

Kevin's Review - 35 NCLEX Practice Questions

1. Kent, a new staff nurse asks her preceptor nurse how to obtain a blood sample from a patient with a portacath device. The preceptor nurse teaches the new staff nurse:

- A. The sample will be withdrawn into a syringe attached to the Portacath needle and then placed into a vacutainer.
- B. Portacath devices are not used to obtain blood samples because of the risk of clot formation.
- C. The vacutainer will be attached to the Portacath needle to obtain a direct sample.
- D. Any needle and syringe may be utilized to obtain the sample.

Correct Answer: A. The sample will be withdrawn into a syringe attached to the Portacath needle and then placed into a vacutainer.

A special port-a-cath needle is used to access the port-a-cath device. A syringe is attached and the sample is obtained. One of the primary reasons for the insertion of a Portacath device is the need for frequent or long-term blood sampling. A Portacath is a small chamber or reservoir that sits under the skin at the end of the central line. The other end of the line sits in a large vein close to the heart. The client may feel the chamber of the Portacath, but unless he is very thin he can't usually see it.

- **Option B:** The line is flushed regularly with heparin (an anti-clotting drug) or saltwater (saline) to clean the line and prevent clotting. Once a port is cleared for use, a patient may receive intravenous therapy through it for the course of his/her treatment. An adult portal chamber can take about 2,000 punctures on average, which may last a patient several years.
- **Option C:** A vacutainer will exert too much suction on the central line resulting in the collapse of the line. One can draw blood from a CVC using the discard method with direct Vacutainer connection or a syringe or using the push-pull method with a syringe. A vacutainer is a blood collection tube (sterile glass or plastic tube) used to collect blood samples for laboratory testing. These tubes have a closure that is evacuated to create a vacuum inside the tube thereby enabling a predetermined amount of blood to be withdrawn.
- **Option D:** Only special Portacath needles should be used to access the Portacath device. A port can be single or double lumen. Single lumen ports are most common and typically sufficient for patients requiring scheduled intravenous therapy. However, having a double lumen port is advantageous for patients who often receive multiple intravenous therapies at once. If two intravenous agents aren't compatible in the same line, you can infuse both simultaneously in different port lumens without complication. The double lumen port also allows a concurrent infusion of medication, chemotherapy, blood products, or parenteral nutrition. It is also beneficial for drawing labs without interruption of an infusion.

2. The clinic nurse provides instructions to a client receiving an antineoplastic medication. When implementing the plan, the nurse tells the client to?

- A. To consult with health care providers before receiving immunization.
- B. To avoid hot foods and high fiber-rich foods.
- C. To take acetylsalicylic acid as needed for headache.
- D. To drink beverages containing alcohol in moderate amount during the evening.

Correct Answer: A. To consult with health care providers before receiving immunization.

Because antineoplastic medications lower the resistance of the body, clients must be informed not to receive immunizations without a health care provider's approval.

- **Option B:** Diarrhea as one of the common signs of antineoplastic medication needs to avoid spicy and high-fiber foods which can increase peristalsis.
- **Option C:** Clients need to avoid aspirin to minimize the risk of bleeding.
- **Option D:** Clients need to avoid alcohol to minimize the risk of toxicity.

3. Actinic keratosis typically progresses into which type of skin cancer?

- A. Cutaneous T-cell lymphoma
- B. Squamous cell carcinoma
- C. Merkel cell cancer
- D. Sebaceous carcinoma

Correct Answer: B. Squamous cell carcinoma

Actinic keratosis, also known as solar keratosis, is a dry scaly patch found on sun-damaged skin. It is a precancerous form of cutaneous squamous cell carcinoma.

- **Options A, C, & D:** Actinic keratosis is not related to the development of these types of skin cancer.

4. A two-year-old child has sustained an injury to the leg and refuses to walk. The nurse in the emergency department documents swelling of the lower affected leg. Which of the following does the nurse suspect is the cause of the child's symptoms?

- A. Possible fracture of the tibia.
- B. Bruising of the gastrocnemius muscle.
- C. Possible fracture of the radius.
- D. No anatomic injury, the child wants his mother to carry him.

Correct Answer: A. Possible fracture of the tibia.

The child's refusal to walk, combined with swelling of the limb is suspicious for fracture.

- **Option B:** Toddlers will often continue to walk on a muscle that is bruised or strained.
- **Option C:** The radius is found in the lower arm and is not relevant to this question.
- **Option D:** Toddlers rarely feign injury to be carried, and swelling indicates a physical injury.

5. A nurse is caring for a client who has returned to the recovery unit following a craniotomy. The nurse can safely place the client in which position?

- A. Trendelenburg position.
- B. Fowler's position with the head leaning on the left side.

- C. Semi-fowler's position with the head in a midline position.
- D. Supine position with the neck flexed.

Correct Answer: C. Semi-Fowler's position with the head in a midline position.

Post-craniotomy clients should be placed in a semi-Fowler's position and the head is in a midline position to facilitate venous drainage from the head. For nearly all types of craniotomy, the patient is observed for at least the first 24 hours in a neurological intensive care unit (NICU) or general surgical ICU. Basic laboratory tests are sent (complete blood cell count and basic metabolic panel). Neurological examinations are performed by the nursing staff every 1-2 hours and any changes in neurologic status.

- **Option A:** Placing the client in a Trendelenburg position may increase the swelling of the brain. Frequent neurological checks will be done by the nursing and medical staff to test the brain function and to make sure the body systems are functioning properly after the surgery. The client will be asked to follow a variety of basic commands, such as moving the arms and legs, to assess brain function.
- **Option B:** The client's head must be placed in a midline position to facilitate venous drainage from the head and reduce the swelling. The recovery process will vary depending upon the type of procedure done and the type of anesthesia given. Once the client's blood pressure, pulse, and breathing are stable and he is alert, he may be taken to the ICU or the hospital room.
- **Option D:** The head of the bed may be elevated to prevent swelling of the face and head. Some swelling is normal. The client will be encouraged to move around as tolerated while in bed and to get out of bed and walk around, with assistance at first, as his strength improves. A physical therapist (PT) may be asked to evaluate the client's strength, balance, and mobility, and give him suggestions for exercises to do both in the hospital and at home.

6. The newly hired nurse is assigned by the charge nurse to care for a client with acute renal failure and hypernatremia. Which action can the nurse assign to the nursing assistant? Select all that apply.

