

Pharmacology 2017 Hesi PN Specialty V2

- 1) A client is being treated for hyperthyroidism with propylthiouracil (PTU). The LPN/LVN knows that the action of this drug is to:
- A. decrease the amount of thyroid stimulating hormone circulating in the blood.
 - B. increase the amount of thyroid-stimulating hormone circulating in the blood.
 - C. increase the amount of T4 and decrease the amount of T3 produced by the thyroid.
 - D. inhibit synthesis of T3 and T4 by the thyroid gland.
- D. PTU is an adjunct therapy used to control hyperthyroidism by inhibiting production of thyroid hormones. It is often prescribed in prep for thyroidectomy or radioactive iodine therapy

- 2) A female client with RA takes ibuprofen (motrin) 600mg PO 4xday. To prevent GI bleeding, misoprostol (cytotec) 100mcg PO is prescribed. Which information is most important for the nurse to include in client teaching?

- A. use contraception during intercourse
 - B. ensure the cytotec is taken on an empty stomach
 - C. encourage oral fluid intake to prevent constipation
 - D. take cytotec 30min prior to motrin
- A. Use contraception during intercourse.
Cytotec, a synthetic form of prostaglandin, is classified as pregnancy category X and can act as an abortifacient, so the client should be instructed to use contraception during intercourse to prevent loss of early pregnancy

- 3) Dobutamine (Dobutrex) is an emergency drug most commonly prescribed for a client with which condition?

- A) Shock.
- B) Asthma.
- C) Hypotension.

D) Heart failure

D. Heart Failure

Dobutamine is a beta-1 adrenergic agonist that is indicated for short term use in cardiac decompensation or heart failure (D) related to reduced cardiac contractility due to organic heart disease or cardiac surgical procedures. Alpha and beta adrenergic agonists, such as epinephrine and dopamine, are sympathomimetics used in the treatment of shock (A). Other selective beta-2 adrenergic agonists, such as terbutaline and isoproterenol, are indicated in the treatment of asthma (B). Although dobutamine improves cardiac output, it is not used to treat hypotension (C).

4) Which medications should the nurse caution the client about taking while receiving an opioid analgesic?

- A. Antacids.
- B. Benzodiazepines
- C. Antihypertensives
- D. Oral antidiabetics

B. B. Benzodiazepines

Respiratory depression increases with the concurrent use of opioid analgesics and other CNS depressant agents, such as alcohol, barbiturates, and benzodiazepines

5) Which client should the LPN/LVN identify as being at the highest risk for complications during the use of an opioid analgesic?

- A. an older client with type 2 diabetes
 - B. A client with chronic rheumatoid arthritis
 - C. A client with an open compound fracture
 - D. A young adult with inflammatory bowel disease
- D. A young adult with inflammatory bowel disease

6) Which change in data indicates to the nurse the desired effect of the angiotensin II receptor antagonist valsartan (Diovan) has been achieved

- A. Dependent edema reduced from +3 to +1
- B. Serum HDL increased from 35 to 55mg/dl
- C. Pulse rate reduced from 150 to 90 beats/min

D. Blood pressure reduced from 160/90 to 130.80

D. D. Blood pressure reduced from 160/90 to 130.80 angiotensin II receptor antagonist (blocker), prescribed from treatment of HTN. The desired effect is a decrease in blood pressure.

7) A client with heart failure is prescribed spironolactone (Aldactone). Which information is most important for the LPN/LVN to provide to the client about diet modifications?

- A) Do not add salt to foods during preparation.
- B) Refrain from eating foods high in potassium.
- C) Restrict fluid intake to 1000 ml per day.
- D) Increase intake of milk and milk products.

B.

Spironolactone (Aldactone), an aldosterone antagonist, is a potassium-sparing diuretic, so a diet high in potassium should be avoided (B), including potassium salt substitutes, which can lead to hyperkalemia. Although (A) is a common diet modification in heart failure, the risk of hyperkalemia is more important with Aldactone. Restriction of fluids (C) or increasing milk and milk products (D) are not indicated with this prescription.

8) The nurse is assessing the effectiveness of high dose aspirin therapy for an 88-year-old client with arthritis. The client reports that she can't hear the nurse's questions because her ears are ringing. What action should the nurse implement?

