

Kevin's Review - 85 NCLEX Practice Questions

1. A client completing requirements for student teaching reports to the nurse an incident in which a student was rude and disrespectful. The client states, "None of the students respects my teaching ability." The nurse identifies this as an example of which common negative cognition?

- A. Labeling
- B. Fortune telling
- C. Overgeneralization
- D. "Should" statement

Correct Answer: C. Overgeneralization

The client in this situation is overgeneralizing the response of one particular student, inferring that the entire class has this attitude and blowing the incident but of proportion. Overgeneralization frequently affects people with depression or anxiety disorders. It is a way of thinking where you apply one experience to all experiences, including those in the future.

- **Option A:** Labeling is the application of negative labels to oneself or others. This label may be a reasonable reflection of who they are right now, but it also carries a belief that the behavior reflects a person's essence.
- **Option B:** Fortune-telling is the conviction that things will not turn out right, despite evidence to the contrary. Fortune telling is a cognitive distortion in which you predict a negative outcome without realistically considering the actual odds of that outcome. It is linked to anxiety and depression, and is one of the most common cognitive distortions that arise during the course of cognitive restructuring.
- **Option D:** "Should" statements refer to statements establishing standards for self and others. Should statements are a common negative thinking pattern, or cognitive distortion, that can contribute to feelings of fear and worry. They also put unreasonable demands and pressure on ourselves, which can make us feel guilty or like we've failed.

2. A client is receiving nutrition via parenteral nutrition (PN). A nurse assesses the client for complications of the therapy and assesses the client for which of the following signs of hyperglycemia?

- A. High-grade fever, chills, and decreased urination.
- B. Fatigue, increased sweating, and heat intolerance.
- C. Coarse dry hair, weakness, and fatigue.
- D. Thirst, blurred vision, and diuresis.

Correct Answer: D. Thirst, blurred vision, and diuresis.

Signs of hyperglycemia include excessive thirst, fatigue, restlessness, blurred vision, confusion, weakness, Kussmaul's respirations, diuresis, and coma when hyperglycemia is severe. Hyperglycaemia is found in up to 50% of PN patients. Important predictors are insulin resistance or diabetes mellitus, severity of the underlying illness, concomitant steroid therapy, and the amount of glucose provided.

- **Option A:** High-grade fever, chills, and decreased urination are signs of infection. The risk of infectious complications is increased due to venous access for PN. The likelihood of

hyperglycemia-induced complications may depend on concomitant diseases, duration of PN, and life expectancy.

- **Option B:** Fatigue, increased sweating, and heat intolerance are signs of hyperthyroidism. Hyperthyroidism may manifest as weight loss despite an increased appetite, palpitation, nervousness, tremors, dyspnea, fatigability, diarrhea or increased GI motility, muscle weakness, heat intolerance, and diaphoresis.
- **Option C:** Coarse dry hair, weakness, and fatigue are signs of hypothyroidism. Inquire about dry skin, voice changes, hair loss, constipation, fatigue, muscle cramps, cold intolerance, sleep disturbances, menstrual cycle abnormalities, weight gain, and galactorrhea. Also obtain a complete medical, surgical, medication, and family history.

3. Mr. Johnson was recently admitted to a psychiatric unit because of severe obsessive-compulsive behavior. Which initial response by the nurse would be most therapeutic for him?

- A. Accepting the client's ritualistic behaviors.
- B. Challenging the client's need for rituals.
- C. Expressing concern about the harmfulness of the client's rituals.
- D. Limiting the client's rituals that are excessive.

Correct Answer: A. Accepting the client's ritualistic behaviors

It is important to accept the client's need to perform ritualistic behaviors in this situation; admission to a psychiatric unit is stressful, and this client will tend to increase rituals when anxious. Other options are not appropriate for a newly admitted client. Initially meet the client's dependency needs as necessary. Sudden and complete elimination of avenues for dependency would create anxiety and will burden the client more.

- **Option B:** During the beginning of treatment, allow plenty of time for rituals. Do not be judgmental or verbalize disapproval of the behavior. To deny the client this activity can precipitate panic level of anxiety. Encourage independence and give positive reinforcement for independent behaviors. Positive reinforcement enhances self-esteem and encourages the repetition of desired behaviors.
- **Option C:** Support and encourage the client's efforts to explore the meaning and purpose of the behavior. The client may be unaware of the relationship between emotional problems and compulsive behaviors. Recognition and acceptance of problems are important before a change can occur. Gradually limit the amount of time allotted for ritualistic behavior as the client becomes more involved in unit activities. Anxiety is minimized when the client is able to replace ritualistic behaviors with more adaptive ones.
- **Option D:** Encourage the recognition of situations that provoke obsessive thoughts or ritualistic behaviors. Recognition of precipitating factors is the first step in teaching the client to interrupt escalation of anxiety. Provide positive reinforcement for non-ritualistic behaviors. Positive reinforcement enhances self-esteem and encourages the repetition of desired behaviors.

4. A 45-year-old male patient visits the cardiology clinic for his routine check-up. He mentions feeling palpitations recently and expresses concern about his heart's health due to a family history of cardiac diseases. To better educate the patient on heart anatomy and ensure he's aware of basic cardiac

structures, the nurse uses a model of the heart. She asks him to identify specific parts to gauge his knowledge. Taking the model, she poses the question: “Can you point to the lower, pointed tip portion of the heart for me?” Based on the nurse’s instruction, the patient should identify the lower, pointed tip portion of the heart commonly referred to as which of the following?

- A. Aorta
- B. Apex
- C. Base
- D. Ventricular septum

Correct Answer: B. Apex

The “apex” in the context of the heart is the lower, pointed tip of the organ. It is located at the bottom of the heart, typically pointing down and to the left, and is responsible for initiating contractions that pump blood into the circulatory system.

- **Option A:** The aorta is the largest artery that carries blood from the left ventricle to the body.
- **Option C:** The larger, flat portion at the opposite is the base.
- **Option D:** The ventricular septum is the muscular wall that separates the right and left ventricles and is not the term used to describe the lower tip of the heart.

5. A 28-year-old software engineer, known to be a health enthusiast, attends an endocrinology lecture as part of a community health awareness program. He has recently been focusing on metabolic rates and their influence on weight management. The topic of thyroid hormones piques his interest, especially as he has a family history of thyroid disorders. As the discussion progresses, the instructor wishes to emphasize the significance of the thyroid hormones T3 and T4. She challenges the audience, asking, “Considering their pivotal role in body regulation, can you identify the primary function of the thyroid hormones T3 and T4?”

- A. Reduce blood glucose levels
- B. Release calcitonin
- C. Regulate bone growth
- D. Increase metabolic rate

Correct Answer: D. Increase metabolic rate

One of the primary roles of T3 and T4 is to regulate the body’s basal metabolic rate. Thyroid hormones stimulate nearly all tissues in the body to produce protein and increase the amount of oxygen used by cells. The more active a cell is, the more energy it requires, hence the overall increase in the body’s metabolic rate.

- **Option A:** While thyroid hormones can influence carbohydrate metabolism and thereby play a role in glucose regulation, they do not primarily function to reduce blood glucose levels. Insulin, produced by the pancreas, is the primary hormone responsible for lowering blood glucose.

- **Option B:** Calcitonin is indeed produced by the thyroid gland, specifically by the parafollicular or C cells. However, it's a separate hormone from T3 and T4 and has a different function, mainly to decrease blood calcium levels.
- **Option C:** While thyroid hormones influence bone growth and development, especially in the growing years, and can affect bone turnover in adults, their primary function is not the regulation of bone growth. Growth hormones and other factors play a more direct role in bone growth.

6. The nurse is caring for a 10-year-old on admission to the burn unit. One assessment parameter that will indicate that the child has adequate fluid replacement is:

- A. Urinary output of 30 ml per hour
- B. No complaints of thirst
- C. Increased hematocrit
- D. Good skin turgor around burn

Correct Answer: A. Urinary output of 30 ml per hour

For a child of this age, this is adequate output, yet does not suggest overload. Disruption of sodium-ATPase activity presumably causes an intracellular sodium shift which contributes to hypovolemia and cellular edema. Heat injury also initiates the release of inflammatory and vasoactive mediators. These mediators are responsible for local vasoconstriction, systemic vasodilation, and increased transcapillary permeability. Increase in transcapillary permeability results in a rapid transfer of water, inorganic solutes, and plasma proteins between the intravascular and interstitial spaces.

- **Option B:** Relying on the client's thirst would not create accurate results. The steady intravascular fluid loss due to these sequences of events requires sustained replacement of intravascular volume in order to prevent end-organ hypoperfusion and ischemia.
- **Option C:** An increase in hematocrit suggests vascular space fluid losses. Reduced cardiac output is a hallmark in this early post-injury phase. The reduction in cardiac output is the combined result of decreased plasma volume, increased afterload and decreased cardiac contractility, induced by circulating mediators.
- **Option D:** A good skin turgor is not an accurate indicator of adequate fluid replacement. The goal of fluid management in major burn injuries is to maintain the tissue perfusion in the early phase of burn shock, in which hypovolemia finally occurs due to steady fluid extravasation from the intravascular compartment.

7. A client with bacterial pneumonia is admitted to the pediatric unit. What would the nurse expect the admitting assessment to reveal?

- A. High fever
- B. Nonproductive cough
- C. Rhinitis
- D. Vomiting and diarrhea

Correct Answer: A. High fever

If the child has bacterial pneumonia, a high fever is usually present. Increased temperature (usually more than 38 C or 100.4 F) or fever with tachycardia and/or chills and sweats is a major clinical finding. Physical findings also vary from patient to patient and mainly depend on the severity of lung consolidation, the type of organism, the extent of the infection, host factors, and existence or nonexistence of pleural effusion.

- **Option B:** Bacterial pneumonia usually presents with a productive cough, not a nonproductive cough. The presence of a productive cough is the most common and significant presenting symptom. The lower respiratory tract is not sterile, and it always is exposed to environmental pathogens. Invasion and propagation of the above-mentioned bacteria into lung parenchyma at alveolar level causes bacterial pneumonia, and the body's inflammatory response against it causes the clinical syndrome of pneumonia.
- **Option C:** Rhinitis is often seen with viral pneumonia. Features in the history of bacterial pneumonia may vary from indolent to fulminant. Clinical manifestation includes both constitutional findings and findings due to damage to the lung and related tissue.
- **Option D:** Vomiting and diarrhea are usually not seen with pneumonia. Atypical pneumonia presents with pulmonary and extrapulmonary manifestations, such as Legionella pneumonia, often presents with altered mentation and gastrointestinal symptoms.

8. The nurse develops the following hypothesis: *Elderly women receive less aggressive treatment for breast cancer than do younger women. Which variable would be considered to be the independent variable?*

- A. Degree of treatment received.
- B. Age of the patient.
- C. Type of cancer being treated.
- D. Use of inpatient treatment.

Correct Answer: B. Age of the patient.

The age of the patient would be the independent variable. Independent variable is the variable that is stable and unaffected by the other variables the researcher is trying to measure. It refers to the condition of an experiment that is systematically manipulated by the investigator. It is the presumed cause.

- **Option A:** The degree of treatment received is considered the dependent variable. Dependent variable is the variable that depends on other factors that are measured. These variables are expected to change as a result of experimental manipulation of the independent variable or variables. It is the presumed effect.
- **Option C:** The type of cancer being treated can be a predictor variable. Predictor variables can be used to predict the value of a dependent variable. Predictor variable is the name given to an independent variable used in regression analyses. The predictor variable provides information on an associated dependent variable regarding a particular outcome. At the most fundamental level, predictor variables are variables that are linked with particular outcomes.
- **Option D:** The use of inpatient treatment is not specified. Researchers often use charts or graphs to visualize the results of their studies. The norm is to place the independent variable on the "x" or horizontal axis and the dependent variable on the "y" or vertical axis.

9. When preparing Judy with acquired immunodeficiency syndrome (AIDS) for discharge to the home, the nurse should be sure to include which instruction?

- A. "Put on disposable gloves before bathing."
- B. "Sterilize all plates and utensils in boiling water."
- C. "Avoid sharing such articles as toothbrushes and razors."
- D. "Avoid eating foods from serving dishes shared by other family members."

Correct Answer: C. "Avoid sharing such articles as toothbrushes and razors."

The human immunodeficiency virus (HIV), which causes AIDS, is most concentrated in the blood. For this reason, the client shouldn't share personal articles that may be blood-contaminated, such as toothbrushes and razors, with other family members.

- **Option A:** There is no need to use gloves because HIV is not transmitted by bathing.
- **Option B:** HIV cannot be transmitted through the utensils used by an infected person.
- **Option D:** HIV isn't transmitted by serving dishes used by a person with AIDS.

10. A client with schizophrenia has been started on medication therapy with clozapine (Clozaril). A nurse assesses the results of which laboratory study to monitor for adverse effects related to this medication?

- A. White blood cell
- B. Platelet count
- C. Liver function studies
- D. Random blood sugar

Correct Answer: A. White blood cell

Agranulocytosis may experience by the client taking clozapine which can be monitored by evaluating the white blood cell count.

- **Options B, C, and D:** Platelet count, liver function test, and RBS are not related specifically to the use of the medication.

11. What is the purpose of "Tunneling" (inserting the catheter 2-4 inches under the skin) when the surgeon inserts a Hickman central catheter device?

- A. Increases the patient's comfort level.
- B. Decreases the risk of infection.
- C. Prevents the patient's clothes from having contact with the catheter.
- D. Makes the catheter less visible to other people.

Correct Answer: B. Decreases the risk of infection.

The actual access to the subclavian vein is still just under the clavicle, but by tunneling the distal portion of the catheter several inches under the skin the risk of migratory infection is reduced compared to a

catheter that enters the subclavian vein directly and is not tunneled. The catheter is tunneled to prevent infection.

- **Option A:** There are two types of central venous catheters: tunneled and non-tunneled. Tunneled CVC's are placed under the skin and meant to be used for a longer duration of time. Non-tunneled catheters are designed to be temporary and may be put into a large vein near the neck, chest, or groin.
- **Option C:** Tunneled CVC have requirements that are unparalleled by other access devices: high blood flow rates at moderate pressure drops without obstruction, minimal trauma to the vein, resistance to occlusion by fibrous sheathing, prevention of infection, avoidance of clotting, biocompatibility, avoidance of lumen collapse and kinking and breaks, resistance to antiseptic agents, placement with minimal trauma, and radiopaque appearance on X-ray.
- **Option D:** Over 70% of patients initiating chronic hemodialysis in the United States have a tunneled central venous catheter (CVC) for dialysis as their first blood access device. The use of dual lumen CVC for removing and returning blood during dialysis is commonplace now but in the late 1970s, this concept revolutionized dialysis. Before the development of CVC for dialysis, dialysis was possible only with arterial access, through an internal/external AV silicone shunt or through separate catheters placed into an artery and a vein and removed after each treatment.