- A. Administer 0.45% saline by IV line
- B. Assess daily weights for trends
- C. Check for indications of dehydration
- D. Render oral care every 3 to 4 hours

Correct Answer: D. Render oral care every 3 to 4 hours

The nursing assistant can provide oral care to the client. This is within the scope of practice of nursing assistants. The scope of practice for a CNA includes tasks such as basic daily patient care. This includes activities such as bathing, eating and dressing, but also smaller things such as grooming.

- **Option A:** Appropriate delegation allows for responsibility transition in a consistent, safe manner. The RN transfers the performance of a procedure, skill, or activity to a CNA. However, the practice of pervasive functions of critical decisions, nursing judgment, and clinical reasoning cannot be delegated.
- **Option B:** RNs cannot delegate any activity including the nursing judgment that involves critical decision making. When specific aspects of nurse care need to be delegated beyond the traditional assignments and roles of care providers, the delegation process and state NPA or nurse practice act must be understood clearly so that it is effectively and safely carried out.

- **Option C:** Monitoring clients demand the additional education and skills of the RN. A CNA's main role is to provide patients with basic care and assist them in their everyday activities, particularly when patients have a hard time doing a few activities on their own, such as bathing.

7. A client is admitted to the unit with the diagnosis of Deficient Fluid Volume related to excessive fluid loss. Which action related to fluid management should be charged to a nursing assistant?

- A. Administer intravenous (IV) fluids as prescribed by the physician.
- B. Develop a plan for added fluid intake over 24 hours.
- C. Provide straws and offer fluids between meals.
- D. Educate family members to assist the client with fluid intake.

Correct Answer: C. Provide straws and offer fluids between meals.

Additional fluid intake can be reinforced by the nursing assistance once it is part of the care plan. A CNA's main role is to provide patients with basic care and assist them in their everyday activities, particularly when patients have a hard time doing a few activities on their own, such as bathing.

- **Option A:** In some hospitals, a CNA will administer a patient's medication. Usually, however, this depends on the CNA's level of experience and training, as well as the regulations of the state.
- **Option B:** Among the tasks that CANNOT be legally and appropriately delegated to nursing assistants include assessments, nursing diagnosis, establishing expected outcomes, evaluating care and any and all other tasks and aspects of care.
- **Option D:** Educating families demand further education and skills that are within the field of practice of an RN. Based on the basic entry educational preparation differences among these members of the nursing team, care should be assigned according to the level of education of the particular team member.

8. Nurse Daisy is aware that the following pharmacologic agents are sedative-hypnotic medication is used to induce sleep for a client experiencing a sleep disorder is:

- A. triazolam (Halcion)
- B. paroxetine (Paxil)
- C. fluoxetine (Prozac)
- D. risperidone (Risperdal)

Correct Answer: A. triazolam (Halcion)

Triazolam is one of a group of sedative-hypnotic medications that can be used for a limited time because of the risk of dependence. Triazolam is used on a short-term basis to treat insomnia (difficulty falling asleep or staying asleep). Triazolam is in a class of medications called benzodiazepines. It works by slowing activity in the brain to allow sleep. Triazolam comes as a tablet to take by mouth. It is usually taken as needed at bedtime but not with or shortly after a meal. Triazolam may not work well if it is taken with food.

- **Option B:** Paroxetine is a serotonin-specific reuptake inhibitor used for treatment of depression, panic disorder, and obsessive-compulsive disorder. It is FDA approved for major depressive disorder (MDD), obsessive-compulsive disorder (OCD), social anxiety disorder (SAD), panic disorder, posttraumatic stress disorder (PTSD), generalized anxiety disorder (GAD), and premenstrual dysphoric disorder (PMDD), vasomotor symptoms associated with menopause.
- **Option C:** Fluoxetine is a serotonin-specific reuptake inhibitor used for depressive disorders and obsessive-compulsive disorders. Fluoxetine has FDA-approval for major depressive disorder (age eight and older), obsessive-compulsive disorder (age seven and older), panic disorder, bulimia, binge eating disorder, premenstrual dysphoric disorder, bipolar depression (as an adjunct with olanzapine also known as Symbyax), and treatment-resistant depression when used in combination with olanzapine.
- **Option D:** Risperidone is indicated for psychotic disorders. The long-acting risperidone injection has been approved for the use of schizophrenia and maintenance of bipolar disorder (as monotherapy or adjunctive to valproate or lithium) in adults. Risperidone has also been used for augmentation of antidepressant therapy in the treatment of non-psychotic unipolar depression. In addition to irritability associated with autism, risperidone has also been used for social impairment, stereotypical behaviors, cognitive problems, and hyperactivity in autism.

9. The wife admits that she is a victim of abuse and opens up about her persistent distaste for sex. This sexual disorder is:

- A. Sexual desire disorder
- B. Sexual arousal disorder
- C. Orgasm disorder
- D. Sexual Pain Disorder

Correct Answer: A. Sexual desire disorder

Has little or no sexual desire or has a distaste for sex. Hypoactive sexual desire disorder (HSDD) and sexual aversion disorder (SAD) are an under-diagnosed group of disorders that affect men and women. Despite their prevalence, these two disorders are often not addressed by healthcare providers and patients due their private and awkward nature.

- **Option B:** Failure to maintain the physiologic requirements for sexual intercourse. Sexual arousal disorder is characterized by a lack or absence of sexual fantasies and desire for sexual activity in a situation that would normally produce sexual arousal, or the inability to attain or maintain typical responses to sexual arousal. The disorder is found in the DSM-IV.
- **Option C:** Persistent and recurrent inability to achieve an orgasm. Orgasmic disorder is the lack of or delay in sexual climax (orgasm) even though sexual stimulation is sufficient and the woman is sexually aroused mentally and emotionally. Women may not have an orgasm if love-making ends too soon, there is not enough foreplay, or they are afraid of losing control or letting go.
- **Option D:** Also called dyspareunia. Individuals with this disorder suffer genital pain before, during and after sexual intercourse. Painful intercourse can occur for reasons that range from structural problems to psychological concerns. Many women have painful intercourse at some point in their lives. The medical term for painful intercourse is dyspareunia, defined as persistent or recurrent genital pain that occurs just before, during, or after intercourse.

10. The nurse is assessing vital signs for a patient just admitted to the hospital. Ideally, and if there are no contraindications, how should the nurse position the patient for this portion of the admission assessment?

- A. Sitting upright.
- B. Lying flat on the back with knees flexed.
- C. Lying flat on the back with arms and legs fully extended.
- D. Side-lying with the knees flexed.

