m² IV, as 4-hour IV infusion at postoperative weeks 4, 5, 6, 7, 11, 12, 15, 16, 29, 30, 44, and 45. Give with leucovorin, 15 mg PO every 6 hours for 10 doses, beginning 24 hours after start of methotrexate infusion. Mycosis fungoides (except Otrexup, Rasuvo) Adults: 5 to 50 mg PO or IM once weekly; if poor response, may increase to 15 to 37.5 mg IM twice weekly. Psoriasis Adults: 10 to 25 mg PO, IM, IV, or subcut as single weekly dose; or 2.5 to 5 mg PO every 12 hours for three doses weekly. Dosage shouldn't exceed 30 mg/week. RA Adults: Initially, 7.5 mg PO, IM, or subcut weekly, either in single dose or divided as 2.5 mg PO every 12 hours for three doses once weekly. Dosage may be gradually increased to maximum of 20 mg weekly. Polyarticular course, juvenile RA Children and adolescents age 2 to 16: 10 mg/m² PO, IM, or subcut once weekly. Or, 20 to 30 mg/m²/week IM or subcut. Crohn disease Adults: 25 mg IM or subcut once weekly; may reduce to 15 mg once weekly if steroidfree remission is maintained for 4 months.

Adverse effects- CNS: arachnoiditis within hours of intrathecal use, subacute neurotoxicity possibly beginning a few weeks later, demyelination, malaise, fatigue, dizziness, aphasia, hemiparesis, fever. CV: thromboembolic events, chest pain, hypotension, pericardial effusion, pericarditis. EENT: pharyngitis, blurred vision. GI: gingivitis, stomatitis, diarrhea, GI ulceration, GI bleeding, enteritis, nausea, vomiting. GU: nephropathy, tubular necrosis, renal failure, menstrual dysfunction, abortion, cystitis. Hematologic: leukopenia, thrombocytopenia. Hepatic: acute toxicity, chronic toxicity, including cirrhosis, hepatic fibrosis. Metabolic: diabetes, hyperuricemia. Musculoskeletal: arthralgia, myalgia, osteoporosis in children on long-term therapy. Respiratory: pulmonary interstitial infiltrates, pneumonitis, PE. Skin: urticaria, pruritus, hyperpigmentation, erythematous rashes, ecchymoses, rash, photosensitivity reactions, alopecia, acne, psoriatic lesions aggravated by exposure to sun. Other: chills, reduced resistance to infection, septicemia, sudden death.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Contraindicated in patients hypersensitive to drug and in those with psoriasis or RA who also have alcoholism, alcoholic liver, chronic liver disease, immunodeficiency syndromes, or blood dyscrasias.
2. Advise patient to watch for signs and symptoms of infection (fever, sore throat, fatigue) and bleeding (easy bruising, nosebleeds, bleeding gums, tarry stools). Tell patient to take temperature daily
3. Teach and encourage diligent mouth care to reduce risk of superinfection in the mouth
4. Tell patient to use highly protective sunblock when exposed to sunlight

Generic Name- Methylprednisone

Pharmacology Classification- Glucocorticoids

Therapeutic Reason- Corticosteroids

Dose, Route Schedule- methylprednisolone Tablets: 2 mg, 4 mg, 8 mg, 16 mg, 32 mg
methylprednisolone acetate Injection (suspension): 20 mg/mL, 40 mg/mL, 80 mg/mL
methylprednisolone sodium succinate Injection: 40-mg vial, 125-mg vial, 500-mg vial, 1,000-mg vial, 2,000-mg vial

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- Use only methylprednisolone sodium succinate, never the acetate form. Reconstitute according to manufacturer's directions using supplied diluent, or use bacteriostatic water for injection with benzyl alcohol. Alert: Don't use formulations containing benzyl alcohol in neonates, which can cause potentially fatal toxicity. Compatible solutions include D5W, NSS, and dextrose 5% in NSS. For direct injection, inject diluted drug into vein or free-flowing compatible IV solution over at least 1 minute. For IV infusion, dilute solution according to manufacturer's instructions and give over prescribed duration. For doses greater than 0.5 g, give IV over at least 30 to 60 minutes to prevent arrhythmias and circulatory collapse. Recommended infusion rate is giving over at least 30 minutes. Discard reconstituted solution after 48 hours. Incompatibilities: None listed by manufacturer. Consult a drug incompatibility reference for more information.