12. Before administering a nasogastric feeding to a client hospitalized following a CVA, the nurse aspirates 40mL of residual. The nurse should:

- A. Replace the aspirate and administer the feeding
- B. Discard the aspirate and withhold the feeding
- C. Discard the aspirate and begin the feeding
- D. Replace the aspirate and withhold the feeding

Correct Answer: A. Replace the aspirate and administer the feeding

- Option A: The nurse should replace the aspirate and administer the feeding because the amount of aspirated was less than 50mL.
- Options B and C: The aspirate should not be discarded.
- Option D: The feeding should not be withheld.

13. On a chilly morning, Nurse Alex visits the residence of Ms. Smith, a 58-year-old patient with osteoporosis. As she enters the cozy living room, Alex observes a few loose rugs on the wooden floor, dim lighting in the hallway, and notes a pair of slippery, worn-out slippers near the entrance. Remembering Ms. Smith's reduced bone density and impaired balance, Nurse Alex realizes that these are potential fall hazards and starts thinking about the critical interventions she should recommend to enhance safety and prevent potential falls. Which interventions should the nurse implement to enhance safety? Select all that apply.

- A. Installing grab bars in the bathroom
- B. Removing loose rugs or mats

- C. Ensuring proper lighting in the home
- D. Encouraging the use of assistive devices
- E. Educating the patient about proper footwear

Correct Answers: A, B, C, D, and E.

- **Option A:** Installing grab bars in the bathroom is essential to provide the patient with support and stability while using the toilet or shower. Osteoporosis patients are prone to fractures, and bathroom falls are common. Grab bars can help prevent these accidents.
- **Option B:** Loose rugs or mats pose a significant fall risk, especially for individuals with osteoporosis, as they can easily trip or slip. The nurse should ensure that all loose rugs or mats are removed or secured to the floor to minimize the risk of falls.
- **Option C:** Adequate lighting is crucial for preventing falls. Poor lighting can obscure hazards and make navigation difficult. The nurse should ensure that all areas of the patient's home are well-lit, including hallways, stairs, and entryways.
- **Option D:** Encouraging the use of assistive devices like canes or walkers can significantly enhance the patient's stability and reduce the risk of falls. The nurse should assess the patient's mobility and recommend appropriate devices based on their individual needs.
- **Option E:** Proper footwear is essential for maintaining balance and preventing falls. The nurse should educate the patient about selecting and wearing supportive, non-slip footwear with good arch support. Ill-fitting or slippery shoes can increase the risk of accidents.

14. There are a number of risk factors associated with coronary artery disease. Which of the following is a modifiable risk factor?

- A. Gender
- B. Age
- C. Obesity
- D. Heredity

Correct Answer: C. Obesity

Obesity is an important risk factor for coronary artery disease that can be modified by improved diet and weight loss.

- **Options A, B, and D:** Family history of coronary artery disease, male gender, and advancing age increase risk but cannot be modified.

15. In a busy surgical unit, a nurse is preparing to insert an I.V. catheter for a 33-year-old patient who is scheduled for elective surgery and has a notably hairy forearm where the I.V. is to be placed. The patient is allergic to a variety of adhesives and has sensitive skin that is prone to irritation. Given these considerations, how should the nurse manage excess hair at the intended catheter insertion site?

- A. Leaving the hair intact

- B. Shaving the area
- C. Clipping the hair in the area
- D. Removing the hair with a depilatory
- E. Applying a small amount of water-soluble gel to tame the hair without cutting
- F. Use a sterile surgical scalpel to trim the hair as close to the skin as possible without causing abrasions

Correct Answer: C. Clipping the hair in the area

Clipping is preferred over shaving in this scenario because it reduces the potential for creating microabrasions that can increase infection risk, which is especially important in a patient with sensitive skin. Chemical depilatories (D) are not recommended due to the patient's history of allergies and sensitive skin. Leaving the hair intact (A) could interfere with the securement of the I.V. and increase the risk of infection. Water-soluble gel (E) is not standard practice for managing hair at an I.V. site and does not address the infection control issue. A sterile surgical scalpel (F) is not typically recommended for hair removal in preparation for I.V. insertion due to the risk of cuts and abrasions. Clipping is the safest option that balances the need to reduce infection risk with the patient's sensitivity and allergy concerns.

16. Which condition or treatment best ensures lung maturity in an infant?

- A. Meconium in the amniotic fluid
- B. Glucocorticoid treatment just before delivery
- C. Lecithin to sphingomyelin ratio more than 2:1
- D. Absence of phosphatidylglycerol in amniotic fluid

Correct Answer: C. Lecithin to sphingomyelin ratio more than 2:1.

- **Option C:** Lecithin and sphingomyelin are phospholipids that help compose surfactant in the lungs; lecithin peaks at 36 weeks and sphingomyelin concentrations remain stable.

17. A female child, age 2, is brought to the emergency department after ingesting an unknown number of aspirin tablets about 30 minutes earlier. On entering the examination room, the child is crying and clinging to the mother. Which data should the nurse obtain first?

- A. Heart rate, respiratory rate, and blood pressure
- B. Recent exposure to communicable diseases
- C. Number of immunizations received
- D. Height and weight

Correct Answer: A. Heart rate, respiratory rate, and blood pressure

The most important data to obtain on a child's arrival in the emergency department are vital sign measurements. Salicylate toxicity is a medical emergency. Intentional ingestion or accidental overdose can cause severe metabolic derangements, making treatment difficult. In an acute salicylate overdose, the onset of symptoms will occur within 3 to 8 hours. The severity of symptoms is dependent on the

amount ingested.

- **Option B:** If the patient can provide history, there are several important pieces of information to obtain. These include time of ingestion, amount ingested, as well as formulation. The latter is important as it may affect the rate of absorption.
- **Option C:** It is critical to determine if there were any other substances ingested as this may complicate treatment and increase mortality. Determine whether this was accidental or intentional. This information should be corroborated by family, friends, or EMS personnel.
- **Option D:** The nurse should gather these data later. Aspirin has the propensity to form bezoars which will delay absorption. Aspirin can cause pyloric sphincter spasms, which increases the amount of time in the stomach allowing for more absorption.

18. Jaime has a diagnosis of schizophrenia with negative symptoms. In planning care for the client, Nurse Brienne would anticipate a problem with:

- A. Auditory hallucinations
- B. Bizarre behaviors
- C. Ideas of reference
- D. Motivation for activities

Correct Answer: D. Motivation for activities.

In a client demonstrating negative symptoms of schizophrenia, avolition, or the lack of motivation for activities, is a common problem. These “negative” symptoms are so-called because they are an absence as much as a presence: inexpressive faces, blank looks, monotone, and monosyllabic speech, few gestures, seeming lack of interest in the world and other people, inability to feel pleasure or act spontaneously. It is important to distinguish between lack of expression and lack of feeling, between lack of will and lack of activity. When questioned, patients with schizophrenia often express a full range of feelings and desires.

- **Option A:** Schizophrenia causes a surplus of mental experiences (thoughts, feelings, behaviors). For example, hallucinations, which are not part of the normal, day-to-day experience for most people, are classified as a positive symptom for people with schizophrenia. The phrase “positive symptoms” refers to symptoms that are in excess or added to normal mental functioning.
- **Option B:** Another positive symptom of schizophrenia is disorganized or abnormal movements or motor behaviors. An example of this is catatonic behavior, which involves a decreased reactivity to the environment. Catatonia is marked by a significant decrease in someone’s reactivity to their environment. This can involve stupor, mutism, negativism or motor rigidity, and even purposeless excitement.
- **Option C:** A belief that gestures, comments, or other cues have special meaning directed at oneself. Delusions can be bizarre, such as the belief that one’s organs have been removed by aliens, or non-bizarre, such as believing one is under surveillance by the police.

19. A client has been diagnosed with disseminated herpes zoster. Which personal protective equipment (PPE) will you need to put on when preparing to assess the client? Select all that apply

- A. Goggles

- B. Gown
- C. Gloves
- D. Shoe covers
- E. N95 respirator
- F. Surgical face mask

Correct Answer: B, C, & E

Because herpes zoster is spread through airborne means and by direct contact with the lesions, you should wear an N95 respirator or high-efficiency particulate air filter respirator, a gown, and gloves.

- **Option A:** Goggles are not needed for airborne or contact precautions. Wear a surgical mask and goggles or face shield if there is a reasonable chance that a splash or spray of blood or body fluids may occur to the eyes, mouth, or nose.
- **Option B:** Wear a gown if skin or clothing is likely to be exposed to blood or body fluids. If PPE or other disposable items are saturated with blood or body fluids such that fluid may be poured, squeezed, or dripped from the item, discard into a biohazard bag. PPE that is not saturated may be placed directly in the trash.
- **Option C:** Wear gloves when touching blood, body fluids, non-intact skin, mucous membranes, and contaminated items. Remove PPE immediately after use and wash hands. It is important to remove PPE in the proper order to prevent contamination of skin or clothing.
- **Option D:** Wear shoe covers to provide a barrier against possible exposure to airborne organisms or contact with a contaminated environment. Shoe covers should also be worn as part of Full Barrier Precautions. Full Barrier Precautions are the combination of airborne and contact precautions, plus eye protection, in addition to standard precautions.
- **Option E:** Put on a NIOSH-certified fit-tested N-95 respirator just before entry to an area of shared air space and wear at all times while in the area of shared air space. Remove and discard the respirator just after exiting the area. The respirator may be discarded into the regular trash unless contact precautions must also be followed. In this case, place the respirator in a plastic zip-lock bag, seal and then discard into the trash.
- **Option F:** Surgical face mask filters only large particles and will not provide protection from herpes zoster. Airborne and contact precautions until disseminated infection is ruled out. Airborne and contact precautions until lesions are dry and crusted.

20. A 10 year old child has very limited vocabulary and interaction skills. She has an I.Q. of 45. She is diagnosed to have Mental retardation of this classification:

- A. Profound
- B. Mild
- C. Moderate
- D. Severe

Correct Answer: C. Moderate

The child with moderate mental retardation has an I.Q. of 35-50. Individuals with an intellectual disability have neurodevelopmental deficits characterized by limitations in intellectual functioning and

adaptive behavior. These disabilities originate and manifest before the age of 18 and can be associated with a considerable number of related and co-occurring problems including mental health (e.g., depression, and anxiety), neurodevelopmental (e.g., autism spectrum disorders, and attention deficit hyperactivity disorder), as well as neurological (e.g., infantile cerebral palsy) and medical conditions (e.g., meningitis).

- **Option A:** Profound Mental retardation has an I.Q. of below 20. Keeping up with daily functions is often challenging for individuals with a different degree of intellectual disability. They may have difficulty feeding themselves, going to the bathroom, and dressing. They also may have difficulty getting along with their family and friends because of a problem with communication as well as poor impulse control. They may have trouble excelling academically and socially at school.
- **Option B:** Mild mental retardation 50-70. Concerning clinical history, symptoms of intellectual disability usually begin during childhood or adolescence. Moreover, delays in language or motor skills may be observed by age two. Nevertheless, a significant number of children with mild levels of intellectual disability may not get identified until school-age.
- **Option D:** Severe mental retardation has an I.Q. of 20-35. According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), the diagnosis of intellectual disability requires deficits in intellectual function, deficits in adaptive function, and onset before the age of 18. The IQ test is widely used to assess the intellectual function of individuals. IQ test derives from Stanford-Binet Intelligence Scales, used for school placement in France. Lewis Terman adapted the test to measure general intelligence.

21. The patient with migraine headaches has a seizure. After the seizure, which action can you delegate to the nursing assistant?

- A. Document the seizure
- B. Perform neurologic checks
- C. Take the patient's vital signs
- D. Restrain the patient for protection

Correct Answer: C. Take the patient's vital signs.

Taking vital signs is within the education and scope of practice for a nursing assistant.

- **Option A:** Documentation is one of the nursing responsibilities.
- **Option B:** The nurse should perform neurologic checks.
- **Option D:** Patients with seizures should not be restrained; however, the nurse may guide the patient's movements as necessary. Focus: Delegation/supervision

22. A patient returns to the emergency department less than 24 hours after having a fiberglass cast applied for a fractured right radius. Which of the following patient complaints would cause the nurse to be concerned about impaired perfusion to the limb?

- A. Severe itching under the cast.
- B. Severe pain in the right shoulder.
- C. Severe pain in the right lower arm.

D. Increased warmth in the fingers.

Correct Answer: C. Severe pain in the right lower arm.

Impaired perfusion to the right lower arm as a result of a closed cast may cause neurovascular compromise and severe pain, requiring immediate cast removal. When there is an increase in compartmental pressure, there is a reduction in the venous outflow. This causes venous pressure and, thus, venous capillary pressure to increase. If the intracompartmental pressure becomes higher than arterial pressure, a decrease in arterial inflow will also occur. The reduction of venous outflow and arterial inflow result in decreased oxygenation of tissues causing ischemia.

- **Option A:** Itching under the cast is common and fairly benign. A cast can cause the client's underlying skin to feel itchy. To relieve itchy skin, turn a hair dryer on a cool setting and aim it under the cast.
- **Option B:** Neurovascular compromise in the arm would not cause pain in the shoulder, as perfusion there would not be affected. Pain is typically severe, out of proportion to the injury. Early on, pain may only be present with passive stretching. However, this symptom may be absent in advanced acute compartment syndrome. In the initial stages, pain may be characterized as a burning sensation or as a deep ache of the involved compartment.
- **Option D:** Impaired perfusion would cause the fingers to be cool and pale. Increased warmth would indicate increased blood flow or infection. Classically, the presentation of acute compartment syndrome has been remembered by "The Five P's": pain, pulselessness, paresthesia, paralysis, and pallor. However, aside from paresthesia, which may occur earlier in the course of the condition, these are typically late findings.

23. Which of the following would the nurse expect to assess in a child with celiac disease having a celiac crisis secondary to an upper respiratory infection?

- A. Respiratory distress
- B. Lethargy
- C. Watery diarrhea
- D. Weight gain

Correct Answer: C. Watery diarrhea

Episodes of celiac crises are precipitated by infections, ingestion of gluten, prolonged fasting, or exposure to anticholinergic drugs. Celiac crisis is typically characterized by severe watery diarrhea. Celiac crisis is a rare initial presentation of CD characterized by severe diarrhea, dehydration, weight loss, hypoproteinemia, and metabolic and electrolyte disturbances. Although rare, it should be considered in patients with apparently unexplained chronic diarrhea.

- **Option A:** Respiratory distress is unlikely in a routine upper respiratory infection. Mainly present in children, celiac crisis causes profuse intractable diarrhea with severe metabolic disturbances (such as acidosis and hypokalemia), hypotension, neuromuscular weakness, cardiac arrhythmias, and respiratory failure.
- **Option B:** Irritability, rather than lethargy, is more likely. Due to the wide variety of symptoms that may present themselves, it can sometimes be difficult to diagnose celiac disease. One person might have diarrhea and abdominal pain, while another person has irritability or depression.

