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)?

   Antidepressant medications achieve their desired effect by blocking the reuptake of serotonin and/or norepinephrine.

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

   A nurse must be on the look out for a patient's mental status, and any suicidal tendencies or ideations.

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

   After initiation of antidepressant therapy it may take several weeks for signs and symptoms to improve based on dosage and severity of symptoms.

4. Name an example of a tricyclic antidepressant Amitriptyline.

   Name an example of an MAOI Isocarboxazid.

   Name an example of an SSRI Sertraline.

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

   Common side effects Include:

   - Sexual Dysfunction
   - Sedation
   - Weight Gain
   - Dry mouth
   - Constipation
   - Blurred vision
   - Urinary retention
   - Postural hypotension

- Tachycardia

Nursing Implications Include:

- Give medication with food to minimize gastric upset
- Give any increase in dosage around bedtime to combat sedation
- Recommend sugar free hard candies or mints for dry mouth.
- Advise against driving or operating heavy machinery in epsodes of blurred vision, and postural hypotension.
- Change positions gradually to combat postural hypotension.
- Monitor I/Os for any retention.

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: increases BP (extraordinary), headache, vomiting, SOB, changes in vision, and extreme anxiety. What must be done to prevent these symptoms from occurring? (Your answer must include some examples.)

   The patient should regularly be checking and recording their BP at home when taking these drugs. They should keep sodium in the diet to a minimum, avoid tyramine rich foods, exercise normally, avoid alcohol and tobacco, engage in stress management activities such as yoga or breathing techniques, and contact their healthcare providers with any abnormal blood pressures.

7. Lithium carbonate is commonly prescribed for Bipolar I 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?

   They may be started on an antipsychotic medication to stabilize mood and prevent excess agitation or anxiety.

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.

   Therapeutic Range of Lithium Carbonate: 0.5-1.5 mEq/L for acute mania and 0.6-1.2 mEq/L for long term control. Levels should **not** exceed 2.0 mEq/L.

Signs and Symptoms include: Vomiting, diarrhea, slurred speech, drowsiness, muscle weakness, tremors, and possible twitching.

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

   A nurse should monitor lithium levels before administration due to risk of toxicity. Give medication with food or milk to minimize GI upset. The nurse and patient should never break, crush, or chew this medication.

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

    Binds to benzodiazepine receptor sites on GABA, this increases the receptor affinity for the GABA.

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

    The most commonly used group of anxiolytics is benzodiazepines which include Lorazepam and alprazolam.

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

    Drowsiness, N/V, Ataxia, dry mouth, blurred vision, rash, and hypotension.

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

    They must be instructed to never stop taking an anxiolytic drug abruptly.

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

    They block dopamine receptors along with acetylcholine, histamines, alpha 1 adrenergic, 5-hydroxytryptamine 2 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 Antipsychotics:
    1. Chlorpromazine
    2. Haloperidol

    Atypical Antipsychotics:
    1. Ziprasidone
    2. Clozapine

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

    Some adverse hormonal effects of antipsychotics include amenorrhea, and gynecomastia.

17. Agranulocytosis is a potentially very serious side effect of antipsychotic therapy. The nurse and client should be on the alert for symptoms of fever, sore throat and cough.

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.

    1. High fever
    2. Muscle Rigidity
    3. Vital sign instability
    4. Loss of consciousness

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

    1. Dystonia: muscles will involuntarily contract, can happen repetitively.
    2. Akathisia: unable to remain still, restless especially in lower extremities (leg bouncing.)
    3. Parkinson-like symptoms: Shaking, tremors.

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

    To treat drug-induced extrapyramidal reactions anticholinergics are usually given, these can include Nortryptyline and amitryptyline

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

    If a patient abruptly withdraws from a long-term use of a CNS stimulus they could experience tremors, and seizures that could pose as life threatening due to the safety risks.

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

1. Motor incoordination
2. Dependence
3. Memory impairment

Antipsychotics (novel)

1. Orthostatic events
2. Blurred vision
3. Sedation

Antipsychotics (phenothiazines and haloperidol)

1. Postural hypotension
2. Sedation
3. Blurred vision

MAO Inhibitors

1. Hypertensive crisis
2. Dizziness/falls
3. Sedation

SSNRIs

1. Tremors
2. Fatigue d/t insomnia
3. Increased suicidal thoughts

SSRIs

1. Fatigue and sedation
2. Headache/Disorienting
3. Lightheadedness

Tricyclic antidepressants

1. Sedation
2. Blurred vision
3. Postural hypotension

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

Traditional and atypical antipsychotics both block receptors for dopamine however, atypical antipsychotics more strongly block receptors for serotonin. Traditional antipsychotics have a higher likelihood of the patient experiencing extrapyramidal effects than atypical antipsychotics.

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

   Tricyclics block the reuptake of norepinephrine and serotonin whereas SSRIs selectively block serotonin specifically and create CNS excitation rather than CNS depression which is what tricyclics achieve. Tricyclics produce drowsiness, sedation, orthostatic hypotension, and tachycardia. If tricyclics are stopped abruptly, withdrawal can occur and possess a high risk of over-dose. SSRIs on the other had produce insomnia, nervousness, sexual dysfunction, and headache along with weight gain, and hyponatremia in long-term usage.