Adverse effects- CNS: euphoria, insomnia, psychotic behavior, pseudotumor cerebri, vertigo, headache, depression, personality changes, paresthesia, seizures, malaise, emotional lability, insomnia. CV: arrhythmias, HF, cardiomyopathy, HTN, bradycardia, tachycardia, syncope, myocardial rupture after MI, edema, thrombophlebitis, thromboembolism, cardiac arrest, CV collapse. EENT: cataracts, glaucoma, IOP, exophthalmoses, rhinitis. GI: peptic ulceration, GI irritation, increased appetite, pancreatitis, nausea, vomiting. GU: menstrual irregularities. Metabolic: hypokalemia, hyperglycemia, sodium and water retention, carbohydrate intolerance, hypercholesterolemia, hypocalcemia. Musculoskeletal: growth suppression in children, muscle weakness, osteoporosis, tendon rupture, aseptic necrosis. Respiratory: pulmonary edema. Skin: hirsutism, delayed wound healing, acne, skin eruptions, cutaneous and subcutaneous atrophy.

Other: cushingoid state, susceptibility to infections, acute adrenal insufficiency after increased stress or abrupt withdrawal after long-term therapy, hypersensitivity reactions.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Administer in the muscle with IM administration to avoid epidermal depression and atrophy. Rotate injection sites.
2. Teach patient signs and symptoms of early adrenal insufficiency: fatigue, muscle weakness, joint pain, fever, anorexia, nausea, shortness of breath, dizziness, and fainting
3. Tapered dose to stop medication is advised and to reduce withdrawal symptoms
4. Monitor for elevated glucose levels

Generic Name- Metronidazole

Pharmacology Classification- Nitroimidazoles

Therapeutic Reason- Antibacterial

Dose, Route Schedule- Topical cream: 0.75%, 1% Topical gel: 0.75%, 1% Topical lotion: 0.75%
Vaginal gel: 0.75%, 1.3%

Inflammatory papules and pustules of acne rosacea Adults: If using a 0.75% preparation, apply thin film to affected area b.i.d., morning and evening. If using a 1% preparation, apply thin film to affected area once daily. After response is seen (usually within 3 weeks), adjust frequency and duration of therapy. Bacterial vaginosis Adults: One applicatorful of 0.75% (approximately 37.5 mg) vaginally daily or b.i.d. for 5 days. For once-daily use, give at bedtime. Or, one applicatorful (approximately 65 mg) of 1.3% vaginal gel intravaginally once as a single dose at bedtime

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- NS 100ml/hr

Adverse effects-CNS: headache. CV: HTN. GU: UTI. Skin: transient redness, dryness, mild burning, stinging, contact dermatitis, pruritus, rash. Vaginal form CNS: headache, dizziness, depression. GI: cramps, nausea, loose stools, metallic or bad taste in mouth, pain, vomiting, diarrhea. GU: cervicitis, vaginitis, perineal and vulvovaginal itching, vaginal burning, vaginal discharge, pelvic discomfort. Skin: transient redness, dryness, mild burning, stinging. Other: overgrowth of nonsusceptible organisms

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Instruct patient to avoid use of topical gel around eyes.
2. Advise patient to clean area thoroughly before use and to wait 15 to 20 minutes after cleaning skin before applying drug to minimize risk of local irritation. Cosmetics may be used 5 minutes after medication has dried.
3. If local reactions occur, advise patient to apply drug less frequently or stop using it and notify prescriber.
4. Advise patient to avoid sexual intercourse while using vaginal preparation.

5. Caution patient to avoid alcohol while being treated with vaginal preparation.

Generic Name- nifedipine

Pharmacology Classification- Calcium channel blockers

Therapeutic Reason- Antihypertensives, antianginals

Dose, Route Schedule- Capsules: 5 mg, 10 mg, 20 mg Tablets (extended-release) : 20 mg, 30 mg, 60 mg, Initially, 10 mg short-acting capsule PO t.i.d. Usual effective dosage range is 10 to 20 mg t.i.d. Some patients may require up to 30 mg q.i.d. Maximum daily dose is 180 mg/day. Adjust dosage over 7 to 14 days to evaluate response. Or, 30 to 60 mg (extended-release tablets, except Adalat CC) PO once daily. Maximum daily dose is 120 mg. Adjust dosage over 7 to 14 days to evaluate response. Use doses of more than 90 mg cautiously and only when clinically warranted. 0 mg

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- No IV drug available

Adverse effects- CNS: dizziness, light-headedness, giddiness, headache, weakness, nervousness, mood changes, shakiness, sleep disturbances, fever. CV: flushing, heat sensation, peripheral edema, palpitations, transient hypotension. EENT: nasal congestion, sore throat, blurred vision. GI: nausea, heartburn, diarrhea, constipation, cramps, flatulence. Musculoskeletal: muscle cramps, tremor, inflammation, joint stiffness. Respiratory: dyspnea, cough, wheezing, chest congestion, shortness of breath. Skin: dermatitis, pruritus, urticaria, sweating. Other: difficulties in balance, chills, sexual difficulties.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor BP and HR regularly, especially in patients who take beta blockers or antihypertensives.
2. Watch for symptoms of HF.
3. Advise patient to avoid taking drug with grapefruit juice.
4. Tell patient to protect capsules from direct light and moisture and to store at room temperature.