- **Option D:** Because of the fluid loss associated with severe watery diarrhea, the child's weight is more likely to be decreased.

24. The nurse is working on a surgical floor. The nurse must log roll a male client following a:

- A. Laminectomy.
- B. Thoracotomy.
- C. Hemorrhoidectomy.
- D. Cystectomy.

Correct Answer: A. Laminectomy.

The client who has had spinal surgery, such as laminectomy, must be logrolled to keep the spinal column straight when turning. Laminectomy is among the most common procedures performed by spinal surgeons to decompress the spinal canal in various conditions. Preoperative and postoperative patient care is crucial to improve outcomes of laminectomy.

- **Option B:** Recovery for thoracotomy patients can be improved and hastened with attention to detail postoperatively. Key interventions that seem simple and may be easy to neglect will greatly benefit them. These include appropriate and timely use of pain medication, frequent and proper use of incentive spirometry, ambulation in hallways, regular work with physical therapy and occupational therapy if necessary, and attention to detail while caring for patient incision sites.
- **Option C:** Under normal circumstances, hemorrhoidectomy is an outpatient procedure, and the client may resume normal activities immediately after surgery. Success rates of removal are excellent, with low rates of recurrence. When comparing open and closed techniques, they both have similar rates of postoperative pain, need for analgesics, and complications.
- **Option D:** The client who has had a cystectomy may turn himself or may be assisted into a comfortable position. While it may be tough, patients are strongly encouraged to begin walking early as this is one of the most important things they can do to improve recovery and prevent complications after surgery.

25. The psychiatrist orders lithium carbonate 600 mg p.o t.i.d for a female client. Nurse Katrina would be aware that the teaching about the side effects of this drug were understood when the client state, "I will call my doctor immediately if I notice any:

- A. Sensitivity to bright light or sun.
- B. Fine hand tremors or slurred speech.
- C. Sexual dysfunction or breast enlargement.
- D. Inability to urinate or difficulty when urinating.

Correct Answer: B. Fine hand tremors or slurred speech

These are common side effects of lithium carbonate. Lithium can cause several adverse effects. Typically the side effects are dose-related. Notable side effects include confusion, memory problems, new or worsening tremor, hyperreflexia, clonus, slurred speech, ataxia, stupor, delirium, coma, and seizures (rarely). These effects are theoretically due to excess action on the same sites that mediate

therapeutic action.

- **Option A:** Lithium does not cause photosensitivity. Some patients on haloperidol and lithium may develop an encephalopathic syndrome similar to neuroleptic malignant syndrome. Other side effects include acne, rash, and weight gain. Lithium-induced weight gain is more common in women than in men.
- **Option C:** Lithium toxicity can cause interstitial nephritis, arrhythmia, sick sinus syndrome, hypotension, T wave abnormalities, and bradycardia. Rarely, toxicity can cause pseudotumor cerebri and seizures. The mechanism of action of lithium is not known. It is rapidly absorbed, has a small volume of distribution, and is excreted in the urine unchanged (there is no metabolism of lithium).
- **Option D:** Lithium toxicity has no antidote. Treatment for lithium toxicity is primarily hydration and to stop the drug. Give hydration with normal saline, which will also enhance lithium excretion. Avoid all diuretics. If the patient has severe renal dysfunction or failure, or severely altered mental status, then start with hemodialysis. 20 to 30 mg of propranolol given 2 to 3 times per day may help reduce tremors.

26. A newborn has small, whitish, pinpoint spots over the nose, which the nurse knows are caused by retained sebaceous secretions. When charting this observation, the nurse identifies it as:

- A. Milia
- B. Lanugo
- C. Whiteheads
- D. Mongolian spots

Correct Answer: A. Milia.

- **Option A:** Milia occurs commonly, are not indicative of any illness, and eventually disappear.

27. Which of the following would the nurse identify as a classic sign of PIH?

- A. Edema of the feet and ankles
- B. Edema of the hands and face
- C. Weight gain of 1 lb/week
- D. Early morning headache

Correct Answer: B. Edema of the hands and face

Edema of the hands and face is a classic sign of PIH. Aggressive volume resuscitation may lead to pulmonary edema, which is a common cause of maternal morbidity and mortality. Pulmonary edema occurs most frequently 48-72 hours postpartum, probably due to mobilization of extravascular fluid. Because volume expansion has no demonstrated benefit, patients should be fluid restricted when possible, at least until the period of postpartum diuresis.

- **Option A:** Many healthy pregnant women experience foot and ankle edema. During pregnancy, the extra fluid in the body and the pressure from the growing uterus can cause swelling (or “edema”) in the ankles and feet. The swelling tends to get worse as a woman’s due date nears, particularly near the end of the day and during hotter weather.

- **Option C:** A weight gain of 2 lb or more per week indicates a problem. High pregnancy weight gain was more strongly associated with term preeclampsia than early preterm preeclampsia (eg, 64% versus 43% increased odds per 1 z score difference in weight gain in normal-weight women, and 30% versus 0% in obese women, respectively).
- **Option D:** Early morning headache is not a classic sign of PIH. Dull or severe, throbbing headaches, often described as migraine-like that just won't go away are cause for concern.

28. A nursing instructor asks a nursing student who is preparing to assist with the assessment of a pregnant client to describe the process of quickening. Which of the following statements if made by the student indicates an understanding of this term?

- A. "It is the irregular, painless contractions that occur throughout pregnancy."
- B. "It is the soft blowing sound that can be heard when the uterus is auscultated."
- C. "It is the fetal movement that is felt by the mother."
- D. "It is the thinning of the lower uterine segment."

Correct Answer: C. "It is the fetal movement that is felt by the mother."

Quickening is fetal movement and may occur as early as the 16th and 18th week of gestation, and the mother first notices subtle fetal movements that gradually increase in intensity. A thinning of the lower uterine segment occurs about the 6th week of pregnancy and is called Hegar's sign.

- **Option A:** Braxton Hicks contractions are irregular, painless contractions that may occur throughout the pregnancy.
- **Option B:** Uterine souffle or placental souffle is a soft, blowing sound heard using a stethoscope, usually in the second trimester of pregnancy (13–28 weeks). This sound is heard most clearly in the lower part of the uterus and is synchronous with the pulse of the mother.
- **Option D:** The lower uterine segment, therefore, is defined as the portion of the uterine musculature which must undergo circumferential dilatation during labor, its extent being dependent upon the size of the presenting part and its level in the uterine cavity. The available evidence suggests that brachystasis, with retraction, occurs in this segment just as it does in the upper, and that thinning in the first stage of labor is due not to passive elongation, but rather to active shortening of the cup-shaped lower pole with dilatation as it is pulled up about the presenting part.

29. A client with avoidant personality disorder says occupational therapy is boring and doesn't want to go. Which action would be best?

- A. State firmly that you'll escort him to OT.
- B. Arrange with OT for the client to do a project on the unit.
- C. Ask the client to talk about why OT is boring.
- D. Arrange for the client not to attend OT until he is feeling better.

Correct Answer: A. State firmly that you'll escort him to OT.

If given the chance, a client with avoidant personality disorder typically elects to remain immobilized. The nurse should insist that the client participates in OT. Expand limits by clarifying expectations for

clients in a number of settings. When time is taken in initial meetings to clarify expectations, confrontations, and power struggles with clients can be minimized and even avoided.

- **Option B:** In a respectful, neutral manner, explain expected client behaviors, limits, and responsibilities during sessions with nurse clinician. Clearly state the rules and regulations of the institution, and the consequences when these rules are not adhered to. From the beginning, clients need to have explicit guidelines and boundaries for expected behaviors on their part, as well as what the client can expect from the nurse. Clients need to be fully aware that they will be held responsible for their behaviors.
- **Option C:** Addressing an invalid issue such as the client's perceived boredom avoids the real issue: the client's need for therapy. Understand that PD clients, in particular, will be resistant to change and that this is symptomatic of PDs. This is particularly true in the beginning phases of therapy.
- **Option D:** Arranging for the client to do a project on the unit validates and reinforces the client's desire to avoid getting to OT. Responding to client's resistance and seeming lack of change in a neutral manner is part of the foundation for trust. In other words, the nurse does not have a vested interest in the client "getting better.". The nurse remains focused on the client's needs and issues in any event.

30. A male client admitted to an acute care facility with pneumonia is receiving supplemental oxygen, 2 L/minute via nasal cannula. The client's history includes chronic obstructive pulmonary disease (COPD) and coronary artery disease. Because of these history findings, the nurse closely monitors the oxygen flow and the client's respiratory status. Which complication may arise if the client receives a high oxygen concentration?

- A. Apnea
- B. Anginal pain
- C. Respiratory alkalosis
- D. Metabolic acidosis

Correct Answer: A. Apnea

Hypoxia is the main breathing stimulus for a client with COPD. Excessive oxygen administration may lead to apnea by removing that stimulus. During apnea, there is no movement of the muscles of inhalation, and the volume of the lungs initially remains unchanged. Depending on how blocked the airways are, there may or may not be a flow of gas between the lungs and the environment.

- **Option B:** Anginal pain results from a reduced myocardial oxygen supply. A client with COPD may have anginal pain from generalized vasoconstriction secondary to hypoxia; however, administering oxygen at any concentration dilates blood vessels, easing anginal pain.
- **Option C:** Respiratory alkalosis results from alveolar hyperventilation, not excessive oxygen administration. In a client with COPD, high oxygen concentrations decrease the ventilatory drive, leading to respiratory acidosis, not alkalosis.
- **Option D:** High oxygen concentrations don't cause metabolic acidosis. Determining the type of metabolic acidosis can help clinicians narrow down the cause of the disturbance. Acidemia refers to a pH less than the normal range of 7.35 to 7.45. In addition, metabolic acidosis requires a bicarbonate value less than 24 mEq/L. Further classification of metabolic acidosis is based on the presence or absence of an anion gap, or concentration of unmeasured serum anions.

31. A client is admitted to the labor and delivery unit. The nurse performs a vaginal exam and determines that the client's cervix is 5 cm dilated with 75% effacement. Based on the nurse's assessment the client is in which phase of labor?

- A. Active
- B. Latent
- C. Transition
- D. Early

Correct Answer: A. Active

The active phase of labor occurs when the client is dilated 4–7cm. Active labor with more rapid cervical dilation generally starts around 6 centimeters of dilation. During the active phase, the cervix typically dilates at a rate of 1.2 to 1.5 centimeters per hour. Multiparas, or women with a history of prior vaginal delivery, tend to demonstrate more rapid cervical dilation. The absence of cervical change for greater than 4 hours in the presence of adequate contractions or six hours with inadequate contractions is considered the arrest of labor and may warrant clinical intervention.

- **Option B:** The latent phase is commonly defined as the 0 to 6 cm, while the active phase commences from 6 cm to full cervical dilation. The presenting fetal part also begins the process of engagement into the pelvis during the first stage. Throughout the first stage of labor, serial cervical exams are done to determine the position of the fetus, cervical dilation, and cervical effacement.
- **Option C:** The transition phase of labor is 8–10cm in dilation. The second stage of labor commences with complete cervical dilation to 10 centimeters and ends with the delivery of the neonate. This was also defined as the pelvic division phase by Friedman. After cervical dilation is complete, the fetus descends into the vaginal canal with or without maternal pushing efforts.
- **Option D:** The latent or early phase of labor is from 1cm to 3cm in dilation. During the latent phase, the cervix dilates slowly to approximately 6 centimeters. The latent phase is generally considerably longer and less predictable with regard to the rate of cervical change than is observed in the active phase. A normal latent phase can last up to 20 hours and 14 hours in nulliparous and multiparous women respectively, without being considered prolonged.

32. The nurse would monitor for which of the following adverse reactions to aluminum-containing antacids such as aluminum hydroxide (Amphojel)?

- A. Diarrhea
- B. Constipation
- C. GI upset
- D. Fluid retention

Correct Answer: B. Constipation

Aluminum- and calcium-containing antacids cause constipation. The primary side effects of aluminum hydroxide include hypomagnesemia, hypophosphatemia, constipation, and anemia. Additionally, due to its ability to stimulate the immune system, there have been observed cases of persistent granulomas at the injection site of vaccines containing aluminum hydroxide.

- **Option A:** Magnesium-containing antacids cause diarrhea. Antacids that contain magnesium have a laxative effect that may cause diarrhea, and in patients with renal failure, they may cause increased magnesium levels in the blood, because of the reduced ability of the kidneys to eliminate magnesium from the body in the urine.
- **Option C:** Antacids work by counteracting (neutralizing) the acid in the stomach. They do this because the chemicals in antacids are bases (alkalis) which are the opposite of acids. A reaction between an acid and base is called neutralization. This neutralization makes the stomach contents less corrosive.
- **Option D:** Sodium-containing antacids cause sodium and fluid retention. High-dose antacid intake may lead to fluid retention in the body depending on the sodium content of the different antacid preparations. Sodium bicarbonate ingestion provokes metabolic alkalosis and alkalemia, the “nonsystemic calcium, and magnesium-containing antacids” cause these changes too, but to a lower degree.

33. When teaching a group of adolescents about male hormone production, which of the following would the nurse include as being produced by the Leydig cells?

- A. Follicle-stimulating hormone
- B. Testosterone
- C. Luteinizing hormone
- D. Gonadotropin-releasing hormone

Correct Answer: B. Testosterone

Testosterone is produced by the Leydig cells in the seminiferous tubules. The Leydig cells make and secrete testosterone, in response to luteinizing hormone from the pituitary. This process does not start until puberty when LH stimulates the Leydig cells to produce testosterone. FSH stimulates the Sertoli cells to secrete androgen-binding protein into the lumen of the seminiferous tubules.

- **Option A:** FSH is made by the pituitary gland, a small gland located underneath the brain. FSH plays an important role in sexual development and functioning. In women, FSH helps control the menstrual cycle and stimulates the growth of eggs in the ovaries.
- **Option C:** Luteinizing hormone (LH) is produced and released in the anterior pituitary gland. This hormone is considered a gonadotropic hormone because of its role in controlling the function of ovaries in females and testes in males, which are known as the gonads.
- **Option D:** The hypothalamus is responsible for releasing gonadotropin-releasing hormone.

34. A child with known hemophilia A was brought to the emergency room with complaints of nose bleeding and some bruises in the joints. Which of the following should the nurse anticipate to be given to the child?

- A. Oral iron supplement
- B. Cyclosporine
- C. Factor X
- Factor VIII

Correct Answer: D. Factor VIII

Hemophilia A, also called factor VIII (FVIII) deficiency or classic hemophilia, is a genetic disorder caused by missing or defective factor VIII, a clotting protein. The initial treatment is the administration of factor VIII to replace the missing factor and decrease the bleeding episode.

