

Kevin's Review - 85 NCLEX Practice Questions

1. The cervical dilatation taken at 8:00 AM in a G1P0 patient was 6 centimeters. A repeat I.E. done at 10 A. M. showed that cervical dilatation was 7 cm. The correct interpretation of this result is:

- A. Labor is progressing as expected.
- B. The latent phase of Stage 1 is prolonged.
- C. The active phase of Stage 1 is protracted.
- D. The duration of labor is normal.

Correct Answer: C. The active phase of Stage 1 is protracted

The active phase of Stage I starts from 4cm cervical dilatation and is expected that the uterus will dilate by 1cm every hour. Since the time elapsed is already 2 hours, the dilatation is expected to be already 8 cm. Hence, the active phase is protracted.

- **Option A:** In the active phase, the cervix changes more rapidly and predictably until it reaches 10 centimeters and cervical dilatation and effacement are complete. Active labor with more rapid cervical dilation generally starts around 6 centimeters of dilation. During the active phase, the cervix typically dilated at a rate of 1.2 to 1.5 centimeters per hour.
- **Option B:** 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.
- **Option D:** Sedation can increase the duration of the latent phase of labor. 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.

2. Which statement indicates that a client with facial burns understands the need to wear a facial pressure garment?

- A. "My facial scars should be less severe with the use of this mask."
- B. "The mask will help protect my skin from sun damage."
- C. "This treatment will help prevent infection."
- D. "Using this mask will prevent scars from being permanent."

Correct Answer: A. "My facial scars should be less severe with the use of this mask."

The purpose of wearing the pressure garment over burn injuries for up to 1 year is to prevent hypertrophic scarring and contractures from forming. Hypertrophic burn scars pose a challenge for burn survivors and providers. In many cases, they can severely limit a burn survivor's level of function, including work and recreational activities.

- **Option B:** Although the mask does provide protection of sensitive, newly healed skin and grafts from sun exposure, this is not the purpose of wearing the mask. A widespread modality of prevention and treatment of hypertrophic scarring is the utilization of pressure garment therapy (PGT).

- **Option C:** The pressure garment will not alter the risk of infection. At present, PGT is the standard first-line therapy for hypertrophic burn scars in many centers due to its non-invasive characteristics and presumed desirable treatment effects with few associated complications.
- **Option D:** Scars will still be present. This treatment modality continues to be a clinically accepted practice. It is the most common therapy used for the treatment and prevention of abnormal scars after burn injury particularly in North America, Europe, and Scandinavia where it is considered routine practice and regarded as the preferred conservative management with reported thinning and better pliability ranging from 60% to 85%.

3. After seeking help at an outpatient mental health clinic, Ruby who was raped while walking her dog is diagnosed with posttraumatic stress disorder (PTSD). Three months later, Ruby returns to the clinic, complaining of fear, loss of control, and helpless feelings. Which nursing intervention is most appropriate for Ruby?

- A. Recommending a high-protein, low-fat diet.
- B. Giving sleep medication, as prescribed, to restore a normal sleep-wake cycle.
- C. Allowing the client time to heal.
- D. Exploring the meaning of the traumatic event with the client.

Correct Answer: D. Exploring the meaning of the traumatic event with the client.

The client with PTSD needs encouragement to examine and understand the meaning of the traumatic event and consequent losses. Otherwise, symptoms may worsen and the client may become depressed or engage in self-destructive behavior such as substance abuse. PTSD stems from events that cause moderate to severe stress reactions that may be experienced as a sense of horror, helplessness, serious injury, or threat of serious injury or death. Common precipitating events include combat, natural and man-made disasters, the sudden or unexpected death of a loved one, terrorist attacks, serious accidents or illnesses, sexual or physical assault, and various forms of abuse.

- **Option A:** A special diet isn't indicated unless the client also has an eating disorder or a nutritional problem. With proper training, health care professionals in multiple disciplines — including psychologists and psychiatrists, advanced social workers, licensed professional counselors, and psychiatric mental health nurse practitioners (PMHNPs) — can conduct PTSD interventions.
- **Option B:** The physician may prescribe anti-anxiety agents or antidepressants cautiously to avoid dependence; sleep medication is rarely appropriate. PTSD symptoms can be treated with any of multiple types of medications, including antidepressants and anti-anxiety drugs. Prazosin has been identified as a possible aid in reducing or suppressing nightmares in some people with PTSD, but its efficacy is still being studied.
- **Option C:** The client must explore the meaning of the event and won't heal without this, no matter how much time passes. Behavioral techniques, such as relaxation therapy, may help decrease the client's anxiety and induce sleep. A type of talk therapy, cognitive therapy helps patients recognize and modify potentially harmful thinking patterns, such as fears that traumatic events will recur.

4. A client with subdural hematoma was given mannitol to decrease intracranial pressure (ICP). Which of the following results would best show the mannitol was effective?

- A. Urine output increases.
- B. Pupils are 8 mm and nonreactive.
- C. Systolic blood pressure remains at 150 mm Hg.
- D. BUN and creatinine levels return to normal.

Correct Answer: A. Urine output increases.

Mannitol promotes osmotic diuresis by increasing the pressure gradient in the renal tubes. The mannitol causes the cells in the brain to dehydrate mildly. The water inside the brain cells (intracellular water) leaves the cells and enters the bloodstream as the mannitol draws it out of the cells and into the bloodstream. Once in the bloodstream, the extra water is whisked out of the skull. When the mannitol gets to the kidneys, the kidneys filter the mannitol into the urine. The mannitol again draws the water with it, and diuresis (increased urination) ensues.

- **Option B:** Fixed and dilated pupils are symptoms of increased ICP or cranial nerve damage. Clinical suspicion for intracranial hypertension should be raised if a patient presents with the following signs and symptoms: headaches, vomiting, and altered mental status varying from drowsiness to coma. Visual changes can range from blurred vision, double vision from cranial nerve defects, photophobia to optic disc edema, and eventually optic atrophy.
- **Option C:** There is no indication that mannitol is being given for renal dysfunction or blood pressure maintenance. Intradialytic hypotension and dialysis disequilibrium symptoms are common in hemodialysis patients. This is due to a drop in intradialytic osmolality. Mannitol can be used to prevent intradialytic hypotension by raising serum osmolality.
- **Option D:** No information is given about abnormal BUN and creatinine levels. Much like mannitol given for oliguria of acute renal failure, mannitol can be given to increase the excretion of toxic materials, substances, and drugs. The kidneys excrete mannitol. The mannitol is poorly reabsorbed once excreted and thus draws extra water with it into the renal collecting ducts. The extra water in the renal collecting ducts can help increase the excretion of water-soluble toxic materials, substances, and drugs.

5. A child is admitted to the hospital with an uncontrolled seizure disorder. The admitting physician writes orders for actions to be taken in the event of a seizure. Which of the following actions would not be included?

- A. Notify the physician.
- B. Restrain the patient's limbs.
- C. Position the patient on his/her side with the head flexed forward.
- D. Administer rectal diazepam.

Correct Answer: B. Restrain the patient's limbs.

During a witnessed seizure, nursing actions should focus on securing the patient's safety and curtailing the seizure. Restraining the limbs is not indicated because strong muscle contractions could cause injury. Use and pad side rails with the bed in lowest position, or place the bed up against the wall and pad floor if rails are not available or appropriate.

- **Option A:** The nurse should notify the physician in the event of a seizure so he could prescribe the correct medication. Ascertain knowledge of various stimuli that may precipitate seizure activity. Alcohol, various drugs, and other stimuli (loss of sleep, flashing lights, prolonged television viewing) may increase brain activity, thereby increasing the potential for seizure activity.

- **Option C:** A side-lying position with head flexed forward allows for drainage of secretions and prevents the tongue from falling back, blocking the airway. Turn head to side and suction airway as indicated. Insert plastic bite blocks only if the jaw is relaxed. Helps maintain airway patency and reduces the risk of oral trauma but should not be “forced” or inserted when teeth are clenched because dental and soft-tissue damage may result. Note: Wooden tongue blades should not be used because they may splinter and break in the patient’s mouth.
- **Option D:** Rectal diazepam may be a treatment ordered by the physician, who should be notified of the seizure. Diazepam may be used alone (or in combination with phenobarbital) to suppress status seizure activity. Diastat, a gel, may be administered rectally, even in the home setting, to reduce the frequency of seizures and need for additional medical care.

6. Nurse Ryan is assessing for correct placement of a nasogastric tube. The nurse aspirates the stomach contents and checks the contents for pH. The nurse verifies correct tube placement if which pH value is noted?

- A. 3.5
- B. 7.0
- C. 7.35
- D. 7.5

Correct Answer: A. 3.5

If the nasogastric tube is in the stomach, the pH of the contents will be acidic. Gastric aspirates have acidic pH values and should be 3.5 or lower. The pH test performed with reagent strips is sensitive to identify the correct placement of the gastric tube, so it can be used as an adjuvant technique in the evaluation of the gastric tube placement. In interpreting the results, pH ≤ 5.5 points to correct placement, and values > 5.5 require radiological confirmation.

- **Option B:** 7.0 indicates a slightly acidic pH. There is evidence that the use of histamine H₂ receptor antagonist drugs may increase the pH value and cause confusion in the evaluation of gastric tube placement.
- **Option C:** 7.35 indicates a neutral pH. Verifying the pH of the aspirated secretion using reagent strips is a quick bedside test. Currently, there is a consensus among experts that this is the safest method available and is recommended as the first choice when verifying gastric tube placement in adults and children.
- **Option D:** 7.5 indicates an alkaline pH. The use of pH reagent strips is a sensitive but non-specific test to verify the placement of the gastric tube in newborns in the sample studied. That is, pH values ≥ 5.5 in the aspirated gastric tube secretion are sensitive indicators of the correct positioning of the tip of the tube.

7. A patient was recently diagnosed with type 1 diabetes mellitus and received insulin. Which laboratory test will the nurse assess?

- A. Potassium
- B. AST (aspartate aminotransferase)
- C. Serum amylase
- D. Sodium

Correct Answer: A. Potassium

Insulin causes potassium to move into the cell and may cause hypokalemia. Insulin shifts potassium into cells by stimulating the activity of Na⁺-H⁺ antiporter on cell membrane, promoting the entry of sodium into cells, which leads to activation of the Na⁺-K⁺ ATPase, causing an electrogenic influx of potassium. IV insulin leads to a dose-dependent decline in serum potassium levels

- **Option B:** In type 2 diabetes, in the absence of detectable steatosis by ultrasonography, ALT and AST are associated with hyperinsulinemia and insulin resistance, independent of obesity. This finding possibly indicates that in diabetes a mild stage of steatosis is sufficient to mediate the association between insulin resistance and aminotransferases.
- **Option C:** Insulin can minimally affect amylase activity. People with diabetes whose insulin-secreting beta cells in the pancreas are working well have higher amylase levels (within the normal range). Animal studies show that insulin increases amylase production
- **Option D:** The primary action of insulin on sodium balance is exerted on the kidney. Increases in plasma insulin concentration within the physiological range stimulate sodium reabsorption by the distal nephron segments and this effect is independent of changes in circulating metabolites or other hormones.

