

Pharmacology questions report examples

[Health & Medicine](#), [Drugs](#)



1. Which of the following is an antidote for benzodiazepine overdose or toxicity? a. Buspirone (BuSpar)b. Hydroxyzine (Visteril)c. Flumazenil (Romazicon)d. Naloxone (Narcan)There is one other drug overdose antidote in the above list. Name the drug and its mechanism of action. Flumazenil (Romazicon®) is another drug given to reverse the depressant effects of benzodiazepine and thus useful for overdose treatment. It acts as a competitive antagonist of benzodiazepines, having high affinity to GABAA receptors, which is the BZD binding site. This allows it to specifically target benzodiazepine and drugs with similar MOA such as zolpidem, but not other sedative-hypnotics such as barbiturates and general anesthetics. 2.

Buspirone (BuSpar) is different from other antianxiety medications in which of the following ways? a. Buspirone has anticonvulsant effectsb. Buspirone has muscle relaxant effectsc. Buspirone will depress the central nervous systemd. Buspirone does not cause physical or psychological dependenceName three side effects of buspirone a nurse might discuss with a patient.

Buspirone (BuSpar®) can sometimes lead to gastrointestinal irritation, rapid and/or irregular heartbeat, and paresthesia. Should these side effects worsen and cannot be tolerated, a doctor must be consulted for drug dose tapering or discontinuation.

3. A nurse knows that teaching has been effective if a client who is taking benzodiazepine for long term treatment of anxiety makes which of the following statements? a. I will only take the medication at bedtimeb. I cannot take this drug if I am using a pain medicationc. I will not stop taking the drug abruptlyd. I will need to take this medication for the rest of my lifeGive a

rationale for your answer

The abrupt discontinuation of benzodiazepine intake can lead to withdrawal symptoms because of its capability of producing physiologic dependence, especially when taken continuously and at large doses. The symptoms include anxiety, restlessness, fatigue, orthostatic hypotension and at extreme cases, seizures.

4. A client starting phenelzine (Nardil) for treatment of depression should be monitored for which of the following effects? a. Orthostatic hypotension b. Respiratory depression c. GI bleeding d. Rash

To which class of antidepressants does phenelzine belong? Monoamine oxidase inhibitors (MAOIs)

Name one drug-drug interaction of phenelzine. Phenelzine (Nardil®) being a MAO inhibitor should not be taken with other serotonergic agents such as Selective Serotonin Reuptake Inhibitors (SSRIs), SNRIs, and most TCAs. An example of SSRI is Fluoxetine (Prozac®).

5. A nurse providing teaching to a client who is starting amitriptyline (Elevil) for treatment of depression. Which of the following should be included? (select all that apply)

a. Therapeutic effects should be experienced immediately
b. Stop taking the medication after a week of improved mood
c. Change positions slowly to minimize dizziness
d. Decrease dietary fiber intake to control diarrhea
e. Chew sugarless gum to prevent dry mouth

Why: Amitriptyline (Elevil®), as with other tricyclic antidepressants, are strong cholinergic antagonists, competitively inhibiting the binding at muscarinic receptors, thus inhibiting parasympathetic nervous system substantially. Anticholinergic effects include dry mouth, tachycardia, mydriasis (dilated pupils), flushing and urinary retention.

6. Which of the foods should be avoided by a client who is taking an MAOI? a. Fresh vegetables b. Cheese c.

Applesd. Grilled steakWhat happens when these foods are ingested?

Cheese, as well as yogurt, soybean and tofu, contains significant amounts of tyramine, which when taken with MAOIs such as phenelzine (Nardil®)

increases blood pressure considerably, sometimes leading to an infarction.

Plasma tyramine levels are increased due to the inhibition, and subsequent

blood elevation of noradrenergic neurotransmitters such as dopamine,

norepinephrine, and epinephrine happens, causing the hypertensive crisis. 7.

A nurse is caring for a group of patients taking antidepressants. The nurse

should educate the client who takes which of the following medications

about the possible occurrence of sexual dysfunction as an adverse effect? a.

Fluoxetine (Prozac)b. Phenelzine (Nardil)c. Bupropion (Wellbutrin)d.

