Detailed Answer Key
Medical Surgical, A+

1. A nurse is reviewing the cause of gout with a group of nurses. Which of the following statements should the nurse make?

   A. "Uric acid levels drop and calcium forms precipitate."

      Rationale: With gout, clients have hyperuricemia, rather than a reduction in uric acid.

   B. "Tophi form in the kidneys and they impair the excretion of uric acid."

      Rationale: Tophi, or deposits in tissues near a joint, develop in chronic, late-stage gout. They are not part of the primary disease process.

   C. "The intra-articular deposition of urate crystals causes inflammation."

      Rationale: Gout, or gouty arthritis, develops when urate crystals deposit in joints and tissues and cause inflammation and pain.

   D. "Articular cartilage thins, leading to splitting and fragmentation."

      Rationale: Gout does not thin and fragment cartilage.

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2. A nurse is teaching a group of clients about osteoarthritis. Which of the following recommendations should the nurse include in the teaching?

   A. Use Echinacea to manage joint pain.

      Rationale: The nurse may include the use of complementary and alternative therapies in the teaching. However, Echinacea is used for the treatment of the common cold, not osteoarthritis. Alternative therapies that are used for osteoarthritis include glucosamine, chondroitin, and topical capsaicin.

   B. Apply ice to the joint before exercising.

      Rationale: The nurse should recommend that the clients begin exercising immediately following the application of heat. This reduces pain and improves mobility, allowing for increased range-of-motion during exercises. Cold application may be applied following exercise to decrease discomfort and inflammation.

   C. Maintain a recommended body weight.

      Rationale: Obesity is a risk factor for the development of osteoarthritis. Maintenance of an ideal weight is one way a client can prevent added wear and tear on joints and promote overall joint health.

   D. Reduce the amount of purine in the diet.

      Rationale: The nurse should recognize that limiting purine in the diet, which is often found in organ meats, is recommended for clients who have gout.

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3. A nurse is caring for a client who has had a myocardial infarction. Upon his first visit to cardiac rehabilitation, he tells the nurse that he doesn't understand why he needs to be there because there is nothing more to do, as the

damage is done. Which of the following is the correct nursing response?

A. "Cardiac rehabilitation cannot undo the damage to your heart but it can help you get back to your previous level of activity safely."

Rationale: With this response, the nurse uses the therapeutic communication technique of presenting reality by indicating her perception of the situation for the client.

B. "It's not unusual to feel that way at first, but once you learn the routine, you'll enjoy it."

Rationale: With this response, the nurse illustrates the nontherapeutic communication technique of giving reassurance, thus discouraging the client from further communication.

C. "Exercise is good for you and good for your heart."

Rationale: With this response, the nurse illustrates the nontherapeutic communication techniques of disagreeing and giving advice.

D. "Your doctor is the expert here, and I'm sure he would only recommend what is best for you."

Rationale: With this response, the nurse illustrates the nontherapeutic communication technique of defending.

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4. A nurse is caring for a client who has heart failure and a potassium level of 2.4 mEq/L. The nurse should identify which of the following medications as the cause of the client's low potassium level?

A. Furosemide

Rationale: Furosemide is a loop (high-ceiling) diuretic that inhibits the reabsorption of sodium and chloride and results in diuresis, which decreases potassium through excretion in the distal nephrons. Hypokalemia is an adverse effect of furosemide.

B. Nitroglycerin

Rationale: A potassium level of 2.4 mEq/L is not an adverse effect of nitroglycerin. Nitroglycerin is a vasodilator medication to treat angina.

C. Metoprolol

Rationale: A potassium level of 2.4 mEq/L is not an adverse effect of metoprolol. Metoprolol is a beta-blocker that slows the heart rate and improves contractility of the heart muscle.

D. Spironolactone

Rationale: Spironolactone is a potassium-sparing diuretic medication; therefore, hyperkalemia is an adverse effect of this medication.

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5. A nurse is caring for a client who is postoperative following an open reduction internal fixation (ORIF) of a femur fracture. Which of the following parameters should the nurse include in the evaluation of the neurovascular status of the client's affected extremity? (Select all that apply.)