- **Option A:** Oral iron supplement is not used in the management of hemophilia. Other pharmaceutical adjuvant therapies for hemophilia A-induced bleeding include desmopressin, tranexamic acid, epsilon aminocaproic acid, and management of factor VIII inhibitors.
- **Option B:** Cyclosporine is an immunosuppressive agent used to treat organ rejection post-transplant. It also has use in certain other autoimmune diseases, treatment of organ rejection in kidney, liver, and heart allogeneic transplants, rheumatoid arthritis when the condition has not adequately responded to methotrexate.
- **Option C:** Hemophilia, which means love (philia) of blood (hemo), is the most common severe hereditary hemorrhagic disorder. Both hemophilia A and B result from factor VIII and factor IX protein deficiency or dysfunction, respectively, and are characterized by prolonged and excessive bleeding after minor trauma or sometimes even spontaneously.

35. A 50-year-old male patient, who is a known case of congestive heart failure and was recently diagnosed with osteoarthritis, is admitted to the ER. The patient's wife reports that he might have taken an overdose of aspirin in an attempt to manage his joint pain. Given his medical history and the potential implications of aspirin overdose, which of the following complications should a nurse most closely monitor for during the acute management of this patient.

- A. Onset of pulmonary edema
- B. Metabolic alkalosis
- C. Respiratory alkalosis
- D. Parkinson's disease type symptoms

Correct Answer: A. Onset of pulmonary edema

Aspirin overdose can lead to metabolic acidosis and cause pulmonary edema development. Early symptoms of aspirin poisoning also include tinnitus, hyperventilation, vomiting, dehydration, and fever. Late signs include drowsiness, bizarre behavior, unsteady walking, and coma. Abnormal breathing caused by aspirin poisoning is usually rapid and deep. Pulmonary edema may be related to an increase in permeability within the capillaries of the lung leading to "protein leakage" and transudation of fluid in both renal and pulmonary tissues. The alteration in renal tubule permeability may lead to a change in colloid osmotic pressure and thus facilitate pulmonary edema (via Medscape).

- **Option B:** Aspirin overdose causes metabolic acidosis, not alkalosis. Metabolic alkalosis is a primary increase in serum bicarbonate (HCO_3^-) concentration.
- **Option C:** Respiratory alkalosis is a disturbance in acid and base balance due to alveolar hyperventilation.
- **Option D:** Parkinson's type symptoms include tremors, bradykinesia, rigid muscles, impaired posture and balance, speech changes, and loss of automatic movements.

36. The nurse performs an initial assessment and nursing history with a client admitted for a major depression. The client has a history of narrow-angle glaucoma. The nurse's best action would be to:

- A. Encourage the client to use his or her own eye drops until the drops can be ordered.
- B. Administer the TCA as orders, and expect an ophthalmology consult.
- C. Administer the TCA as ordered, and monitor for visual changes.
- D. Inform the physician of the client's history before administering the TCA.

Correct Answer: D. Inform the physician of the client's history before administering the TCA.

Narrow-angle glaucoma is a contraindication for use of TCAs; therefore, the physician should be informed so that an alternative category can be used. TCA use requires caution in individuals with angle-closure glaucoma as its anticholinergic effects may increase the risk of an acute ocular crisis.

- **Option A:** Tricyclic antidepressants e.g., clomipramine, imipramine, amitriptyline, and selective serotonin reuptake inhibitors (SSRI) e.g., venlafaxine, citalopram, escitalopram, fluoxetine, and paroxetine have been reported to precipitate acute angle-closure glaucoma.
- **Option B:** The underlying mechanism is a pupillary block caused by pupil dilatation, which is attributed to the significant anticholinergic and serotonergic side effects of these antidepressants. The role of serotonin in human ocular physiology however has yet to be determined. Clinicians should consider referring patients at increased risk of acute angle-closure glaucoma for an ophthalmic assessment prior to prescribing SSRIs.
- **Option C:** Antidepressants containing monoamine oxidase inhibitors such as tranylcypromine sulphate or phenelzine sulphate have weak anticholinergic effects. However, they have been reported to precipitate acute angle-closure glaucoma when used in combination with other anticholinergic drugs.

37. Nurse Donald is caring for a client following a modified radical mastectomy. Which assessment finding would indicate that the client is experiencing a complication related to this surgery?

- A. Pain at the incisional site
- B. Complaints of decreased sensation near the operative site
- C. Arm edema on the operative side
- D. Sanguineous drainage in the Jackson-Pratt drain

Correct Answer: C. Arm edema on the operative side

- **Option C:** Arm edema on the operative side (lymphedema) is a complication following mastectomy and can occur immediately postoperatively or may occur months or even years after surgery. The surgery damages some of the nodes and vessels that lymph moves through resulting in a backup of fluid into the body's tissue.
- **Options A and B:** Pain and decreased sensation in the chest area is normal and it is caused by the damaged nerves in the armpit and chest during the surgery.
- **Option D:** A sanguineous drainage in the Jackson-Pratt drain is normal postoperatively. This output from the drain decreases each day and the color will turn into light yellow or light pink.

38. Which of the following nursing diagnoses would be appropriate for a client with heart failure? Select all that apply.

- A. Ineffective tissue perfusion related to decreased peripheral blood flow secondary to decreased cardiac output.
- B. Activity intolerance related to increased cardiac output.
- C. Decreased cardiac output related to structural and functional changes.
- D. Impaired gas exchange related to decreased sympathetic nervous system activity.

Correct Answer: A & C.

HF is a result of structural and functional abnormalities of the heart tissue muscle. Heart failure results from changes in the systolic or diastolic function of the left ventricle.

- **Option A:** The heart muscle becomes weak and does not adequately pump the blood out of the chambers. As a result, blood pools in the left ventricle and backs up into the left atrium, and eventually into the lungs. Therefore, greater amounts of blood remain in the ventricle after contraction thereby decreasing cardiac output. In addition, this pooling leads to thrombus formation and ineffective tissue perfusion because of the decrease in blood flow to the other organs and tissues of the body.
- **Option B:** Typically, these clients have an ejection fraction of less than 50% and poorly tolerate activity. Activity intolerance is related to a decrease, not increase, in cardiac output.
- **Option C:** The heart fails to pump enough blood to meet the metabolic needs of the body. The blood flow that supplies the heart is also decreased therefore decrease in cardiac output occurs, blood then is insufficient and making it difficult to circulate the blood to all parts of the body thus may cause altered heart rate and rhythm, weakness, and paleness.
- **Option D:** Gas exchange is impaired. However, the decrease in cardiac output triggers compensatory mechanisms, such as an increase in sympathetic nervous system activity.

39. Which of the following complications is thought to be the most common cause of appendicitis?

- A. A fecalith
- B. Bowel kinking
- C. Internal bowel occlusion
- D. Abdominal bowel swelling

Correct Answer: A. A fecalith

A fecalith is a fecal calculus, or stone, that occludes the lumen of the appendix and is the most common cause of appendicitis. The cause of appendicitis is usually an obstruction of the appendiceal lumen. This can be from an appendicolith (stone of the appendix), or some other mechanical etiologies. Appendiceal tumors such as carcinoid tumors, intestinal parasites, and hypertrophied lymphatic tissue are all known causes of appendiceal obstruction and appendicitis.

- **Option B:** Kinking of the appendix is one of the causes of appendicitis. Appendicitis is inflammation of the vermiform appendix. This is a hollow organ located at the tip of the cecum, usually in the right lower quadrant of the abdomen.

- **Option C:** External, not internal, occlusion of the bowel by adhesion is a cause of appendicitis. When the appendiceal lumen gets obstructed, bacteria will build up in the appendix and cause acute inflammation with perforation and abscess formation.
- **Option D:** Bowel wall swelling is one of the causes of appendicitis. The pathophysiology of appendicitis likely stems from obstruction of the appendiceal orifice. This results in inflammation, localized ischemia, perforation, and the development of a contained abscess or frank perforation with resultant peritonitis.

40. Which of the following is the most common cause of dementia among elderly persons?

- A. Parkinson's disease
- B. Multiple sclerosis
- C. Amyotrophic lateral sclerosis (Lou Gehrig's disease)
- D. Alzheimer's disease

Correct Answer: D. Alzheimer's disease

Alzheimer's disease, sometimes known as senile dementia of the Alzheimer's type or primary degenerative dementia, is an insidious; progressive, irreversible, and degenerative disease of the brain whose etiology is still unknown. Alzheimer's is the most common cause of dementia among older adults. Dementia is the loss of cognitive functioning—thinking, remembering, and reasoning—and behavioral abilities to such an extent that it interferes with a person's daily life and activities.

- **Option A:** Parkinson's disease is a neurologic disorder caused by lesions in the extrapyramidal system and manifested by tremors, muscle rigidity, hypokinesia, dysphagia, and dysphonia. Parkinson's disease is a neurodegenerative disorder that mostly presents in later life with generalized slowing of movements (bradykinesia) and at least one other symptom of resting tremor or rigidity. Other associated features are a loss of smell, sleep dysfunction, mood disorders, excess salivation, constipation, and excessive periodic limb movements in sleep (REM behavior disorder).
- **Option B:** Multiple sclerosis, a progressive, degenerative disease involving demyelination of the nerve fibers, usually begins in young adulthood and is marked by periods of remission and exacerbation. Multiple sclerosis (MS) is a chronic autoimmune disease of the central nervous system (CNS) characterized by inflammation, demyelination, gliosis, and neuronal loss. Pathologically, perivascular lymphocytic infiltrates, and macrophages produce degradation of myelin sheaths that surround neurons.
- **Option C:** Amyotrophic lateral sclerosis, a disease marked by progressive degeneration of the neurons, eventually results in atrophy of all the muscles; including those necessary for respiration. Amyotrophic lateral sclerosis (ALS), also known as "Lou Gehrig's disease," is a neurodegenerative disease of the motor neurons. No single etiology has been proven; rather, multiple pathways (both heritable and sporadic) have been shown to result in unmistakably similar disease entities. ALS necessarily affects both upper and lower motor neurons with variable patterns of onset, most commonly beginning with signs of lower motor neuron degeneration within proximal limbs.

41. Which of the following medications will likely be ordered for the client?"

- A. Prozac
- B. Valium

C. Risperdal

D. Lithium

Correct Answer: B. Valium

Diazepam is an anxiolytic benzodiazepine, first patented and marketed in the United States in 1963. It is a fast-acting, long-lasting benzodiazepine commonly used in the treatment of anxiety disorders, as well as alcohol detoxification, acute recurrent seizures, severe muscle spasm, and spasticity associated with neurologic disorders. In the setting of acute alcohol withdrawal, diazepam is useful for symptomatic relief of agitation, tremor, alcoholic hallucinosis, and acute delirium tremens.

- **Option A:** 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. Non-FDA-approved uses for fluoxetine include social anxiety disorder (social phobia), post-traumatic stress disorder in adults, borderline personality disorder, Raynaud phenomenon, and selective mutism.
- **Option C:** In addition to psychotic symptoms, risperidone can be used for aggression and agitation in patients with dementia. 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.
- **Option D:** Lithium was the first mood stabilizer and is still the first-line treatment option, but is underutilized because it is an older drug. Lithium is a commonly prescribed drug for a manic episode in bipolar disorder as well as maintenance therapy of bipolar disorder in a patient with a history of a manic episode. The primary target symptoms of lithium are mania and unstable mood.

42. Nurse Sue teaches a patient about pursed lip breathing. The nurse identifies that the teaching is affected when the patient says its purpose is to:

A. Precipitate coughing

B. Help maintain open airways

C. Decrease intrathoracic pressure

D. Facilitate expectoration of mucus

Correct Answer: B. Help maintain open airways

Pursed-lip breathing involves deep inspiration and prolonged expiration against slightly closed lips. The pursed lips create a resistance to the air flowing out of the lungs, which prolongs exhalation and maintains positive airway pressure, thereby maintaining an open airway and preventing airway collapse. Pursed lip breathing is beneficial for people with chronic lung disease. It can help strengthen the lungs and make them more efficient.

- **Option A:** Deep breathing and huff coughing, not pursed-lip breathing, stimulate effective coughing. Deep breathing prevents air from getting trapped in the lungs, which can cause the client to feel short of breath. As a result, the client can breathe in a more fresh air.
- **Option C:** Pursed lip breathing increases, not decreased intrathoracic pressure. Pursed lip breathing is a simple technique for slowing down a person's breathing and getting more air into their lungs. With regular practice, it can help strengthen the lungs and make them work more

efficiently. The technique involves breathing in through the nose and breathing out slowly through the mouth.

- **Option D:** The huff coughing stimulates the natural cough reflex and is effective for clearing the central airways of sputum. Saying the word huff with short forceful exhalations keeps the glottis open, mobilizes sputum, and stimulates a cough. When one has COPD, mucus can build up more easily in the lungs. The huff cough is a breathing exercise designed to help one cough up mucus effectively without making one feel too tired. A huff cough should be less tiring than a traditional cough, and it can keep one from feeling worn out when coughing up mucus.

43. Which nursing response is an example of the nontherapeutic communication block of requesting an explanation?

- A. "Can you tell me why you said that?"
- B. "Keep your chin up. I'll explain the procedure to you."
- C. "There is always an explanation for both good and bad behaviors."
- D. "Are you not understanding the explanation I provided?"

Correct Answer: A. "Can you tell me why you said that?"

This nursing statement is an example of the nontherapeutic communication block of requesting an explanation. Requesting an explanation is when the client is asked to provide the reason for thoughts, feelings, behaviors, and events. Asking "why" a client did something or feels a certain way can be very intimidating and implies that the client must defend his or her behavior or feelings.

- **Option B:** Stereotyped comments refer to offering meaningless cliches or trite comments. Social conversations contain many cliches and much meaningless chit-chat. Such comments are of no value in the nurse-client relationship. Any automatic responses will lack the nurse's consideration or thoughtfulness.
- **Option C:** Attempts to dispel the client's anxiety by implying that there is not sufficient reason for concern completely devalue the client's feelings. Vague reassurances without accompanying facts are meaningless to the client.
- **Option D:** Interpreting refers to making conscious that which is unconscious to the client. The client's thoughts and feelings are his own, not to be interpreted by the nurse or for hidden meaning. Only the client can identify or confirm the presence of feelings.

44. The nurse is caring for a client with a T5 complete spinal cord injury. Upon assessment, the nurse notes flushed skin, diaphoresis above the T5, and a blood pressure of 162/96. The client reports a severe, pounding headache. Which of the following nursing interventions would be appropriate for this client? Select all that apply.

- A. Elevate the HOB to 90 degrees.
- B. Loosen constrictive clothing.
- C. Use a fan to reduce diaphoresis.
- D. Assess for bladder distention and bowel impaction.
- E. Administer antihypertensive medication.