8. Which of the following groups of characteristics would the nurse expect to see in the client with schizophrenia?

- A. Loose associations, grandiose delusions, and auditory hallucinations
- B. Periods of hyperactivity and irritability alternating with depression
- C. Delusions of jealousy and persecution, paranoia, and mistrust
- D. Sadness, apathy, feelings of worthlessness, anorexia, and weight loss

Correct Answer: A. Loose associations, grandiose delusions, and auditory hallucinations

Loose associations, grandiose delusions, and auditory hallucinations are all characteristic of the classic schizophrenic client. These clients aren't able to care for their physical appearance. They frequently hear voices telling them to do something either to themselves or to others. Additionally, they verbally ramble from one topic to the next. In the Diagnostic and Statistical Manual of Mental Disorders 5 (DSM-5), Two or more of the following symptoms must be present for a significant portion of time during a one-month period: delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behavior, or negative symptoms.

- **Option B:** Periods of hyperactivity and irritability alternating with depression are characteristic of bipolar or manic disease. The defining characteristics of mania are increased talkativeness, rapid speech, decreased the need for sleep (unlike depression or anxiety in which the need for sleep exists, but there is an inability to sleep), racing thoughts, distractibility, increase in goal-directed activity, and psychomotor agitation. Some other hallmarks of mania are an elevated or expansive mood, mood lability, impulsivity, irritability, and grandiosity.
- **Option C:** Delusions of jealousy and persecution, paranoia, and mistrust are characteristics of paranoid disorders. Often, these patients think that others have greatly and irreversibly injured them. They are hypervigilant for potential insults, slights, threats, and disloyalty and look for hidden meanings in remarks and actions. They closely scrutinize others for evidence to support their suspicions. For example, they may misinterpret an offer of help as implication that they are unable to do the task on their own. If they think that they have been insulted or injured in any way, they do not forgive the person who injured them. They tend to counterattack or to become angry in

response to these perceived injuries. Because they distrust others, they feel a need to be autonomous and in control.

- **Option D:** Sadness, apathy, feelings of worthlessness, anorexia, and weight loss are characteristics of depression. Depression is a mood disorder that causes a persistent feeling of sadness and loss of interest. The common features of all the depressive disorders are sadness, emptiness, or irritable mood, accompanied by somatic and cognitive changes that significantly affect the individual's capacity to function.

9. The client has elected to have epidural anesthesia to relieve labor pain. If the client experiences hypotension, the nurse would:

- A. Place her in Trendelenburg position
- B. Decrease the rate of IV infusion
- C. Administer oxygen per nasal cannula
- D. Increase the rate of the IV infusion

Correct Answer: D. Increase the rate of the IV infusion

If the client experiences hypotension after an injection of epidural anesthetic, the nurse should turn her to the left side, apply oxygen by mask, and speed the IV infusion. If the blood pressure does not return to normal, the physician should be contacted. Epinephrine should be kept for emergency administration.

- **Option A:** Placing the client in Trendelenburg position (head down) will allow the anesthesia to move up above the respiratory center, thereby decreasing the diaphragm's ability to move up and down and ventilate the client.
- **Option B:** The IV rate should be increased, not decreased. Monitoring the patient hemodynamic status during the procedure is very important. The minimum monitors required are pulse oximeter for pulse and oxygen saturation as well as blood pressure cuff and continuous EKG to assess cardiovascular status.
- **Option C:** The oxygen should be applied by mask, not cannula. Epidural anesthesia is achievable using either the classic epidural, the combined spinal-epidural (CSE) technique, or dural puncture epidural (DPE). CSE and DPE include an additional step consisting of delivering a spinal dose of LA and co adjuvants (CSE) or only puncturing the dura mater (DPE) using a spinal needle.

10. The presence of which of the following electrolytes contributes to acidosis?

- A. Sodium
- B. Potassium
- C. Hydrogen
- D. Chloride

Correct Answer: C. Hydrogen

The presence of hydrogen ions determines a solution's acidity. Acidosis is defined as an abnormal clinical process that causes a net gain in hydrogen ions (H⁺) in the extracellular fluid. Metabolic acidosis occurs when there is an accumulation of H⁺ or a loss of bicarbonate ions (HCO₃⁻) and is reflected by a decrease in plasma HCO₃⁻ (<22 mEq/L).

- **Option A:** Adrenocortical insufficiency that occurs in Addison's disease causes hyponatremia and renal tubular acidosis (RTA). Hyponatremia results from both aldosterone and cortisol insufficiency. RTA is due to aldosterone insufficiency.
- **Option B:** A frequently cited mechanism for these findings is that acidosis causes potassium to move from cells to extracellular fluid (plasma) in exchange for hydrogen ions, and alkalosis causes the reverse movement of potassium and hydrogen ions.
- **Option D:** An increased plasma chloride ion concentration relative to sodium and potassium concentrations will produce a smaller plasma strong ion difference, leading to an increased hydrogen ion concentration, and therefore acidosis.

11. Which playroom activities should the nurse organize for a small group of 7-year-old hospitalized children?

- A. Sports and games with rules
- B. Finger paints and water play.
- C. "Dress-up" clothes and props.
- D. Chess and television programs

Correct Answer: A. Sports and games with rules

The purpose of play for the 7-year-old is cooperation. Rules are very important. Logical reasoning and social skills are developed through play.

- **Option B:** Finger paints and water play are appropriate play for toddlers. Most toddlers do parallel play. When a child plays alongside or near others but does not play with them this stage is referred to as parallel play.
- **Option C:** Dress-up and props are recommended for preschool. When a child plays together with others and has interest in both the activity and other children involved in playing they are participating in cooperative play.
- **Option D:** Chess is recommended for school-age to adolescent stage. During the school-age years, you'll see a change in your child. He or she will move from playing alone to having multiple friends and social groups.

12. A client with insulin-dependent diabetes takes 20 units of NPH insulin at 7 a.m. The nurse should observe the client for signs of hypoglycemia at:

- A. 8 a.m.
- B. 10 a.m.
- C. 3 p.m.
- D. 5 a.m.

Correct Answer: C. 3 p.m.

13. When planning care for a female client using ritualistic behavior, Nurse Gina must recognize that the ritual:

- A. Helps the client focus on the inability to deal with reality.
- B. Helps the client control the anxiety.
- C. Is under the client's conscious control.
- D. Is used by the client primarily for secondary gains.

Correct Answer: B. Helps the client control the anxiety

The rituals used by a client with obsessive-compulsive disorder help control the anxiety level by maintaining a set pattern of action. Obsessive-compulsive disorder (OCD) is often a disabling condition consisting of bothersome intrusive thoughts that elicit a feeling of discomfort. To reduce the anxiety and distress associated with these thoughts, the patient may employ compulsions or rituals. These rituals may be personal and private, or they may involve others to participate; the rituals are to compensate for the ego-dystonic feelings of the obsessional thoughts and can cause a significant decline in function.

- **Option A:** Obsessions are defined as intrusive thoughts or urges that cause significant distress; the patient attempts to neutralize this distress by diverting thoughts or performing rituals. Compulsions are actions the patient feels pressured to do in response to the anxiety/distress producing obsessions or to prevent an uncomfortable situation from occurring. These compulsions may be illogical or excessive.
- **Option C:** The obsessions are time-consuming or cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. The obsessive-compulsive symptoms do not arise from the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition.
- **Option D:** The most common obsessions include fears of contamination, fears of aggression/harm, sexual fears, religious fears, and need to make things "just right." The compensatory compulsions for these obsessions include washing and cleaning, checking, reassurance-seeking, repeating, and ordering, and arranging.

14. Toxicity from which of the following medications may cause a client to see a green halo around lights?

- A. Digoxin
- B. Furosemide
- C. Metoprolol
- D. Enalapril

Correct Answer: A. Digoxin

One of the most common signs of digoxin toxicity is the visual disturbance known as the green halo sign.

- **Option B:** Furosemide does not cause this kind of toxicity. The principal signs and symptoms of overdose with furosemide are dehydration, blood volume reduction, hypotension, electrolyte imbalance, hypokalemia, and hypochloremic alkalosis, and are extensions of its diuretic action.
- **Option C:** Metoprolol is not associated with this effect. Poisoning due to an overdose of metoprolol may lead to severe hypotension, sinus bradycardia, atrioventricular block, heart failure, cardiogenic shock, cardiac arrest, bronchospasm, impairment of consciousness, coma, nausea, vomiting, cyanosis, hypoglycemia, and, occasionally, hyperkalemia.

- **Option D:** This medication isn't associated with such an effect. While there is limited data about enalapril overdose in humans, overdosage may result in marked hypotension and stupor based on the pharmacological properties of the drug. The most common adverse effects of enalapril include cough, hypotension, stupor, headache, dizziness, and fatigue.

15. Vasopressin is which of the following pituitary hormones?

- A. Antidiuretic hormone
- B. Desmopressin acetate
- C. Oxytocin
- D. ACTH

Correct Answer: A. Antidiuretic hormone

Vasopressin is an antidiuretic hormone. Vasopressin or antidiuretic hormone (ADH) or arginine vasopressin (AVP) is a nonapeptide synthesized in the hypothalamus. Science has known it to play essential roles in the control of the body's osmotic balance, blood pressure regulation, sodium homeostasis, and kidney functioning. ADH primarily affects the ability of the kidney to reabsorb water; when present, ADH induces expression of water transport proteins in the late distal tubule and collecting duct to increase water reabsorption.

- **Option B:** Desmopressin (1-deamino-8-D-arginine vasopressin) is a synthetic analog of vasopressin aka antidiuretic hormone created in 1977 used in the treatment in a wide variety of medical conditions to include nocturnal polyuria, hemophilia A, diabetes insipidus, on Willebrand disease, uremic bleeding, as well as many off label uses such as an adjunct with hypertonic saline to prevent rapid sodium correction, intracranial hemorrhage associated with varying antiplatelet agents, and trauma resuscitation with active hemorrhage.
- **Option C:** Oxytocin is indicated and approved by the FDA for two specific time frames in the obstetric world: antepartum and postpartum. In the antepartum period, exogenous oxytocin is FDA-approved for strengthening uterine contractions with the aim of successful vaginal delivery of the fetus. In regards to the postpartum period, oxytocin is FDA-approved when it is time to deliver the placenta during the third stage of labor and also to control postpartum hemorrhage.
- **Option D:** Adrenocorticotrophic hormone (ACTH) is a tropic hormone produced by the anterior pituitary. The hypothalamic-pituitary axis controls it. ACTH regulates cortisol and androgen production. Diseases associated with ACTH include Addison disease, Cushing syndrome, and Cushing disease.

16. The nurse is obligated to follow a physician's order unless:

- A. The order is a verbal order.
- B. The physician's order is illegible.
- C. The order has not been transcribed.
- D. The order is an error, violates hospital policy, or would be detrimental to the client.

Correct Answer: D. The order is an error, violates hospital policy, or would be detrimental to the client.

The court held that nurses have a duty to question a physician's order if they think it is in the patient's best interest to do so and to delay discharge if they believe discharge deviates from acceptable standards of care.

