

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)?

These drugs work to increase concentration of norepinephrine, serotonin and/or dopamine by blocking the reuptake of these neurotransmitters by the neurons.

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

Nurses should be on the alert for sudden or dramatic changes in mood.

3. As the nurse, when would you expect the client to begin showing signs of symptomatic relief after the initiation of antidepressant therapy?

The nurse should expect symptomatic relief within 2-4 weeks of treatment initiation.

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

Name an example of an MAOI _____ Phenyelzine _____.

Name an example of an SSRI _____ Duloxetine _____.

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

Some side effects include drowsiness, blurred vision, constipation, dry mouth, orthostatic hypotension.

Some nursing implications include monitoring blood pressure and heart rate before and during the start of therapy, monitor mental status and assess for suicidal tendencies.

6. ____Serotonin Syndrome_____ is the most potentially life-threatening adverse effect of MAOIs.

Symptoms for which the nurse and client must be on the alert include: ____diarrhea, restlessness, agitation, hyperreflexia, and fluctuations in vital signs, seizures, hyperthermia, uncontrollable shivering_____. What must be done to prevent these symptoms from occurring? (Your answer must include some examples.)

To prevent serotonin syndrome, a patient should avoid foods containing tyramine such as aged cheeses, red wines, and smoked and processed meats. They should also avoid taking interacting drugs such as SSRIs, duloxetine, dextromethorphan, St. John's Wort and ginkgo.

7. Lithium carbonate is commonly prescribed for ___bipolar mania____. Many times when these individuals are started on lithium therapy, the physician also orders an antipsychotic medication. Why might he or she do so?

An antipsychotic medication may be helpful in that their sedative effects are more immediate and may bring some relief from manic symptoms before lithium reaches therapeutic levels.

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.

The therapeutic range for lithium is 0.6-1.2 mEq/L.

Lithium Toxicity

- Vomiting
- diarrhea
- tremors
- sedation
- confusion
- delirium
- seizures
- cardiovascular collapse
- death

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

Instruct patients to report all medications herbals and caffeine use to doctor or nurse practitioner.

Encourage patient to maintain fluid intake at 2000 to 3000 milliliters per day and to avoid activities that cause excessive sweating or fluid loss.

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

Anti anxiety drugs depressed subcortical levels of the central nervous system. They may potentiate the effects of powerful inhibitory transmitter GABA in the brain

11. What is the most commonly used group of anxiolytics? Give two examples.

Benzodiazepines

12. What are the most common side effects of anxiolytics?

Drowsiness, confusion, lethargy

13. What must the client on long-term anxiolytic therapy be instructed in order to prevent a potentially life-threatening situation?

The patient should be advised to not abruptly stop the medication.

14. What is thought to be the mechanism of action that produces the desired effect with antipsychotic medications?

The mechanism of action works by blocking postsynaptic dopamine receptors in the basal ganglia hypothalamus limbic system brainstem and medulla.

15. Phenothiazines are an example of a “typical” antipsychotic group. Give two examples of phenothiazines and two examples of the newer “atypical” antipsychotics.

- Phenothiazines
 - Chlorpromazine
 - Compazine
- Atypicals
 - Risperidone

o Olanzapine

16. Describe potential adverse hormonal effects associated with antipsychotic therapy.

Some potential adverse hormonal effects are sexual related including decrease libido, retrograde ejaculation, gynecomastia, amenorrhea galactorrhea.

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.

- Fever
- Muscle rigidity
- Diaphoresis
- tachycardia

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

- Pseudoparkinsonism is tremor, shuffling gait, drooling, and rigidity.
- Akinesia is the absence or impairment in voluntary movement
- Akathisia is continuous restlessness and fidgeting.
- Dystonia is involuntary muscle spasms in the face, arms, legs, and neck and occurs most often in men and in people younger than 25 years old.

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

- Anticholinergics
 - o Benztropine
- Antihistamine
 - o diphenhydramine

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

CNS stimulants can cause serious withdrawal symptoms if they are stopped taken abruptly.

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

- *Psychomotor impairment*
- *Impaired cognitive function*
- *Paradoxical increase in anxiety*

Antipsychotics (novel)

- *Hyperglycemia*
- *Agranulocytosis*
- *Sedation*

Antipsychotics (phenothiazines and haloperidol)

- *Extrapyramidal Side effects*
- *Hypotension*
- *Prolonged QT interval*

MAO Inhibitors

- *Increased risk for suicide*
- *Sedation*
- *Photosensitivity*

SSNRIs

- **Blurred vision**
- **Constipation**
- **Sedation**

SSRIs

- **Hyponatremia**
- **Blurred vision**
- **Constipation**

Tricyclic antidepressants

- Blurred visions
- Tachycardia/arrhythmias
- Orthostatic hypotension

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

- Typical
 - Blocks postsynaptic dopamine receptors in the basal ganglia, hypothalamus, limbic system, brainstem, and medulla.
 - Side effects include mostly extrapyramidal side effects
- Atypical
 - Are weaker dopamine receptors antagonists than the conventional antipsychotics but are more potent antagonists of serotonin type 2A
 - Side effects include hyperglycemia , weight gain, and diabetes

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

- Tricyclic
 - Works by binding to various receptor sites that increases the availability of norepinephrine
 - The main side effect is increased risk of orthostatic hypotension.
- SSRI
 - Increases the availability of serotonin and dopamine
 - These medications can cause hyponatremia and blurred vision.