- A) Refer the client to an audiologist for evaluation of her hearing.
- B) Advise the client that this is a common side effect of aspirin therapy.
- C) Notify the healthcare provider of this finding immediately.
- D) Ask the client to turn off her hearing aid during the exam.

C. Notify the healthcare provider of this finding immediately.

Tinnitus is an early sign of salicylate toxicity. The healthcare provider should be notified immediately (C), and the medication discontinued. (A and D) are not needed, and (B) is inaccurate.

9) The healthcare provider prescribes naproxen (Naproxen) twice daily

for a client with osteoarthritis of the hands. The client tells the nurse that the drug does not seem to be effective after three weeks. Which is the best response for the nurse to provide?

- A) The frequency of the dosing is necessary to increase the effectiveness.
- B) Therapeutic blood levels of this drug are reached in 4 to 6 weeks.
- C) Another type of nonsteroidal antiinflammatory drug may be indicated.
- D) Systemic corticosteroids are the next drugs of choice for pain relief.

C. Another type of nonsteroidal antiinflammatory drug may be indicated. Individual responses to nonsteroidal antiinflammatory drugs are variable, so (C) is the best response. Naproxen is usually prescribed every 8 hours, so (A) is not indicated. The peak for naproxen is one to two hours, not (B). Corticosteroids are not indicated for osteoarthritis (D).

10) An older client with a decreased percentage of lean body mass is likely to receive a prescription that is adjusted based on which pharmacokinetic process?

- A) Absorption.
- B) Metabolism.
- C) Elimination.
- D) Distribution.

D.

A decreased lean body mass in an older adult affects the distribution of drugs (D), which affects the pharmacokinetics of drugs. Decreased gastric pH, delayed gastric emptying, decreased splanchnic blood flow, decreased gastrointestinal absorption surface areas and motility affect (A) in the older adult population. Decreased hepatic blood flow, decreased hepatic mass, and decreased activity of hepatic enzymes affect (B) in older adults. Decreased renal blood flow, decreased glomerular filtration rate, decreased tubular secretion, and decreased number of nephrons affects (C) in an older adult.

11) A peak and trough level must be drawn for a client receiving antibiotic therapy. What is the optimum time for the LPN/LVN to obtain the trough level?

- A) Sixty minutes after the antibiotic dose is administered.
- B) Immediately before the next antibiotic dose is given.

- C) When the next blood glucose level is to be checked.
- D) Thirty minutes before the next antibiotic dose is given.

B. Immediately before the next antibiotic dose is given.

Trough levels are drawn when the blood level is at its lowest, which is typically just before the next dose is given (B). (A, C, and D) do not describe the optimum time for obtaining a trough level of an antibiotic.

12) A client with Parkinson's disease is taking carbidopa-levodopa (Sinemet). Which observation by the nurse should indicate that the desired outcome of the medication is being achieved?

- A) Decreased blood pressure.
- B) Lessening of tremors.
- C) Increased salivation.
- D) Increased attention span.

B. Lessening of tremors.

Sinemet increases the amount of levodopa to the CNS (dopamine to the brain). Increased amounts of dopamine improve the symptoms of Parkinson's, such as involuntary movements, resting tremors (B), shuffling gait, etc. (A) is a side effect of Sinemet. Decreased drooling would be a desired effect, not (C). Sinemet does not affect (D).

13) A client with congestive heart failure (CHF) is being discharged with a new prescription for the angiotensin-converting enzyme (ACE) inhibitor captopril (Capoten). The LPN/LVN discharge instruction should include reporting which problem to the healthcare provider?

- A) Weight loss.
- B) Dizziness.
- C) Muscle cramps.
- D) Dry mucous membranes.

B. Dizziness

The client should be prepared to implement measures for constipation (B) which is the most likely persistent side effect related to opioid use. Tolerance to opiate narcotics is common, and the client may experience less sedation (A) and respiratory depression (D) as analgesic use continues. Opioids increase the tone in the urinary bladder sphincter, which causes retention (C) but may subside.

14) A client is receiving metoprolol (Lopressor SR). What assessment is most important for the LPN/LVN to obtain?

- A) Temperature.
- B) Lung sounds.
- C) Blood pressure.
- D) Urinary output.