- **Option A:** The term physician's orders has outlived its appropriateness. Nurses have an ethical duty to be members of collaborative teams. Communication, consultation, and interdisciplinary cooperation are the benchmarks for quality outcomes. Other professionals communicate without issuing orders to each other—by continuing to use this phrase, nurses support a linguistic and symbolic discounting of their autonomous and accountable practice.
- **Option B:** Begin with asking a physician for the prescriptions rather than the orders when admitting a patient. At the next nursing meeting or roundtable in the institution, ask for the replacement of "physician orders" with "prescriptions" on the admission screen or at the next printing of forms. Acknowledge that these prescriptions aren't just from physicians, but are also from NPs and physician assistants.
- **Option C:** Nurses take no such oath, and are legally and ethically bound to question an inappropriate order from a physician. In fact, many actions described in physician's orders are simply nursing practices that are fundamental to health maintenance: turn and position every two hours, oral hygiene, side rails up.

17. A client is admitted to the inpatient unit of the mental health center with a diagnosis of paranoid schizophrenia. He's shouting that the government of France is trying to assassinate him. Which of the following responses is most appropriate?

- A. "I think you're wrong. France is a friendly country and an ally of the United States. Their government wouldn't try to kill you."
- B. "I find it hard to believe that a foreign government or anyone else is trying to hurt you. You must feel frightened by this."
- C. "You're wrong. Nobody is trying to kill you."
- D. "A foreign government is trying to kill you? Please tell me more about it."

Correct Answer: B. "I find it hard to believe that a foreign government or anyone else is trying to hurt you. You must feel frightened by this."

Responses should focus on reality while acknowledging the client's feelings. Sometimes during a conversation, patients mention something particularly important. When this happens, nurses can focus on their statement, prompting patients to discuss it further. Patients don't always have an objective perspective on what is relevant to their case; as impartial observers, nurses can more easily pick out the topics to focus on.

- **Option A:** Arguing with the client or denying his belief isn't therapeutic. By using nonverbal and verbal cues such as nodding and saying "I see," nurses can encourage patients to continue talking. Active listening involves showing interest in what patients have to say, acknowledging that you're listening and understanding, and engaging with them throughout the conversation. Nurses can offer general leads such as "What happened next?" to guide the conversation or propel it forward.
- **Option C:** Arguing can also inhibit development of a trusting relationship. Continuing to talk about delusions may aggravate the psychosis. It's frequently useful for nurses to summarize what patients have said after the fact. This demonstrates to patients that the nurse was listening and allows the nurse to document conversations. Ending a summary with a phrase like "Does that sound correct?" gives patients explicit permission to make corrections if they're necessary.

- **Option D:** Asking the client if a foreign government is trying to kill him may increase his anxiety level and can reinforce his delusions. Voicing doubt can be a gentler way to call attention to the incorrect or delusional

18. A client comes into the ER after hitting his head in an MVA. He's alert and oriented. Which of the following nursing interventions should be done first?

- A. Assess full ROM to determine extent of injuries.
- B. Call for an immediate chest x-ray.
- C. Immobilize the client's head and neck.
- D. Open the airway with the head-tilt-chin-lift maneuver.

Correct Answer: C. Immobilize the client's head and neck.

All clients with a head injury are treated as if a cervical spine injury is present until x-rays confirm their absence. The airway doesn't need to be opened since the client appears alert and not in respiratory distress. The management of patients with head trauma should always consider C-spine motion restriction. Hold the neck immobile in line with the body, apply a rigid or semi rigid cervical collar, and (unless the patient is very restless) secure the head to the trolley with sandbags and tape.

- **Option A:** ROM would be contraindicated at this time. Cervical spine injury can be difficult to diagnose in the unconscious patient and should be assumed to be present until it can confidently be excluded. The patient should be positioned properly with the neck in neutral position and the head end of the bed elevated to 30°. This facilitates cerebral venous drainage.
- **Option B:** There is no indication that the client needs a chest x-ray. A tension pneumothorax is a life-threatening emergency which should be diagnosed clinically and treated promptly. An indwelling arterial cannula allows serial blood gas measurement and continuous recording of BP. Pulse oximetry is valuable for indirect measurement of how well the patient is being oxygenated.
- **Option D:** In addition, the head-tilt-chin-lift maneuver wouldn't be used until the cervical spine injury is ruled out. The priority in TBI must always be to secure, maintain, and protect a clear airway. Remove secretions and foreign bodies by manual extraction or suction, giving oxygen by mask (10–12 l/min).

19. A client slammed a door on the unit several times. The nurse responds, "You seem angry." The client states, "I'm not angry." What therapeutic communication technique has the nurse employed and what defense mechanism is the client unconsciously demonstrating?

- A. Making observations and the defense mechanism of suppression
- B. Verbalizing the implied and the defense mechanism of denial
- C. Reflection and the defense mechanism of projection
- D. Encouraging descriptions of perceptions and the defense mechanism of displacement

Correct Answer: B. Verbalizing the implied and the defense mechanism of denial

This is an example of the therapeutic communication technique of verbalizing the implied. The nurse is putting into words what the client has only implied by words or actions. Denial is the refusal of the client to acknowledge the existence of a real situation, the feelings associated with it, or both.

- **Option A:** Making observations refers to verbalizing what the nurse perceives. Sometimes clients cannot verbalize or make themselves understood, or the client may not be ready to talk. Forcing the unwanted information out of the awareness is known as suppression. In most cases, however, this removal of anxiety-provoking memories from our awareness is believed to occur unconsciously.
- **Option C:** Reflection is directing client actions, thoughts, and feelings back to the client; may use the same words. This encourages the client to recognize and accept his feelings. Projection is a defense mechanism that involves taking our own unacceptable qualities or feelings and ascribing them to other people.
- **Option D:** Encouraging descriptions of perceptions refers to asking the client to verbalize what he or she perceives. To understand the client, the nurse must see things from the client's perspective. Displacement involves taking out our frustrations, feelings, and impulses on people or objects that are less threatening.

20. The nurse is monitoring a female client receiving paregoric to treat diarrhea for drug interactions. Which drugs can produce additive constipation when given with an opium preparation?

- A. Antiarrhythmic drugs
- B. Anticholinergic drugs
- C. Anticoagulant drugs
- D. Antihypertensive drugs

Correct Answer: B. Anticholinergic drugs

Paregoric has an additive effect of constipation when used with anticholinergic drugs. The opiate anhydrous morphine, which is contained in paregoric, can decrease motility more than loperamide or the combination of diphenoxylate and atropine can. Antiarrhythmics, anticoagulants, and antihypertensives aren't known to interact with paregoric.

- **Option A:** Of the Class III antiarrhythmics, amiodarone is involved in a significant number of interactions since it is a potent inhibitor of several cytochrome P450 enzymes. It can significantly impair the metabolism of digoxin, theophylline and warfarin. Dosages of digoxin and warfarin should empirically be decreased by one-half when amiodarone therapy is added.
- **Option C:** The anticoagulant effect of warfarin is inhibited by drugs like barbiturates, rifampin, azathioprine, and carbamazepine, which increase its clearance by inducing hepatic metabolism. Azathioprine also reduces the anticoagulant effect of warfarin, presumably through a potentiating effect on hepatic clearance.
- **Option D:** Nonsteroidal anti-inflammatory drugs (NSAIDs) can induce an increase in blood pressure (BP) and may potentially reduce the efficacy of several antihypertensive drugs. Probably the main mechanism of action is inhibition of prostaglandin (PG) synthesis since NSAIDs have a higher propensity to increase BP as the regulation of BP (and renal function) is more PG-dependent and to interact with drugs (diuretics, beta-blockers, and ACE inhibitors) that may act through the increase of PG formation.

21. Nurse Oliver is teaching a mother who plans to discontinue breast-feeding after 5 months. The nurse should advise her to include which foods in her infant's diet?

- A. Whole milk and baby food
- B. Iron-rich formula only
- C. Skim milk and baby food
- D. Iron-rich formula and baby food

Correct Answer: B. Iron-rich formula only

The American Academy of Pediatrics recommends that infants at age 5 months receive iron-rich formula and that they shouldn't receive solid food – even baby food – until age 6 months. All children need iron. It is important at all stages of a child's development. Babies fed only breast milk, only formula, or a mix of breast milk and formula have different needs when it comes to iron.

- **Option A:** The Academy doesn't recommend whole milk until age 12 months. Once the infant is past one-year-old, they may be given whole cow's milk or reduced-fat (2%) milk, provided they have a balanced diet of solid foods (cereals, vegetables, fruits, and meats). But limit his intake of milk to 2 cups (about 16 ounces) per day or less.
- **Option C:** Skim milk is only appropriate until after age 2 years. Babies and toddlers need fat in their diets for a variety of reasons, including healthy brain development. So it's usually recommended that kids 1 to 2 years old drink whole milk. Then, if their growth is steady, it's safe to switch to low-fat or nonfat (skim) milk.
- **Option D:** A child can start eating solid foods at about 6 months old. First foods that need to be introduced should be soft and easy to swallow such as mashed vegetables or porridge. Make sure to choose foods that contain iron. Iron found in foods comes in two forms: heme and nonheme iron.

23. Which of the following drugs poses the greatest threat to an insulin-dependent diabetic who is pregnant?

- A. Ritodrine hydrochloride
- B. Oxytocin
- C. Prostaglandin
- D. Ergotrate

Correct Answer: A. Ritodrine hydrochloride

The only drug that poses a threat to diabetics who are pregnant is ritodrine. Tocolytic therapy in Japan consists of two main drugs, ritodrine hydrochloride and magnesium sulfate, unlike many Western countries. Ritodrine, the main traditional drug in Japan, is a beta-2 stimulant that causes maternal hyperglycemia. Using both ritodrine and glucocorticoid could cause maternal hyperglycemia.

- **Option B:** Oxytocin can be a good choice to decrease the blood glucose level and increase the insulin level. The hypoglycemic effect of OT can be explained by increasing glucose uptake via insulin-like signaling pathway (20, 21).
- **Option C:** Both arachidonic acid and prostaglandin E2 reverse the teratogenic effects of high glucose concentrations on neural tube development in mouse embryos in culture. Arachidonic acid supplementation also protects against diabetes-induced neural tube defects in vivo.
- **Option D:** This medication is used after childbirth to help stop bleeding after delivery of the placenta (afterbirth). Ergonovine maleate belongs to a class of drugs known as ergot alkaloids. It works by increasing the stiffness of the uterus muscles after the last stage of labor.

24. A client receiving azathioprine (Imuran) complains of hair loss. The nurse tells the client that?

- A. Hair loss is irreversible
- B. Hair loss is uncommon
- C. Hair loss is temporary
- D. Hair loss is a sign of toxicity

Correct Answer: C. Hair loss is temporary.

Azathioprine is an immunosuppressive drug that is used to decrease the signs and symptoms of rheumatoid arthritis. This drug affects hair matrix mitosis causing an onset of temporary hair loss. Normal hair growth will return after treatment has ended.

- **Options A, B, and D:** Hair loss is a common and reversible effect of the drug and is not a sign of toxicity.