Generic Name- Nitroglycerin

Pharmacology Classification- Nitrates

Therapeutic Reason- Vasodilators, antianginals

Dose, Route Schedule- Aerosol (translingual): 0.4 mg/metered spray Injection: 5 mg/mL, 100 mcg/mL, 200 mcg/mL, 400 mcg/mL Ointment: 0.4%, 2% Powder (SL): 400 mcg Tablets (SL): 0.3 mg (1/200 grain), 0.4 mg (1/150 grain), 0.6 mg (1/100 grain) Transdermal patch: 0.1 mg/hour, 0.2 mg/hour, 0.3 mg/hour, 0.4 mg/hour, 0.6 mg/hour, 0.8 mg/hour release rate

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-Dilute with D5W or NSS for injection. Concentration shouldn't exceed 400 mcg/mL. **0.25 to 0.5 mcg/kg/minute** continuous IV infusion

Adverse effects- CNS: headache, dizziness, syncope, weakness. CV: orthostatic hypotension, bradycardia, flushing, palpitations, peripheral edema. EENT: pharyngitis, rhinitis, SL burning. GI: nausea, vomiting, abdominal pain. Respiratory: dyspnea. Skin: contact dermatitis, rash. Other: hypersensitivity reactions.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor blood pressure
2. Monitor drug response
3. Wipe off past, remove patch prior to defibrillation
4. Take as prescribed, have accessible at all times

Generic Name- Pantoprazole

Pharmacology Classification- PPI

Therapeutic Reason- Antiulcer drugs

Dose, Route Schedule- injection: 40 mg/vial Suspension (delayed-release) : 40 mg Tablets (delayed-release) : 20 mg, 40 mg Tablets (enteric-coated) : 20 mg , 40 mg

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- injection: 40 mg/vial Suspension (delayed-release) : 40 mg Tablets (delayed-release) : 20 mg, 40 mg Tablets (enteric-coated) : 20 mg , 40 mg

Adverse effects- Safety and effectiveness of the IV form to start therapy for GERD are unknown. Reconstitute each vial with 10 mL of NSS. Compatible diluents for infusion include NSS, D5W, and lactated Ringer solution for injection. For patients with GERD, further dilute with 100 mL of diluent to yield 0.4 mg/mL. For patients with hypersecretion, combine two reconstituted vials and further dilute with 80 mL of diluent to a total volume of 100 mL, to yield 0.8 mg/mL. Infuse diluted solutions over 15 minutes at a rate of about 7 mL/minute. For a 2-minute infusion, give the reconstituted vials (final yield of about 4 mg/mL) over at least 2 minutes. Reconstituted 15-minute infusion (0.4 mg/mL) may be stored for up to 6 hours and the diluted solutions for up to 24 hours at room temperature. Reconstituted 2-minute solution (4 mg/mL) may be stored for up to 24 hours at room temperature before infusion. At 100ml/hour

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Instruct patient to take exactly as prescribed and at about the same time every day.
2. Advise patient that drug can be taken without regard to meals.
3. Tell patient to swallow tablet whole and not to crush, split, or chew it.

4. Tell patient that antacids don't affect drug absorption

Generic Name- phenazopyridine

Pharmacology Classification- Urinary analgesic

Therapeutic Reason- Non opioid analgesic

Dose, Route Schedule- Tablet 50mg, 100mg, 200 mg

Adults 200mg tid x 3 days

Children 4mg/kg tid x 3 days

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-NONE

Adverse effects- Hepatotoxicity

Contraindicated n glomerulonephritis

Observe for hemolytic anemia.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Educate over the change of color in urine
2. Stop administration once discomfort resolves
3. Take with food to avoid GI upset
4. Do not crush

Generic Name- phenobarbital

Pharmacology Classification- barbiturate

Therapeutic Reason- Anti convulsant/ sedative

Dose, Route Schedule-IV- PO adults >12 years 15-18 mg/kg max dose 20mg/kg

IV-PO children 5-12 years 4-6mg/kg/day

IV-PO 1-5yrs 6-8mg/kg/day in divided doses

Sedative 30-120mg/day in daults

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- Tablet 15, 30, 60, 100mg tablets

Injection 65mg/ml or 130mg/ml

Dilutant reconstitute with sterile water

Inject with 5% procaine

Adverse effects- Monitor respiratory depression.