Amitriptyline (Elevil)

What is the reason for sexual dysfunction when compared to drugs that do

not promote sexual dysfunction? Fluoxetine being a Selective Serotonin

Reuptake Inhibitor (SSRI) is capable of increasing serotonergic tone in

different parts of the body and not just the brain. Such increase is reported

to cause loss of libido, decreased arousal, and delayed orgasm in most

patients. The other drugs mentioned do not have effect on serotonin levels

being a MAOI (Phenelzine), an atypical antidepressant (Bupropion), and a

TCA (Elevil)8. A nurse is caring for a client who is taking an SSRI

antidepressant for the past two days. Which of the following assessment

findings should alert the nurse to the possibility that the client is developing

serotonin syndrome? a. Bruisingb. Feverc. Abdominal paind. Urinary

retentionDescribe serotonin syndrome.

Serotonin syndrome is a life-threatening adverse drug reaction characterized by excessive amounts of serotonin, a monoamine neurotransmitter, in the body.

What are some other symptoms of serotonin syndrome?

Serotonin syndrome usually involves a triad of cognitive (hallucination, coma, confusion), autonomic (fever, excessive sweating, diarrhea), and somatic (muscle spasms, overactive reflexes, uncoordinated movements) symptoms.

Intake with MAOIs such as phenelzine and tranylcypromine (Parnate®) can cause fatal serotonin syndrome due to overstimulation of serotonin receptors. Linezolid (Zyvox®), which is an antimicrobial drug belonging to the oxazolidinone class, is believed to be a reversible monoamine inhibitor, which is reported to have caused serotonin syndrome in patients. 9. Which of the following is an adverse effect for which a nurse should assess a client who is taking lithium carbonate? a. Alopecia b. Tremors c. Constipation d. Urinary retention

Name some other adverse effects of lithium.

Polydipsia, polyuria and drug-induced dyskinesia such as chorea (irregular, uncontrolled movement), dystonia (twisting and sustained muscular contraction), and postural tremor can be experienced in patients taking lithium. 10. A client has a prescription for valproic acid (Depakote). Which of the following laboratory values should the nurse anticipate monitoring for a client taking this medication? (select all that apply) a. Thrombocyte count b. White blood cell count (WBC) c. Amylase level d. Liver function tests e. Potassium level

Why?

Toxicity related to valproic acid has reportedly caused hepatotoxicity for a significant number of patients. Thrombocytopenia has also been reported

although sufficient evidence is lacking. Development of such serious adverse effects appears to be dose related. 11. A client's plasma lithium level is 0.2 mEq/L. The nurse can expect to implement which of the following nursing interventions? a. Administer an additional oral dose of lithium b. Prepare to give emergency resuscitation c. Infuse 1 L of 0.9% sodium chloride over 4 hours d. Prepare the client for another laboratory draw Give a possible explanation for this lithium level.

Lithium is monovalent cation, and thus is polar in nature. It can have trouble entering nonpolar cellular membranes into the bloodstream. Absorption is expected to be complete in 6 to 8 hours, while peak plasma concentrations happen within 30 minutes to 2 hours. The low plasma lithium levels must be because of a premature laboratory monitoring wherein peak plasma levels are not yet established. 12. The nurse is caring for a client with a new prescription of lithium carbonate. When teaching the client about ways to prevent lithium toxicity, the nurse should advise the client to do which of the following? a. Avoid the use of acetaminophen for headaches b. Restrict intake of foods rich in sodium c. Decrease fluid intake to less than 1500 mL/Dd. Limit aerobic activity in hot weather Give a rationale for your answer

Aerobic activity, especially on hot days, can decrease the amount of fluid in the body, which leads to lithium toxicity. Patients with diminished body fluids should be able to replenish lost fluids in order for serum lithium concentrations to be diluted and released from the body, if not the body will detect an increase in lithium concentration causing toxicity. Patients taking lithium are not advised to be dehydrated. 13. A nurse is caring for a client who takes chlorpromazine (Thorazine) for schizophrenia. For which of the

following symptoms should the nurse expect to see improvements? (select all that apply)

- Poverty of speech
- Bizarre behavior
- Impaired social interactions
- Hallucinations
- Decreased motivation

What is the major side effect of chlorpromazine?

Orthostatic hypotension appear to be the most common side effect of chlorpromazine happening usually at the beginning of treatment.