25. The following are natural childbirth procedures, except?

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

Correct Answer: C. Ritgen's maneuver

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

- **Option A:** Lamaze breathing historically is considered the hallmark of Lamaze preparation for childbirth. Controlled breathing enhances relaxation and decreases the perception of pain. It is one of many comfort strategies taught in Lamaze classes. In restricted birthing environments, breathing may be the only non-pharmacological comfort strategy available to women. Conscious breathing and relaxation, especially in combination with a wide variety of comfort strategies, can help women avoid unnecessary medical intervention and have a safe, healthy birth.
- **Option B:** The term 'natural childbirth' derives from the title of a short 1933 treatise by Grantly Dick-Read. In this and several other books and articles published over the next quarter-century, the British-born physician outlined an alternative to the anesthetized, medically controlled way of birth common among Western women of privilege, based on the premise that fear lay at the root of pain in labor. For Dick-Read, whether or not a mother experienced pain in labor depended not on some property inherent to the physiology of parturition but on cultural attitudes to childbirth. Through education and relaxation, women could overcome what he termed the 'Fear-Tension-Pain' cycle and labor in comfort without resorting to medical intervention. Preparation for labor meant providing pregnant women with detailed instruction, from their physician, midwife, or qualified childbirth educator, on the physiology of pregnancy and birth, nutrition, exercise, hygiene, and infant care.

- **Option D:** In the late 1940s, Soviet scientists invented a new non-pharmacological method called the 'psychoprophylactic method of painless childbirth' (PPM), which later became well known as the Lamaze method in the West.¹ This gift of Soviet science to the women of the world was based on the assumption that it was possible to eliminate the sensation of bodily pain during labor by training the mind of a pregnant woman before she gives birth.

26. When assessing a child's cultural background, the nurse in charge should keep in mind that:

- A. Heritage dictates a group's shared values
- B. Physical characteristics mark the child as part of a particular culture
- C. Cultural background usually has little bearing on a family's health practices
- D. Behavioral patterns are passed from one generation to the next

Correct Answer: D. Behavioral patterns are passed from one generation to the next.

A family's behavioral patterns and values are passed from one generation to the next. Pediatric health care providers must be aware of the demographic trends and be culturally competent to deliver the safest, highest quality care possible to children of widely differing groups.

- **Option A:** Although heritage plays a role in culture, it does not dictate a group's shared values and its effect on culture is weaker than that of behavioral patterns. In addition to language differences, cultural differences regarding nonverbal communication can create communication barriers between a child, family and the health care provider.
- **Option B:** Physical characteristics do not indicate a child's culture. Folk illnesses often do not have a corresponding illness from a biomedical or scientific perspective and may not be perceived as an illness or affliction by another cultural group.
- **Option C:** Cultural background commonly plays a major role in determining a family's health practices. Health and health care disparities are inextricably linked; cultural competence on the part of the health care provider is necessary to minimize and ultimately eliminate any differences in quality of health care.

27. Which of the following assessment findings in a client with leukemia would indicate that cancer has invaded the brain?

- A. Hypervigilant and anxious behavior
- B. Increased heart rate and decreased blood pressure
- C. Headache and vomiting
- D. Hypervigilant and anxious behavior

Correct Answer: C. Headache and vomiting

- **Option C:** The usual effect of leukemic infiltration of the brain is increased intracranial pressure. The proliferation of cells interferes with the flow of cerebrospinal fluid in the subarachnoid space and at the base of the brain. The increased fluid pressure causes dilation of the ventricles, which creates symptoms of severe headache, vomiting, irritability, lethargy, and eventually, coma.
- **Option B:** Increasing intracranial pressure in brain metastasis would result in symptoms of high blood pressure, decreased pulse rate, and abnormal respirations known as Cushing triad.

- **Options A and D:** Often children with a variety of illnesses are hypervigilant and anxious when hospitalized.

29. Which of the following blood tests is most indicative of cardiac damage?

- A. Lactate dehydrogenase
- B. Complete blood count
- C. Troponin I
- D. Creatine kinase

Correct Answer: C. Troponin I

Troponin I levels rise rapidly and are detectable within 1 hour of myocardial injury. Troponin I levels aren't detectable in people without cardiac injury. The troponin complex consists of three subunits—troponin C, troponin I, and troponin T—and is located on the myofibrillar thin (actin) filament of striated (skeletal and cardiac) muscle. The cardiac isoforms troponin T and I are only expressed in cardiac muscle. Hence, cardiac troponin T (cTnT) and I (cTnI) are more specific than creatine kinase (CK) values for myocardial injury and, because of their high sensitivity, they may even be elevated when CK-MB concentrations are not.

- **Option A:** Lactate dehydrogenase is present in almost all body tissues and not specific to the heart muscle. LDH isoenzymes are useful in diagnosing the cardiac injury. The function of the enzyme is to catalyze the reversible conversion of lactate to pyruvate with the reduction of NAD⁺ to NADH and vice versa.
- **Option B:** CBC is obtained to review blood counts, and complete chemistry is obtained to review electrolytes. Obtain a complete blood cell (CBC) count if myocardial infarction (MI) is suspected in order to rule out anemia as a cause of decreased oxygen supply and prior to giving thrombolytic agents.
- **Option D:** Because CK levels may rise with a skeletal muscle injury, CK isoenzymes are required to detect cardiac injury. In their current guidelines from 2000, the Joint European Society of Cardiology/American College of Cardiology committee redefined AMI as an elevation of cTn in blood above the 99th centile of a healthy reference population in conjunction with signs or symptoms of ischemia. This did expand the diagnostic capacity to detect micro-MI which was not evident by CK-MB measurements.

30. Which of the following vascular system changes results from aging?

- A. Increased peripheral resistance of the blood vessels
- B. Decreased blood flow
- C. Increased workload of the left ventricle
- D. All of the above

Correct Answer: D. All of the above

Aging decreases the elasticity of the blood vessels, which leads to increased peripheral resistance and decreased blood flow. These changes, in turn, increase the workload of the left ventricle. Some changes in the heart and blood vessels normally occur with age. However, many other changes that are common with aging are due to modifiable factors. If not treated, these can lead to heart disease.

- **Option A:** Receptors called baroreceptors monitor the blood pressure and make changes to help maintain a fairly constant blood pressure when a person changes positions or is doing other activities. The baroreceptors become less sensitive with aging. This may explain why many older people have orthostatic hypotension, a condition in which the blood pressure falls when a person goes from lying or sitting to standing. This causes dizziness because there is less blood flow to the brain.
- **Option B:** The main artery from the heart (aorta) becomes thicker, stiffer, and less flexible. This is probably related to changes in the connective tissue of the blood vessel wall. This makes the blood pressure higher and makes the heart work harder, which may lead to thickening of the heart muscle (hypertrophy). The other arteries also thicken and stiffen. In general, most older people have a moderate increase in blood pressure.
- **Option C:** The heart has a natural pacemaker system that controls the heartbeat. Some of the pathways of this system may develop fibrous tissue and fat deposits. The natural pacemaker (the SA node) loses some of its cells. These changes may result in a slightly slower heart rate. A slight increase in the size of the heart, especially the left ventricle occurs in some people. The heart wall thickens, so the amount of blood that the chamber can hold may actually decrease despite the increased overall heart size. The heart may fill more slowly.

31. A female client complains of gnawing epigastric pain for a few hours after meals. At times, when the pain is severe, vomiting occurs. Specific tests are indicated to rule out:

- A. Cancer of the stomach
- B. Peptic ulcer disease
- C. Chronic gastritis
- D. Pylorospasm

Correct Answer: B. Peptic ulcer disease

Peptic ulcer disease is characteristically gnawing epigastric pain that may radiate to the back. Vomiting usually reflects pyloric spasm from muscular spasm or obstruction. Peptic ulcer disease is characterized by discontinuation in the inner lining of the gastrointestinal (GI) tract because of gastric acid secretion or pepsin. It extends into the muscularis propria layer of the gastric epithelium. It usually occurs in the stomach and proximal duodenum.

- **Option A:** Cancer would not evidence pain or vomiting unless the pylorus was obstructed. In the United States, most patients have symptoms of an advanced stage at the time of presentation. The most common presenting symptoms for gastric cancers are non-specific weight loss, persistent abdominal pain, dysphagia, hematemesis, anorexia, nausea, early satiety, and dyspepsia.
- **Option C:** The current classification of gastritis is based on time course (acute versus chronic), histological features, anatomic distribution, and underlying pathological mechanisms. Acute gastritis will evolve to chronic, if not treated. There are no typical clinical manifestations of gastritis. Sudden onset of epigastric pain, nausea, and vomiting have been described to accompany acute gastritis.
- **Option D:** There has been much uncertainty about the concept of "pylorospasm". For many years radiologists considered pylorospasm to be due to spasm of the pyloric ring, where the ring was equated with the pyloric sphincter. It was thought that spasm of the ring (or "sphincter") closed the pyloric aperture, thereby delaying gastric emptying and causing retention.

32. The nurse is changing the ties of the client with a tracheostomy. The safest method of changing the tracheostomy ties is to:

- A. Apply the new tie before removing the old one.
- B. Have a helper present.
- C. Hold the tracheostomy with the nondominant hand while removing the old tie.
- D. Ask the doctor to suture the tracheostomy in place.

Correct Answer: A. Apply the new tie before removing the old one.

Leaving the old ties in place while securing the clean ties prevents inadvertent dislodging of the tracheostomy tube.

- **Option B:** Having a helper is good, but the helper might not prevent the client from coughing out the tracheotomy.
- **Option C:** Hold the tracheostomy with the nondominant hand while removing the old tie is not the best way to prevent the client from coughing out the tracheotomy.
- **Option D:** Asking the doctor to suture the tracheostomy in place is unnecessary.

33. During a trichology seminar at a prestigious institution, Dr. Patel presented a curious case of a 28-year-old patient exhibiting sudden changes in hair texture and slowed hair growth after recovering from severe malnutrition. Drawing connections between nutrition, systemic health, and hair physiology, Dr. Patel then steers the discussion towards fundamental hair structures. He poses a pertinent question: In the vast realm of hair growth dynamics, which specific structure is instrumental in birthing new hair cells at the foundational level of the hair follicle and remains pivotal in determining both hair growth rate and its texture?

- A. Hair Bulb
- B. Papilla
- C. Shaft
- D. Arrector pili

Correct Answer: A. Hair Bulb

The hair bulb is the base of the hair follicle where active and rapid cell division occurs, leading to the production of new hair cells. As these cells push upwards, they keratinize and form the hair we see. The texture and growth of the hair are significantly influenced by the activity and health of the hair bulb. The presented case of altered hair growth and texture after malnutrition underscores the importance of nutrients in supporting the health and function of the hair bulb.

- **Option B:** Positioned at the base of the hair follicle, the papilla is rich in blood vessels that supply nutrients to the hair bulb. Though crucial for nourishing the hair follicle, the papilla itself does not produce hair cells.
- **Option C:** The shaft is the part of the hair that we see protruding from the skin's surface. It is composed of dead, keratinized cells and does not play a direct role in producing new hair cells.

- **Option D:** The arrector pili muscles (APM) are tiny muscles attached to hair follicles. When these muscles contract (usually in response to cold or emotional stimuli), it causes the hair to stand erect, commonly known as “goosebumps.” They don’t have a role in the direct production of hair cells.

34. Nurse John is aware that the therapy that has the highest success rate for people with phobias would be:

- A. Psychotherapy aimed at rearranging maladaptive thought processes.
- B. Psychoanalytical exploration of repressed conflicts of an earlier development phase.
- C. Systematic desensitization using relaxation techniques.
- D. Insight therapy to determine the origin of the anxiety and fear.

Correct Answer: C. Systematic desensitization using relaxation technique

The most successful therapy for people with phobias involves behavior modification techniques using desensitization. Behavior therapy is the most effective treatment for phobias is behavioral therapy. This includes systematic desensitization and flooding. In methodical desensitization, the patient is exposed to a list of stimuli ranking from the least to the most anxiety-provoking. With this method, patients are taught various techniques to deal with anxiety such as relaxation, breathing control, and cognitive approaches.