Monitor for delirium

Side effects of severe bronchospasm

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. May lead to physical dependence
2. Assess LOC
3. Monitor serum folate
4. Evaluate serum levels

Generic Name- Phenytoin

Pharmacology Classification- Hydantoin derivatives

Therapeutic Reason- Anticonvulsants

Dose, Route Schedule- Oral suspension: 125 mg/5 mL* Tablets (chewable): 50 mg phenytoin sodium Injection: 50 mg/mL (46 mg base) phenytoin sodium (extended) Capsules (extended-release): 30 mg (27.6 mg base), 100 mg (92 mg base), 200 mg (184 mg base), 300 mg (276 mg base)

To control tonic-clonic (grand mal) and complex partial (temporal lobe) seizures Adults: Highly individualized. Initially, 100 mg (immediate-release, extended-release) PO t.i.d. Adjust dosage at no less than 7- to 10-day intervals until desired response is obtained. Usual range is 300 to 600 mg daily. If patient is stabilized on 100-mg extended-release capsules t.i.d., once-daily dosing with 300-mg extended-release capsules is possible as an alternative. Or, 125 mg oral solution t.i.d. in patients without previous treatment. May increase to 625 mg daily. Children: 5 mg/kg/day in two to three equally divided doses. Adjust dosage at no less than 7- to 10-day intervals. Usual maintenance dose range is 4 to 8 mg/kg daily. Maximum dose is 300 mg/day. To control tonic-clonic (grand mal) and complex partial (temporal lobe) seizures in patients requiring a loading dose Adults: Initially, 1 g (extended-release) PO divided into three doses, which are given at 2-hour intervals with careful monitoring. Begin maintenance dosage of 100 mg (extended-release) PO t.i.d. to q.i.d. 24 hours after loading dose. To prevent and treat seizures occurring during neurosurgery Adults: 100 to 200 mg IM every 4 hours during and after surgery. Status epilepticus Adults: Loading dose of 10 to 15 mg/kg IV (1 to 1.5 g may be needed) at a rate not exceeding 50 mg/minute; then maintenance dosage of 100 mg PO or IV every 6 to 8 hours. Children: Loading dose of 15 to 20 mg/kg IV, at a rate not exceeding 1 to 3 mg/kg/minute or 50 mg/minute, whichever is slower; then highly individualized maintenance dosages. Elderly patients: May need lower dosages

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-IV Clear tubing with NSS. Use only clear solution for injection. A slight yellow color is acceptable. To give as an infusion, dilute in NSS to a final concentration of phenytoin sodium in the solution of no less than 5 mg/mL. Begin infusion immediately after mixture has been prepared. Infusion must be completed within 1 to 4 hours. Infusion must begin within 1 hour after preparation and should run through an in-line filter. Check patency of catheter before giving. Monitor site for extravasation because it can cause severe tissue damage. Black Box Warning Drug must be administered slowly. In adults, don't exceed 50 mg/minute IV. In children, administer drug at a rate not exceeding 1 to 3 mg/kg/minute or 50 mg/minute, whichever is slower because of the risk of severe hypotension and cardiac arrhythmias. Follow each injection with injection of sterile NSS through the same needle or catheter. If possible, don't give by IV push into veins on back of hand to avoid purple glove syndrome. Inject into larger veins or central venous catheter, if available. Continuous monitoring of BP and ECG during IV administration is essential. Discard 4 hours after preparation. Don't refrigerate. Incompatibilities: Amikacin, aminophylline, amphotericin B, bretylium, cephalosporins, ciprofloxacin, D5W, diltiazem, dobutamine, enalaprilat, fat emulsions, hydromorphone, insulin (regular), levorphanol, lidocaine, lincomycin, meperidine, morphine sulfate, nitroglycerin, norepinephrine, other IV drugs or infusion solutions, pentobarbital sodium, potassium chloride, procaine, propofol, streptomycin, sufentanil citrate, theophylline, vitamin B complex with C. If giving as an infusion, don't mix drug with D5W because it will precipitate.

Adverse effects- CNS: ataxia, decreased coordination, mental confusion, slurred speech, dizziness, headache, insomnia, nervousness, twitching, peripheral neuropathy, vertigo. CV: bradycardia, periarteritis nodosa, hypotension, CV shock. EENT: diplopia, nystagmus, blurred vision, thickening of facial features. GI: gingival hyperplasia, nausea, vomiting, constipation. Hematologic: agranulocytosis, leukopenia, pancytopenia, thrombocytopenia, macrocythemia, megaloblastic anemia. Hepatic: toxic hepatitis. Metabolic: hyperglycemia. Musculoskeletal: osteomalacia. Skin: SJS, toxic epidermal necrolysis, bullous or purpuric dermatitis, discoloration of skin if given by IV push in back of hand, exfoliative dermatitis, hypertrichosis, inflammation at injection site, necrosis, pain, photosensitivity reactions, scarlatiniform or morbilliform rash. Other: lymphadenopathy, SLE.