C. Blood pressure

It is most important to monitor the blood pressure (C) of clients taking this medication because Lopressor is an antianginal, antiarrhythmic, antihypertensive agent. While (A and B) are important data to obtain on any client, they are not as important for a client receiving Lopressor as (C). Intake and output ratios and daily weights should be monitored while taking Lopressor to assess for signs and symptoms of congestive heart failure, but (D) alone does not have the importance of (C).

15) A client with coronary artery disease who is taking digoxin (Lanoxin) receives a new prescription for atorvastatin (Lipitor). Two weeks after initiation of the Lipitor prescription, the nurse assesses the client. Which finding requires the most immediate intervention?

- A) Heartburn.
- B) Headache.
- C) Constipation.
- D) Vomiting.

D. Vomiting.

Vomiting, anorexia and abdominal pain are early indications of digitalis toxicity. Since Lipitor increases the risk for digitalis toxicity, this finding requires the most immediate intervention by the nurse (D). (A, B and C) are expected side effects of Lipitor.

16) Upon admission to the emergency center, an adult client with acute status asthmaticus is prescribed this series of medications. In which order should the nurse administer the prescribed medications? (Arrange from first to last.)

- A) Prednisone (Deltasone) orally.
- B) Gentamicin (Garamycin) IM.
- C) Albuterol (Proventil) puffs.
- D) Salmeterol (Serevent Diskus).

C, D, A, B

17) An antacid (maalox) is prescribed for a client with PUD. The LPN/LVN knows that the purpose of this medication is to

- A. Decrease production of gastric secretions
- B. produce an adherent barrier over the ulcer
- C. Maintain a gastric pH of 3.5 or above
- D. decrease gastric motor activity

C. Maintain a gastric pH of 3.5 or above

18) Which dosing schedule should the nurse teach the client to observe for a controlled-release oxycodone prescription?

- A. As needed
- B. Every 12 hours
- C. Every 24 hours
- D. Every 4 to 6 hours

B. Every 12 hours

19) In teaching a client who had a liver transplant about cyclosporine (Sandimmune), the nurse should encourage the client to report which adverse response to the healthcare provider?

- A) Changes in urine color.
- B) Presence of hand tremors.
- C) Increasing body hirsutism.
- D) Nausea and vomiting.

B. Presence of hand tremors.

Neurological complications, such as hand tremors (B), occur in about 50% of clients taking cyclosporine and should be reported. Although this drug can be nephrotoxic, (A) typically does not occur. (C and D) are common side effects, but are not usually severe.

20) Which antidiarrheal agent should be used with caution in clients taking high dosages of aspirin for arthritis?

- A) Loperamide (Imodium).

- B) Probanthine (Propantheline).
- C) Bismuth subsalicylate (Pepto Bismol).
- D) Diphenoxylate hydrochloride with atropine (Lomotil).

C. Bismuth subsalicylate (Pepto Bismol).

Bismuth subsalicylate (Pepto Bismol) contains a subsalicylate that increases the potential for salicylate toxicity when used concurrently with aspirin (acetylsalicylic acid, another salicylate preparation). (A, B, and D) do not pose the degree of risk of drug interaction with aspirin as Pepto Bismol would.

21) A client receiving albuterol (Proventil) tablets complains of nausea every evening with her 9 p.m. dose. What action should the LPN/LVN take to alleviate this side effect?

- A) Change the time of the dose.
- B) Hold the 9 p.m. dose.
- C) Administer the dose with a snack.
- D) Administer an antiemetic with the dose.

C. Administer the dose with a snack.

Administering oral doses with food (C) helps minimize GI discomfort. (A) would be appropriate only if changing the time of the dose corresponds to meal times while at the same time maintaining an appropriate time interval between doses. (B) would disrupt the dosing schedule, and could result in a nontherapeutic serum level of the medication. (D) should not be attempted before other interventions, such as (C), have been proven ineffective in relieving the nausea.

22) A client is receiving digoxin for the onset of supraventricular tachycardia (SVT). Which laboratory findings should the LPN/LVN identify that places this client at risk?

- A) Hypokalemia.
- B) Hyponatremia.
- C) Hypercalcemia.
- D) Low uric acid levels.