- **Option A:** The cognitive-behavioral approach includes reinforcing the realization that the phobic stimulus is safe. As the patient masters these techniques, they are taught to use them in the face of anxiety-provoking stimuli and induce relaxation. As the patients become desensitized to each stimulus on the scale, they keep moving up until the most anxiety-provoking stimuli no longer elicit any fear or anxiety.
- **Option B:** Psychoanalytic treatment involves exploring the organization of the personality and reorganizing it in a way that addresses deep conflicts and defenses. According to the principles of psychoanalysis, curing the phobia is only possible by rooting out and solving the original conflict. Psychoanalysis is the form of therapy often seen in old movies. The client generally lies on a couch with the psychoanalyst seated near his or her head. The psychoanalyst does not inject his or her own opinions but allows the client to transfer feelings onto the analyst.
- **Option D:** Psychodynamic therapy (talk therapy, or insight therapy) is rarely used for phobia treatment unless the phobia is combined with other disorders such as personality disorders. Insight Therapy is a type of psychotherapy in which the therapist helps their patient understand how their feelings, beliefs, actions, and events from the past are influencing their current mindset.

35. A group of community nurses sees and plans care for various clients with different types of problems. Which of the following clients would they consider the most vulnerable to post-traumatic stress disorder?

- A. An eight (8)-year-old boy with asthma who has recently failed a grade in school.
- B. A 20-year-old college student with DM who experienced date rape.
- C. A 40-year-old widower who has recently lost his wife to cancer.
- D. A wife of an individual with a severe substance abuse problem.

Correct Answer: B. A 20-year-old college student with DM who experienced date rape

Post-traumatic stress disorder is caused by the experience of severe, specific trauma. Rape is a severely traumatic event. Posttraumatic stress disorder (PTSD) is a syndrome that results from exposure to real or threatened death, serious injury, or sexual assault. Following the traumatic event, PTSD is common and is one of the serious health concerns that is associated with comorbidity, functional impairment, and increased mortality with suicidal ideations and attempts.

- **Option A:** The development of posttraumatic stress disorder in individuals is linked to a large number of factors. These include experiencing a traumatic event such as a severe threat or a physical injury, a near-death experience, combat-related trauma, sexual assault, interpersonal conflicts, child abuse, or after a medical illness. Chronic PTSD occurs in patients who are unable to recover from the trauma due to maladaptive responses.
- **Option C:** The risk factors for the development of PTSD include biological and psychological factors such as gender (more prevalent in women), childhood adversities, pre-existing mental illness, low socioeconomic status, less education, lack of social support. Nature and the severity of the trauma are also accountable while determining the risk factors for PTSD.
- **Option D:** Although this situation is certainly stressful, they are not at the level of severe trauma. The symptoms of PTSD include persistently re-experiencing the traumatic event, intrusive thoughts, nightmares, flashbacks, dissociation(detachment from oneself or reality), and intense negative emotional (sadness, guilt) and physiological reaction on being exposed to the traumatic reminder.[1] Furthermore, problems with sleep and concentration, irritability, increased reactivity, increased startle response, hypervigilance, avoidance of traumatic triggers also occur.

36. Dr. Wijangco orders insulin lispro (Humalog) 10 units for Alicia, a client with diabetes mellitus. When will the nurse administer this medication?

- A. When the client is eating
- B. Thirty minutes before meals
- C. Fifteen minutes before meals
- D. When the meal trays arrive on the floor

Correct Answer: A. When the client is eating

The onset action for the insulin lispro (Humalog) is 10 to 15 minutes so it must be given when the client is eating to prevent hypoglycemia. Insulin lispro is a new type of insulin. It starts working sooner than other insulin types. It also reaches peak activity faster and goes away sooner.

- **Option B:** If taking Regular insulin or longer-acting insulin, the client should generally take it 15 to 30 minutes before a meal. Short-acting, such as Regular (R) insulin, starts working within 30 minutes and lasts about 5 to 8 hours.
- **Option C:** Each type of insulin works at a different speed and lasts for a different length of time. Quick-acting, such as insulin lispro (Humalog), begins to work very quickly (5 to 15 minutes) and lasts for 3 to 4 hours.
- **Option D:** It must be given when the client is eating, not when the meal trays arrive on the floor. Rapid-acting insulin analogs should be injected within 15 min before a meal or immediately after a meal. The most commonly recommended interval between injection of short-acting (regular) insulin and a meal is 30 min.

37. Which stoma would you expect a malodorous, enzyme-rich, caustic liquid output that is yellow, green, or brown?

- A. Ileostomy
- B. Ascending colostomy
- C. Transverse colostomy
- D. Descending colostomy

Correct Answer: A. Ileostomy

The output from an ileostomy is described. The consistency of the ileostomy output will be liquid to pasty, depending on one's diet, medications, and other factors. Because the output is constant, the pouch will need to be emptied 5-8 times a day. Average ileostomy output ranges from 800 – 1,200 milliliters (mL) or 3 – 5 cups per day. Right after surgery, output may be watery. During the first few weeks after surgery, the output should thicken to the consistency of applesauce.

- **Option B:** Ascending colostomy is made from the ascending part of the colon. The ascending colostomy is usually located in the low to the middle right side of the abdomen. The output is often liquid to semiliquid, and gas is common.
- **Option C:** Transverse colostomy is made from the transverse part of the colon. The transverse colostomy is usually located in the center of the abdomen above the navel. The output often is liquid to pasty, and gas is common.
- **Option D:** Descending colostomy is made from the descending part of the colon. The descending colostomy is typically located on the lower left-hand side of the abdomen. The output may be pasty to a formed consistency, and gas is common.

38. At what point after a burn injury should the nurse be most alert for the complication of hypokalemia?

- A. Immediately following the injury
- B. During the fluid shift
- C. During fluid remobilization
- D. During the late acute phase

Correct Answer: C. During fluid remobilization

Hypokalemia is most likely to occur during the fluid remobilization period as a result of dilution, potassium movement back into the cells, and increased potassium excreted into the urine with the greatly increased urine output. In an attempt to prevent hypokalemia it is advised to add '20-30 mEq/1 of potassium to the hypotonic fluids in order to compensate for urinary losses and intracellular shift; it is also mandatory to correct precipitating factors such as increased pH, hypomagnesemia, and several drugs.

- **Option A:** In major burns. intravascular volume is lost in burned and unburned tissues: this process is due to an increase in vascular permeability, increased interstitial osmotic pressure in burn tissue. and cellular edema. with the most significant shifts occurring in the first hours. Hyponatremia is frequent, and the restoration of sodium losses in the burn tissue is, therefore, essential hyperkalemia is also characteristic of this period because of the massive tissue necrosis.
- **Option B:** The early post-resuscitation phase is a period of transition from the shock phase to the hypermetabolic phase, and fluid strategies should change radically with a view to restoring losses due to water evaporation. The main changes in this period are hypernatremia, hypocalcemia, hypokalemia, hypomagnesemia, and hypophosphatemia.

- **Option D:** The acute phase of burns is defined as a period extending from the onset of burns with shock to the time taken for wound epithelialization which normally takes about 12 to 14 days if management of burns is adequate.

39. Mrs. Anderson, a 52-year-old librarian, visits the optometrist for her annual eye examination. Over the last year, she has noticed changes in her vision, particularly when reading small print, which she attributes to her aging. While the optometrist sets up the equipment for the examination, Mrs. Anderson, ever curious, begins asking questions about the anatomy of the eye, expressing a particular interest in the part that allows light to enter. Always keen to educate her patients, the optometrist poses a question to Mrs. Anderson about this specific structure. During an eye examination, a patient inquires about the specific part of the eye that allows light to enter. What is the transparent, anterior sixth of the eye called?

- A. Sclera
- B. Cornea
- C. Lens
- D. Iris
- E. Pupil

Correct Answer: B. Cornea

The cornea is the clear, dome-shaped front surface of the eye that acts as a protective and focusing element. It refracts or bends light as it enters the eye, helping to focus it onto the retina at the back of the eye, where visual information is processed.

- **Option A:** The sclera is the firm, white, outer connective tissue layer of the posterior five-sixths of the fibrous tunic. It helps maintain the shape of the eye and provides attachment sites for the extrinsic eye muscles.
- **Option C:** Located behind the pupil and iris, the lens helps in focusing light onto the retina. Although it plays a crucial role in vision by refracting light, it is not the primary structure that allows light into the eye.
- **Option D:** The iris is the colored part of the eye and lies in front of the lens. It controls the size of the pupil, thereby regulating the amount of light entering the eye, but it itself is not the primary structure allowing light entrance.
- **Option E:** The pupil is the dark, central opening within the iris. It does allow light to enter the eye by changing its size in response to light conditions. However, the specific transparent structure being referred to in this scenario is the cornea.

40. Which of the following suggestions should the nurse offer the parents of a 4-year-old boy who resists going to bed at night?

- A. "Allow him to fall asleep in your room, then move him to his own bed."
- B. "Tell him that you will lock him in his room if he gets out of bed one more time."
- C. "Encourage active play at bedtime to tire him out so he will fall asleep faster."

D. "Read him a story and allow him to play quietly in his bed until he falls asleep."

Correct Answer: D. "Read him a story and allow him to play quietly in his bed until he falls asleep."

Preschoolers commonly have fears of the dark, being left alone especially at bedtime, and ghosts, which may affect the child's going to bed at night. Quiet play and time with parents is a positive bedtime routine that provides security and also readies the child for sleep.

- **Option A:** The child should sleep in his own bed.
- **Option B:** Telling the child about locking him in his room will be viewed by the child as a threat. Additionally, a locked door is frightening and potentially hazardous.
- **Option C:** Vigorous activity at bedtime stirs up the child and makes it more difficult to fall asleep.

41. A client comes to the outpatient clinic where you work complaining of abdominal pain, diarrhea, shortness of breath, and epistaxis. Which of the following actions would you take first?

- A. Screening clients for upper respiratory tract symptoms
- B. Call an ambulance to take the client immediately to the hospital
- C. Ask the client about any recent travel to Asia or the Middle East
- D. Determine whether the client has had recommended immunizations

Correct Answer: C. Ask the client about any recent travel to Asia or the Middle East.

The client's clinical manifestation suggests possible avian influenza (bird flu). If the client has traveled recently in Asia or the Middle East, where outbreaks of bird flu have occurred, you will need to institute airborne and contact precautions immediately. The other actions may also be appropriate but are not the initial action to take for this client, who may transmit the infection to other clients or staff members

- **Option A:** Most patients present with symptoms consistent with a flu-like viral illness. In these patients, especially during a known avian influenza outbreak, a thorough history is necessary to evaluate for clues that the illness is due to avian influenza.
- **Option B:** Whenever there is a possible outbreak of avian influenza, the essential way to reduce the severity and population impact is to reduce the spread of the virus. Since the human-to-human transmission is uncommon, the focus should be on reinforcing appropriate sanitation habits in the population, especially those that work around birds or that are involved in food preparation.
- **Option D:** There is currently an FDA-licensed vaccine for the H5N1 strain of avian influenza in the United States. In the case of an H5N1 outbreak in the United States, the CDC and public health officials may decide to vaccinate at-risk populations to reduce spread.