Contraindicated in patients hypersensitive to hydantoin, in those taking delavirdine, and in those with a history of prior acute hepatotoxicity attributable to phenytoin. Parenteral phenytoin is also contraindicated in patients with sinus bradycardia, SA block, second- or third-degree AV block, or Adams-Stokes syndrome. Use cautiously in patients with hepatic dysfunction, hypotension, myocardial insufficiency, diabetes, or respiratory depression; in elderly or debilitated patients; and in those receiving other hydantoin derivatives. Elderly patients tend to metabolize drug slowly and may need reduced dosages. Dialyzable drug: Yes. Overdose S&S: Ataxia, dysarthria, nystagmus, hyperreflexia, lethargy, nausea, slurred speech, tremor, vomiting, coma, hypotension, circulatory and respiratory depression.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Closely monitor all patients for changes in behavior that may indicate worsening of suicidal thoughts or behavior or depression.
2. Drug may cause fetal harm, educate over the use of contraceptives
3. Advise patient to avoid driving and other potentially hazardous activities that require mental alertness until drug's CNS effects are known
4. Advise patient that drug may cause an increase in blood glucose levels

Generic Name- Potassium

Pharmacology Classification- Potassium salts

Therapeutic Reason- Potassium supplement

Dose, Route Schedule- Potassium supplements Capsules (extended-release) : 8 mEq, 10 mEq
Injection concentrate: 2 mEq/mL Injection for IV infusion: 0.1 mEq/mL, 0.2 mEq/mL, 0.4 mEq/mL
Oral liquid: 20 mEq/15 mL, 40 mEq/15 mL Powder for oral administration: 20 mEq/packet
Tablets (extended-release) : 8 mEq, 10 mEq, 15 mEq, 20 mEq

To prevent hypokalemia Adults: Initially, 16 to 24 mEq of potassium supplement PO daily, in divided doses. Adjust dosage, as needed, based on potassium levels. Patient should take no more than 20 or 25 mEq at a single dose. Hypokalemia Adults: 40 to 100 mEq PO in two to five divided doses daily. Patient should take no more than 20 or 25 mEq at a single dose. Maximum dose of diluted IV potassium chloride is 40 mEq/L at 10 mEq/hour. Don't exceed 200 mEq daily. Further doses are based on potassium levels and blood pH. Give IV potassium replacement only with monitoring of ECG and potassium level.

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-Use only when oral replacement isn't feasible or when hypokalemia is lifethreatening. Give by infusion only, never IV push or IM. Give slowly as dilute solution; rapid infusion may cause fatal hyperkalemia. Administer high concentrations (300 and 400 mEq/L) exclusively via a central route and infusion pump. If burning occurs during infusion, decrease rate. Drug is a vesicant/irritant (at concentrations greater than 0.1 mEq/mL); ensure proper needle or catheter placement before and during infusion. Avoid extravasation

Adverse effects-CNS: paresthesia of limbs, listlessness, confusion, weakness or heaviness of limbs, flaccid paralysis. CV: postinfusion phlebitis, arrhythmias, heart block, cardiac arrest, ECG changes, hypotension. GI: nausea, vomiting, abdominal pain, diarrhea. Metabolic: hyperkalemia. Respiratory: respiratory paralysis. Skin: injection-site reactions

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Teach patient how to prepare powders and how to take drug. Tell patient to take with or after meals with full glass of water or fruit juice to lessen GI distress.
2. Teach patient signs and symptoms of hyperkalemia, and tell patient to notify prescriber if they occur.

3. Tell patient to report discomfort at IV insertion site.
4. Warn patient not to use salt substitutes concurrently, except with prescriber's permission.
5. Tell patient not to be concerned if wax matrix appears in stool because the drug has already been absorbed.

Generic Name- Prednisone

Pharmacology Classification- Adrenocorticoids

Therapeutic Reason- Corticosteroids

Dose, Route Schedule- Oral solution: 5 mg/5 mL*, 5 mg/mL (concentrate) Tablets: 1 mg, 2.5 mg, 5 mg, 10 mg, 20 mg, 50 mg Tablets (delayed-release) : 1 mg, 2 mg, 5 mg