A. Hypokalemia.

Hypokalemia affects myocardial contractility, so (A) places this client at greatest risk for dysrhythmias that may be unresponsive to drug therapy. Although an imbalance of serum electrolytes, (B and C), can effect

cardiac rhythm, the greatest risk for the client receiving digoxin is (A). (D) does not cause any interactions related to digoxin therapy for supraventricular tachycardia (SVT).

23) Following heparin treatment for a PE, a client is being discharged with a prescription for warfarin. In conducting discharge teaching, the nurse advises the client to have which diagnostic test monitored regularly?

- A. Perfusion scan
- B. Prothrombin time (PT/INR)
- C. Activated Partial thromboplastin (APTT)
- D. Serum Coumadin Level (SCL)

B. Prothrombin time (PT/INR)

When used for a client with PE, the therapeutic goal for warfarin therapy is a PT 1/5 to 2/5 times greater than the control or an INR of 2-3. A perfusion might be preformed to monitor lung function but not monthly. APTT is monitored for Heparin.

24) A 43-year-old female client is receiving thyroid replacement hormone following a thyroidectomy. What adverse effects associated with thyroid hormone toxicity should the nurse instruct the client to report promptly to the healthcare provider?

- A) Tinnitus and dizziness.
- B) Tachycardia and chest pain.
- C) Dry skin and intolerance to cold.
- D) Weight gain and increased appetite.

B. Tachycardia and chest pain.

Thyroid replacement hormone increases the metabolic rate of all tissues, so common signs and symptoms of toxicity include tachycardia and chest pain (B). (A, C, and D) do not indicate a thyroid hormone toxicity.

25) Following the administration of sublingual nitroglycerin to a client experiencing an acute anginal attack, which assessment finding indicates to the LPN/LVN that the desired effect has been achieved?

- A. Client states chest pain is relieved
- B. Client's pulse decreases from 120 to 90
- C. Client's systolic blood pressure decreases from 180 to 90
- D. Client's SaO₂ level increases from 92% to 96%

A. Client states chest pain is relieved
nitroglycerin reduces myocardial oxygen consumption which decreases ischemia and reduces chest pain

26) An adult client is given a prescription for a scopolamine patch (Transderm Scop) to prevent motion sickness while on a cruise. Which information should the nurse provide to the client?

- A) Apply the patch at least 4 hours prior to departure.
- B) Change the patch every other day while on the cruise.
- C) Place the patch on a hairless area at the base of the skull.
- D) Drink no more than 2 alcoholic drinks during the cruise.

A. Apply the patch at least 4 hours prior to departure.

Scopolamine, an anticholinergic agent, is used to prevent motion sickness and has a peak onset in 6 hours, so the client should be instructed to apply the patch at least 4 hours before departure (A) on the cruise ship. The duration of the transdermal patch is 72 hours, so (B) is not needed.

Scopolamine blocks muscarinic receptors in the inner ear and to the vomiting center, so the best application site of the patch is behind the ear, not at the base of the skull (C). Anticholinergic medications are CNS depressants, so the client should be instructed to avoid alcohol (D) while using the patch.

27) Which action is most important for the nurse to implement prior to the administration of the antiarrhythmic drug adenosine (Adenocard)?

- A) Assess pupillary response to light.
- B) Instruct the client that facial flushing may occur.
- C) Apply continuous cardiac monitoring.
- D) Request that family members leave the room.

C. Apply continuous cardiac monitoring.

Adenosine (Adenocard) is an antiarrhythmic drug used to restore a normal sinus rhythm in clients with rapid supraventricular tachycardia. The client's heart rate should be monitored continuously (C) for the onset of additional arrhythmias while receiving adenosine. (A and B) are valuable nursing interventions, but are of less importance than monitoring for potentially fatal arrhythmias. Family members may be asked to leave the room because of the potential for an emergency situation (D), however, this is also of less priority than (C).

28) A client is receiving clonidine (catapres) 0.1mg/24hr via transdermal patch. Which assessment finding indicates that the desired effect of the medication has been achieved?

- A. client denies recent episodes of angina
- B. Change in peripheral edema from +3 to +1
- C. Client denies recent nausea or vomiting
- D. Blood pressure has changed from 180/120 to 140/70

D. Blood pressure has changed from 180/120 to 140/70

Catapres acts as a centrally-acting analgesic and antihypertensive agent.