- A. Color
- B. Temperature
- C. Ecchymosis
- D. Skin integrity
- E. Sensation

Rationale: Color is correct. Clients who have sustained trauma to an extremity, such as a fracture, are at increased risk for neurovascular compromise. The nurse should check the color of the client's affected extremity as part of this assessment. The nurse should identify pallor or cyanosis of the extremity as an indication of peripheral neurovascular dysfunction and should notify the provider.Temperature is correct. Clients who have sustained trauma to an extremity, such as a fracture, are at increased risk for neurovascular compromise. The nurse should monitor the temperature of the extremity as a part of this assessment and identify skin that is cool or cold to the touch as having decreased perfusion to the tissues of the extremity, which is an indication of peripheral neurovascular dysfunction. The nurse should report skin that is cool to the touch to the provider.Ecchymosis is incorrect. Ecchymosis, or bruising, is an expected finding with leg injuries and is not a component of a neurovascular check.Skin integrity is incorrect. While the nurse should assess the incision of a client who is postoperative following an open reduction and internal fixation of the femur, it is not a component of a neurovascular check.Sensation is correct. Clients who have sustained trauma to an extremity, such as a fracture, are at increased risk for neurovascular compromise. The nurse should assess the client's extremity for numbness or tingling. The nurse should recognize diminished pain or paresthesia as an indication of damage to the nerves or peripheral neurovascular dysfunction and should report it to the provider.

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6. A nurse is monitoring a client following a thoracentesis. The nurse should identify which of the following manifestations as a complication and contact the provider immediately?

A. Serosanguineous drainage from the puncture site

Rationale: A small amount of serosanguineous drainage at the puncture site is expected after a thoracentesis.

B. Discomfort at the puncture site

Rationale: Mild discomfort at the puncture site is expected after a thoracentesis.

C. Increased heart rate

Rationale: Clients are at risk for developing pulmonary edema or cardiovascular distress due mediastinal content shift after the aspiration of a large amount of fluid from the client's pleural space. Therefore, the client may experience an increase in heart and respiratory rate, along with coughing with blood-tinged frothy sputum, and tightness in the chest. These findings require notification of the provider immediately.

D. Decreased temperature

Rationale: Infection is possible after any invasive procedure; however, it takes time to develop and increases the body temperature.

7. A nurse is caring for a client who has a history of exposure to TB and symptoms of night sweats and hemoptysis. Which of the following tests should the nurse realize is the most reliable to confirm the diagnosis of active pulmonary TB?

A. Chest x-ray

Rationale: A chest x-ray may be helpful for detecting old or new lesions that are large enough to be visualized. However, the client who has an HIV infection may have a normal x-ray or show infiltrates which would be expected in the client who has pneumonia.

B. Sputum culture for acid-fast bacillus

Rationale: Although the Mantoux (skin test) and the chest x-ray may be useful screening tools for TB, the presence of acid-fast bacillus noted in the client's sputum, secretions, or tissues is the only method that can actually confirm the diagnosis.

C. Sputum smear

Rationale: A sputum smear is able to detect the presence of mycobacterium, but it does not distinguish between mycobacterium tuberculosis and other strains of mycobacterium.

D. Mantoux test

Rationale: The Mantoux skin test is an effective screening tool, but it is unable to distinguish between an active case of TB and a client who has been, at some time in the past, exposed to TB. The results are also variable, depending upon the skill of the nurse administrating and reading the test.

8. A nurse in a medical clinic is providing teaching to an older adult client who has osteoarthritis that is affecting her knees. Which of the following client statements indicates an understanding of the teaching?

A. "I can use either heat or ice to help relieve the discomfort."

Rationale: The nurse should reinforce that different treatment modalities, such as heat or cold therapy, can be tried to determine which one is more effective for the client. Heat application can help with muscle relaxation in the area around the affected joint. The application of cold numbs nerve endings and decreases joint inflammation.

B. "Ibuprofen is the first step in medication therapy for osteoarthritis."

Rationale: The nurse should instruct the client that the primary medication of choice for the treatment of osteoarthritis is acetaminophen. NSAIDS, such as celecoxib and ibuprofen, might be tried if acetaminophen does not control discomfort.