Correct Answer: A. Sitting upright.

If the patient is able, the nurse should have the patient sit upright to obtain vital signs in order to allow the nurse to easily access the anterior and posterior chest for auscultation of heart and breath sounds. It allows for full lung expansion and is the preferred position for measuring blood pressure. Additionally, patients might be more comfortable and feel less vulnerable when sitting upright (rather than lying down on the back) and can have direct eye contact with the examiner. However, other positions can be suitable when the patient's physical condition restricts the comfort or ability of the patient to sit upright.

- **Option B:** Lying flat on the back with knees flexed or supine horizontal recumbent is most commonly used during breast exam.
- **Option C:** Lying flat on the back with arms and legs fully extended can make the patient feel uncomfortable.
- **Option D:** Sims' position is usually used to obtain rectal temperature.

11. A client with a deep decubitus ulcer is receiving therapy in the hyperbaric oxygen chamber. Before therapy, the nurse should:

- A. Apply an occlusive dressing to the site
- B. Apply a lanolin-based lotion to the skin
- C. Wash the skin with water and pat dry
- D. Cover the area with a petroleum gauze

Correct Answer: C. Wash the skin with water and pat dry

- Option C: The client going for therapy in the hyperbaric oxygen chamber requires no special skincare; therefore, washing the skin with water and patting it dry is suitable.
- Options A, B, and D: Lotions, petroleum products, perfumes, and occlusive dressings interfere with oxygenation of the skin.

12. Which of the following statements should be included when teaching clients about monoamine oxidase inhibitor (MAOI) antidepressants?

- A. Don't take aspirin or nonsteroidal anti-inflammatory drugs (NSAIDs).
- B. Have blood levels screened weekly for leukopenia.
- C. Avoid strenuous activity because of the cardiac effects of the drug.

D. Don't take prescribed or over-the-counter medications without consulting the physician.

Correct Answer: D. Don't take prescribed or over the counter medications without consulting the physician

MAOI antidepressants, when combined with a number of drugs, can cause life-threatening hypertensive crises. It's imperative that a client checks with his physician and pharmacist before taking any other medications. Tramadol, meperidine, dextromethorphan, and methadone are contraindicated in patients on MAOIs as they are at high risk for causing serotonin syndrome. In general, SSRIs, SNRIs, TCAs, bupropion, mirtazapine, St. John's Wort, and sympathomimetic amines, including stimulants, are contraindicated with MAOIs.

- **Option A:** MAOIs have the potential to cause drug-to-drug interactions, drug-food interaction, and overdoses, of which the patient should be aware. For example, patients should not be mixing MAOIs with other antidepressants like selective serotonin reuptake inhibitors (SSRIs). These two drugs combined can cause serotonin syndrome, which is potentially fatal. The first cases of serotonin syndrome were reported during the 1960s when patients were on MAOIs and tryptophan.
- **Option B:** Even though MAOIs are no longer a first-line treatment option, they are still in use, and it is essential to note the precautions when initiating treatment. Patients should be encouraged by health providers to carry identification cards or wear a wristband. Patients always need to notify every doctor they encounter, whether dental or medical, to avoid any health consequences, especially due to the medications' influence on the vasculature.
- **Option C:** The severity not only depends on the amount consumed but also on which type of MAOIs the patient took. For example, phenelzine and tranylcypromine being nonselective and nonreversible, increase the risk of a patient experiencing a hypertensive crisis when ingested with tyramine. However, selegiline is a selective MAO-B inhibitor with less hypertensive risk. Any patient experiencing any of the following: agitation, flushing, tachycardia, hypotension or hypertension, palpitations, twitching, increased deep tendon reflexes, seizures, or high fevers should immediately report to a health provider.

13. How will the nurse position a client with a burn wound to the posterior neck to prevent contractures?

- A. Have the client turn the head from side to side.
- B. Keep the client in a supine position without the use of pillows.
- C. Keep the client in a semi-Fowler's position with her or his arms elevated.
- D. Place a towel roll under the client's neck or shoulder.

Correct Answer: A. Have the client turn the head from side to side.

Deformities and contractures can often be prevented by proper positioning. Maintaining proper body alignment when the patient is in bed is vital. The function that would be disrupted by a contracture to the posterior neck is flexion. Moving the head from side to side prevents such a loss of flexion. This movement is what would prevent contractures from occurring.

- **Option B:** The client should not only be in a supine position but there should be a movement to avoid contractures. Splinting and proper positioning will also help achieve the prevention of contractures. As a matter of importance, movement should be incorporated into the patient's daily routine from their inception to the hospital.
- **Option C:** The burns are in the client's posterior neck. Performing active or passive range of motion (ROM) exercises, depending on the patient's level of consciousness is crucial in the

prevention of these complications.

- **Option D:** Placing a towel roll under the neck might not help prevent contractures. Immobilization is only allowed when a part of the body has just been grafted. Even then, the area must be kept in an antideformity position.

14. The nurse is giving dietary instructions to a client who is on a vegan diet. The nurse provides dietary teaching focus on foods high in which vitamin that may be lacking in a vegan diet?

- A. Vitamin A
- B. Vitamin D
- C. Vitamin E
- D. Vitamin C

Correct Answer: B. Vitamin D

Deficiencies in vegetarian diets include vitamin B12 which is found in animal products and vitamin D (if limited exposure to sunlight). Vegans and other vegetarians who limit their intake of animal products may be at greater risk of vitamin D deficiency than nonvegetarians because foods providing the highest amount of vitamin D per gram naturally are all from animal sources, and fortification with vitamin D currently occurs in few foods.

- **Option A:** Plant sources contain vitamin A in the form of carotenoids which have to be converted during digestion into retinol before the body can use it. Carotenoids are the pigments that give plants their green color and some fruits and vegetables their red or orange color.
- **Option C:** The best way to get the daily requirement of vitamin E is by eating food sources. Vitamin E is found in vegetable oils, nuts, seeds, green leafy vegetables, and fortified breakfast cereals. It is an antioxidant. This means it protects body tissue from damage caused by substances called free radicals. Free radicals can harm cells, tissues, and organs. They are believed to play a role in certain conditions related to aging.
- **Option D:** Vitamin C can be found in fruits and vegetables, which are eaten by a vegetarian. Humans are unable to synthesize vitamin C, so it is strictly obtained through the dietary intake of fruits and vegetables. Citrus fruits, berries, tomatoes, potatoes, and green leafy vegetables are excellent sources of vitamin C.