- D. indicates a reduction in hypertension

29) A client's dose of isosorbide dinitrate (Imdur) is increased from 40 mg to 60 mg PO daily. When the client reports the onset of a headache prior to the next scheduled dose, which action should the LPN/LVN implement?

- A) Hold the next scheduled dose of Imdur 60 mg and administer a PRN dose of acetaminophen (Tylenol).
- B) Administer the 40 mg of Imdur and then contact the healthcare provider.
- C) Administer the 60 mg dose of Imdur and a PRN dose of acetaminophen (Tylenol).
- D) Do not administer the next dose of Imdur or any acetaminophen until notifying the healthcare provider.

C. Administer the 60 mg dose of Imdur and a PRN dose of acetaminophen (Tylenol).

Imdur is a nitrate which causes vasodilation. This vasodilation can result in headaches, which can generally be controlled with acetaminophen (C) until the client develops a tolerance to this adverse effect. (A and B) may result in the onset of angina if a therapeutic level of Imdur is not maintained. Lying down (D) is less likely to reduce the headache than is a mild analgesic.

30) A category X drug is prescribed for a young adult female client.

Which instruction is most important for the LPN/LVN to teach this client?

- A) Use a reliable form of birth control.
- B) Avoid exposure to ultra violet light.

C) Refuse this medication if planning pregnancy.

D) Abstain from intercourse while on this drug.

A. Use a reliable form of birth control

Drugs classified in the category X place a client who is in the first trimester of pregnancy at risk for teratogenesis, so women in the childbearing years should be counseled to use a reliable form of birth control (A) during drug therapy. (B) is not a specific precaution with Category X drugs. The client should be encouraged to discuss plans for pregnancy with the healthcare provider, so a safer alternative prescription (C) can be provided if pregnancy occurs. Although the risk of birth defects during pregnancy explains the restriction of these drugs during pregnancy, (D) is not indicated.

31) A healthcare provider prescribes cephalexin monhydrate (Keflex) for a client with a postoperative infection. It is most important for the LPN/LVN to assess for what additional drug allergy before administering this prescription?

A. Penicillins

B. Aminoglycosides

C. Erythromycins

D. Sulfonamides

A. Penicillins

A. Cross-allergies exist between penicillins and cephalosporines, such as keflex. so checking for penicillin allergy is a wise precaution

32) A client is admitted to the coronary care unit with a medical diagnosis of acute myocardial infarction. which medication prescription decreases both preload and afterload

a. nitroglycerin

b. propranolol

c. propranolol

d. captopril

A. nitroglycerin is a nitrate that causes peripheral vasodilation and decreases contractility, thereby decreasing both preload and afterload

33) Which instructions should the nurse give to a female client who just received a prescription for oral metronidazole (flagyl) for treatment of

trichomonas vaginalis (select all that apply)

- A. increase fluid intake, especially cranberry juice
- B. Do not abruptly discontinue the medication; taper use
- C. Check blood pressure daily to detect hypertension
- D. Avoid drinking alcohol while taking this medication
- E. Use condoms until treatment is completed
- F. Ensure that all sexual partners are treated at the same time

A, D, E, F

34) A client is taking hydromorphone (Dilaudid) PO q4h at home.

Following surgery, Dilaudid IV q4h PRN and butorphanol tartrate (Stadol) IV q4h PRN are prescribed for pain. The client received a dose of the Dilaudid IV four hours ago, and is again requesting pain medication. What intervention should the nurse implement?

- A) Alternate the two medications q4h PRN for pain.
- B) Alternate the two medications q2h PRN for pain.
- C) Administer only the Dilaudid q4h PRN for pain.
- D) Administer only the Stadol q4h PRN for pain.

C. Administer only the Dilaudid q4h PRN for pain.

Dilaudid is an opioid agonist. Stadol is an opioid agonist-antagonist. Use of an agonist-antagonist for the client who has been receiving opioid agonists may result in abrupt withdrawal symptoms, and should be avoided (C). (A, B, and D) do not reflect good nursing practice.

35) Which nursing diagnosis is important to include in the plan of care for a client receiving the angiotensin II receptor antagonist irbesartan (avapro)?