42. 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.

43. The primary reason for taping an indwelling catheter laterally to the thigh of a male client is to:

- A. Eliminate pressure at the penoscrotal angle.
- B. Prevent the catheter from kinking in the urethra.
- C. Prevent accidental catheter removal.
- D. Allow the client to turn without kinking the catheter.

Correct Answer: A. Eliminate pressure at the penoscrotal angle

The primary reason for taping an indwelling catheter to a male client is so the penis is held in a lateral position to prevent pressure at the penoscrotal angle. Prolonged pressure at the penoscrotal angle can cause a urethrocutaneous fistula.

- **Option B:** Firm-fitting underwear can sometimes cause kinks, therefore males are advised to wear loose-fitting underwear. Check for and remove any kinks in the catheter or the drainage bag tubing. Check the position of the catheter and drainage bag. Ensure the bag is positioned below the bladder when the client is lying, sitting, or standing.
- **Option C:** The catheter should not fall out because it is held in place by a small balloon which is inflated with sterile water after the catheter is inserted into the bladder. On rare occasions the balloon might be faulty and deflate and the catheter will fall out.
- **Option D:** Check that the leg bag straps are fitted correctly and are not causing drainage bag obstruction. Remind the patient to relax and check the positioning. Place the catheter in at the correct angle.

44. The nurse asks a newly admitted client, “What can we do to help you?” What is the purpose of this therapeutic communication technique?

- A. To reframe the client's thoughts about mental health treatment
- B. To put the client at ease
- C. To explore a subject, idea, experience, or relationship
- D. To communicate that the nurse is listening to the conversation

Correct Answer: C. To explore a subject, idea, experience, or relationship

This is an example of the therapeutic communication technique of exploring. The purpose of exploring is to delve further into the subject, idea, experience, or relationship. This technique is especially helpful with clients who tend to remain on a superficial level of communication.

- **Option A:** The statement is not used to reframe the client's thoughts. A helpful therapeutic technique can be theme identification. It allows the nurse to best promote the client's exploration and understanding of important problems.
- **Option B:** This statement will not put the client at ease. When clients deal with topics superficially, exploring can help them examine the issue more fully. If the client expresses an unwillingness to explore a subject, however, the nurse must respect his wishes.
- **Option D:** Providing general leads indicates that the nurse is listening and following what the client is saying without taking away the initiative for the interaction. They also encourage the client to continue if he is hesitant or uncomfortable about the topic.

45. A nurse in a post-surgical unit is monitoring a 46-year-old patient who underwent a thyroidectomy 12 hours ago for the treatment of Grave's disease. Which of the following observations should most concern the nurse?

- A. Blood pressure 138/82 mmHg, respirations 16 per minute, oral temperature 37.2°C or 99° F.
- B. The patient carefully supports their head and neck when turning their head to the right.
- C. The patient expresses difficulty in swallowing but can manage liquids.
- D. The patient appears drowsy and complains of a sore throat.
- E. The patient shows involuntary flexion of their wrist when blood pressure is measured.
- F. The patient has a hoarse voice when speaking.

Correct Answer: E. The patient shows involuntary flexion of their wrist when blood pressure is measured.

Carpal spasms (Trousseau's sign) indicate hypocalcemia which can occur after thyroidectomy due to accidental removal or damage to the parathyroid glands. Hypocalcemia is a serious complication and requires immediate attention. The other options, while they might warrant monitoring, are not as immediately concerning as a potential sign of hypocalcemia.

- **Option A:** The vital signs are all within the normal range.
- **Option B:** Supporting the head and neck while turning protects the surgical site from dehiscence.
- **Option C:** Common side effect of neck surgery.

- **Option D:** Drowsiness may be a side effect of the anesthesia used during surgery and will fade away eventually; a sore throat is a normal finding after thyroid surgery.
- **Option F:** Hoarseness of voice is a common side effect of post-op thyroidectomy due to one or more of the nerves irritated during the procedure of due to inflammation that occurs after surgery.

46. 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.

47. Which activity is best suited to the 12-year-old with juvenile rheumatoid arthritis?

- A. Playing video games
- B. Swimming
- C. Working crossword puzzles
- D. Playing slow-pitch softball

Correct Answer: B. Swimming

- Option B: Exercises that provide light passive resistance are best for the child with rheumatoid arthritis.
- Options A and C: Playing video games and crossword puzzles require movement of the hands and fingers that might be too painful for the child with juvenile rheumatoid arthritis
- Option D: Playing slow-pitch softball requires the use of larger joints affected by the disease.

48. A 21-year-old male with Hodgkin's lymphoma is a senior at the local university. He is engaged to be married and is to begin a new job upon graduation. Which of the following diagnoses would be a priority for this client?

- A. Sexual dysfunction related to radiation therapy
- B. Anticipatory grieving related to terminal illness
- C. Tissue integrity related to prolonged bed rest
- D. Fatigue related to chemotherapy

Correct Answer: A. Sexual dysfunction related to radiation therapy

Radiation therapy often causes sterility in male clients and would be of primary importance to this client. The psychosocial needs of the client are important to address in light of the age and life choices. Hodgkin's disease, however, has a good prognosis when diagnosed early. Know the importance of sex to individual, partner, and patient's motivation for change. Because lymphomas often affect the relatively young who are in their productive years, these people may be affected more by these problems and may be less knowledgeable about the possibilities of change.

- **Option B:** Grieving may not be an appropriate diagnosis since the client would be experiencing new milestones in his life despite his condition. Let the patient describe the problem in own words. Provides a more accurate picture of patient experience with which to develop a plan of care.
- **Option C:** Option B is not applicable since the client is not on bed rest. Encourage the patient to share thoughts and concerns with his partner and to clarify values and impact of condition on relationship. Helps the couple begin to deal with issues that can strengthen or weaken the relationship.
- **Option D:** Fatigue may occur during chemotherapy, but it is not the priority diagnosis. Identify pre-existing and current stress factors that may be affecting the relationship. The patient may be concerned about other issues, such as job, financial, and illness-related problems.

49. The nurse is evaluating a client's response to hemodialysis. Which lab results will indicate the dialysis was effective? Select all that apply.

- A. Serum potassium level decreases from 5.4 to 4.6 mEq/L
- B. Cr decreases from 1.6 to 0.8 mg/dL
- C. Hgb increases from 10-12 g/dL
- D. WBC increase from 5000 to 8000/mm³
- E. BUN decreases from 110 to 90 mg/dL

Correct Answer: A, B, and E.

Primary action of hemodialysis is to clear nitrogenous waste products. Dialysis adequacy measures the effectiveness of the dialysis treatments. It is important to receive enough dialysis to feel well and minimize the side effects of kidney failure.

- **Option A:** When the kidneys do not work properly, potassium may build up in the blood. A potassium level that is too high or too low may weaken muscles and change the heart rhythm. The ideal range for potassium in a person on dialysis is 3.5-5.5.
- **Option B:** Dialysis has a positive impact on serum creatinine level and reduces its level towards normal value. Results showed that most of the patients (58%) had serum creatinine below 7 mg/dl after dialysis.
- **Option C:** The hemoglobin is frequently low in people with kidney failure because the kidneys no longer make the hormone erythropoietin. This hormone stimulates the bones to make red blood cells. The ideal level for hemoglobin should be around 10g/dl. Recent research has demonstrated that levels above 13g/dl may be harmful to patients on dialysis.
- **Option D:** Direct contact of the blood with the dialysis membrane during hemodialysis elicits a series of changes in blood cells. White blood cell count and total lymphocyte number are reduced, neutrocytes are stimulated and degranulate, platelet adhesiveness is enhanced.
- **Option E:** The BUN is a measurement of waste products in the blood. Normal values for a person with kidney failure vary according to protein intake. A client's values may range from 20-80 mg/dl when the labs are drawn prior to the dialysis treatment.

50. Peritonitis can occur as a complication of:

- A. Septicemia
- B. Multiple organ failure
- C. Hypovolemic shock
- D. Peptic ulcer disease

Correct Answer: D. Peptic ulcer disease

Perforation is a life-threatening complication of peptic ulcer disease and can result in peritonitis. Since the peritoneum completely covers the stomach, perforation of the wall creates a communication between the gastric lumen and the peritoneal cavity. If the perforation occurs acutely, there is no time for an inflammatory reaction to wall off the perforation, and the gastric content is free to enter the general peritoneal cavity, causing chemical peritonitis.

- **Option A:** Septic shock is a serious illness and despite all the advances in medicine, it still carries high mortality which can exceed 40%. Mortality does depend on many factors including the type of organism, antibiotic sensitivity, number of organs affected, and patient age. The more factors that match SIRS, the higher the mortality.
- **Option B:** The high mortality of patients with multiple organ failure provided a focus for the problems that ultimately led to death for many patients in the intensive care unit. The frequency of infection, sepsis, or inflammation in producing multiple organ failure led to clinical trials of so-called magic bullets for the treatment of patients with sepsis.
- **Option C:** Patients with volume depletion may complain of thirst, muscle cramps, and/or orthostatic hypotension. Severe hypovolemic shock can result in mesenteric and coronary ischemia that can cause abdominal or chest pain. Agitation, lethargy, or confusion may result from brain

malperfusion.

51. Which of the following phrases would be found in a report of a qualitative study?

- A. "The hypothesis of this study is?"
- B. "Perceived pain was measured using the Abbott pain scale?"
- C. "The control group received no instruction?"
- D. "Subjects were asked to relate their perceptions of pain?"

Correct Answer: D. "Subjects were asked to relate their perceptions of pain?"

Data collected were perceptions of pain, not numeric data. Other options are found in a report of a quantitative study. 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 A:** 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 B:** Qualitative research is the opposite of quantitative research, which involves collecting and analyzing numerical data for statistical analysis. Quantitative research is widely used in the natural and social sciences: biology, chemistry, psychology, economics, sociology, marketing, etc.
- **Option C:** To collect quantitative data, the researcher will often need to use operational definitions that translate abstract concepts (e.g., mood) into observable and quantifiable measures (e.g., self-ratings of feelings and energy levels).

52. The nurse is teaching the parents of a 3 month-old infant about nutrition. What is the main source of fluids for an infant until about 12 months of age?

- A. Formula or breastmilk
- B. Dilute nonfat dry milk
- C. Warmed fruit juice
- D. Fluoridated tap water

Correct Answer: A. Formula or breastmilk

Formula or breast milk are the perfect food and source of nutrients and liquids up to 1 year of age. Breastfeeding with appropriate supplementation is the preferred method for feeding infants 0-12 months old. Iron-fortified formulas are recommended if the child is not breastfed or requires supplemental formula in addition to breast milk.

- **Option B:** The American Academy of Pediatrics Committee on Nutrition updated their recommendations concerning infant feeding practices during the second six months of life. The committee stated that breastfeeding is the preferred method of feeding during the first year of life and that whole cow's milk may be introduced after six months of age if adequate supplementary feedings are given. Reduced fat content milk is not recommended during infancy.

- **Option C:** When the infants are consuming one-third of their calories from a balanced mixture of iron-fortified cereals, vegetables, fruits, and other foods providing adequate sources of both iron and Vitamin C it is considered adequate supplementary feeding.
- **Option D:** The World Health Organization (WHO) notes that babies that are breastfed don't need additional water, as breast milk is over 80 percent water and provides the fluids your baby needs. Children who are bottle-fed will stay hydrated with the help of their formula. Water feedings tend to fill up your baby, making them less interested in nursing. This could actually contribute to weight loss and elevated bilirubin levels.

