

## Exam #5 Drug Cards

- 1) L-thyroxine sodium/ levothyroxine sodium- Thyroid hormone replacement
  - a. MOA- Replaces endogenous thyroid hormone, which may exert its physiologic effect by controlling DNA transcription and protein synthesis. Aids in myelination of nerves and development of synaptic process in the nervous system, regulates growth, and regulates differentiation and proliferation of stem cells.
  - b. TU: To treat hypothyroidism, and myxedema coma.
  - c. AE: Anxiety, Angina, hyperthyroidism, dyspnea
  - d. NC: Not to be used for treatment of obesity or for weight loss, Monitor PT who is receiving anticoagulants; may require a dosage adjustment and use caution when treating children to avoid over or under treatment.
- 2) Fortamet/ metformin hydrochloride- Antidiabetic
  - a. MOA- May increase the number of insulin receptors on cell membranes and make more sensitive to insulin. Modestly decreases blood total cholesterol and triglyceride levels.
  - b. TU: To reduce glucose levels in T2DM.
  - c. AE- H/A. metallic taste, hypoglycemia, photosensitivity.
  - d. NC- Should never be given to patient with severe renal failure, give with food to decrease and slightly delay absorption, and withhold if patient becomes dehydrated or develops hypoxemia or sepsis.
- 3) Glucagen/ glucagon- antihypoglycemic, diagnosis aid adjustment
  - a. MOA: increases production of glycogen to glucose in the liver increasing blood glucose levels and GI smooth muscle relax.
  - b. TU- to provide emergency treatment of sever hypoglycemia.
  - c. AE- HTN, nausea/vomiting, bronchospasm, urticaria
  - d. NC- rouse patients as quickly as possible because prolonged hypoglycemia can cause cerebral damage, place unconscious patient on side before injecting to prevent aspiration, and expect to give IV dextrose if pt. does not respond to glucagon.
- 4) Humalog/ insulin lispro- Rapid acting insulin
  - a. Onset- 10- 20 minutes
  - b. Peak- 30-90 minutes
  - c. Duration- 2-5 hours
  - d. MOA- Allows for glucose to enter the cell to use for energy.
  - e. TU: To treat DM or hyperglycemia.
  - f. AE: hypoglycemia, confusion, coma, death.
  - g. NC: Patients with DM must monitor glucose levels 3-4 times a day to ensure proper dosage, educate client on how to, where and rotating injection sites, and monitor for hypoglycemia.
- 5) Humulin N/ intermediate acting insulin-
  - a. Onset- 1-3 hours
  - b. Peak- 4-12 hours
  - c. Duration- 12-24 hours

- d. Do not use if it contains precipitate that is clumped or granular or that clings to the side of the vial, role gently between palms to mix, and rarely produces BGL that is as close to normal as possible.
- 6) Lantus insulin glargine/ long acting insulin-
- a. Onset- 1-1.5 hours
  - b. Peak- None
  - c. Duration- 24-28 hours
  - d. Do not use if it contains precipitate that is clumped or granular or that clings to the side of the vial, do not mix with another insulin, and give at bedtime.
- 7) Glucotrol/ glipizide- antidiabetic
- a. MOA- stimulates insulin release from beta cells in the pancreas.
  - b. TU- to control BGL in T2DM.
  - c. AE: abnormal gait, arrhythmias, hypoglycemia, and darkened urine.
  - d. NC: monitor fasting BGL level to determine response to drug, risk of hypoglycemia is higher when giving to a debilitated or malnourished pt. and take before the first meal of the day.
- 8) Dilantin/ phenytoin- anticonvulsant
- a. MOA: limits the start and spread of seizure activity by regulating voltage dependent calcium and sodium channels in neurons stabilizing the neuron.
  - b. TU: to treat tonic-clonic seizures, status epilepticus and to prevent or treat seizures during neurosurgery.
  - c. AE: Ataxia, cardiac arrest, renal failure, and bullous.
  - d. NC: Give orally or IV, give with or after meal to avoid GI distress, and drug can cause tissue necrosis if IV is not properly maintained.
- 9) Depakene/ valproic acid – anticonvulsant
- a. MOA: may decrease seizure activity by blocking of GABA the most inhibitory neurotransmitter in the brain.
  - b. TU: To treat simple and complex absence seizures, manic phase of bipolar disorder, and prevent migraine H/A.
  - c. AE: Aggression, bradycardia, conjunctivitis, and abdominal pain.
  - d. NC: monitor liver enzymes as ordered, platelet count for sign of thrombocytopenia, and swallow capsule whole to prevent irritation to mouth and throat.
- 10) Neurontin/ gabapentin- anticonvulsant
- a. MOA: inhibits the rapid firing of neurons associated with seizures. Prevents painful stimuli and response.
  - b. TU: To manage postherpetic neuralgia, partial seizures, and RLS.
  - c. AE: Angina, abnormal vision, acute renal failure, and anaphylaxis.
  - d. NC: Capsule may be opened and mixed with pudding or fruit before admin, administer initial dose at bedtime, and give 2 hours after an antacid.
- 11) Flexeril/ cyclobenzaprine hydrochloride- skeletal muscle relaxant
- a. MOA: relieves muscle spasms without disrupting muscle function.
  - b. TU: To treat painful musculoskeletal conditions.