14. A nurse is caring for a client with a new prescription for clozapine (Clozaril). Which of the following laboratory values should the nurse plan to monitor weekly during the first few months of this client is taking clozapine?

- Serum creatinine
- Serum sodium
- Triglycerides and cholesterol
- White blood cell count

Why?

Clozapine is reported to cause agranulocytosis to a significant number of patients, although small. The risk is lessened upon discontinuation of drug. However, blood samples are advised every week for the first 6 months of treatment and then every 3 weeks for the succeeding months.

15. A nurse is caring for a school-age child who has just been prescribed methylphenidate (Concerta) to treat ADHD. Which of the following should the nurse teach the client and the family about this medication?

- Apply the patch once daily at bedtime
- Take oral medication once daily in the morning
- Take oral medication early in the morning and again at bedtime
- Apply the patch on awakening and remove at bedtime

Give a rationale for your answer.

Methylphenidate (Concerta®) is a sympathomimetic agent used in the management of Attention Deficit Hypersensitivity Disorder (ADHD). It is

suggested to be taken early in the day in order to avoid sleep problems.

16. A nurse is caring for a client who has just been diagnosed with angle-closure glaucoma. Which of the following should the nurse expect? a.

Insidious onset of painless loss of vision
b. Gradual reduction in peripheral vision
c. Report of seeing halos around lights
d. An IOP of 12mm Hg
Name a treatment for angle closure glaucoma

Acetazolamide (Diamox®) is considered as a first-line agent in the treatment of angle closure glaucoma for the management of IOP. What is MOA of the drug you just named

It is a carbonic anhydrase inhibitor, which reduces bicarbonate production in the ciliary epithelium, which is responsible for the formation of aqueous fluid in the eyes bringing about an increase intraocular pressure. What are expected side effects

Side effects include gastric irritation, vomiting, and loss of appetite.

Acetazolamide can also cause Steven-Johnsons Syndrome, a life-threatening skin condition characterized by fever, fatigue and rashes.

17. A nurse is caring for a client who receives a bolus dose of succinylcholine (Anectine) IV before an endoscopy procedure. During the procedure, the client suddenly develops rigidity, and his body temperature begins to rise.

Which of the following should the nurse administer? a. A second dose of succinylcholine (Anectine)
b. Naloxone (Narcan) as an antagonist at receptor sites
c. Dantrolene (Dantrium) to slow metabolic activity of the muscles
d.

Veruronium (Norcuron) as an adjunct to muscle relaxation

Give a rationale
Dantrolene is used in the first-line treatment of malignant hyperthermia commonly experienced after large doses of succinylcholine is administered.

18. A client is admitted to undergo a surgical procedure. The nurse should be aware that which of the following pre-existing conditions may be a contraindication for the use of ketamine (Ketalar) as an intravenous anesthetic for this client? a. Peptic ulcer disease b. Breast cancer c. Diabetes d. Schizophrenia Why?

Ketamine, as with phencyclidine, is a noncompetitive inhibitor of N-methyl d-aspartate (NMDA) receptors, located at GABAergic interneurons, which can significantly affect cognitive function and psychosis in patients with schizophrenia. This is due to the diminished inhibitory functions in the neurons.

19. Several hours after administering typical antipsychotic medication, a nurse should watch for which of the following adverse effects? a. Shuffling gait b. Neck spasms c. Lip smacking d. Continuous pacing Give another name for typical antipsychotics: Neuroleptics Name an atypical antipsychotic, or second generation antipsychotic (SGA):

Clozapine is an atypical antipsychotic considered as the prototype of this drug class. What is the major complication associated with SGAs?

A risk for hypercholesterolemia and weight gain is increased in patients taking atypical antipsychotics.

20. A nurse is caring for a school age child who recently began a prescription for atomoxetine (Strattera). For which of the following possible complications should the nurse monitor the child? a. Renal toxicity b. Liver damage c. Seizure activity d. Adrenal insufficiency Give a rationale for this complication The cause of liver damage in patients taking Strattera is still unknown. Clinical trial did not produce any sign of liver injury to 6000 patients.

However, after post marketing surveillance two patients were recorded to have increased hepatic enzymes and bilirubin.

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