F. Place the client in a supine position with legs elevated.

Correct Answer: A, B, D, & E

The client has signs and symptoms of autonomic dysreflexia. The potentially life-threatening condition is caused by an uninhibited response from the sympathetic nervous system resulting from a lack of control over the autonomic nervous system.

- **Option A:** The nurse should immediately elevate the HOB to 90 degrees and place extremities dependently to decrease venous return to the heart and increase venous return from the brain. Elevate head of bed to 45-degree angle or place patient in sitting position. Lowers BP to prevent intracranial hemorrhage, seizures, or even death. Note: Placing tetraplegic in sitting position automatically lowers BP.
- **Option B:** Because tactile stimuli can trigger autonomic dysreflexia, any constrictive clothing should be loosened. Removing noxious stimulus usually terminates the episode and may prevent more serious autonomic dysreflexia (in the presence of sunburn, topical anesthetic should be applied). Removal of constrictive clothing and vascular support also promotes venous pooling to help lower BP.
- **Option C:** A fan shouldn't be used because cold drafts may trigger autonomic dysreflexia. Identify and monitor precipitating risk factors (bladder and bowel distension or manipulation; bladder spasms, stones, infection; skin/tissue pressure areas, prolonged sitting position; temperature extremes or drafts).
- **Option D:** The nurse should also assess for distended bladder and bowel impaction, which may trigger autonomic dysreflexia, and correct any problems. Eliminate causative stimulus as able such as bladder, bowel, skin pressure (including loosening tight leg bands or clothing, removing abdominal binder or elastic stockings); temperature extremes.
- **Option E:** Elevated blood pressure is the most life-threatening complication of autonomic dysreflexia because it can cause stroke, MI, or seizures. If removing the triggering event doesn't reduce the client's blood pressure, IV antihypertensives should be administered. Monitor BP frequently (every 3–5 min) during acute autonomic dysreflexia and take action to eliminate stimulus. Continue to monitor BP at intervals after symptoms subside.
- **Option F:** Early detection and immediate intervention is essential to prevent serious consequences and complications. Note: Average systolic BP in a tetraplegic patient is 120, therefore readings of 140+ may be considered high.

45. A client has a history of chronic undifferentiated schizophrenia. Because she has a history of noncompliance with antipsychotic therapy, she'll receive fluphenazine decanoate (Prolixin Decanoate) injections every 4 weeks. Before discharge, what should the nurse include in her teaching plan?

- A. Asking the physician for droperidol (Inapsine) to control any extrapyramidal symptoms that occur.
- B. Sitting up for a few minutes before standing to minimize orthostatic hypotension.
- C. Notifying the physician if her thoughts don't normalize within 1 week.
- D. Expecting symptoms of tardive dyskinesia to occur and to be transient.

Correct Answer: B. Sitting up for a few minutes before standing to minimize orthostatic hypotension

The nurse should teach the client how to manage common adverse reactions, such as orthostatic hypotension and anticholinergic effects. Fluphenazine has an adverse effect profile similar to other first-generation or typical antipsychotics, which is due to its dopamine receptor antagonism as well as its anticholinergic, antihistaminic, and alpha-adrenergic antagonistic properties. Common side effects include sedation, dry mouth, constipation, dry eyes, blurred vision, constipation, orthostasis, dizziness, hypotension, and urinary retention.

- **Option A:** Droperidol increases the risk of extrapyramidal effects when given in conjunction with phenothiazines such as fluphenazine. The most common behavioral adverse effects of INAPSINE (droperidol) include dysphoria, postoperative drowsiness, restlessness, hyperactivity and anxiety, which can either be the result of an inadequate dosage (lack of adequate treatment effect) or of an adverse drug reaction (part of the symptom complex of akathisia). Care should be taken to search for extrapyramidal signs and symptoms (dystonia, akathisia, oculogyric crisis) to differentiate these different clinical conditions. When extrapyramidal symptoms are the cause, they can usually be controlled with anticholinergic agents.
- **Options C:** Antipsychotic effects of the drug may take several weeks to appear. Oral fluphenazine has a half-life of 14 to 16 hours. Intramuscular (IM) formulation for acute administration is typically a 1.25 mg initial dose with options ranging from 2.5 mg to 10 mg per day. IM, short-acting formulations can be administered every 6 to 8 hours as needed for acute agitation in patients with psychosis. The half-life of the intramuscular formulation of fluphenazine is 6 to 10 days. The long-acting intramuscular or subcutaneous formulation is dosed initially 12.5 mg to 25 mg, and typical dosing is every 28 days.
- **Option D:** Tardive dyskinesia is a possible adverse reaction and should be reported immediately. Tardive dyskinesia is caused due to long-term exposure to first and second-generation neuroleptics, certain antidepressants, lithium, and some antiemetic medications. Typically, the first-generation antipsychotics with increased dopamine D2 receptor affinity are affiliated with a higher risk of causing permanent abnormal involuntary movements.

46. After 3 days of breastfeeding, a postpartum patient reports nipple soreness. To relieve her discomfort, the nurse should suggest that she:

- A. Apply warm compresses to her nipples just before feeding.
- B. Lubricate her nipples with expressed milk before feeding.
- C. Dry her nipples with a soft towel after feeding.
- D. Apply soap directly to her nipples, and then rinse.

Correct Answer: B. Lubricate her nipples with expressed milk before feeding

Measures that help relieve nipple soreness in a breastfeeding patient include lubricating the nipples with a few drops of expressed milk before feedings, applying ice compresses just before feeding, letting the nipples air dry after feedings, and avoiding the use of soap on the nipples.

- **Option A:** Cold compresses are applied instead of warm because it reduces swelling and pain. Use a piece of fabric between the skin and the cold compress. Never apply an ice pack directly to the skin.
- **Option C:** Air drying prevents the clothing from sticking to and irritating the breast.
- **Option D:** Soap removes the nipples' natural lubricants and will dry them out.

47. In which of the following diseases would bone marrow transplantation not be indicated in a newly diagnosed client?

- A. Severe aplastic anemia
- B. Severe combined immunodeficiency
- C. Acute lymphocytic leukemia
- D. Chronic myeloid leukemia

Correct Answer: C. Acute lymphocytic leukemia

- **Option C:** For the first episode of acute lymphocytic leukemia, conventional therapy is superior to bone marrow transplantation. Treatment is usually long-term chemotherapy and is composed of 3 phases (induction, consolidation, and maintenance).
- **Options A and B:** In severe combined immunodeficiency and in severe aplastic anemia, bone marrow transplantation has been employed to replace abnormal stem cells with healthy cells from the donor's marrow.
- **Option D:** In myeloid leukemia, bone marrow transplantation is done after chemotherapy to infuse healthy marrow and to replace marrow stem cells ablated during chemotherapy.

48. A client is scheduled for a colonoscopy. The nurse will provide information to the client about which type of enema?

- A. Oil retention
- B. Return flow
- C. High large volume
- D. Low, small volume

Correct Answer: D. Low, small volume

Small volume enemas along with other preparations are used to prepare the client for this procedure. The small volume enema is used to clean the lower portion of the colon or the sigmoid. This type of cleansing enema is often used for the patient who is constipated but does not need cleansing of the higher colon. The amount used is less than 500 ml and the bag is raised no higher than 12 inches.

- **Option A:** An oil retention enema is used to soften hard stool. A rectal injection of mineral oil or vegetable Oil, introduced at low pressure and retained for 30 minutes to 3 hours before being expelled. given to soften feces in cases of constipation or impaction. The volume of oil is relatively low, four to six ounces are commonly used, which allows the oil to be more easily retained.
- **Option B:** Return flow enemas help expel flatus because of the risk of loss of fluid and electrolytes A return-flow enema, or Harris flush, is used to remove intestinal gas and stimulate peristalsis. A large volume fluid is used but the fluid is instilled in 100-200 ml increments. Then, the fluid is drawn out by lowering the container below the level of the bowel. This brings the flatus out with the fluid.
- **Option C:** High, large volume enemas are seldom used. The purpose of a large volume enema is to clean as much of the colon as possible of feces, as an intervention for constipation as well as "bowel prep" before a diagnostic procedure. The amount used is 500-1000 ml and the bag is raised as high as 18 inches above the anal opening. The patient is instructed to retain and hold the fluid as long as possible to induce peristalsis and cause evacuation of feces.

49. She surfs the internet for more information about leadership styles. She reads about shared leadership as a practice in some magnet hospitals. Which of the following describes this style of leadership?

- A. Leadership behavior is generally determined by the relationship between the leader's personality and the specific situation.
- B. Leaders believe that people are basically good and need not be closely controlled.
- C. Leaders rely heavily on visioning and inspire members to achieve results.
- D. Leadership is shared at the point of care.

Correct Answer: D. Leadership is shared at the point of care.

Shared governance allows the staff nurses to have the authority, responsibility, and accountability for their own practice. Shared leadership is the practice of governing a school by expanding the number of people involved in making important decisions related to the school's organization, operation, and academics. In practice, shared leadership may be defined differently from school to school, and it may take a wide variety of forms.

- **Option A:** The situational theory of leadership refers to those leaders who adopt different leadership styles according to the situation and the development level of their team members. It is an effective way of leadership because it adapts to the team's needs and sets a beneficial balance for the whole organization.
- **Option B:** The laissez-faire leadership style is at the opposite end of the autocratic style. Of all the leadership styles, this one involves the least amount of oversight. While it's beneficial to give people opportunities to spread their wings, with a total lack of direction, people may unwittingly drift in the wrong direction—away from the critical goals of the organization.
- **Option C:** In the transformational leadership style, the leader inspires his or her followers with a vision and then encourages and empowers them to achieve it. The leader also serves as a role model for the vision.

50. Which of the following findings would the nurse expect to assess in a patient with hypokalemia?

- A. Hypertension
- B. pH below 7.35
- C. Hypoglycemia
- D. Hyporeflexia

Correct Answer: D. Hyporeflexia

Hyporeflexia is a symptom of hypokalemia. Significant muscle weakness occurs at serum potassium levels below 2.5 mmol/L but can occur at higher levels if the onset is acute. Similar to the weakness associated with hyperkalemia, the pattern is ascending in nature affecting the lower extremities, progressing to involve the trunk and upper extremities, and potentially advancing to paralysis.

- **Option A:** Hypokalemia can result in a variety of cardiac dysrhythmias. Although cardiac dysrhythmias or ECG changes are more likely to be associated with moderate to severe hypokalemia, there is a high degree of individual variability and can occur with even mild decreases in serum levels.

- **Option B:** Prolonged hypokalemia can cause structural and functional changes in the kidney that include impairing concentrating ability, increased ammonia production, altered sodium reabsorption and increased bicarbonate absorption. Hypokalemia can also result in glucose intolerance by reducing insulin secretion.
- **Option C:** Hypomagnesemia often occurs with and may worsen hypokalemia especially in the presence of chronic diarrhea, alcoholism, genetic disorders, diuretic use, and chemotherapy. Both promote the development of cardiac dysrhythmias. The combination of hypokalemia and hypomagnesemia is associated with an increased risk of torsades de pointes, particularly in individuals receiving QT-prolonging medications.

51. The common normal site of nidation/implantation in the uterus is:

- A. Upper uterine portion
- B. Mid-uterine area
- C. Lower uterine segment
- D. Lower cervical segment

Correct Answer: A. Upper uterine portion

The embryo's normal nidation site is the upper portion of the uterus. If the implantation is in the lower segment, this is an abnormal condition called placenta previa.

- **Option B:** Implantation begins with apposition of the blastocyst at the uterine epithelium, generally about 2-4 days after the morula enters the uterine cavity. The implantation site in the human uterus is usually in the upper and posterior wall in the midsagittal plane.
- **Option C:** When the implantation takes place in the lower part of the uterus, the placenta will later develop in the cervix uteri. This type of implantation is called placenta previa. A birth through the birth canal would detach the placenta before the fetus is born. This can lead to serious hemorrhages.
- **Option D:** Aberrant implantation in the lower segment of the human uterus can occur in the cervix, cervico-isthmus (close to internal os of the uterine cervix), and previous cesarean scars. Cervical pregnancy (CP) is a rare form of ectopic pregnancy and its incidence is about 1 in 1000 to 1 in 18,000 live births

52. Which of the following is the reason to perform a spinal tap on a client newly diagnosed with leukemia?

- A. To assess for central nervous system infiltration
- B. To aid in classification of the leukemia
- C. To rule out meningitis
- D. To decrease intracranial pressure

Correct Answer: A. To assess for central nervous system infiltration

- **Option A:** A spinal tap is performed to check if leukemia has infiltrated into the central nervous system specifically to the cerebrospinal fluid (CSF).

- **Options B and D:** It wouldn't be done to decrease ICP nor does it aid in the classification of leukemia. Spinal taps can result in brain stem herniation in cases of ICP.
- **Option C:** A spinal tap can be done to rule out meningitis but this isn't the indication for the test on a leukemic client.

53. A client with suspected gastric cancer undergoes an endoscopy of the stomach. Which of the following assessments made after the procedure would indicate the development of a potential complication?

- A. The client complains of a sore throat.
- B. The client displays signs of sedation.
- C. The client experiences a sudden increase in temperature.
- D. The client demonstrates a lack of appetite.

Correct Answer: C. The client experiences a sudden increase in temperature.

The most likely complication of an endoscopic procedure is perforation. A sudden temperature spike within 1 to 2 hours after the procedure is indicative of perforation and should be reported immediately to the physician. This most commonly occurs when additional procedures are carried out at the same time. The infections are normally minor and treatable with a course of antibiotics.

- **Option A:** A sore throat is to be anticipated after an endoscopy. Risks of endoscopy may include persistent pain in the area of the endoscopy or a numb throat for a few hours due to the use of a local anesthetic.
- **Option B:** Clients are given sedatives during the procedure, so it is expected that they will display signs of sedation after the procedure is completed. Risks of endoscopy may include over-sedation, although sedation is not always necessary.
- **Option D:** A lack of appetite could be the result of many factors, including the disease process. There may be some soreness. With this type of endoscopy, there may be bloating and soreness, but these usually resolve quickly.

54. A nurse is caring for a client in labor who is receiving Pitocin by IV infusion to stimulate uterine contractions. Which assessment finding would indicate to the nurse that the infusion needs to be discontinued?

- A. Three contractions occurring within a 10-minute period
- B. Increased urinary output
- C. Adequate resting tone of the uterus palpated between contractions
- D. A fetal heart rate of 90 beats per minute

Correct Answer: D. A fetal heart rate of 90 beats per minute

A normal fetal heart rate is 120-160 BPM. Bradycardia or late or variable decelerations indicate fetal distress and the need to discontinue Pitocin. The goal of labor augmentation is to achieve three good-quality contractions in a 10-minute period.