- c. AE: Asthenia, blurred vision, constipation, and libido changes.
- d. NC: use cautiously in patients with low seizure threshold, prevent fall if patient is confused, dizzy, or weak, and avoid alcohol and other CNS depressants during therapy.

12) Atamet/ levodopa, Lodosyn/ carbidopa- CNS agent

- a. MOA: converted to dopamine via the action of a naturally occurring enzyme called DOPA decarboxylase. This occurs both in the peripheral circulation and in the central nervous system after levodopa has crossed the blood brain barrier.
- b. TU: Levodopa and carbidopa are used in combination to treat the symptoms of Parkinson's disease or Parkinson-like symptoms (e.g., shakiness, stiffness, difficulty moving).
- c. AE: Dizziness, lightheadedness, nausea, vomiting, loss of appetite, trouble sleeping, unusual dreams, or headache may occur.
- d. NC: - Assess therapeutic response. - Monitoring for side-effects, including mental state assessment and blood pressure measurement. - Care should be taken to avoid confusion with the antihypertensive medication methylidopa. - Levodopa can cause false results in urine tests for sugar and ketones.

13) Excedrin/ ibuprofen- analgesic, anti-inflammatory, antipyretic

- a. MOA- Increases peripheral blood flow, causing vasodilation and encourages heat dissipation.
- b. TU: To relieve mild to moderate pain.
- c. AE: fluid retention, cystitis, blisters, bronchospasms.
- d. NC: 30-week gestation should not take, risk of heart failure increases with use of NSAIDs, and GI tract bleeding, perforation, and ulceration may occur without warning.

14) Aricept/ donepezil hydrochloride- antidementia

- a. MOA: raises acetylcholine level in the cerebral cortex improving cognition.
- b. TU: to treat mild to moderate Alzheimer's disease.
- c. AE: abnormal gait, abnormal ECG, hyperglycemia, and arthralgia.
- d. NC: use cautiously in patients with bladder obstruction, with asthma, COPD, or pulmonary disorders, and take safety precautions of pt. is dizzy, or has other ae CNS reactions.

15) Tegretol/ carbamazepine- analgesic, anticonvulsant

- a. MOA: prevents or halts seizures by closing or blocking sodium channels slowing nerve impulses.
- b. TU: to treat epilepsy, acute manic and mixed episodes bipolar disorder, and pain in trigeminal neuralgia.
- c. AE: chills, blurred vision, abdominal pain, and water intoxication.
- d. NC: may decrease bone marrow, monitor for suicidal thinking when therapy starts, and withdraw gradually to avoid risk of seizure.

16) Ativan/ lorazepam- amnestic/ antianxiety/ anticonvulsant/ sedative

- a. MOA: control emotional behavior, antianxiety effects, and interferes with generating seizures.

- b. TU: to treat anxiety, insomnia. Status epilepticus, and preop sedation.
- c. AE: amnesia, chest pain, and diaphoresis.
- d. NC: contraindicated parenteral form for premature infants, make sure to take antidepressants before therapy, and use extreme caution when using on older adults.

17) Keppra/ levetiracetam- anticonvulsant

- a. MOA: may protect against secondary generalized seizure activity by preventing coordination of epileptiform burst firing.
- b. TU: as adjunct to treat partial seizures, myoclonic seizures and tonic clonic.
- c. AE: increased BP/ amblyopia, anorexia, and acute renal injury.
- d. NC: children 20 kg or less should be given oral solution only, monitor for seizure activity during therapy, and monitor pregnant patient closely.