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)? The mechanism of action by which antidepressant medications achieve the desired effect by increasing the concentration of norepinephrine, serotonin, and/or dopamine through a series of actions in the body. The brain blocks the reuptake of these neurotransmitters by the neurons and it also occurs when MAO's is inhibited in various sites of the nervous system.

2. For what must the nurse be on the alert with the client who is receiving antidepressant medication? Serotonin syndrome, liver injury/toxicity, Hypertensive crisis, increased risk of bleeding, increased sedation, seizures, hypoglycemia, increased depression, suicidal/homicidal ideations, agitation, insomnia, photosensitivity, sexual dysfunction, tachycardia, arrythmias, hyponatremia, GI upset, constipation, catatonia, N/V, blurred vision, and fever. Additionally, avoid Tyramine, OTC's/Herbal's- such as St. John's Wort, and alcohol.

3. As the nurse, when would you expect the client to begin showing signs of symptomatic relief after the initiation of antidepressant therapy? The effectiveness that the patient is receiving positive results of antidepressant therapy is 4-6 weeks. Also, no harm to self, no injury caused by side effects, vital signs stable and within normal limits, affect improvement, and participation in activities and with others has increased.

4. Name an example of a tricyclic antidepressant-Amitriptyline.

   Name an example of an MAOI- Phenelzine.

   Name an example of an SSRI- Sertraline.

5. Describe some common side effects and nursing implications for tricyclic antidepressants. Drowsiness, fatigue, dry mouth, blurred vision, orthostatic hypotension, tachycardia, arrythmias, constipation, urinary retention, blood dyscrasias, N/V, photosensitivity, QT prolongation, and increased risk of suicidality in children and adolescents.

6. Hyperpyretic crisis, convulsions and death is the most potentially life-threatening adverse effect of MAOIs. Symptoms for which the nurse and client must be on the alert include: . Drowsiness, fatigue, dry mouth, blurred vision, orthostatic hypotension, tachycardia, arrythmias, constipation, urinary retention, blood dyscrasias, N/V, photosensitivity, QT prolongation, and suicidal ideations. What must be done to prevent these symptoms from occurring? (Your answer must include some examples.) Do not abruptly stop medication and wait two weeks if stopping your MAOI to start another, use caution when driving, apply sunblock, avoid smoking and alcohol. Do not eat foods that contain Tyramine. Eat candy or take

sips of water for dry mouth and notify physician of sore throat, fever, malaise, bleeding, or chest pain. Rise slowly from sitting to standing position.

7. Lithium carbonate is commonly prescribed for manic episodes associated with bipolar disorder. 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 may do so because lithium has a lag time of 7-10 days and antipsychotics may be helpful in their effects and provide a more immediate relief from manic symptoms. It also increases the effects of lithium after the lag. Monitoring blood serum levels is important.

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. Acute Mania: 1.0-1.5mEq?L Maintenance: 0.6-1.2mEq/L. Early signs: Vomiting and Diarrhea. Over 2mEq/L: tremors, sedation, confusion. Levels over 3.5 mEq/L: delirium, seizures, coma, cardiovascular collapse, death.

9. Describe some nursing implications for the client on lithium therapy. Instruct patient notify physician of all medications that are being taken along with caffeine. Encourage pt. drink 2,000-3,000mL/day and avoid any activity that causes fluid loss due to a decrease in sodium levels increase a risk of lithium toxicity. Assess for suicide risk, mental status for alertness, and educate regarding risks of anticonvulsants. Maintain diet and sodium intake. Instruct patient to report palpitations.

10. What is the mechanism of action for anxiolytics (with the exception of buspirone)? The mechanism of action for anxiolytics is the depression of subcortical levels of the central nervous system. This produces a calming effect.

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 are the most common side effects.

13. What must the client on long-term anxiolytic therapy be instructed in order to prevent a potentially life-threatening situation? The client should be instructed about dependence and medication should not be stopped abruptly.

14. What is thought to be the mechanism of action that produces the desired effect with antipsychotic medications? Antipsychotic medications block postsynaptic dopamine receptors in the basal ganglia, hypothalamus, limbic system, brainstem, and medulla along with an affinity for additional receptors.

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

16. Describe potential adverse hormonal effects associated with antipsychotic therapy. Hormonal side effects associated with antipsychotic therapy are decreased libido, retrograde ejaculation, gynecomastia, and 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, and deteriorating mental status.

19. Describe the symptoms of extrapyramidal side effects associated with antipsychotic therapy. The extrapyramidal side effects associated with antipsychotic therapy are muscle stiffness or spasms, and abnormal involuntary movement.

20. What is the classification of medication that is commonly prescribed for drug-induced extrapyramidal reactions? Give two examples of these medications. The classification of medication is Parkinsonism. Two examples of this medications classifications are Biperiden and Dipenhydramine.

21. Describe a potentially life-threatening situation that could occur in the client who abruptly withdraws from long-term use of CNS stimulants. A potentially life-threatening situation that could occur in a client who abruptly withdraws from CNS stimulants is rebound syndrome. These symptoms include nervousness, agitation, headache, tremors, and a rapid rise in BP.

<u>This part is optional but encouraged!!</u>

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

   Antipsychotics (novel)

   Antipsychotics (phenothiazines and haloperidol)

   MAO Inhibitors

   SSNRIs

   SSRIs

Tricyclic antidepressants

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

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