- **Option A:** Pitocin (oxytocin injection) is a natural hormone that causes the uterus to contract used to induce labor, strengthen labor contractions during childbirth, control bleeding after childbirth, or

induce an abortion.

- **Option B:** Oxytocin has an antidiuretic effect and increases the urinary excretion of AQP2 in humans whose urinary concentration mechanism is preserved. Urine volume and free water clearance were decreased, and urine osmolality was increased by the administration of oxytocin or dDAVP in the normal volunteers and CDI patients.
- **Option C:** In a normal labor, one contraction every two to three minutes or less than five contractions in a 10 minute period is ideal. A uterus must rest between contractions, having sufficient uterine resting tone (soft to the touch), and uterine resting time (about one minute).

55. Louie, with burns over 35% of the body, complains of chilling. In promoting the client's comfort, the nurse should:

- A. Maintain room humidity below 40%
- B. Place top sheet on the client
- C. Limit the occurrence of drafts
- D. Keep room temperature at 80 degrees

Correct Answer: C. Limit the occurrence of drafts

A client with burns is very sensitive to temperature changes because heat is lost in the burn areas. Changes in location, character, intensity of pain may indicate developing complications (limb ischemia) or herald improvement and/or return of nerve function and sensation.

- **Option A:** Maintain comfortable environmental temperature, provide heat lamps, heat-retaining body coverings. Temperature regulation may be lost with major burns. External heat sources may be necessary to prevent chilling.
- **Option B:** Cover wounds as soon as possible unless open-air exposure burn care method is required. Temperature changes and air movement can cause great pain to exposed nerve endings.
- **Option D:** The major burn patient needs a body temperature greater than 37 – 37.5°C to reach 38.5°C, to avoid critical temperature and decrease energy expenditure, controlling hypercatabolic state. The recommended ambient temperature in large burn units is between 28 and 33°C.

56. A client with hypothyroidism asks the nurse if she will still need to take thyroid medication during the pregnancy. The nurse's response is based on the knowledge that:

- A. There is no need to take thyroid medication because the fetus's thyroid produces a thyroid-stimulating hormone.
- B. Regulation of thyroid medication is more difficult because the thyroid gland increases in size during pregnancy.
- C. It is more difficult to maintain thyroid regulation during pregnancy due to a slowing of metabolism.
- D. Fetal growth is arrested if thyroid medication is continued during pregnancy.

Correct Answer: B. Regulation of thyroid medication is more difficult because the thyroid gland increases in size during pregnancy.

During pregnancy, the thyroid gland triples in size. This makes it more difficult to regulate thyroid medication. During pregnancy, there are increased metabolic needs of the maternal body resulting in changes in thyroid physiology. These changes in thyroid physiology reflect in altered thyroid function tests.

- **Option A:** There could be a need for thyroid medication during pregnancy. The serum TSH concentration is the initial and most reliable measure of thyroid function during pregnancy. As elaborated above, there are physiologic changes in TSH levels during pregnancy which warrants close monitoring of TSH levels. As per the latest American Thyroid Association (ATA) guidelines, serum TSH levels during pregnancy should be defined using population and trimester-specific based reference ranges.
- **Option C:** The thyroid function does not slow. When population and trimester-specific normal ranges are not available, the ATA guidelines recommend reducing the lower limit of TSH by 0.4 mU/L and the upper limit by 0.5 mU/L. It would correspond to the TSH reference range of 0.1 to 4.0 mU/L during the first trimester with a gradual return of TSH towards the non-pregnant normal range during second and third trimesters.
- **Option D:** Fetal growth is not arrested if thyroid medication is continued. There is an increase in iodine requirement during pregnancy due to an increase in maternal thyroid hormone production as well as an increase in renal iodine clearance. Along with the above two factors, there is also a fetal iodine requirement; therefore, dietary iodine requirements are higher during pregnancy.

57. On admission to the psychiatric unit, the client is trembling and appears fearful. The nurse's initial response should be to:

- A. Give the client orientation materials and review the unit rules and regulations.
- B. Introduce him/her and accompany the client to the client's room.
- C. Take the client to the day room and introduce her to the other clients.
- D. Ask the nursing assistant to get the client's vital signs and complete the admission search.

Correct Answer: B. Introduce him/herself and accompany the client to the client's room.

Anxiety is triggered by change that threatens the individual's sense of security. In response to anxiety in clients, the nurse should remain calm, minimize stimuli, and move the client to a calmer, more secure/safe setting.

- **Option A:** The client is still confused and fearful. Orientation should be postponed until he is calm. They can deliver effective, safe care by assessing risk and building a rapport with the patient during the admission process; utilizing crisis prevention strategies, including appropriate medication administration, environmental, psychobiological, counseling, and health teaching interventions; and employing conflict resolution techniques.
- **Option C:** The client should be taken to a calm environment with less stimuli so he could feel safe and become calmer.
- **Option D:** Taking the client's vital signs while he is still fearful would further aggravate his feelings of insecurity and fear. Utilizing the nursing process, the nurse can provide effective therapeutic interventions to promote safety for both the patient and the nurse.

58. At what APGAR score at 5 minutes after birth should resuscitation be initiated?

- A. 1-3
- B. 7-8
- C. 9-10
- D. 6-7

Correct Answer: A. 1-3

An APGAR of 1-3 is a sign of fetal distress which requires resuscitation. The baby is alright if the score is 8-10. Apgar is a quick test performed on a baby at 1 and 5 minutes after birth. The 1-minute score determines how well the baby tolerated the birthing process. The 5-minute score tells the health care provider how well the baby is doing outside the mother's womb.

- **Option B:** A score of 7, 8, or 9 is normal and is a sign that the newborn is in good health. This test is done to determine whether a newborn needs help breathing or is having heart trouble.
- **Option C:** The Apgar score is based on a total score of 1 to 10. The higher the score, the better the baby is doing after birth. A score of 10 is very unusual, since almost all newborns lose 1 point for blue hands and feet, which is normal for after birth.
- **Option D:** Any score lower than 7 is a sign that the baby needs medical attention. The lower the score, the more help the baby needs to adjust outside the mother's womb.

59. Nurse Karen is providing postoperative care for Dustin who had a cleft palate (CP) repair; the nurse should position the child in which of the following?

- A. In an infant seat
- B. In the supine position
- C. In the prone position
- D. On his side

Correct Answer: C. In the prone position

Postoperatively, children with a **cleft palate** should be placed on their abdomens to facilitate drainage. A child who has had a **cleft lip repair** should be positioned on their side or back to keep them from rubbing their face in the bed. A child with only a **cleft palate** repair may sleep on their stomach. It is important to keep the stitches clean and without crusting.

- **Option A:** Using an infant seat does not facilitate drainage. It is important to keep the child from hurting the incision or putting hands or toys in their mouth. For this reason, they will wear arm restraints (e.g., NoNo's) which keep them from bending their elbows. These are also used for 10 days after surgery.
- **Option B:** If the child is placed in the supine position, aspiration is a concern. There may be some discomfort as the child swallows so they may not drink much the first evening. This is why IV fluids are continued until their drinking improves. Pain medicine will also be given to relieve distress.
- **Option D:** Side-lying does not facilitate drainage as well as the prone position. The goal after surgery is to protect the new repair and stitches. For this reason, there will be some changes in the child's feeding, positioning, and activity for a short time.

60. A 28-year-old professional football player presents to the physical therapy clinic after a severe tackle led to a significant strain in his lower extremity

muscles during a match. As the therapist examines the patient's leg, he formulates a targeted exercise regimen to accelerate the healing process. This regimen involves utilizing certain muscles that work in tandem with the primary muscles in producing a specific movement. To keep the patient informed, the therapist poses a question regarding these auxiliary muscles. "For your rehabilitation, we'll be focusing on specific muscles that work together with the main muscles to produce the desired movement. Can you identify the name of this type of muscle from the following options?"

- A. Fixators
- B. Synergists
- C. Antagonists
- D. Prime Mover

Correct Answer: B. Synergists

A synergist, as a muscle or muscle group, is responsible for assisting the primary muscle (agonist) in a coordinated manner to produce a specific movement or action, enhancing the overall strength, stability, or precision of the motion. Synergists work in conjunction with the agonist to achieve balanced and efficient muscle contractions during various physical activities.

- **Option A:** Fixators are muscles that provide the necessary joint stabilization so that the action of the prime mover is precise and efficient. While they play a crucial role during muscle activity, they don't specifically assist the primary muscle in producing movement.
- **Option C:** Antagonists are muscles that produce the opposite movement of the prime mover. When one muscle contracts (the agonist or prime mover), the antagonist relaxes, allowing movement to occur.
- **Option D:** Prime Mover (or Agonist) is the main muscle responsible for producing a specific movement. In the context of the scenario, the therapist

61. A 33-year-old male is being evaluated for possible acute leukemia. Which of the following would the nurse inquire about as a part of the assessment?

- A. The client collects stamps as a hobby.
- B. The client recently lost his job as a postal worker.
- C. The client had radiation for treatment of Hodgkin's disease as a teenager.
- D. The client's brother had leukemia as a child.

Correct Answer: C. The client had radiation for treatment of Hodgkin's disease as a teenager.

Radiation treatment for other types of cancer can result in leukemia. Some hobbies and occupations involving chemicals are linked to leukemia.

- **Option A:** Collecting stamps does not predispose the client to acute leukemia.
- **Option B:** Losing a job does not contribute to acute leukemia.
- **Option D:** The incidence of leukemia is higher in twins than in siblings.

62. A client with depression is taking phenelzine (Nardil). The nurse advises the client to avoid consuming which foods while taking the medication

- A. Crackers
- B. Vegetable salad
- C. Oatmeal
- D. Yogurt

Correct Answer: D. Yogurt

Phenelzine (Nardil) is a monoamine oxidase (MAO) inhibitor used in the treatment of major depressive disorder. The client should avoid eating tyramine-rich foods such as chocolate, alcoholic beverages, aged cheese, yogurt, processed meats, and fruits such as raisins, avocados, bananas, or figs to avoid hypertensive crisis.

- **Options A, B, and C:** Crackers, vegetable salad, and oatmeal can be eaten by a client taking phenelzine.

63. Nurse Gerry is aware that the defense mechanism commonly used by clients who are alcoholics is:

- A. Displacement
- B. Denial
- C. Projection
- D. Compensation

Correct Answer: B. Denial

Denial is a method of resolving conflict or escaping unpleasant realities by ignoring their existence. Denial is probably one of the best-known defense mechanisms, used often to describe situations in which people seem unable to face reality or admit an obvious truth (e.g., "He's in denial"). Denial is an outright refusal to admit or recognize that something has occurred or is currently occurring. People living with drug or alcohol addiction often deny that they have a problem, while victims of traumatic events may deny that the event ever occurred.

- **Option A:** Displacement involves taking out our frustrations, feelings, and impulses on people or objects that are less threatening. Displaced aggression is a common example of this defense mechanism. Rather than express our anger in ways that could lead to negative consequences (like arguing with our boss), we instead express our anger towards a person or object that poses no threat (such as our spouse, children, or pets).
- **Option C:** Projection is a defense mechanism that involves taking our own unacceptable qualities or feelings and ascribing them to other people.³ For example, if you have a strong dislike for someone, you might instead believe that they do not like you. Projection works by allowing the expression of the desire or impulse, but in a way that the ego cannot recognize, therefore reducing anxiety.
- **Option D:** Overachieving in one area to compensate for failures in another. The term compensation refers to a type of defense mechanism in which people overachieve in one area to compensate for failures in another. For example, individuals with poor family lives may direct their energy into excelling above and beyond what is required at work.

64. A client's arterial blood gas levels are as follows: pH 7.31; PaO₂ 80 mm Hg, PaCO₂ 65 mm Hg; HCO₃⁻ 36 mEq/L. Which of the following signs or symptoms would the nurse expect?

- A. Cyanosis
- B. Flushed skin
- C. Irritability
- D. Anxiety

Correct Answer: B. Flushed skin

The high PaCO₂ level causes flushing due to vasodilation. The client also becomes drowsy and lethargic because carbon dioxide has a depressant effect on the CNS. On the contrary, chronic respiratory acidosis may be caused by COPD where there is a decreased responsiveness of the reflexes to states of hypoxia and hypercapnia.

- **Option A:** Cyanosis is a late sign of hypoxia. In respiratory acidosis, the slight increase in bicarbonate serves as a buffer for the increase in H⁺ ions, which helps minimize the drop in pH. In some cases, patients may present with cyanosis due to hypoxemia.
- **Option C:** Irritability is not common with a PaCO₂ level of 65 mm Hg but is associated with hypoxia. If the respiratory acidosis is severe and accompanied by prolonged hypoventilation, the patient may have additional symptoms such as altered mental status, myoclonus, and possibly even seizures.
- **Option D:** The clinical presentation of respiratory acidosis is usually a manifestation of its underlying cause. Signs and symptoms vary based on the length, severity, and progression of the disorder. Patients can present with dyspnea, anxiety, wheezing, and sleep disturbances.

65. Methylphenidate (Ritalin) is prescribed to an 8-year-old child for the treatment of attention deficit hyperactivity disorder (ADHD). The nurse will most likely monitor which of the following during the medication therapy?

- A. Deep tendon reflex
- B. Intake and output
- C. Temperature and breath sound
- D. Height and weight

Correct Answer: D. Height and weight

Methylphenidate (Ritalin) is a central nervous system stimulant that is used to treat attention deficit hyperactivity disorder (ADHD). This medication may cause slow growth. The nurse will need to keep track of the client's height and weight to make sure that there is normal growth and development.

66. Erlinda, age 85, with major depression undergoes a sixth electroconvulsive therapy (ECT) treatment. When assessing the client immediately after ECT, the nurse expects to find:

- A. Permanent short-term memory loss and hypertension.

- B. Permanent long-term memory loss and hypomania.
- C. Transitory short-term memory loss and permanent long-term memory loss.
- D. Transitory short and long-term memory loss and confusion.

Correct Answer: D. Transitory short and long-term memory loss and confusion

ECT commonly causes transitory short and long-term memory loss and confusion, especially in geriatric clients. It rarely results in permanent short and long-term memory loss. The most persistent adverse effect is retrograde amnesia. Shortly after ECT, most patients have gaps in their memory for events that occurred close in time to the course of ECT, but the amnesia may extend back several months or years. Retrograde amnesia usually improves during the first few months after ECT.