Severe inflammation, immunosuppression, endocrine disorders (immediate-release, delayed-release) Adults and children: Initially, 5 to 60 mg PO daily in single dose or as two to four divided doses. Maintenance dosage given daily or every other day (immediate-release only). Use lowest dose that will maintain adequate clinical response. Dosage must be individualized, and constant monitoring is needed. Acute exacerbations of MS (immediate-release) Adults: 200 mg PO daily for 7 days; then 80 mg PO every other day for 1 month. Treatment of metastatic castration-resistant prostate cancer (with abiraterone); hormone-refractory metastatic prostate cancer (with docetaxel); metastatic castration-resistant prostate cancer that has progressed during or after docetaxel-based therapy (with cabazitaxel) Adults: 5 mg b.i.d. (in combination with abiraterone) until disease progression or unacceptable toxicity occurs, or 10 mg once daily (in combination with cabazitaxel) for up to 10 cycles, or 5 mg b.i.d. (in combination with docetaxel) for up to 10 cycles. Multiple myeloma (previously untreated; transplant-ineligible) Adults age 65 and older or younger than age 65 and transplant-ineligible: 60 mg/m²/day for 4 days (days 1 to 4) every 6 weeks for nine cycles (dexamethasone 20 mg was substituted for prednisone on day 1 of each cycle), in combination with daratumumab, bortezomib, and melphalan. After cycle 9, daratumumab is continued as a single agent. Or, 60 mg/m²/day for 4 days (days 1 to 4) every 6 weeks (in combination with bortezomib and melphalan) for nine cycles, or 2 mg/kg/day for 4 days (days 1 to 4) every 6 weeks (in combination with melphalan and thalidomide) for 12 cycles. Adults age 65 or older: 2 mg/kg/day for 4 days (days 1 to 4) every 6 weeks (in combination with melphalan) for 12 cycles.

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- Unless contraindicated, give drug with food to reduce GI irritation. Patient may need another drug to prevent GI irritation. Solution may be diluted in juice or other flavored diluent or semisolid food such as applesauce before using. Make sure patient swallows delayed-release tablets whole and doesn't break, chew, or divide them. • Discard opened bottle of solution after 90 days. Administer only using the provided calibrated dropper- Doses up to 250 mg should be given intravenously over **a period of at least five minutes**

Adverse effects- CNS: euphoria, insomnia, psychotic behavior, pseudotumor cerebri, vertigo, headache, paresthesia, seizures. CV: HF, HTN, edema, arrhythmias, thrombophlebitis,

thromboembolism. EENT: cataracts, glaucoma. GI: peptic ulceration, pancreatitis, GI irritation, increased appetite, nausea, vomiting, abdominal distention. GU: menstrual irregularities, increased urine calcium level. Metabolic: hypokalemia, hyperglycemia, carbohydrate intolerance, hypercholesterolemia, hypocalcemia, weight gain. Musculoskeletal: growth suppression in children, muscle weakness, osteoporosis. Skin: hirsutism, delayed wound healing, acne, various skin eruptions. Other: cushingoid state, susceptibility to infections, acute adrenal insufficiency after increased stress or abrupt withdrawal after long-term therapy. After abrupt withdrawal: rebound inflammation, fatigue, weakness, arthralgia, fever, dizziness, lethargy, depression, fainting, orthostatic hypotension, dyspnea, anorexia, hypoglycemia. After prolonged use, sudden withdrawal may be fatal

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Use cautiously in patients with recent MI, GI ulcer, renal disease, HTN, osteoporosis, diabetes mellitus, seizures, hypothyroidism, cirrhosis, active hepatitis, diverticulitis, nonspecific ulcerative colitis, recent intestinal anastomoses, thromboembolic disorders, myasthenia gravis, HF, TB, ocular herpes simplex, and psychiatric disturbances.
2. Patient with diabetes may need increased insulin; monitor glucose level
3. Tell patient not to stop drug abruptly or without prescriber's consent
4. Instruct patient to report infection, to avoid exposure to infections, and to contact prescriber if exposure occurs

Generic Name- Promethazine

Pharmacology Classification- Dopamine antagonists

Therapeutic Reason- Antiemetics

Dose, Route Schedule- Suppositories: 10 mg , 25 mg prochlorperazine edisylate Injection: 5 mg/ mL prochlorperazine maleate Tablets: 5 mg, 10 mg

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- Give undiluted or diluted in isotonic solution by slow IV injection or infusion at a rate not to exceed 5 mg/minute. Don't exceed 10 mg in a single dose or total IV dose of 40 mg/day Rate not to exceed 25mg/20min

Adverse effects-CNS: drowsiness, sedation, confusion, sleepiness, dizziness, disorientation, extrapyramidal symptoms, insomnia. CV: hypotension, HTN. EENT: dry mouth, blurred vision. GI: nausea, vomiting. GU: urine retention. Hematologic: leukopenia, agranulocytosis, thrombocytopenia. Metabolic: hyperglycemia. Respiratory: respiratory depression, apnea. Skin: photosensitivity, rash, injection-site reaction

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Avoid alcohol
2. Educate over photosensitivity
3. Monitor for hypotension

4. Educate patient to report involuntary muscle movement

Generic Name- propranolol

Pharmacology Classification- Nonselective beta blockers

Therapeutic Reason- Antihypertensives

Dose, Route Schedule- Capsules (extended-release) : 60 mg, 80 mg, 120 mg, 160 mg Injection: 1 mg/mL Oral solution: 4 mg/mL, 4.28 mg/mL, 8 mg/mL Tablets: 10 mg, 20 mg, 40 mg, 60 mg, 80 mg--- Adults—180 to 240 milligrams (mg) per day, given in divided doses.

