

Learning Activity 4.1.

Psychotropic Medication Quiz

1. What is the mechanism of action by which antidepressant medications achieve the desired effect (regardless of the different physiological processes by which this action is accomplished)?

Work to increase the concentration of norepinephrine, serotonin and or dopamine through interactions in the body. Medication affects physiologic function, behavior or experience.

2. For what must the nurse be on the alert with the client who is receiving antidepressant medication?

Serotonin syndrome is a potentially fatal syndrome of serotonin overstimulation with a rapid onset. We will need to be on alert for signs and symptoms like diarrhea, restlessness, agitation, hyperreflexia, and fluctuations in vital signs. Worsening later symptoms include myoclonus, seizures, hyperthermia, uncontrolled shivering, and muscle rigidity, and ultimately it can lead to delirium, coma, status epilepticus, cardiovascular collapse, and death.

3. As the nurse, when would you expect the client to begin showing signs of symptomatic relief after the initiation of antidepressant therapy? Antidepressant medication may take up to 2 weeks before signs of improvement and up to 4 weeks to achieve full therapeutic benefits.

4. Name an example of a tricyclic antidepressant _____ Diazepam _____.

Name an example of an MAOI _____ Selegiline _____.

Name an example of an SSRI _____ Escitalopram _____.

5. Describe some common side effects and nursing implications for tricyclic antidepressants.

High fever, convulsions, death, seizures, serotonin syndrome, severe hypertension, paralytic ileus, increase sedation.

6. _____ Hypertensive crisis _____ is the most potentially life-threatening adverse effect

of MAOIs. Symptoms for which the nurse and client must be on the alert include: _____ Severe

occipital headache, palpitations, nausea and vomiting, nuchal rigidity, fever, sweating, marked

increase in blood pressure, chest pain, and coma. What must be done to prevent these symptoms

from occurring? (Your answer must include some examples.) Do not stop taking medication

abruptly. If patient needs to stop taking medication advise that they slowly wean off it and start

taking lower doses. Monitor blood pressure regularly. Monitor blood pressure while in the hospital

as well as a few times a day to catch any changes.

7. Lithium carbonate is commonly prescribed for ____ Bipolar and Related Disorders _____. Many

times when these individuals are started on lithium therapy, the physician also orders an

antipsychotic medication. Why might he or she do so? He or she might prescribe an antipsychotics

to be helpful in initial treatment because of the immediate sedative effects.

8. There is a narrow margin between the therapeutic and toxic serum levels of lithium carbonate.

What is the therapeutic range? List the initial signs and symptoms of lithium toxicity. Typical

therapeutic range for lithium is from 0.6 to 1.2 mEq/L. Initial treatment, the levels should be closer

to 1.2 (the higher end of the range) and that in maintenance treatment the optimum levels should

be closer to 0.6. Symptoms include increasing nausea, anorexia, and diarrhea are common as well as CNS symptoms such as muscle weakness, drowsiness, ataxia, tremors, and muscle twitching. Even higher levels can lead to delirium, seizures, cardiovascular collapse, or death.

9. Describe some nursing implications for the client on lithium therapy.

Education about weight should be told to the patient. Low-calorie diets should be implemented importance and as well as not making large changes in sodium intake because of its impact on serum blood levels of lithium.

10. What is the mechanism of action for anxiolytics (with the exception of buspirone)?

Antianxiety agents are also called anxiolytics and are used to be referred to as minor tranquilizers.

Antianxiety drugs depress subcortical levels of the central nervous system (CNS), particularly the limbic system and reticular formation. They may potentiate the effects of the powerful inhibitory neurotransmitter GABA in the brain (inhibiting excitation) and thereby produce a calmative effect

11. What is the most commonly used group of anxiolytics? Give two examples. Most commonly used group would be benzodiazepines. Two examples would be clonazepam (Klonopin), diazepam (Valium)

12. What are the most common side effects of anxiolytics? Dependence (with long-term use)

Nausea, headache, dizziness, confusion, memory impairment and motor incoordination

13. What must the client on long-term anxiolytic therapy be instructed in order to prevent a potentially life-threatening situation? The client must be educated to not stop taking this medication abruptly as well as not combining this medication with opioids or cough medicine.