- **Option A:** Paradoxically, patients with heart block or underlying arrhythmias are less likely to develop asystole. The clonic phase of the seizure correlates with a catecholamine surge that causes tachycardia and hypertension, which lasts temporally with seizure duration. Hypertension and tachycardia resolve within 10 to 20 minutes of the seizure, although some patients exhibit persistent hypertension that requires medical intervention.
- **Option B:** According to the American Psychiatric Association, patients receiving ECT are at higher risk if they show evidence of unstable or severe cardiovascular disease, a space-occupying intracranial lesion with evidence of elevated intracranial pressure, history of an acute cerebral hemorrhage or stroke, an unstable vascular aneurysm, severe pulmonary disease, or qualify as American Society of Anesthesiologists (ASA) Class 4 or 5.
- **Option C:** A major concern regarding ECT as a treatment option is generally not whether it is effective but whether it is associated with long-term cognitive changes, particularly in various memory systems. The effect of ECT on memory continues to be studied, discussed, and debated. Perhaps the most controversial issue is whether ECT results in long-term (usually defined as greater than 6 months) changes in anterograde or retrograde memory performance; this is also an issue of clinical relevance.

67. A patient's urine is cloudy, is amber, and has an unpleasant odor. What problem may this information indicate that requires the nurse to make a focused assessment?

- A. Urinary retention
- B. Urinary tract infection
- C. Ketone bodies in the urine
- D. High urinary calcium level

Correct Answer: B. Urinary tract infection

The urine appears concentrated (amber) and cloudy because of the presence of bacteria, white blood cells, and red blood cells. The unpleasant odor is caused by pus in the urine (pyuria). Uncomplicated urinary tract infection (UTI) is a bacterial infection of the bladder and associated structures. These are patients with no structural abnormality and no comorbidities, such as diabetes, immunocompromised, or pregnancy. Uncomplicated UTI is also known as cystitis or lower UTI.

- **Option A:** These clinical manifestations do not reflect urinary retention. Urinary retention is evidenced by supra pubic distention and lack of voiding or small, frequent voiding (overflow incontinence). The mechanisms of acute urinary retention can include outflow obstruction, which can be mechanical such as from physical narrowing of the urethral channel. The other dynamic is

from an increase in the muscle tone within and around the urethra as in benign prostatic hypertrophy and hyperplasia.

- **Option C:** These clinical manifestations do not reflect ketone bodies in the urine. A reagent strip dipped in urine will measure the presence of Ketone bodies. If the cells don't get enough glucose, the body burns fat for energy instead. This produces a substance called ketones, which can show up in the blood and urine.
- **Option D:** These clinical manifestations do not reflect excessive calcium in the urine. Urine calcium levels are measured by assessing a 24-hour urine specimen. If urine calcium levels are too high or too low, it may mean that the client has a medical condition, such as kidney disease or kidney stones. Kidney stones are hard, pebble-like substances that can form in one or both kidneys when calcium or other minerals build up in the urine. Most kidney stones are formed from calcium.

68. The following are teaching guidelines regarding radiation therapy except:

- A. The therapy is painless
- B. To promote safety, the client is assisted by therapy personnel while the machine is in operation
- C. The client may communicate all his concerns or needs or discomforts while the machine is operating
- D. Safety precautions are necessary only during the time of actual irradiation

Correct Answer: B. To promote safety, the client is assisted by therapy personnel while the machine is in operation

- **Option B:** To promote safety to the personnel, the client will remain alone in the treatment room while the machine is in operation.
- **Options A and D:** There is no residual radioactivity after radiation therapy. Safety precautions are necessary only during the time of actual irradiation. The client may resume normal activities of daily living afterward.
- **Option C:** The client may voice out any concern throughout the treatment because a technologist is just outside the room observing through a window or closed-circuit TV.

69. A client enters the emergency department confused, twitching, and having seizures. His family states he recently was placed on corticosteroids for arthritis and was feeling better and exercising daily. On data collection, he has flushed skin, dry mucous membranes, an elevated temperature, and poor skin turgor. His serum sodium level is 172 mEq/L. Choose the interventions that the health care provider would likely prescribe. Select all that apply.

- A. Monitor intake and output.
- B. Monitor vital signs.
- C. Maintain a sodium-reduced diet.
- D. Monitor electrolyte levels.
- E. Increase water intake orally.
- F. Administer sodium replacements.

Correct Answer: A, B, C, D, & E.

Hypernatremia is described as having a serum sodium level that exceeds 145 mEq/L. Signs and symptoms would include dry mucous membranes, loss of skin turgor, thirst, flushed skin, elevated temperature, oliguria, muscle twitching, fatigue, confusion, and seizures. Interventions include monitoring fluid balance, monitoring vital signs, reducing dietary intake of sodium, monitoring electrolyte levels, and increasing oral intake of water.

- **Option A:** Monitor intake and output and specific gravity. Assess the presence and location of edema. Weigh the client daily. These parameters are variable, depending on the fluid status, and are indicators of therapy needs and effectiveness.
- **Option B:** Depending on the fluid status, hypertension or hypotension may be present. The presence of postural hypotension may affect activity tolerance. Metabolic acidosis secondary to hyperchloremia may result in deep, labored breathing with air hunger, which can lead to cardiopulmonary arrest if left untreated.
- **Option C:** Teach the client to avoid foods high in sodium such as regular canned vegetables and vegetable juices, processed foods, snack foods, and condiments. Decreases the risk of sodium-associated complications such as stroke, heart disease, and heart failure.
- **Option D:** Monitor serum electrolytes, osmolality, and arterial blood gasses, as indicated. This will evaluate the therapy's needs and effectiveness.
- **Option E:** Encourage increased oral and IV fluid intake. Replacement of total body water deficit will gradually restore sodium and water balance.
- **Option F:** Sodium replacement therapy would not be prescribed for a client with hypernatremia. Sodium intake restriction while promoting renal clearance decreases serum sodium levels in the presence of extracellular fluid excess.

70. You are making a home visit to a 50-year old patient who was recently hospitalized with a right leg deep vein thrombosis and a pulmonary embolism. The patient's only medication is enoxaparin (Lovenox) subcutaneously. Which assessment information will you need to communicate to the physician?

- A. The patient says that her right leg aches all night
- B. The right calf is warm to the touch and is larger than the left calf
- C. The patient is unable to remember her husband's first name
- D. There are multiple ecchymotic areas on the patient's arms

Correct Answer: C. The patient is unable to remember her husband's first name

Confusion in a patient this age is unusual and may be an indication of intracerebral bleeding associated with enoxaparin use. Because of the reduced effectiveness of the antidote (e.g., protamine), bleeding complications can be severe and life-threatening.

- **Option A:** The right leg symptoms are consistent with a resolving deep vein thrombosis. Around half of people who have had a DVT will experience some degree of chronic discomfort and around 15% of people will experience moderate to severe chronic pain and swelling. This is called post-thrombotic syndrome (PTS) and is caused partly by damage or leftover scar tissue inside the vein.
- **Option B:** The patient may need teaching about keeping the right leg elevated above the heart to reduce swelling and pain. The client may also wear graduated compression stockings. These specially fitted stockings are tight at the feet and become gradually loosened up on the leg, creating

gentle pressure that keeps blood from pooling and clotting.

- **Option D:** The presence of ecchymoses may point to a need to do more patient teaching about avoiding injury while taking anticoagulants but does not indicate that the physician needs to be called.

71. Which of the following is a primary nursing intervention necessary for all patients with a Foley Catheter in place?

- A. Maintain the drainage tubing and collection bag level with the patient's bladder.
- B. Irrigate the patient with 1% Neosporin solution three times a day.
- C. Clamp the catheter for 1 hour every 4 hours to maintain the bladder's elasticity.
- D. Maintain the drainage tubing and collection bag below bladder level to facilitate drainage by gravity.

Correct Answer: D. Maintain the drainage tubing and collection bag below bladder level to facilitate drainage by gravity

To prevent obstruction, the catheter and collecting tube should be kept free from kinking, the collecting bag should be positioned below the level of the bladder at all times and never placed on the floor. The collecting bag should be emptied regularly using a clean collecting container (HICPAC, 2009). In ambulatory patients, collecting bags may be disguised in bags and pouches.

- **Option A:** Maintaining the drainage tubing and collection bag level with the patient's bladder could result in reflux of urine into the kidney. The indwelling catheter should be secured to the thigh or abdomen after insertion to prevent movement and the exertion of excessive force on the bladder neck or urethra (Gray, 2008). Unsecured and displaced catheters can also cause pressure ulcers on the perineum and buttock (Siegel, 2008).
- **Option B:** Irrigating the bladder with Neosporin must be indicated and ordered by the physician. Nash (2003) conducted a recent review of the literature on self-cleaning of catheter training bags. The study showed that patients whose bags were irrigated with vinegar showed a significant reduction of bacteriuria compared with patients whose bags were irrigated with the hydrogen peroxide solutions (Washington, 2001). Authors concluded that more research is needed on the self-cleaning of Foley bags.
- **Option C:** Clamping the catheter for 1 hour every 4 hours must be prescribed by a physician. Patients practicing intermittent catheterization should pay close attention to the catheterization schedule and avoid bladder overdistension and unnecessary catheterizations. As CAUTIs are more prevalent for intermittent catheterization in patients with high residual urine volumes at the time of catheterization, urine volume should determine the catheterization schedule.

72. Which information obtained by assessment ensures that the client's respiratory efforts are currently adequate?

- A. The client is able to talk.
- B. The client is alert and oriented.
- C. The client's oxygen saturation is 97%.
- D. The client's chest movements are uninhibited.

Correct Answer: C. The client's oxygen saturation is 97%.

Clients may have ineffective respiratory efforts and gas exchange even though they are able to talk, have good respiratory movement, and are alert. The best indicator for respiratory effectiveness is the maintenance of oxygen saturation within the normal range.

- **Option A:** A thorough respiratory assessment consists of inspection, palpation, percussion, and auscultation in conjunction with a comprehensive health history. Use a systematic approach and compare findings between left and right so the patient serves as his own control.
- **Option B:** Respirations should be even, unlabored, and regular at a rate of 12 to 20 breaths per minute. Normally, inspiration is half as long as expiration, and chest expansion is symmetrical. If the client appears anxious or exhibits nasal flaring, cyanosis of the lips and mouth, intercostal retraction, or use of accessory muscles of respiration, he may be in respiratory distress.
- **Option D:** Normally, the thorax is symmetrical and the anterior-posterior diameter is less than the transverse diameter. (Equal diameters may signal chronic obstructive pulmonary disease in an adult.) Note any structural deformity such as a pigeon chest (pectus carinatum) or funnel chest (pectus excavatum).

73. Harry is a diabetic patient who is experiencing a reaction to alternating periods of nocturnal hypoglycemia and hyperglycemia. The patient might be manifesting which of the following?

- A. Uncontrolled diabetes
- B. Somogyi phenomenon
- C. Brittle diabetes
- D. Diabetes insipidus

Correct Answer: B. Somogyi phenomenon

The Somogyi phenomenon manifests itself with nocturnal hypoglycemia, followed by a marked increase in glucose and an increase in ketones. The Somogyi phenomenon states that early morning hyperglycemia occurs due to a rebound effect from late-night hypoglycemia.

- **Option A:** Uncontrolled diabetes is when blood sugar levels are consistently above 180 ml/dl or higher. It can lead to life-threatening complications such as diabetic ketoacidosis (DKA), heart attack, or stroke. Chronically high blood sugar levels can damage nerves, blood vessels, and vital organs.
- **Option C:** Brittle diabetes is diabetes that's especially difficult to manage and often disrupts everyday life. People with brittle diabetes have severe swings in blood glucose (blood sugar). The swings can cause frequent episodes of hypoglycemia (low blood sugar) or hyperglycemia (high blood sugar).
- **Option D:** Diabetes insipidus (DI) is a disease process that results in either decreased release of antidiuretic hormone (ADH, also known as vasopressin or AVP) or decreased response to ADH, causing electrolyte imbalances.

74. A female patient undergoes a total abdominal hysterectomy. When assessing the patient 10 hours later, the nurse identifies which finding as an early sign of shock?

- A. Restlessness

- B. Pale, warm, dry skin
- C. Heart rate of 110 beats/minute
- D. Urine output of 30 ml/hour

Correct Answer: A. Restlessness

Early in shock, hyperactivity of the sympathetic nervous system causes increased epinephrine secretion, which typically makes the patient restless, anxious, nervous, and irritable. It also decreases tissue perfusion to the skin, causing pale, cool clammy skin. Shock is characterized by decreased oxygen delivery and/or increased oxygen consumption or inadequate oxygen utilization leading to cellular and tissue hypoxia. It is a life-threatening condition of circulatory failure and most commonly manifested as hypotension (systolic blood pressure less than 90 mm Hg or MAP less than 65 mmHg).

- **Option B:** Hypoxia at the cellular level causes a series of physiologic and biochemical changes, resulting in acidosis and a decrease in regional blood flow, which further worsens the tissue hypoxia.
- **Option C:** An above-normal heart rate is a late sign of shock. The most common clinical features/labs which are suggestive of shock include hypotension, tachycardia, tachypnea, obtundation or abnormal mental status, cold, clammy extremities, mottled skin, oliguria, metabolic acidosis, and hyperlactatemia.
- **Option D:** A urine output of 30 ml/hour is within normal limits. During this stage, most of the classic signs and symptoms of shock appear due to early organ dysfunction, resulting from the progression of the pre-shock stage as the compensatory mechanisms become insufficient.

75. Which type of research study can be affected by detracting values of the researcher?

- A. Qualitative
- B. Naturalistic
- C. Ethnographic
- D. Quantitative

Correct Answer: D. Quantitative

Quantitative research is the process of collecting and analyzing numerical data. It can be used to find patterns and averages, make predictions, test causal relationships, and generalize results to wider populations.

- **Option A:** The values of the researcher must be acknowledged in qualitative research. Qualitative research involves collecting and analyzing non-numerical data (e.g., text, video, or audio) to understand concepts, opinions, or experiences. It can be used to gather in-depth insights into a problem or generate new ideas for research.
- **Option B:** The values of the researcher must be acknowledged in naturalistic research. Naturalistic observation is a nonexperimental, primarily qualitative research method in which organisms are studied in their natural settings. Behaviors or other phenomena of interest are observed and recorded by the researcher, whose presence might be either known or unknown to the subjects.
- **Option C:** The values of the researcher must be acknowledged in qualitative research. In ethnography, a type of qualitative research, researchers are never considered neutral. Researchers immerse themselves in groups or organizations to understand their cultures.

76. Mrs. Santos is on her 5th pregnancy and has a history of abortion in the 4th pregnancy, and the first pregnancy was a twin. She is considered to be:

- A. G 4 P 3
- B. G 5 P 3
- C. G 5 P 4
- D. G 4 P 4

Correct Answer: B. G 5 P 3

Gravida refers to the total number of pregnancies including the current one. Para refers to the number of pregnancies that have reached viability. Thus, if the woman has had one abortion, she would be considered Para 3. Twin pregnancy is counted only as 1.

- **Option A:** Gravida should be 5 since the woman is on her 5th pregnancy.
- **Option C:** Para should be 3 because twin pregnancies are counted as one and the woman has one abortion.
- **Option D:** Gravida should be 5 since the woman is on her 5th pregnancy.