- A. Fluid volume deficit
- B. Risk for infection
- C. Risk for injury
- D. Impaired sleep patterns

C. Risk for injury

Avapro is an antihypertensive agent, which acts by blocking vasoconstrictor effects at various receptor sites. This can cause hypotension and dizziness, placing the client at high risk for injury

36) A client is being treated for osteoporosis with alendronate (fosamax), and the nurse has completed discharge teaching regarding medication administration. Which morning schedule would indicate to the LPN/LVN that the client teaching has been effective?

- A. take medication, go for a 30 minutes morning walk, then eat breakfast
 - B. take med, rest in bed for 30 min., eat breakfast, go for morning walk
 - C. take medication with breakfast, then take a 30 minute morning walk
 - D. go for a 30 minute morning walk, eat breakfast, then take the med
- A. take medication, go for a 30 minutes morning walk, then eat breakfast

37) A client is admitted to the hospital for diagnostic testing for possible myasthenia gravis. The nurse prepares for intravenous administration of edrophonium chloride (Tensilon). What is the expected outcome for this client following administration of this pharmacologic agent?

- A) Progressive difficulty with swallowing.
 - B) Decreased respiratory effort.
 - C) Improvement in generalized fatigue.
 - D) Decreased muscle weakness.
- D) Decreased muscle weakness.

Administration of edrophonium chloride (Tensilon), a cholinergic agent, will temporarily reduce muscle weakness (D), the most common complaint of newly-diagnosed clients with myasthenia gravis. This medication is used to diagnose myasthenia gravis due to its short duration of action. This drug would temporarily reverse (A and B), not increase these symptoms. (C) is not a typical complaint of clients with myasthenia gravis, but weakness of specific muscles, especially after prolonged use, is a common symptom.

38) When assessing an adolescent who recently overdosed on acetaminophen (tylonel), it is most important for the nurse to assess for pain in which area of the body

- a. flank
- b. abdomen
- c. chest
- d. head

B. acetaminophen toxicity can result in liver damage; therefore, it is especially important for the nurse to assess for pain in the right upper quadrant of the abdomen (which might indicate liver damage)

39) The nurse is transcribing a new prescription for spironolactone (aldactone) for a client who receives an angiotensin-converting enzyme inhibitor. Which action should the nurse implement

- A. verify both prescriptions with the HCP
- B. report the med interactions to the nurse manager
- C. hold the ACE inhibitor and give the new prescription
- D. Transcribe and send the prescription to the pharmacy

A. the concomitant use of an ACE inhibitor and a potassium-sparing diuretic such as spironolactone, should be given with caution b/c the two drugs may interact to cause an elevation in serum potassium levels.

40) A client who was prescribed atorvastatin (Lipitor) one month ago calls the triage nurse at the clinic complaining of muscle pain and weakness in his legs. Which statement reflects the correct drug-specific teaching the nurse should provide to this client?

- A) Increase consumption of potassium-rich foods since low potassium levels can cause muscle spasms.
- B) Have serum electrolytes checked at the next scheduled appointment to assess hyponatremia, a cause of cramping.
- C) Make an appointment to see the healthcare provider, because muscle pain may be an indication of a serious side effect.
- D) Be sure to consume a low-cholesterol diet while taking the drug to enhance the effectiveness of the drug.

C) Make an appointment to see the healthcare provider, because muscle pain may be an indication of a serious side effect.

Myopathy, suggested by the leg pain and weakness, is a serious, and potentially life-threatening, complication of Lipitor, and should be evaluated immediately by the healthcare provider (C). Although electrolyte imbalances such as (A or B) can cause muscle spasms in some cases, this is not the likely cause of leg pain in the client receiving Lipitor, and evaluation by the healthcare provider should not be delayed for any reason. A low-cholesterol diet is recommended for those taking Lipitor since the drug is used to lower total cholesterol (D), but diet is not related to the leg pain symptom.

41) The nurse is reviewing the use of the patient-controlled analgesia (PCA) pump with a client in the immediate postoperative period. The client will receive morphine 1mg IV/hour basal rate with 1mg IV every 15minutes per PCA to total 5mg IV max per hour. What assessment has the highest priority before initiating the PCA pump?

- A. the expiration date on the morphine syringe in the pump.
 - B. The rate and depth of the client's respirations.
 - C. The type of anesthesia used during the surgical procedure.
 - D. The client's subjective and objective signs of pain.
- B. The rate and depth of the client's respirations.