15. A 68-year-old patient with a long history of smoking is admitted to the respiratory unit due to increased shortness of breath and suspected pleural effusion. A chest X-ray has been ordered to assess the lungs and pleural spaces. As the nurse and the student nurse review the X-ray image together, the student nurse observes a thin, hazy line surrounding the lung tissue. Seizing the educational moment, the nurse, aiming to assess the student's comprehension of the anatomical structures of the thoracic cavity, asks, "The pleura that directly covers the surface of the lungs is called...?"

- A. Diaphragmatic pleura
- B. Mediastinal pleura

C. Visceral Pleura

D. Parietal Pleura

Correct Answer: C. Visceral Pleura

The pleura that covers the lung surface is known as the visceral pleura. It is a serous membrane that directly adheres to the lung tissue, providing a protective and lubricated surface that facilitates the smooth movement of the lungs within the thoracic cavity during respiration.

- **Options A:** The diaphragmatic pleura refers to the part of the parietal pleura that lines the diaphragm. While it is adjacent to the lungs, it does not directly cover the surface of the lungs.
- **Option B:** The mediastinal pleura is another section of the parietal pleura that lines the mediastinum, the central compartment of the thoracic cavity between the lungs. It does not cover the surface of the lungs directly.
- **Option D:** The parietal pleura lines the inside of the chest wall, diaphragm, and mediastinum but does not directly cover the lung tissue itself. The visceral pleura, which is continuous with the parietal pleura at the hilum of each lung, covers the lung surface.

16. One of the participants attending a parenting class asks the teacher “What is the leading cause of death during the first month of life?”

A. Bacterial sepsis

B. Respiratory distress of newborn

C. SIDS

D. Neonatal hemorrhage

Correct Answer: C. SIDS

According to the CDC, sudden infant death syndrome (SIDS) remains to be one of the leading causes of infant death. Around 1,300 infants died in 2018 due to this condition. SIDS is defined as the sudden and unexplained death of a baby younger than 1-year-old. Most of the deaths happened between the ages of one and 6 months. Factors that increase the risk of SIDS include stomach sleeping, a sibling who died of SIDS, mothers who smoke during pregnancy, exposure to secondhand smoking, sleeping areas containing soft blankets, pillows, or toys, and a lack of prenatal care.

- **Option A:** Neonatal sepsis refers to an infection involving the bloodstream in newborn infants less than 28 days old. It remains a leading cause of morbidity and mortality among neonates, especially in middle and lower-income countries. Due to the nonspecific neonatal presentation for sepsis and the high risk of mortality and morbidity without treatment, many asymptomatic neonates undergo a sepsis workup if risk factors are present and/or clinically indicated.
- **Option B:** As the most common cause of respiratory distress in premature infants, RDS occurs in about 24,000 infants born in the United States annually. It is also the most common complication of prematurity leading to significant morbidity in late preterm neonates and even mortality in very low birth weight infants.
- **Option D:** Neonatal hemorrhage is also part of the leading causes of infant mortality but occurs less often than SIDS. All infants irrespective of race, sex, color, religion, national origin, etc. are known to be affected by vitamin K deficiency bleeding. In early VKDB, the incidence in infants who have not received vitamin K prophylaxis ranges from about 6% to 12%. In classic VKDB, the incidence has gone down from 0.25% to 1.5% in earlier studies to 0.01% to 0.44% in recent studies.

17. Mrs. Cooper is concerned about her 4-month-old son's unusual condition; which of the following statements made by her would indicate that the child may have cerebral palsy?

- A. "He holds his left leg so stiff that I have a hard time putting on his diapers."
- B. "My baby won't lift his head up and look at me; he's so floppy."
- C. "My baby's left hip tilts when I pull him to standing position."
- D. "I'm very worried because my baby has not rolled all the way over yet."

Correct Answer: B. "My baby won't lift his head up and look at me; he's so floppy."

Hypotonia or floppy infant is an early manifestation of cerebral palsy. Typically, the infant lifts his head to a 90-degree angle by age 4 months with only a partial head lag by age 2 months. Clinical signs and symptoms of cerebral palsy can include micro- or macrocephaly, excessive irritability or diminished interaction, hyper- or hypotonia, spasticity, dystonia, muscle weakness, the persistence of primitive reflexes, abnormal or absent postural reflexes, incoordination, and hyperreflexia.

- **Option A:** Although rigidity and tenseness are possible signs of cerebral palsy, a limitation in one leg suggests DDH. The physical exam should focus on identifying clinical signs of cerebral palsy. Head circumference, mental status, muscle tone and strength, posture, reflexes (primitive, postural, and deep tendon reflexes), and gait should undergo evaluation.
- **Option C:** Tilting of the hip is an indication of developmental dysplasia of the hip (DDH). Clinical features vary for mild hip instability, limited abduction in the infant, asymmetric gait in the toddler, hip pain in adolescence, and osteoarthritis in the adult.
- **Option D:** Rolling completely over usually does not occur until the infant is 6 months. Though many 4-month-olds get pretty adept at rolling over, by 6 months old, most infants have mastered not only the stomach-to-back roll but also the reverse back-to-stomach maneuver.

18. While a nurse is administering a cleansing enema, the client reports abdominal cramping. Which of the following is the appropriate intervention?

- A. Have a client hold his breath briefly.
- B. Discontinue the fluid installation.
- C. Remind the client that cramping is common at this time.
- D. Lower the enema fluid container.

Correct Answer: D. Lower the enema fluid container.

To relieve the client's discomfort, the nurse should slow the rate of installation by reducing the height of the enema solution container. An enema may be helpful when there is a problem forming or passing stool. The colon, also called the large intestine or large bowel, is a long, hollow organ in the abdomen. It plays an important role in digestion by removing water from digested material and forming feces (stool). In some circumstances, due to diet, medical condition, or medication, among other possible causes, the bowel may form stool that is hard to pass easily resulting in constipation.

- **Option A:** Taking slow, deep breaths is more therapeutic for easing discomfort than holding the breath. A cleansing enema can also lower the amount of bacteria in the colon and reduce the risk of infection for certain surgeries.

- **Option B:** The nurse should stop the installation if the client's abdomen becomes rigid and distended or if the nurse notes bleeding from the rectum. An enema should not be painful when administered properly. The client may feel fullness, mild pressure, or brief, minimal cramping during the procedure. The client may also feel like he needs to have a bowel movement.
- **Option C:** This intervention is not therapeutic as it implies that the client must tolerate the discomfort and that the nurse cannot or will not do anything to ease it. The client may take a few long, deep breaths to help himself relax. If he has pain or discomfort while self-inserting an enema, stop and contact the doctor.