77. A nurse is reviewing the health records of assigned clients. The nurse plans care knowing that which client is at risk for fluid volume deficit? Select all that apply.

- A. The client with cirrhosis
- B. The client with a colostomy
- C. The client with diarrhea
- D. The client with third-degree burns
- E. The client with decreased kidney function
- F. The client with congestive heart failure (CHF)

Correct Answer B, C, & D.

Causes of a fluid volume deficit include vomiting, diarrhea, conditions that cause increased respirations or increased urinary output, insufficient intravenous fluid replacement, draining fistulas, ileostomy, and colostomy. A client with cirrhosis, CHF, or decreased kidney function is at risk for fluid volume excess.

- **Option A:** Ascites is most often caused by liver scarring, otherwise known as cirrhosis. Scarring increases pressure inside the liver's blood vessels. The increased pressure can force fluid into the abdominal cavity, resulting in ascites.
- **Option B:** When the colon (large intestine) is removed, a greater risk for electrolyte imbalance can occur. The effluent characteristics of an ileostomy are between normal ileal and fecal content. There is fluid and electrolyte loss as the small bowel is unable to conserve sodium, chloride, and bicarbonate leading to dehydration, hyponatremia, and metabolic acidosis.
- **Option C:** All the acute effects of watery diarrhea result from the loss of water and electrolytes from the body in liquid stool. Additional amounts of water and electrolytes are lost when there is vomiting, and water losses are also increased by fever.

- **Option D:** Severe fluid loss is the greatest problem faced following major burn injuries. Therefore, effective fluid resuscitation is one of the cornerstones of modern burn treatment.
- **Option E:** Progressive loss of renal function causes reduced-sodium filtration and inappropriate suppression of tubular reabsorption that ultimately lead to volume expansion. Fluid overload frequently manifests in patients with moderate to particularly late stages of CKD and has been associated with hypertension, congestive heart failure (CHF), left ventricular hypertrophy (LVH) as well as edema.
- **Option F:** Heart failure can disturb the normal functioning of the kidney, weakening its ability to excrete sodium from the body and triggering mechanisms that cause water retention resulting in fluid overload.

78. Early signs and symptoms of local anesthetic toxicity include all but one of the following. Indicate the exception:

- A. Tinnitus
- B. Perioral numbness
- C. Dizziness
- D. Hypertension

Correct Answer: D. Hypertension

Manifestations of local anesthetic toxicity typically appear 1-5 minutes after the injection, but onset may range from 30 seconds to as long as 60 minutes. Initial manifestations may also vary widely. Classically, patients experience symptoms of central nervous system (CNS) excitement such as the following: Circumoral and/or tongue numbness, metallic taste, lightheadedness, dizziness, visual and auditory disturbances (difficulty focusing and tinnitus), disorientation and drowsiness.

- **Option A:** Local anesthetic systemic toxicity (LAST) is a life-threatening adverse event associated with the increasingly prevalent utilization of local anesthetic (LA) techniques throughout various health care settings, with an incidence currently estimated to be 0.03% or 0.27 episodes per 1,000 peripheral nerve blocks.
- **Option B:** Increasing plasma concentrations of LA initially compromises cortical inhibitory pathways by blockade of NaV channels, disrupting inhibitory neuron depolarization. Inhibiting these pathways leads to excitatory clinical features of sensory and visual changes, muscular activation, and subsequent seizure activity. As the plasma concentrations of LA rise, excitatory pathways are affected, producing a depressive phase of neurological toxicity, with loss of consciousness, coma, and respiratory arrest.
- **Option C:** Prompt and effective airway management is crucial to prevent hypoxia, hypercapnia, and acidosis (metabolic or respiratory), which are known to potentiate LAST. The airway should be secured and 100% oxygen administered, bearing in mind that hyperventilation and respiratory alkalosis have also been demonstrated to be injurious.

79. The client's vision is tested with a Snellen chart. The results of the tests are documented as 20/60. The nurse interprets this as:

- A. The client can read at a distance of 60 feet what a client with normal vision can read at 20 feet.
- B. The client is legally blind.

C. The client's vision is normal.

D. The client can read only at a distance of 20 feet what a client with normal vision can read at 60 feet.

Correct Answer: D. The client can read only at a distance of 20 feet what a client with normal vision can read at 60 feet.

Vision that is 20/20 is normal, that is, the client is able to read from 20 feet what a person with normal vision can read from 20 feet. A client with a visual acuity of 20/60 only can read at a distance of 20 feet of what a person with normal vision can read at 60 feet. The results of visual acuity are classically reported using 20/20 (6/6 when using meters) for standard vision. The numerator describes the distance from the chart, typically 20 ft (6 m). The denominator describes the distance that an individual with normal vision (20/20 vision) can read the same line on the chart.

- **Option A:** An individual with 20/60 vision would be able to distinguish the same optotype at 20 ft that another individual with normal (20/20) vision distinguishes at 60 ft. In the logMAR, visual acuity is reported as a single number where 0.0 is standard vision.
- **Option B:** The WHO describes individuals with low vision as having a best-corrected vision of 20/60 or worse, and blind as best corrected vision worse than 20/400, whereas legal blindness is identified as 20/200 in the United States.
- **Option C:** Although 20/20 visual acuity has been referred to as "perfect vision," it is important to remember that this is only one aspect of vision and does not include other elements such as depth perception, peripheral vision, and colorblindness.

80. Which of the following substances is a natural hormone produced by the pineal gland that induces sleep?

A. Amphetamine

B. Melatonin

C. Methylphenidate

D. Pemoline

Correct Answer: B. Melatonin

Melatonin is a natural hormone that induces sleep. Melatonin is a hormone synthesized within the pineal gland from the amino acid tryptophan. Tryptophan is hydroxylated and then decarboxylated to form 5-hydroxytryptamine or serotonin. When there is sunlight, serotonin is stored within pinealocytes, making it unavailable to monoamine oxidase, the enzyme that converts serotonin to melatonin. All the others are medications classified as stimulants.

- **Option A:** Amphetamine is a central nervous (CNS) system stimulant that functions by increasing the amounts of dopamine, norepinephrine, and serotonin (to a lesser extent) in the synaptic cleft through a variety of mechanisms. Amphetamine is FDA-approved for the treatment of attention-deficit/hyperactivity disorder (ADHD) and narcolepsy. It has indications as a first-line agent for ADHD in adults and children six years of age and older. Amphetamine is also a second-line agent for the treatment of narcolepsy.
- **Option C:** Methylphenidate is FDA-approved for treating attention deficit hyperactivity disorder (ADHD) in children and adults and as a second-line treatment for narcolepsy in adults. Methylphenidate blocks the reuptake of two neurotransmitters, norepinephrine (NE) and dopamine, by presynaptic neurons. More specifically, it inhibits the transporters of these neurotransmitters, increasing the concentration of dopamine and NE in the synaptic cleft.

- **Option D:** Pemoline is a stimulant drug of the 4-oxazolidinone class. It was first synthesized in 1913 but its activity was not discovered until the 1930s. Under the names Betanamin, Cylert, Tradon, and Ceractiv it was used as a medication to treat attention-deficit hyperactivity disorder (ADHD) and narcolepsy.

81. A primigravida is receiving magnesium sulfate for the treatment of pregnancy induced hypertension (PIH). The nurse who is caring for the client is performing assessments every 30 minutes. Which assessment finding would be of most concern to the nurse?

- A. Urinary output of 20 ml since the previous assessment
- B. Deep tendon reflexes of 2+
- C. Respiratory rate of 10 BPM
- D. Fetal heart rate of 120 BPM

Correct Answer: C. Respiratory rate of 10 BPM.

Magnesium sulfate depresses the respiratory rate. If the respiratory rate is less than 12 breaths per minute, the physician or other health care provider needs to be notified, and continuation of the medication needs to be reassessed.

- **Option A:** A urinary output of 20 ml in a 30 minute period is adequate; less than 30 ml in one hour needs to be reported. The kidneys face remarkable demands during pregnancy, and it is critical that the practicing nephrologist understands the normal kidney adaptations to pregnancy. GFR rises early to a peak of 40% to 50% that of prepregnancy levels, resulting in lower levels of serum creatinine, urea, and uric acid. There is a net gain of sodium and potassium, but a greater retention of water, with gains of up to 1.6 L.
- **Option B:** Deep tendon reflexes of 2+ are normal. With preeclampsia, a woman's reflexes become unusually active. Increasing blood pressure will lead to increasing hyperreflexia until uncontrollable seizures eventually result. Testing for this change is difficult in the field setting; in a clinic setting an overactive patellar response is a good indicator.
- **Option D:** The fetal heart rate is WNL for a resting fetus. Current international guidelines recommend for the normal fetal heart rate (FHR) baseline different ranges of 110 to 150 beats per minute (bpm) or 110 to 160 bpm.

82. Situation: The nurse may encounter clients with concerns on sexuality. The most basic factor in the intervention with clients in the area of sexuality is:

- A. Knowledge about sexuality.
- B. Experience in dealing with clients with sexual problems.
- C. Comfort with one's sexuality.
- D. Ability to communicate effectively.

Correct Answer: C. Comfort with one's sexuality

The nurse must be accepting, empathetic and non-judgmental to patients who disclose concerns regarding sexuality. This can happen only when the nurse has reconciled and accepted her feelings and beliefs related to sexuality. Sexuality is a very personal and sensitive subject; the client is more

likely to share this information if he or she does not fear being judged by the nurse.

- **Option A:** Encourage the client to discuss the disease process that may be contributing to sexual dysfunction; ensure that client is aware that alternative methods of achieving sexual satisfaction exist and can be learned through sex counseling if he or she and partner desire to do so.
- **Option B:** Identify factors that affect the client's sexuality. Note cultural, social, ethnic, racial, and religious factors that may contribute to conflicts regarding variant sexual practices.
- **Option D:** Effective communication is an important consideration, but this is not the priority. Provide positive reinforcement. Observe client behaviors and the responses he or she elicits from others; give social attention (e.g., smile, nod) to desired behaviors.

83. A nurse calls a physician with the concern that a patient has developed a pulmonary embolism. Which of the following symptoms has the nurse most likely observed?

- A. The patient is somnolent with decreased response to the family.
- B. The patient suddenly complains of chest pain and shortness of breath.
- C. The patient has developed a wet cough and the nurse hears crackles on auscultation of the lungs.
- D. The patient has a fever, chills, and loss of appetite.

Correct Answer: B. The patient suddenly complains of chest pain and shortness of breath.

Typical symptoms of pulmonary embolism include chest pain, shortness of breath, and severe anxiety. The physician should be notified immediately. Pulmonary embolism (PE) occurs when there is a disruption to the flow of blood in the pulmonary artery or its branches by a thrombus that originated somewhere else. Chest pain is a frequent symptom and is usually caused by pleural irritation due to distal emboli causing pulmonary infarction. In central PE, chest pain may be from underlying right ventricular (RV) ischemia and needs to be differentiated from an acute coronary syndrome or aortic dissection.

- **Option A:** The most common symptoms of PE include the following: dyspnea, pleuritic chest pain, cough, hemoptysis, presyncope, or syncope. Dyspnea may be acute and severe in central PE, whereas it is often mild and transient in small peripheral PE.
- **Option C:** A patient with pulmonary embolism will not be sleepy or have a cough with crackles on exam. On examination, patients with PE might have tachypnea and tachycardia, which are common but nonspecific findings. Other examination findings include calf swelling, tenderness, erythema, palpable cords, pedal edema, rales, decreased breath sounds, signs of pulmonary hypertension such as elevated neck veins, loud P2 component of second heart sound, a right-sided gallop, and a right ventricular parasternal lift might be present on examination.
- **Option D:** A patient with fever, chills, and loss of appetite may be developing pneumonia. A massive PE leads to an acute right ventricular failure, which presents as jugular venous distension, parasternal lift, third heart sound, cyanosis, and shock. If a patient with PE who has tachycardia on presentation develops sudden bradycardia or develops a new broad complex tachycardia (with right bundle branch block), providers should look for signs of right ventricular strain and possible impending shock. PE should be suspected in anyone who has hypotension with jugular venous distension wherein acute myocardial infarction, pericardial tamponade, or tension pneumothorax has been ruled out.

84. The nurse understands that the most vivid dreaming occurs during:

- A. REM sleep
- B. Stage 1 NREM
- C. Stage 4 NREM
- D. Transition period from NREM to REM sleep.

Correct Answer: A. REM sleep

Although dreams occur during both NREM and REM sleep, the dreams of REM sleep are more vivid and elaborate and are believed to be functionally important to learning, memory processing, and adaptation to stress. REM is the phase of sleep responsible for dreaming. It is characterized by total body voluntary muscle paralysis (except for the extraocular muscles). This paralysis is thought to be a mechanism to prevent neural stimulus from dreams to manifest in actual muscular impulses during sleep.

- **Option B:** NREM stage 1 is the shallow stage of sleep where a person is still easily awoken. It lasts 1 to 7 minutes. Rhythmical alpha waves characterize electroencephalogram (EEG) at a frequency of 8 to 13 cycles per second.
- **Option C:** NREM sleep is subdivided into several stages numbered 1 to 3. Each phase and stage represents the relative depth of sleep and offers unique characteristics in the brain wave, muscle tones, and eye movement patterns. As the name implies, NREM is characterized by an absence of eye movements.
- **Option D:** Sleep begins with a short NREM stage 1 phase, followed by NREM stage 2, then NREM stage 3, then finally into REM. NREM accounts for approximately 75% to 80% of total sleep, and REM accounts for the remaining 20% to 25% of sleep.

85. A nursing care plan for a male client with bipolar I disorder should include:

- A. Providing a structured environment.
- B. Designing activities that will require the client to maintain contact with reality.
- C. Engaging the client in conversing about current affairs.
- D. Touching the client provides assurance.

Correct Answer: A. Providing a structured environment

Structure tends to decrease agitation and anxiety and to increase the client's feeling of security. Provide structured solitary activities with the assistance of a nurse or aide. Structure provides focus and security. Provide frequent rest periods to prevent exhaustion.

- **Option B:** Maintain a low level of stimuli in the client's environment (e.g., loud noises, bright light, low-temperature ventilation). This helps minimize the escalation of anxiety. Maintain a consistent approach, employ consistent expectations, and provide a structured environment. Clear and consistent limits and expectations minimize the potential for the client's manipulation of staff.
- **Option C:** Remain neutral as possible; Do not argue with the client. The client can use inconsistencies and value judgments as justification for arguing and escalating mania. Use short, simple, and brief explanations or statements. Short attention span limits understanding of small pieces of information.
- **Option D:** Use a calm and firm approach; provide structure and control for a client who is out of control. Redirect agitation and potentially violent behaviors with physical outlets in an area of low

stimulation (e.g., punching bag); can help to relieve pent-up hostility and relieve muscle tension.