A life-threatening side effect of intravenous administration of morphine sulfate, an opiate narcotic, is respiratory depression (B). The PCA pump should be stopped and the healthcare provider notified if the client's respiratory rate falls below 12 breaths per minute, and the nurse should anticipate adjustments in the client's dosage before the PCA pump is restarted.

42) Which nursing intervention is most important when caring for a client receiving the antimetabolite cytosine arabinoside (Arc-C) for chemotherapy?

- A) Hydrate the client with IV fluids before and after infusion.
- B) Assess the client for numbness and tingling of extremities.
- C) Inspect the client's oral mucosa for ulcerations.
- D) Monitor the client's urine pH for increased acidity.

C. Inspect the client's oral mucosa for ulcerations.

Cytosine arabinoside (Arc-C) affects the rapidly growing cells of the body, therefore stomatitis and mucosal ulcerations are key signs of antimetabolite toxicity (C). (A, B, and D) are not typical interventions associated with the administration of antimetabolites.

43) A medication that is classified as a beta-1 agonist is most commonly prescribed for a client with which condition?

- A) Glaucoma.
- B) Hypertension.
- C) Heart failure.
- D) Asthma.

C. Heart failure.

Beta-1 agonists improve cardiac output by increasing the heart rate and blood pressure and are indicated in heart failure (C), shock, atrioventricular block dysrhythmias, and cardiac arrest. Glaucoma (A) is managed using adrenergic agents and beta-adrenergic blocking agents. Beta-1 blocking agents are used in the management of hypertension (B). Medications that stimulate beta-2 receptors in the bronchi are effective for bronchoconstriction in respiratory disorders, such as asthma (D).

44) The healthcare provider prescribes digitalis (Digoxin) for a client diagnosed with congestive heart failure. Which intervention should the nurse implement prior to administering the digoxin?

- A. Observe resp rate and depth
- B. assess the serum potassium level
- C. Obtain the clients blood pressure
- D. Monitor the serum glucose level

B. assess the serum potassium level
hypokalemia (decreased serum potassium) will precipitate digitalis toxicity in persons receiving digoxin

45) A client asks the nurse if glipizide (Glucotrol) is an oral insulin. Which response should the LPN/LVN provide?

- A. Yes it is an oral insulin and has the same actions and properties as intermediate insulin
 - B. Yes, it is an oral insulin and is distributed, metabolized, and excreted in the same manner as insulin
 - C. No it is not an oral insulin and can be used only when some beta cell function is present
 - D. No, it is not an oral insulin, but it is effective for those who are resistant to injectable insulins
- C. No it is not an oral insulin and can be used only when some beta cell function is present

46) While taking a nursing history, the client states, "I am allergic to penicillin." what related allergy to another type of anti-infective agent should the nurse ask the client about when taking nursing history.

- A. aminoglycosides
 - B. Cephalosporins
 - C. Sulfonamides
 - D. Tetracyclines
- B. Cross allergies exist between penicillins and cephalosporins

47) The nurse is assessing a client who is experiencing anaphylaxis from an insect sting. Which prescription should the nurse prepare to administer to this client

- A. Dopamine
- B. Ephedrine
- C. Epinephrine
- D. Diphenhydramine

C.

Epinephrine (C) is an adrenergic agent that stimulate beta receptors to increase cardiac automaticity in cardiac arrest and relax bronchospasms in anaphylaxis. Dopamine (A) is a vasopressor used to treat clients with shock. Ephedrine (B) causes peripheral vasoconstriction and is used in the treatment of nasal congestion. Diphenhydramine (D) is an antihistamine decongestant used in the treatment of mild allergic reactions and motion sickness.

48) A postoperative client has been receiving a continuous IV infusion of meperidine (demerol) 35mg/hr for four days. The client has a PRN prescription for Demorol 100mg PO Q3H. The nurse notes that the client has become increasingly restless, irritable and confused, stating that there are bugs all over the walls. What action should the nurse take FIRST?

- A. Administer a PRN dose of the PO meperidine (demerol)
 - B. Administer naloxone (narcan) IV per PRN protocol
 - C. Decrease the IV infusion rate of the demerol per protocol
 - D. notify the healthcare provider of the clients confusion and hallucinations
- C. The client is exhibiting symptoms of demerol toxicity, which is consistent with the large dose of demerol received over four days. C. is the most effective action to immediately decrease the amount of serum demerol.