IVP dilutant solution, volume, rate of administration/IVPB- list concentration an Generic Name- Drug is compatible with D5W, half-NSS, NSS, and lactated Ringer solution.- **1 mg IV over 1 minute**

Adverse effects-CNS: fatigue, lethargy, fever, vivid dreams, hallucinations, mental depression, lightheadedness, dizziness, insomnia. CV: hypotension, bradycardia, HF, intensification of AV block, intermittent claudication. GI: abdominal cramping, constipation, diarrhea, nausea, vomiting. Hematologic: agranulocytosis. Respiratory: bronchospasm. Skin: rash.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor for signs mimicking hypoglycemia
2. Monitor for effective therapy
3. Take IR medication on empty stomach
4. May interfere with glaucoma screenings as it can reduce IOP

Generic Name- propofol

Pharmacology Classification- Phenol derivatives

Therapeutic Reason- Hypnotics

Dose, Route Schedule-Adults: Initially, 5 mcg/kg/minute (0.3 mg/kg/hour) IV for 5 minutes. Increments of 5 to 10 mcg/kg/minute (0.3 to 0.6 mg/kg/hour) over 5 to 10 minutes may be used until desired sedation is achieved. Maintenance rate, 5 to 50 mcg/kg/minute (0.3 to 3 mg/kg/hour)

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-Dilute only with D5W. Don't dilute to less than 2 mg/mL.

Adverse effects- CNS: dystonic or choreiform movement. CV: bradycardia, hypotension, HTN, decreased cardiac output. Metabolic: hyperlipidemia. Respiratory: apnea, respiratory acidosis. Skin: rash, pruritus.

1. **Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-**
Educate on green urine as a side effect
2. Continuous monitoring of Vital signs needed
3. Educate over decreased mental awareness

Educate over increased abnormal dreams

Generic Name- propylthiouracil

Pharmacology Classification-thioamides

Therapeutic Reason- Antithyroid medication agent

Dose, Route Schedule-Adults- 100mg q 8 hours up to 400mg per day

Children >10 years- 50-300mg/ day in 1 dose or 2 equal doses

Children 6-10 years 50-100mg/day given once daily or 2-4 equal doses

Available in 50 and 100mg tablets

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-None

Adverse effects- Monitor lab work.

Monitor for headache, drowsiness vertigo and edema.

Observe for anaphylaxis.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Monitor for thyrotoxicosis
2. Do not take with food
3. Monitor weight 2-3 times weekly
4. Educate for symptoms of hypothyroidism,

Generic Name- raloxifene

Pharmacology Classification- Selective estrogen receptor modulators

Therapeutic Reason- Antiosteoporotics

Dose, Route Schedule- Tablets: 60 mg

Postmenopausal women: 60 mg PO once daily

.IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-NONE

Adverse effects-CNS: depression, insomnia, fever, migraine. CV: chest pain, peripheral edema, varicose veins, syncope, thromboembolism. EENT: sinusitis, pharyngitis, laryngitis. GI: nausea, diarrhea, dyspepsia, vomiting, flatulence, gastroenteritis, abdominal pain. GU: vaginitis, UTI, cystitis, leukorrhea, endometrial disorder, vaginal bleeding. Metabolic: weight gain. Musculoskeletal: arthralgia, myalgia, arthritis, leg cramps, muscle spasms. Respiratory: increased cough, pneumonia, bronchitis. Skin: rash, diaphoresis. Other: infection, flulike syndrome, hot flashes.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Safety of use with systemic estrogens and use in premenopausal women haven't been established.
2. Contraindicated during pregnancy and in women who may become pregnant; drug may cause fetal harm. If drug is used during pregnancy or if patient becomes pregnant during therapy, apprise her of potential hazard to the fetus. Contraindicated in breastfeeding women.
3. Tell patient that drug may be taken without regard for food.

Generic Name- Ranitidine

Pharmacology Classification- H₂-receptor antagonists

Therapeutic Reason- antiulcer

Dose, Route Schedule- Capsules: 150 mg, 300 mg Injection: 25 mg/mL Syrup: 15 mg/mL*
Tablets: 75 mg , 150 mg , 300 mg

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-To prepare IV injection, dilute 2 mL (50 mg) ranitidine with compatible IV solution to a total volume of 20 mL, and inject over at least 5 minutes. Compatible solutions include sterile water for injection, NSS for injection, D5W, and lactated Ringer injection. To give drug by intermittent IV infusion, dilute 50 mg (2 mL) in 100 mL compatible solution and infuse at a rate of 5 to 7 mL/minute. Infuse over 15 to 20 minutes. For continuous infusion to treat active duodenal or gastric ulcer, dilute 150 mg in 250 mL of D5W. For hypersecretory conditions such as Zollinger-Ellison syndrome, dilute with D5W or other compatible solution to no more than 2.5 mg/mL. Administer continuous IV infusion at 6.25 mg/hour. For patients with ZollingerEllison syndrome, administer at 1 mg/kg/hour. Rapid IV administration has been associated with bradycardia (rarely), particularly in patients predisposed to cardiac rhythm disturbances. Don't exceed recommended infusion rates. After dilution, solution is stable for 48 hours at room temperature. Store IV injection at 39° to 86° F (4° to 30° C).