53. When assessing a patient for signs of fluid overload, the nurse would expect to observe:

- A. Bounding pulse
- B. Flat neck veins
- C. Poor skin turgor
- D. Vesicular

Correct Answer: A. Bounding pulse

Bounding pulse is a sign of fluid overload as more volume in the vessels causes a stronger sensation against the blood vessel walls. Assess for bounding peripheral pulses and S3. These assessment findings are signs of fluid overload.

- **Option B:** Flat neck veins and vesicular breath sounds are normal findings. Check for distended neck veins and ascites. Monitor abdominal girth to follow any ascites accurately. Distended neck veins are caused by elevated CVP. Ascites occur when fluid accumulates in extravascular spaces.
- **Option C:** Poor skin turgor is consistent with dehydration. Note for the presence of edema by palpating over the tibia, ankles, feet, and sacrum. Edema occurs when fluid accumulates in the extravascular spaces. Dependent areas more readily exhibit signs of edema formation.
- **Option D:** Assess for crackles in the lungs, changes in respiratory pattern, shortness of breath, and orthopnea. These signs are caused by an accumulation of fluid in the lungs.

54. A client presents to the emergency room with dyspnea, chest pain, and syncope. The nurse assesses the client and notes that the following assessment cues: pale, diaphoretic, blood pressure of 90/60, respirations of 33. The client is also anxious and fearing death. Which action should the nurse take first?

- A. Administer pain medications
- B. Administer IV fluids
- C. Administer dopamine
- D. Administer oxygen via nasal cannula

Correct Answer: D. Administer oxygen via nasal cannula.

The promotion of adequate oxygenation is the most vital to life and therefore should be given the highest priority by the nurse. When the nurse needs to prioritize patients, Maslow's hierarchy of needs

theory is used to decide which patient is to be seen first. A part of Maslow's hierarchy of needs is airway, breathing, and circulation (ABC), which are physiological elements that are needed for the body to survive and help determine one's level of health.

- **Option A:** The 2nd priority needs include MAAUAR which is mental status, acute pain, acute impaired urinary elimination, unresolved and unaddressed needs, abnormal diagnostic test results, and risks. The 3rd level priorities include all concerns and problems addressed with the 2nd level priority needs.
- **Option B:** Maslow's Hierarchy of Needs identifies the physiological or biological needs, including the ABCs, the safety/psychological/emotional needs, the need for love and belonging, the needs for self-esteem and the esteem by others and the self-actualization needs in that order of priority. Administering IV fluids belong in Maslow's physical and biological needs, but still after airway.
- **Option C:** Dopamine (DA) is a peripheral vaso stimulant used to treat low blood pressure, low heart rate, and cardiac arrest, especially in acute neonatal cases via a continuous intravenous drip. For stimulation of the sympathetic nervous system, the indication is for a continuous intravenous drip administration.

55. When obtaining the health history from a male client with retinal detachment, the nurse expects the client to report:

- A. Light flashes and floaters in front of the eye.
- B. A recent driving accident while changing lanes.
- C. Headaches, nausea, and redness of the eyes.
- D. Frequent episodes of double vision.

Correct Answer: A. Light flashes and floaters in front of the eye.

The sudden appearance of light flashes and floaters in front of the affected eye is characteristic of retinal detachment. Patients with a rhegmatogenous retinal detachment may present with a history of a large number of new-onset floaters. They may also have significant photopsia (flashes of light) in their vision.

- **Option B:** Difficulty seeing cars in another driving lane suggests a gradual loss of peripheral vision, which may indicate glaucoma. Many patients with glaucoma, especially early in the disease, are not aware they have this condition until it is discovered on a routine eye exam. People generally slowly lose peripheral vision but retain central vision until the disease process is severe.
- **Option C:** Headache, nausea, and redness of the eyes are signs of acute (angle-closure) glaucoma. In the acute angle-closure type, patients typically present with severe sudden ocular pain, redness, blurry vision/decreased visual acuity, headache, nausea or vomiting, and may complain of seeing halos of light. Patients will have an unresponsive mid-dilated pupil on examination and a firm feeling eyeball on palpation.
- **Option D:** Double vision is common in clients with cataracts. Diplopia or polyopia, mostly unocular but can be binocular, is due to multiple refractions through clear areas between the opacities. A cataract is a clouding or opacification of the normally clear lens of the eye or its capsule (surrounding transparent membrane) that obscures the passage of light through the lens to the retina of the eye.

56. A male client tells the nurse he was involved in a car accident while he was intoxicated. What would be the most therapeutic response from nurse Julia?

- A. "Why didn't you get someone else to drive you?"
- B. "Tell me how you feel about the accident."
- C. "You should know better than to drink and drive."
- D. "I recommend that you attend an Alcoholics Anonymous meeting."

Correct Answer: B. "Tell me how you feel about the accident."

An open-ended statement or question is the most therapeutic response. It encourages the widest range of client responses, makes the client an active participant in the conversation, and shows the client that the nurse is interested in his feelings. mix open-ended questions with focus questions. Open-ended questions may allow the patient to express their thoughts and feelings, and focused questions allow the interviewer to obtain important details with yes or no answers in a more time-efficient manner.

- **Option A:** Asking the client why he drove while intoxicated can make him feel defensive and intimidated. The first question posed in the interview is often open-ended. For example, "What is the main reason you seek medical assistance today?" This provides an opportunity for the interviewer to allow the patient to share their concerns, and the interviewer can show he or she is actively listening. This includes listening without judgment and displaying concern for the patient during communication.
- **Option C:** A judgmental approach isn't therapeutic. During the interview, meaningful questions inquired positively will reduce defensiveness from the patient. Often this can be accomplished by suggesting or sharing a common behavior associated with the actions of the patient. For example, the interviewer may convey the commonality for people to consume alcohol when under stress. It then becomes acceptable to inquire if this is also occurring with the patient. The patient may feel a sense of trust and therefore share pertinent information.
- **Option D:** By giving advice, the nurse suggests that the client isn't capable of making decisions, thus fostering dependency. At the conclusion of the patient interview, an appropriate transition statement to begin the physical exam may be, "Is there anything else that you would like to share with me before I start the physical examination?" This statement serves 2 purposes. First, it elicits any additional information the patient deems necessary, and second, it signals a transition to the physical exam. Lastly, before concluding the interview, it is important to discuss the probable follow-up plan and further treatment. In the outpatient setting, this may include admission to the hospital or going home and returning for a follow-up appointment at a designated time.

57. The client has experienced an electrical injury of the lower extremities. Which are the priority assessment data to obtain from this client?

- A. Current range of motion in all extremities
- B. Heart rate and rhythm
- C. Respiratory rate and pulse oximetry reading
- D. Orientation to time, place, and person

Correct Answer: B. Heart rate and rhythm.

Electric current travels through the body from the entrance site to the exit site and can seriously damage all tissues between the two sites. Early cardiac damage from electrical injury includes irregular heart rate, rhythm, and ECG changes. It is also important to obtain the patient's cardiac history, including any history of prior arrhythmias.

- **Option A:** Range of motion is also important. However, the priority is to make sure that the heart rate and rhythm are adequate to support perfusion to the brain and other vital organs.
- **Option C:** The airway is not at any particular risk with this injury. Therefore, respiratory rate and pulse oximetry are not priority assessments. Any patient that was in contact with a high voltage source should have continuous cardiac monitoring during evaluation.
- **Option D:** These patients are specifically at risk for cardiac damage if the path of the current traversed the heart. One may also consider CT imaging of the head if the patient has altered mental status or associated head trauma from a fall or being thrown in a blast.

58. A nurse is monitoring a client receiving ethambutol (Myambutol) for adverse effects. The nurse determines that the client is experiencing a side effect of the medication, in which of the following?

- A. Red-orange colored bodily secretions
- B. Damaged hearing
- C. Loss of smell
- D. Difficulty distinguishing the color red from green

Correct Answer: D. Difficulty distinguishing the color yellow from orange

Ethambutol (Myambutol) causes optic neuritis characterized by decreased visual acuity and the ability to distinguish between the color red from green.

- **Option A:** Red-orange discoloration of secretions is a side effect of Rifampin.
- **Option B:** Ototoxicity is a side effect of Streptomycin.
- **Option C:** This is not a related symptom of this anti-TB medication.

59. A patient presents with symptoms of frequent urination, burning sensation during urination, and lower abdominal pain. The healthcare provider suspects a urinary tract infection (UTI) and orders diagnostic tests. Which organs are primarily involved in the urinary system?

- A. Two kidneys, two urethrae, a ureter, and a urinary bladder
- B. Two kidneys, a ureter, a urinary bladder, and a urethra
- C. Two kidneys, two ureters, a urinary bladder, and a urethra
- D. Two kidneys, two ureters, two urethrae, and a urinary bladder

Correct Answer: C. Two kidneys, two ureters, a urinary bladder, and a urethra

The urinary system consists of two kidneys, two ureters, a urinary bladder, and a urethra. The kidneys are bean-shaped organs that help the body produce urine to get rid of unwanted waste substances. When urine is formed, tubes called ureters transport it to the urinary bladder, where it is stored and excreted via the urethra. The kidneys are also important in controlling our blood pressure and producing red blood cells.

Options A, B, and D: These options are incorrect.

60. A priority goal of involuntary hospitalization of the severely mentally ill client is

- A. Re-orientation to reality
- B. Elimination of symptoms
- C. Protection from harm to self or others
- D. Return to independent functioning

Correct Answer: C. Protection from self-harm and harm to others.

Involuntary hospitalization may be required for persons considered dangerous to self or others or for individuals who are considered gravely disabled.

- **Option A:** Mentally ill clients should be kept safe first before reorienting them back to reality. In keeping with emergent mental health public policy and nursing professional ethics, the articulated aims of deinstitutionalization included returning individuals to home communities to restore freedom and autonomy and reducing or eliminating nursing practices grounded in punishment that was being societally reconceptualized as harmful.
- **Option B:** Gradual elimination of the symptoms is not the primary goal in the hospitalization of a mentally ill client. There are two important concepts of psychological treatment. First, although it is called “psychological” treatment, the ultimate effect of these treatments is to bring some changes in the very delicate change in the structure and function of neurons by changing the way a person habitually thinks and behaves. They also promote the healing of the brain by reducing the stress experienced by the patients in daily life. In psychological treatment, all treatment effects come from the effort to take new behavior and adopt new ways of thinking.
- **Option D:** The client should be kept safe from himself and others first before he can return to independent functioning. The measurement of functional capacity in mental illness is an important recent development. Determination of functional capacity may serve as a surrogate marker for real-world functioning, thereby aiding clinicians in making important treatment determinations.

61. A nurse is caring for a patient with acute lymphoblastic leukemia (ALL). Which of the following is the most likely age range of the patient?

- A. 3-10 years.
- B. 25-35 years.
- C. 45-55 years.
- D. over 60 years.

Correct Answer: A. 3-10 years.

The peak incidence of ALL is at 4 years (range 3-10). It is uncommon after the mid-teen years. It is diagnosed in about 4000 people in the United States each year with the majority being under the age of 18. It is the most common malignancy of childhood. The peak age of diagnosis is between two and ten years of age.