14. What is thought to be the mechanism of action that produces the desired effect with antipsychotic medications? Antipsychotic drugs block dopamine receptors.
15. Phenothiazines are an example of a “typical” antipsychotic group. Give two examples of phenothiazines and two examples of the newer “atypical” antipsychotics. Typical phenothiazines are phenothiazines and haloperidol. Atypical phenothiazines are brexpiprazole, clozapine,
16. Describe potential adverse hormonal effects associated with antipsychotic therapy. Some side effects are Blurred vision, dry mouth, decreased sweating, constipation, urinary retention, tachycardia
17. Agranulocytosis is a potentially very serious side effect of antipsychotic therapy. The nurse and client should be on the alert for symptoms of sore throat, fever, and malaise
18. Neuroleptic malignant syndrome (NMS) is a rare but potentially fatal side effect of antipsychotic drugs. List symptoms for which the nurse must be on the alert when assessing for NMS. The symptoms to look out for would be fever, muscle rigidity, diaphoresis, tachycardia, and deteriorating mental status

19. Describe the symptoms of extrapyramidal side effects associated with antipsychotic therapy.

The symptoms associated with antipsychotic therapy are Akathisia, Akinesia, Dystonia, Pseudoparkinsonism, Tardive dyskinesia

20. What is the classification of medication that is commonly prescribed for drug-induced extrapyramidal reactions? Give two examples of these medications.

Cogentin and Benadryl

21. Describe a potentially life-threatening situation that could occur in the client who abruptly withdraws from long-term use of CNS stimulants.

Abrupt stops increase the risk for suicide.

Homework Assignment Questions and Answers

Please read the chapter and answer the following questions:

1. Identify three priority safety concerns for each class of psychotropic medications.

Antianxiety Agents- Memory impairment, motor incoordination and dizziness

Antipsychotics (novel)- Sedation, orthostasis, blurred vision

Antipsychotics (phenothiazines and haloperidol)- Blurred vision, sedation and postural hypotension

MAO Inhibitors- Sedation, dizziness and hypertensive crisis

SSNRIs- Nausea, insomnia and tremors

SSRIs- Hypertensive crisis, serotonin syndrome and bleeding

Tricyclic antidepressants- Tachycardia, postural hypotension and sedation

2. Differentiate primary actions and side effects for traditional versus atypical antipsychotics.

Primary action for traditional antipsychotic would be strong D2 receptor blockade and weaker blockage of Ach, H1, α 1-adrenergic, and 5-HT2 receptors. Primary action for atypical antipsychotics are receptor antagonism of 5-HT1 and 5-HT2, D1–D5 (varies with drug), H1, α 1-adrenergic, muscarinic (ACh). Side effects for traditional are Blurred vision, dry mouth, decreased sweating, constipation, urinary retention and tachycardia. Atypical side effects are Sedation, weight gain (H1) Orthostasis and dizziness (α -adrenergic).

3. Differentiate primary actions and side effects for tricyclic versus SSRI antidepressants.

Primary actions for tricyclic antidepressants are Inhibit reuptake of serotonin (5-HT), Inhibit reuptake of norepinephrine (NE), Block NE (α 1) receptor, Block ACh receptor and Block histamine (H1) receptor.

Primary action for SSRI antidepressants is inhibit reuptake of serotonin (5-HT). Side effects for tricyclic's are sexual dysfunction (NE & 5-HT), sedation, weight gain (H1), dry mouth, constipation, blurred vision, urinary retention (ACh), postural hypotension and tachycardia (α 1). SSRI's side effects are Nausea, agitation, headache, sexual dysfunction.