Adverse effects- CNS: headache, malaise, vertigo. EENT: blurred vision. Hepatic: jaundice. Other: anaphylaxis, angioedema, burning and itching at injection site.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Assess patient for abdominal pain. Note presence of blood in emesis, stool, or gastric aspirate.
2. Instruct patient on proper use of OTC preparation, as indicated.
3. Remind patient to take once-daily prescription drug at bedtime for best results. Instruct patient to take without regard to meals because absorption isn't affected

Generic Name- sucralfate

Pharmacology Classification- GI protectant

Therapeutic Reason- Antiulcer drug

Dose, Route Schedule- Suspension: 1 g/10 mL Tablets: 1 g

Shake suspension well before pouring. • After administration, flush NG tube with water to ensure passage into stomach. • Give drug on an empty stomach 1 hour before meals.

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration-none

Adverse effects-Antacids: May decrease binding of drug to gastroduodenal mucosa, impairing effectiveness. Separate doses by 30 minutes. Cimetidine, digoxin, fosphenytoin, ketoconazole, phenytoin, quinidine, ranitidine, tetracycline, theophylline: May decrease absorption. Separate doses by at least 2 hours. Ciprofloxacin, levofloxacin, moxifloxacin, ofloxacin: May decrease absorption of these drugs, reducing anti-infective response. If use together can't be avoided, give at least 6 hours apart. Diclofenac: May decrease effectiveness of diclofenac. Monitor patient response. Warfarin: May decrease anticoagulant effect. Monitor effectiveness and adjust dosage as necessary

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Tell patient to take sucralfate on an empty stomach, 1 hour before each meal and at bedtime.
2. Instruct patient to continue prescribed regimen to ensure complete healing. Pain and other ulcer signs and symptoms may subside within first few weeks of therapy.
3. Urge patient to avoid cigarette smoking, which may increase gastric acid secretion and worsen disease.
4. Antacids may be used while taking drug, but separate doses by 30 minutes.

Generic Name- vecuronium

Pharmacology Classification- Neuromuscular blockers

Therapeutic Reason- Sedative for surgery, blocks acetylcholine receptors

Dose, Route Schedule-Load: 0.001 mg/kg/min IV starting 20 min post bolus recovery
Maintenance: 0.0008-0.0012 mg/kg/min- Dilute to a concentration of 1 mg/mL in D5W, **0.9% NaCl**,

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- An initial rate of **1 mcg/kg/min** is recommended, with the rate of the infusion adjusted thereafter to maintain a 90% suppression of twitch response. Average infusion rates may range from 0.8 to 1.2 mcg/kg/min

Dilute to a concentration of 1 mg/mL in D5W, **0.9% NaCl**,

Adverse effects-Erosion of gastric mucosa

Nursing Considerations

HIGH ALERT MEDICATION RESPIRATORY SUPPRESSION

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

Generic Name- warfarin

Pharmacology Classification- Coumadin derivatives

Therapeutic Reason- Anticoagulants

Dose, Route Schedule- Oral Tablets: 1 mg, 2 mg, 2.5 mg, 3 mg, 4 mg, 5 mg, 6 mg, 7.5 mg, 10 mg.. 2-10mg /day based on INR and therapeutic range

IVP dilutant solution, volume, rate of administration/IVPB- list concentration and rate of administration- Generic Name-

Adverse effects-: vasculitis. GI: abdominal pain, diarrhea, flatulence, bloating, nausea, taste perversion, vomiting. Hematologic: hemorrhage. Hepatic: hepatitis. Respiratory: tracheal or tracheobronchial calcification. Skin: alopecia, pruritus, rash, dermatitis, bullous eruptions. Other: chills, hypersensitivity or allergic reactions, including anaphylactic reactions and urticaria.

Nursing Assessment, Teaching, Interventions (Precautions and Contraindications)-

1. Drug can cause fetal harm.
2. Regularly inspect patient for bleeding gums, bruises on arms or legs, petechiae, nosebleeds, melena, tarry stools, hematuria, and hematemesis.
3. Tell patient to use electric razor when shaving and to use a soft toothbrush.
4. Tell patient to read food labels. Food, nutritional supplements, and multivitamins that contain vitamin K may impair anticoagulation