19. A 30-year-old mother, Mrs. Clarke, presents to the pediatric clinic with her 7-month-old son, Jeremiah. Jeremiah has been following the recommended vaccination schedule and is currently up to date. Mrs. Clarke expresses concerns about the risk of chickenpox, having experienced a severe case during her childhood. She recalls painful rashes and a prolonged recovery period. Eager to prevent her son from undergoing the same ordeal, Mrs. Clarke inquires about the optimal time for Jeremiah to receive the varicella zoster vaccine. The nurse is asked to recommend the most appropriate age from the given choices. Which of the following ages would be most suitable for the nurse to advise Mrs. Clarke to have Jeremiah receive the varicella zoster vaccine?

- A. At birth
- B. 2 months
- C. 6 months
- D. 12 months
- E. 15 months
- F. 18 months

Correct Answer: D. 12 months

The first dose of the varicella zoster vaccine is typically administered at 12 months of age, followed by a second dose at 4-6 years of age. Consequently, based on the recommended vaccination schedule, the nurse should advise Mrs. Clarke that Jeremiah should receive the varicella zoster vaccine at 12 months of age.

- **Option A:** The varicella zoster vaccine is not administered at birth. Newborns may have passive immunity from their mothers if the mothers are immune to chickenpox.
- **Option B:** The varicella zoster vaccine is not given at 2 months. Infants at this age receive other vaccines such as the DTaP and Hib, but not the chickenpox vaccine.
- **Option C:** While Jeremiah is currently 7 months old, the vaccine is not recommended at this age. The immune response might not be as robust as when given later.
- **Option E:** While other vaccines are given around this age (like the MMR vaccine), the varicella vaccine's primary dose is recommended at 12 months.
- **Option F:** The primary dose should have been administered by this time. Waiting this long would only extend the child's vulnerability to the disease.

20. A nurse notes that a client with schizophrenia and receiving an antipsychotic medication is having uncontrolled movement of the lips and tongue. The nurse determines that the client is experiencing?

- A. Hypertensive crisis
- B. Parkinsonism
- C. Tardive dyskinesia
- D. Neuroleptic malignant syndrome

Correct Answer: C. Tardive dyskinesia

Tardive dyskinesia is characterized by uncontrollable involuntary movements of the body and extremities (especially of the face, lips, mouth, tongue, arms, or legs).

- **Option A:** Hypertensive crisis occurs from the use of MAOIs.
- **Option B:** Parkinsonism is characterized by tremors, slow movement, impaired speech, or muscle stiffness.
- **Option D:** Neuroleptic malignant syndrome is a life-threatening condition caused by an adverse reaction to antipsychotic drugs. Symptoms include high fever, sweating, unstable blood pressure, stupor, muscular rigidity, and autonomic dysfunction.

21. A client is receiving spironolactone to treat hypertension. Which of the following instructions should the nurse provide?

- A. "Eat foods high in potassium."
- B. "Take daily potassium supplements."
- C. "Discontinue sodium restrictions."
- D. "Avoid salt substitutes."

Correct Answer: D. "Avoid salt substitutes."

Because Spironolactone is a potassium-sparing diuretic, the client should avoid salt substitutes because of their high potassium content. Spironolactone specifically works by competitively blocking aldosterone receptor-mediated action. The effect of the blockade is that sodium reabsorption with water retention does not occur, and there is increased potassium retention.

- **Option A:** Spironolactone belongs to the drug class of mineralocorticoid receptor antagonists, and it is a nonselective antagonist that can bind to androgen and progesterone receptors. Aldosterone, a component of the renin-angiotensin-aldosterone system, binds to its receptors at the distal tubules and collecting duct and causes sodium reabsorption and potassium secretion, increased vascular stiffness and remodeling, and increased cardiac inflammation, fibrosis, and remodeling.
- **Option B:** Hyperkalemia is an adverse effect of spironolactone. This drug is contraindicated in patients with hyperkalemia and in those at increased risk of developing hyperkalemia. Routine blood work is necessary to evaluate serum potassium levels and any decline in renal function. Additional urine studies to assess kidney function may also be a requirement.
- **Option C:** The client should also avoid potassium-rich foods and potassium supplements. To reduce fluid volume overload, sodium restrictions should continue. Hyperkalemia can be due to spironolactone alone or a synergistic side effect from multiple medications such as beta-blockers,

angiotensin-converting enzyme inhibitors, and angiotensin receptor blockers that clinicians often prescribe to patients for indications such as hypertension or heart failure.

22. During the initial interview, a client with schizophrenia suddenly turns to the empty chair beside him and whispers, “Now just leave. I told you to stay home. There isn’t enough work here for both of us!” What is the nurse’s best initial response?

- A. “When people are under stress, they may see things or hear things that others don’t. Is that what just happened?”
- B. “I’m having a difficult time hearing you. Please look at me when you talk.”
- C. “There is no one else in the room. What are you doing?”
- D. “Who are you talking to? Are you hallucinating?”

Correct Answer: A. “When people are under stress, they may see things or hear things that others don’t. Is that what just happened?”

This response makes the client feel that experiencing hallucinations is acceptable and promotes an open, therapeutic relationship. Authenticity, empathy, understanding of illness and the person, non-stigmatization, and the ability to work as a team are essential characteristics that the nurse must have for the therapeutic relationship to be effective. It is crucial to work with insights into the disease, the importance of adherence, and the reduction of self-stigma. Establishing a therapeutic relationship with the person with schizophrenia is therefore a constant challenge that must accompany the various stages of the disease in cooperation with the family and the community.

- **Option B:** Directing the client to look at the nurse wouldn’t address the obvious issue of the hallucination. As for the presence of hallucinations, the NIC defines the nursing diagnosis of Hallucination Control(6510) as the promotion of safety, comfort, and the hallucinating patient’s orientation towards reality.² Auditory hallucinations are the most frequent, so the nurse must observe certain signs, such as taking a listening posture, unmotivated laughter, talking to oneself, and blocks in thinking, lack of attention, and distraction. In the presence of these signs, the nurse should avoid touching the patient without warning, as the touch may be understood as a threat.
- **Option C:** It is important that the patient understands that the voices are unreal and are part of the disease, and distraction techniques can be used to direct the patient towards reality. Listening to music or watching television may be a good technique to distract the patient from the attention given to auditory hallucinations. These interventions are intended to establish a relationship of empathy and trust with the patient, causing the patient to begin to be critical towards the disease so that new intervention strategies can be implemented.
- **Option D:** Confrontational approaches are likely to elicit an uninformative or negative response. Nurses must display an attitude of acceptance to help the patient share the content of the hallucination. This sharing is important to avoid unwanted reactions towards the self or others, if command hallucinations are present. The hallucination should not be reinforced, and the word “voices” should be used to refer to it, avoiding the word “they” which may indicate validation. It is also essential to make the patient realize that the nurse does not share the perception by saying, “I know the voices for you are real, but I do not hear any voices.”