49) The nurse is preparing the 0900 dose of losartan (Cozaar), an angiotensin II receptor blocker (ARB), for a client with hypertension and heart failure. The nurse reviews the client's laboratory results and notes that the client's serum potassium level is 5.9 mEq/L. What action should the nurse take first?

- A) Withhold the scheduled dose.
- B) Check the client's apical pulse.
- C) Notify the healthcare provider.
- D) Repeat the serum potassium level.

A.

The nurse should first withhold the scheduled dose of Cozaar (A) because the client is hyperkalemic (normal range 3.5 to 5 mEq/L). Although hypokalemia is usually associated with diuretic therapy in heart failure, hyperkalemia is associated with several heart failure medications, including ARBs. Because hyperkalemia may lead to cardiac dysrhythmias, the nurse should check the apical pulse for rate and rhythm (B), and the blood pressure. Before repeating the serum study (D), the nurse should notify the healthcare provider (C) of the findings.

50) After abdominal surgery, a male client is prescribed low molecular weight heparin (LMWH). during administration of the medication, the client asks the nurse why he is receiving this medication. Which is the best response for the nurse to provide.

- A. This medication is a blood thinner given to prevent blood clot formation
- B. this medication enhances antibiotics to prevent infection
- C. This medication dissolves any globs that develop int he legs
- D. This abdominal injection assists in the healing of the abdominal wound

A. This medication is a blood thinner given to prevent blood clot formation

51) A client is receiving ampicillin sodium (Omnipen) for a sinus infection. The LPN/LVN should instruct the client to notify the healthcare provider immediately if which symptom occurs?

- A) Rash.

- B) Nausea.
- C) Headache.
- D) Dizziness.

A.

Rash (A) is the most common adverse effect of all penicillins, indicating an allergy to the medication which could result in anaphylactic shock, a medical emergency. (B, C, and D) are common side effects of penicillins that should subside after the body adjusts to the medication. These would not require immediate medical care unless the symptoms persist beyond the first few days or become extremely severe.

52) In evaluating the effects of lactulose (Cephulac), which outcome should indicate that the drug is performing as intended?

- A) An increase in urine output.
- B) Two or three soft stools per day.
- C) Watery, diarrhea stools.
- D) Increased serum bilirubin.

B.

Lactulose is administered to reduce blood ammonia by excretion of ammonia through the stool. Two to three stools a day indicate that lactulose is performing as intended (B). (A) would be expected if the patient received a diuretic. (C) would indicate an overdose of lactulose and is not expected. Lactulose does not affect (D).

53) A client who has been taking levodopa PO TID to control the symptoms of Parkinsons disease has a new prescription for sustained release levodopa/carbidopa (sinemet 25/100 PO BID. The client took his levodopa at 0800. Which instruction should the nurse include in the teaching plan for this client?

- A. take the first dose of sinemet today, as soon as your prescription is filled
- B. Since you already took your levodopa, wait until tomorrow to take the sinemet
- C. Take both drugs for the 1st week, then switch to taking only the sinemet.
- D. You can begin taking the sinemet this evening, but do not take anymore levodopa

D. You can begin taking the sinemet this evening, but do not take anymore levodopa

54) Which method of medication administration provides the client with the greatest first-pass effect?

- A) Oral.
- B) Sublingual.
- C) Intravenous.
- D) Subcutaneous.

A.

The first-pass effect is a pharmacokinetic phenomenon that is related to the drug's metabolism in the liver. After oral (A) medications are absorbed from the gastrointestinal tract, the drug is carried directly to the liver via the hepatic portal circulation where hepatic inactivation occurs and reduces the bioavailability of the drug. Alternative method of administration, such as sublingual (B), IV (C), and subcutaneous (D) routes, avoid this first-pass effect.

55) A client with hyperlipidemia receives a prescription for niacin (niiaspan). which client teaching is most important for the nurse to provide

- a. expected duration of flushing
- b. symptoms of hyperglycemia
- c. diets that minimize gi irritation
- d. comfort measure for pruritis

A.

flushing of the face and neck, lasting up to an hour, is a frequent reason for discontinuing niacin. inclusion of this effect in client teaching may promote compliance in taking the med.