C. "I should limit physical activity to prevent further injury."

Rationale: The nurse should encourage the client to include aerobic exercise and lower extremity strength training into her daily regimen. These activities have been shown to slow the progression of osteoarthritis and relieve the manifestations of the disorder.

D. "I will elevate my legs by placing two pillows under my knees when I go to bed."

Rationale:

The nurse should instruct the client to avoid the use of pillows under the knees as this contributes to the development of flexion contractures.

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9. A nurse is preparing to perform a 12-lead electrocardiogram. Which of the following instructions should the nurse provide to the client?

A. "I will be placing electrodes on your breasts."

Rationale: Correct placement of the electrodes involves placing six leads on the limbs and six leads on the chest in order to obtain an accurate electrocardiogram. The electrical current being monitored in the electrocardiogram would be altered through breast tissue. The nurse may request the client reposition the breasts, or the nurse may assist with positioning to allow correct electrode placement on the chest wall.

B. "Try to hold your breath until this procedure is complete."

Rationale: Although the client should lie as still as possible to prevent artifact, breathing normally is important during the electrocardiogram. Maintaining a regular respiratory pattern allows for oxygen saturation to occur, which is important for clients who might have a compromised cardiac status.

C. "Try to remain still once I have attached the gel pads."

Rationale: It is very important for the client to understand the importance of lying still during the electrocardiogram. Lying still will prevent artifact from occurring and allow for clear results when interpreted by the provider.

D. "I will lower the head of your bed so you can lie flat."

Rationale: The best position for the client is Semi-Fowler's, which allows for better comfort and lung expansion as opposed to the supine position. Promoting lung expansion allows for better oxygenation for the client who may have a compromised cardiac status.

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10. A nurse is caring for an older adult client who had a femoral head fracture 24 hr ago and is in skin traction. The client reports shortness of breath and dyspnea. The nurse should suspect that the client has developed which of the following complications?

A. Pneumonia

Rationale: Pneumonia can develop with immobility, but generally takes longer than 24 hr.

B. Fat embolism

Rationale: The nurse should suspect that client has fat embolism syndrome. This complication develops within 12 to 48 hr of a fracture and can cause dyspnea, respiratory distress, alterations in mental status, tachycardia, and other manifestations. Older adults who have hip fractures are at greater risk.

C. Pneumothorax

Rationale: Although pneumothorax can cause some of the same manifestations, the client is not at risk

unless she has also had chest trauma.

D. Airway obstruction

Rationale: Although airway obstruction can cause some of the same manifestations, the client is not at risk unless she is unable to cough up secretions or has an underlying condition.

11A A nurse is teaching a client who has stomatitis. Which of the following instructions should the nurse include?

A. Rinse with a commercial mouthwash.

Rationale: Many commercial mouthwashes contain alcohol, which can irritate stomatitis.

B. Use toothpaste that contains sodium laurel sulfate.

Rationale: Sodium laurel sulfate is associated with stomatitis. The client should avoid toothpastes that contain sodium laurel sulfate.

C. Cleanse the mouth with lemon-glycerine swabs.

Rationale: Lemon-glycerine swabs can irritate stomatitis.

D. Brush teeth with a soft toothbrush.

Rationale: The client should use a soft toothbrush and gently brush after each meal to reduce mouth irritation and prevent superinfections.

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12. A nursing is caring for a client who has aphasia following a stroke. A family member asks the nurse how she should communicate with the client. Which of the following responses by the nurse is appropriate?

A. "Incorporate nonverbal cues in the conversation."

Rationale: Nonverbal cues enhance the client's ability to comprehend and use language.

B. "Ask multiple choice questions as part of the conversation."

Rationale: Simple questions requiring yes and no responses are better understood by the client.

C. "Use a higher-pitched tone of voice when speaking."

Rationale: Tone of voice is understood by clients who have aphasia, unless they have a hearing impairment.

D. "Use simple, child-like statements when speaking."

Rationale: It is important to respect the client and use age-appropriate communication.

13A A nurse is teaching a class about providing emergency care for clients who have a sports-related injury. Which of