23. Soon after delivery, a neonate is admitted to the central nursery. The nursery nurse begins the initial assessment by:

- A. auscultate bowel sounds.
- B. determining chest circumference.
- C. inspecting the posture, color, and respiratory effort.
- D. checking for identifying birthmarks.

Correct Answer: C. inspecting the posture, color, and respiratory effort.

- **Option C:** One of the first assessments is a baby's Apgar score. At one minute and five minutes after birth, infants are checked for heart and respiratory rates, muscle tone, reflexes, and color. This helps identify babies that have difficulty breathing or have other problems that need further care.

24. When administering antianxiety medications to an elderly client, which of the following actions by the nurse is essential?

- A. Monitor vital signs
- B. Suggest reduced doses
- C. Taper dose before stopping
- D. Implement a fall prevention protocol

Correct Answer: D. Implement a fall prevention protocol

Increased sedation, dizziness, and hypotension are side effects that place the elderly at high risk for falls. The use of benzodiazepines among elderly patients has been associated with intellectual and cognitive impairment. Cognitive impairment is characterized by anterograde amnesia, diminished short-term recall, and increased forgetfulness.

- **Option A:** All clients need to have vital signs monitored periodically when taking these medications. Benzodiazepines and other types of sedative-hypnotics, such as Z-drugs, are no longer recommended for treating insomnia in older adults and are considered inappropriate. In addition to causing memory impairment, falls, fractures, and motor vehicle accidents, data now show that sedative-hypnotics account for a substantial number of avoidable emergency department visits and hospital admissions. Even episodic use is associated with harm. A lifetime use of more than 90 doses of benzodiazepines, equivalent to twice a week for 1 year, has been shown to confer a 50% higher risk of dementia and to double the risk of death.
- **Option B:** Geriatric clients may require reduced doses, but the risk for falls is still present. The risk of hip fracture is greatest within the first 2 weeks of therapy, increasing with higher doses and concomitant administration of other centrally acting nervous system drugs. Patients should be maintained on their current doses until symptoms resolve or be encouraged to push through the taper until they are drug-free. Substitution with diazepam was previously recommended for formulations of benzodiazepines that could not be halved or quartered, but skipping doses every 2–3 days is a simpler strategy to gradually reduce drug levels.
- **Option C:** Dose tapering is not related to age. No magic formula exists for tapering benzodiazepines, as different protocols have not been compared. Some authorities recommend tapering the dose by 25% every 2 weeks; in elderly patients, a longer tapering schedule over 4–5 months is generally preferred. Withdrawal symptoms tend to be most severe during the last quarter of the taper. Updosing (returning to a higher dose) should be avoided.

25. Safety of a drug is determined by the degree between:

- A. Therapeutic and toxic doses.
- B. Potency and efficacy.
- C. Subtherapeutic and toxic levels.
- D. Side and adverse effects.

Correct Answer: A. Therapeutic and toxic doses.

Safety is determined by the degree between therapeutic and toxic doses. The Therapeutic Index (TI) is used to compare the therapeutically effective dose to the toxic dose of a pharmaceutical agent. The TI is a statement of relative safety of a drug. It is the ratio of the dose that produces toxicity to the dose needed to produce the desired therapeutic response.

- **Option B:** Potency and efficacy are not related to safety. Potency denotes the amount of drug needed to produce a given effect. Efficacy is the maximal effect that a drug produces irrespective of concentration (dose) Potency: We generally refer to potency as the amount of drug dose that produces a quantal effect in 50% of the population.
- **Option C:** Subtherapeutic levels are not part of safety determinations because if a drug is subtherapeutic it does not exert any desired effect. Toxicity can be measured by the effect the substance has on an organism, a tissue, or a cell. We know that individuals will respond differently to the same dose of a substance because of a number of factors including their gender, age, and body weight. Therefore a population-level measure of toxicity is often used.
- **Option D:** Side effects are expected, and adverse effects are often the result of toxicity. A side effect is an undesirable physical symptom caused by taking a drug or undergoing medical treatment or therapy. Side effects can range from relatively minor symptoms—such as drowsiness or an upset stomach—to serious effects such as liver damage, and sometimes even life-threatening or potentially fatal effects.

26. A pregnant woman's last menstrual period began on April 8, 2020, and ended on April 13. Using Naegele's rule her estimated date of birth would be:

- A. January 15, 2021
- B. January 20, 2021
- C. July 1, 2021
- D. November 5, 2020

Correct Answer: A. January 15, 2021.

Naegele's rule requires subtracting 3 months and adding 7 days and 1 year if appropriate to the first day of a Naegele's rule requires subtracting 3 months and adding 7 days and 1 year if appropriate to the first day of a pregnant woman's last menstrual period. When this rule was used on April 8, 2020, the estimated date of birth was January 15, 2021.

- **Option B:** Determining gestational age is one of the most critical aspects of providing quality prenatal care. Knowing the gestational age allows the obstetrician to provide care to the mother without compromising maternal or fetal status. It allows for the correct timing of management, such as administering steroids for fetal lung maturity, starting ASA therapy with a history of pre-eclampsia in previous pregnancies, starting hydroxyprogesterone caproate (Makena) for

previous preterm deliveries.

- **Option C:** Naegele's rule, derived from a German obstetrician, subtracts 3 months and adds 7 days to calculate the estimated due date (EDD).
- **Option D:** It is prudent for the obstetrician to get a detailed menstrual history, including duration, flow, previous menstrual periods, and hormonal contraceptives. These factors are used to determine the length of her cycles and ovulation period.

27. Nurse Trisha teaches a client with heart failure to take oral furosemide in the morning. The reason for this is to help...

- A. Retard rapid drug absorption
- B. Excrete excessive fluids accumulated at night
- C. Prevents sleep disturbances during night
- D. Prevention of electrolyte imbalance

Correct Answer: C. Prevents sleep disturbances during night

When diuretics are taken in the morning, the client will void frequently during daytime and will not need to void frequently at night. Normally, when an individual receives furosemide either orally or intravenously, it increases sodium excretion in urine. In a patient with extracellular volume expansion who has never had exposure to furosemide, the first dose of the drug causes significant sodium excretion and diuresis within the first 3 to 6 hours.

- **Option A:** Furosemide inhibits tubular reabsorption of sodium and chloride in the proximal and distal tubules, as well as in the thick ascending loop of Henle by inhibiting sodium-chloride cotransport system resulting in excessive excretion of water along with sodium, chloride, magnesium, and calcium.
- **Option B:** Excreting excessive fluids at night could cause sleep disturbances for the client. The onset of action of furosemide is usually within the first hour of oral furosemide intake, and it takes first 1 to 2 hours to achieve a peak effect. The mean bioavailability of oral furosemide is 51% compared with the bioavailability of intravenously administered furosemide.
- **Option D:** Administration of furosemide results in excessive excretion of water along with sodium, chloride, magnesium, and calcium. Although more furosemide gets excreted in the urine after IV administration, there is no difference in the amount of unchanged furosemide excretion in urine between the two formulations. Furosemide achieves an early and high serum peak concentration and a higher peak excretion rate after intravenous administration.

28. Which of the following symptoms is common in clients with TB?

- A. Weight loss
- B. Increased appetite
- C. Dyspnea on exertion
- D. Mental status changes

Correct Answer: A. Weight loss

TB typically produces anorexia and weight loss. Other signs and symptoms may include fatigue, low-grade fever, and night sweats. Secondary tuberculosis differs in clinical presentation from the primary progressive disease. In secondary disease, the tissue reaction and hypersensitivity is more severe, and patients usually form cavities in the upper portion of the lungs.

- **Option B:** Constitutional symptoms like fever, weight loss, lymphadenopathy, and night sweats are commonly reported. Extrapulmonary tuberculosis can affect any organ and can have a varied presentation.
- **Option C:** Physical examination depends on the organs involved. In the case of pulmonary TB, a patient can have crepitations, and bronchial breath sounds, especially over the upper lobes or affected area indicating cavity or consolidation.
- **Option D:** The presentation of secondary tuberculosis is different from that of primary progressive disease as the hypersensitivity, and tissue reaction is more severe in secondary tuberculosis. Primary tuberculosis often causes middle and lower lung field opacities associated with mediastinal adenopathy. Whereas secondary tuberculosis commonly involves upper lobes, causing opacities, cavities, or fibrotic scar tissue.

29. When teaching the client to care for an ileal conduit, the nurse instructs the client to empty the appliance frequently, primarily to prevent which of the following problems?

- A. Rupture of the ileal conduit.
- B. Interruption of urine production.
- C. Development of odor.
- D. Separation of the appliance from the skin.

Correct Answer: D. Separation of the appliance from the skin

If the appliance becomes too full, it is likely to pull away from the skin completely or to leak urine onto the skin. Empty, irrigate, and cleanse ostomy pouch on a routine basis, using appropriate equipment. Frequent pouch changes are irritating to the skin and should be avoided. Emptying and rinsing the pouch with the proper solution not only removes bacteria and odor-causing stool and flatus but also deodorizes the pouch.

- **Option A:** A full appliance will not rupture the ileal conduit. Support surrounding skin when gently removing appliances. Apply adhesive removers as indicated, then wash thoroughly. Prevents tissue irritation or destruction associated with “pulling” pouch off.
- **Option B:** A full appliance will not interrupt urine production. Investigate reports of burning, itching, or blistering around the stoma. Indicative of effluent leakage with peristomal irritation, or possibly Candida infection, requiring intervention.
- **Option C:** Odor formation has numerous causes. Use a transparent, odor-proof drainable pouch. A transparent appliance during the first 4–6 wk allows easy observation of stoma without the necessity of removing pouch/irritating skin.

30. The client with an ileal conduit will be using a reusable appliance at home. The nurse should teach the client to clean the appliance routinely with what product?

- A. Baking soda
- B. Soap
- C. Hydrogen peroxide
- D. Alcohol

Correct Answer: B. Soap

A reusable appliance should be routinely cleaned with soap and water. Clean with warm water and pat dry. Use soap only if the area is covered with sticky stool. If the paste has collected on the skin, let it dry, then peel it off. Maintaining a clean and dry area helps prevent skin breakdown.

- **Option A:** Baking soda may irritate the skin. Clean stoma gently by wiping it with warm water. Do not use soap. Aggressive cleaning can cause bleeding. If removing stoma adhesive paste from the skin, use a dry cloth first.
- **Option C:** Wash the skin and pat dry. Do not use alcohol or hydrogen peroxide to clean around the stoma because this can damage the tissue. Consider more frequent pouch changes if the skin is red and irritated.
- **Option D:** Do not use Benzoin on the skin around the stoma. Skin preparations should not be used under wafer-type barriers because this can result in redness and itching and can actually interfere with the integrity of the barrier.

31. When caring for a male client with acute renal failure (ARF), Nurse Fatrishia expects to adjust the dosage or dosing schedule of certain drugs. Which of the following drugs would not require such adjustment?

- A. Acetaminophen (Tylenol)
- B. Gentamicin sulfate (Garamycin)
- C. Cyclosporine (Sandimmune)
- D. Ticarcillin disodium (Ticar)

Correct Answer: A. acetaminophen (Tylenol)

Because acetaminophen is metabolized in the liver, its dosage and dosing schedule need not be adjusted for a client with ARF. Acetaminophen use has been linked to liver failure and sometimes has led to liver transplant or death. The hepatotoxicity occurring with acetaminophen use typically correlates with high doses of acetaminophen that exceed the recommended maximum dose.

- **Option B:** In contrast, the dosages and schedules for gentamicin, which are metabolized and excreted by the kidney, should be adjusted. The gentamicin is prone to accumulate in the renal proximal tubular cells and can cause damage. Hence, mild proteinuria and reduction of the glomerular filtration rate are potential consequences of gentamicin use, achieving 14% of gentamicin users in a review. Once proximal tubular cells carry regeneration capacity, renal injury and its consequences often are reversible.
- **Option C:** Because cyclosporine may cause nephrotoxicity, the nurse must monitor both the dosage and blood drug level in a client receiving this drug. Decreases glomerular filtration rate (GFR) due to an increased tone of the glomerular afferent arterioles. Serum creatinine concentration rises and decreases creatinine clearance. The undesirable effects correlate with the duration of treatment and dose.

- **Option D:** Third-generation penicillins such as carbenicillin and ticarcillin are also able to penetrate gram-negative bacterial porin channels. Most penicillin derivatives are not metabolized much by the liver. They are rapidly excreted in the urine as they are water-soluble, and some of the drugs are excreted in bile. Penicillin has a relatively short half-life of about 2 hours.

32. The following are natural childbirth procedures, except?

- A. Lamaze method
- B. Dick-Read method
- C. Ritgen's maneuver
- D. Psychoprophylactic method

Correct Answer: C. Ritgen's maneuver

Ritgen's method is used to prevent perineal tear/laceration during the delivery of the fetal head. Lamaze method is also known as psychoprophylactic method and Dick-Read method are commonly known natural childbirth procedures which advocate the use of nonpharmacologic measures to relieve labor pain.

- **Option A:** Lamaze breathing historically is considered the hallmark of Lamaze preparation for childbirth. Controlled breathing enhances relaxation and decreases the perception of pain. It is one of many comfort strategies taught in Lamaze classes. In restricted birthing environments, breathing may be the only non-pharmacological comfort strategy available to women. Conscious breathing and relaxation, especially in combination with a wide variety of comfort strategies, can help women avoid unnecessary medical intervention and have a safe, healthy birth.
- **Option B:** The term 'natural childbirth' derives from the title of a short 1933 treatise by Grantly Dick-Read. In this and several other books and articles published over the next quarter-century, the British-born physician outlined an alternative to the anesthetized, medically controlled way of birth common among Western women of privilege, based on the premise that fear lay at the root of pain in labor. For Dick-Read, whether or not a mother experienced pain in labor depended not on some property inherent to the physiology of parturition but on cultural attitudes to childbirth. Through education and relaxation, women could overcome what he termed the 'Fear–Tension–Pain' cycle and labor in comfort without resorting to medical intervention. Preparation for labor meant providing pregnant women with detailed instruction, from their physician, midwife, or qualified childbirth educator, on the physiology of pregnancy and birth, nutrition, exercise, hygiene, and infant care.
- **Option D:** In the late 1940s, Soviet scientists invented a new non-pharmacological method called the 'psychoprophylactic method of painless childbirth' (PPM), which later became well known as the Lamaze method in the West.¹ This gift of Soviet science to the women of the world was based on the assumption that it was possible to eliminate the sensation of bodily pain during labor by training the mind of a pregnant woman before she gives birth.

33. Which nursing intervention takes the highest priority when caring for a newly admitted client who's receiving a blood transfusion?

- A. Warming the blood prior to transfusion.
- B. Informing the client that the transfusion usually takes 4 to 6 hours.
- C. Documenting blood administration in the client chart.

D. Instructing the client to report any itching, chest pain, or dyspnea.

Correct Answer: D. Instructing the client to report any itching, headache, or dyspnea.

This will help the nurse take immediate action in case a reaction happens during a transfusion. There are multiple complications of blood transfusions, including infections, hemolytic reactions, allergic reactions, transfusion-related lung injury (TRALI), transfusion-associated circulatory overload, and electrolyte imbalance.

- **Option A:** There is no evidence that warming blood is beneficial to the patient when transfusion is slow. At transfusion rates of greater than 100 mL/minute, cold blood may be a contributing factor in cardiac arrest. However, keeping the patient warm is probably more important than warming the blood.
- **Option B:** Transfusion of a unit of blood should be completed within a maximum period of four hours after removal from the blood fridge: discard the unit if this period is exceeded. If blood has been out of the blood bank refrigerator for more than 30 minutes and is not transfused, then the unit must be returned to the laboratory, where it will be disposed of.
- **Option C:** Documentation related to transfusion therapy should include verification of the prescribed blood product and blood product compatibility; verification of appropriate clinical indication for the transfusion; the date and time of transfusion, type of blood product administered, in addition to the volume, infusion rate, and time of initiation and completion of transfusion; any medication administered, including premedication (if I.V. drugs are required during transfusion, another I.V. site is required); the patient's clinical status throughout the transfusion therapy, including patient assessment data such as vital signs and lung sounds; the patient's response to therapy including any complications or adverse reactions, treatment required, and response to that treatment; and the amount of blood transfused and the return of the unused portion to the blood bank.

34. Erickson's stage of psychosocial development in which social relationships develop and productivity increases.

- A. Initiative vs guilt
- B. Autonomy vs shame and doubt
- C. Industry vs inferiority
- D. Generativity vs stagnation

Correct Answer: C. Industry vs inferiority

Industry vs inferiority starts from 6 to 12 years of age when children need to cope with social and academic demands. Success at this stage leads to competence and self-confidence. Once school begins, actual performance and skill are evaluated. Grades and feedback from educators encourage kids to pay more attention to the actual quality of their work.

- **Option A:** Initiative vs guilt (3 to 6 years) is the stage when children become purposeful and directive. Children need to begin asserting control and power over the environment by taking initiative by planning activities, accomplishing tasks, and facing challenges.
- **Option B:** Autonomy vs shame and doubt (18 months to 3 years) is the stage when children learn to control their own bodies. It is at this point in development that young children begin to express a greater need for independence and control over themselves and the world around them.

- **Option D:** Generativity vs stagnation (35 to 65 years) is the stage when the concern is centered on family and society. During this time, adults strive to create or nurture things that will outlast them; often by parenting children or contributing to positive changes that benefit other people.

35. A complete blood count is commonly performed before Joe goes into surgery. What does this test seek to identify?

- A. Potential hepatic dysfunction indicated by decreased blood urea nitrogen (BUN) and creatinine levels.
- B. Low levels of urine constituents normally excreted in the urine.
- C. Abnormally low hematocrit (HCT) and hemoglobin (Hb) levels.
- D. Electrolyte imbalance that could affect the blood's ability to coagulate properly.

Correct Answer: C. Abnormally low hematocrit (HCT) and hemoglobin (Hb) levels.

Low preoperative HCT and Hb levels indicate the client may require a blood transfusion before surgery. If the HCT and Hb levels decrease during surgery because of blood loss, the potential need for a transfusion increases.

- **Option A:** Possible renal failure is indicated by elevated BUN or creatinine levels.
- **Option B:** Urine constituents aren't found in the blood. They are found in urine specimens.
- **Option D:** Coagulation is determined by the presence of appropriate clotting factors, not electrolytes.