- **Option B:** ALL is uncommon during young adulthood. Acute Lymphocytic Leukemia is more common in children with Trisomy 21 (Down syndrome), neurofibromatosis type 1, Bloom syndrome, and ataxia telangiectasia. All are common in children between two and three years of age.

- **Option C:** The peak incidence of chronic myelogenous leukemia (CML) is 45-55 years. Prognosis is diminished in children when diagnosed in infants less than one year of age and in adults. It is more favorable for children. Association of the MLL gene in children at 11q23 chromosome is associated with poor prognosis.
- **Option D:** The peak incidence of acute myelogenous leukemia (AML) occurs at 60 years. Two-thirds of cases of chronic lymphocytic leukemia (CLL) occur after 60 years. Lymphocytic Leukemia is a disease with low incidence overall in population studies. The incidence of Acute Lymphocytic Leukemia is about 3.3 cases per 100,000 children. Survival rates for ALL have improved dramatically since the 1980s, with a current five-year overall survival rate estimated at greater than 85 percent.

62. The nurse is monitoring a client with a history of stillborn infants. The nurse is aware that a nonstress test can be ordered for this client to:

- A. Determine lung maturity
- B. Measure the fetal activity
- C. Show the effect of contractions on fetal heart rate
- D. Measure the wellbeing of the fetus

Correct Answer: B. Measure the fetal activity

A nonstress test determines periodic movement of the fetus.

- **Options A:** Fetal lung maturity testing determines the maturity of the lungs.
- **Options C and D:** Fetal heart rate monitoring measures the heart rate and rhythm of the baby (fetus) and its well being.

63. The physician has ordered several laboratory tests to help diagnose an infant's bleeding disorder. Which of the following tests, if abnormal, would the nurse interpret as most likely to indicate hemophilia?

- A. Bleeding time
- B. Tourniquet test
- C. Clot retraction test
- D. Partial thromboplastin time (PTT)

Correct Answer: D. Partial thromboplastin time (PTT)

PTT measures the activity of thromboplastin, which is dependent on intrinsic clotting factors. In hemophilia, the intrinsic clotting factor VIII (antihemophilic factor) is deficient, resulting in a prolonged PTT. The PTT could be as prolonged as 2 to 3 times the high normal range. Once PTT is found to be prolonged, it should be followed by a mixing study. In a mixing study, the PTT should normalize if factor deficiency is suspected.

- **Option A:** Bleeding time reflects platelet function. Bleeding time is a clinical laboratory test performed to evaluate platelet function. It involves the creation of a standardized incision and timing the cessation of bleeding. The historical indications were the pre-operative assessment of patients taking aspirin or NSAIDs and screening for von-Willebrand disease.

- **Option B:** The tourniquet test measures vasoconstriction and platelet function. The tourniquet test is part of the new WHO case definition for dengue. The test is a marker of capillary fragility and it can be used as a triage tool to differentiate patients with acute gastroenteritis, for example, from those with dengue.
- **Option C:** Clot retraction test measures capillary fragility. All of these are unaffected in people with hemophilia. Clot retraction is a process driven by outside-in signaling by platelet integrin $\alpha IIb\beta 3$ that results in the contraction of the fibrin mesh. The contraction of the fibrin clot results in the blood clot becoming smaller and excess fluid is extruded.

64. Which of the following represents a significant risk immediately after surgery for repair of aortic aneurysm?

- A. Potential wound infection
- B. Potential ineffective coping
- C. Potential electrolyte imbalance
- D. Potential alteration in renal perfusion

Correct Answer: D. Potential alteration in renal perfusion

There is a potential alteration in renal perfusion manifested by decreased urine output. The altered renal perfusion may be related to renal artery embolism, prolonged hypotension, or prolonged aortic cross-clamping during the surgery. Intervention or surgical treatment risks versus benefits of repair in patients at increased risk for open surgery should be considered, and no intervention may be appropriate in some cases. Patients should be well informed regarding their options, risks of repair, and potential postoperative complications.

- **Option A:** Wound infection may occur with a poorly dressed postoperative site, but it is not a priority after surgery. During postoperative care, the nurse has to be familiar with potential complications of the surgery and notify the interprofessional team if the patient has abdominal or back pain, wound discharge, fever, oliguria, or hypotension.
- **Option B:** Ineffective coping can be a possible diagnosis after a surgery, however, it is not considered as an immediate risk. The nurse should also ensure that the appropriate consulting physician/dietitian/social workers have seen the patient and the surgeon notified prior to discharge. Open communication between the interprofessional team is vital to ensure good outcomes.
- **Option C:** Electrolyte imbalance cannot be considered a potential diagnosis for a client who just had a surgery for repair of aortic aneurysm since there are no GI complications associated with this surgery. The nurse should also auscultate for bowel sounds and convey the results to the interprofessional team so that feeding can be initiated. Prior to discharge, the pharmacist and nurse should educate the patient on the importance of medication compliance, the need to control blood pressure, and avoiding tobacco.

65. The best method of evaluating the amount of peripheral edema is:

- A. Weighing the client daily
- B. Measuring the extremity
- C. Measuring the intake and output
- D. Checking for pitting

Correct Answer: B. Measuring the extremity

The best indicator of peripheral edema is measuring the extremity. A paper tape measure should be used rather than one of plastic or cloth, and the area should be marked with a pen, providing the most objective assessment. The circumferential method is one of the girth measurement techniques. For consistent measurements, each upper extremity or lower extremity is marked with a semi-permanent marker at a certain part with reference to the bony prominences.

- **Option A:** Weighing the client will not indicate peripheral edema. The accumulation of fluid occurs when local or systemic conditions disrupt this equilibrium, leading to increased capillary hydrostatic pressure, increased plasma volume, decreased plasma oncotic pressure (hypoalbuminemia), increased capillary permeability, or lymphatic obstruction.
- **Option C:** Measuring the intake and output will not indicate peripheral edema. The most commonly used tools to measure edema are: volume measurements (with a water volumeter); girth measurements (with a tape measure); and pitting edema assessment (based on the depth and duration of the indentation). Water displacement and ankle circumference had shown a high inter-examiner agreement (intraclass correlation coefficient 0.93, 0.96 right; 0.97, 0.97 left).
- **Option D:** Checking for pitting edema is less reliable than measuring with a paper tape measure. There are two types of edema, pitting and non-pitting edema. Pitting edema is described as an indentation that remains in the edematous area after pressure is applied. Its location, timing, and extent are determined for treatment response. It is mainly assessed on the medial malleolus, the bony portion of the tibia, and the dorsum of the foot. Non-pitting edema is seen in lymphoedema, myxedema, and lipedema.

66. A drunk driver has been in the police station for 48 hours. During the first hours, he had tremors and was feeling anxious and sweaty. Currently, he is experiencing disorientation, hallucination, and hyperactivity. It was noted that the client has a history of alcohol abuse. What is the priority nursing diagnosis?

- A. Risk for Nutritional Deficit related to chronic alcohol abuse
- B. Risk for Injury related to seizures
- C. Risk for Situational Low Self-Esteem related to police custody
- D. Risk for Other-Directed Violence related to hallucinations

Correct Answer: B. Risk for Injury related to seizures

Client safety is the priority because the driver exhibits neurologic hyperactivity and is on the verge of a seizure. Medications such as chlorthalidone (Hydromin) are needed to decrease neurologic irritability and phenytoin (Dilantin) for seizures. Thiamine and haloperidol (Haldol) may also be ordered to treat other problems.

- **Option A:** If withdrawal symptoms remain untreated, this can typically lead to DT. Additional evaluation of a patient with DT involves identifying electrolyte, nutrition, and fluid abnormalities. Most of these patients present with severe dehydration (up to 10 L fluid deficit) and severe electrolyte abnormalities, including hypoglycemia and severe hypomagnesemia and hypophosphatemia.
- **Option C:** Delirium tremens occur in chronic alcohol abusers who abruptly discontinue alcohol use, often as early as 48 hours. The initial minor withdrawal symptoms are characterized by anxiety, insomnia, palpitations, headache, and gastrointestinal symptoms. These symptoms usually occur as early as 6 hours after cessation of alcohol use. More than 50% of those with a history of alcohol

abuse can exhibit alcohol withdrawal symptoms at discontinuing or decreasing their alcohol use.

- **Option D:** After 12 hours, minor withdrawal symptoms can progress to alcohol hallucinosis, a condition characterized by visual hallucinations. It can typically resolve in 24 to 48 hours, and may also be associated with auditory and tactile hallucinations.

67. Which of the following adverse reactions is found more often in volume-depleted elderly clients?

- A. Bradycardia
- B. Conduction defects
- C. Ankle edema
- D. Hypotension

Correct Answer: D. Hypotension

Hypotension is more likely to occur in the elderly. Vital signs can be a key assessment in volume status. The kidneys have an autoregulation system, which allows renal blood flow to remain stable between systolic blood pressures of 80 mm Hg to 180 mm Hg. Hypotension, when blood pressure falls below 80 mm Hg, can diminish renal perfusion and could potentially precipitate renal failure. Other adverse reactions may occur but are not necessarily increased in frequency in elderly clients.

- **Option A:** Vital signs can be a key assessment in volume status. Postural hypotension, leading to dizziness may be indicative of hypovolemia. Tachycardia can be seen with volume depletion, as can orthostatic blood pressure readings. Again, both can be nonspecific for hypovolemia, but orthostatic hypotension will be found with profound hypo-volemia.
- **Option B:** Other medications may require serum monitoring. These medications include antibiotics and antiarrhythmics. As GFR decreases, so does the clearance of renally excreted medication. This is especially important in the old-old where GFR has decreased by 30% to 50% by 80 years of age. Cardiac drugs include digoxin and procainamide.
- **Option C:** The most significant sign of volume depletion is acute weight loss, which is defined as a 3% or greater loss in body weight. Numerous factors can affect the accuracy of daily weights, but a running trend may provide the first indication of volume status.

68. A client who had a “Do Not Resuscitate” order passed away. After verifying there is no pulse or respirations, the nurse should next:

- A. Have family members say goodbye to the deceased.
- B. Call the transplant team to retrieve vital organs.
- C. Remove all tubes and equipment (unless organ donation is to take place), clean the body, and position appropriately.
- D. Call the funeral director to come and get the body.

Correct Answer: C. Remove all tubes and equipment (unless organ donation is to take place), clean the body, and position appropriately.

The body of the deceased should be prepared before the family comes into view and says their goodbyes. This includes removing all equipment, tubes, supplies, and dirty linens according to protocol, bathing the client, applying clean sheets, and removing trash from the room. In a home care, the nurse

would ask the family if it was alright to remove any tubes or catheters from the patient, and if they would like to assist in bathing/preparing the patient for transport to the funeral home. The nurse would assist the family in removing any jewelry or other items from the patient. Be sure to maintain the highest dignity and respect for the deceased patient during this post-mortem care.

- **Option A:** When the death is imminent, the family must be informed that death is near. As mentioned before, sometimes this is shocking to the family, despite knowing that their loved one is dying. This has to be communicated to the family in a sensitive and calm manner. Each nurse will have their own way to exchange this information, but it is very important that the family be told that death can occur at any time so that they can prepare. There may be a family in the area or out of town that would like to come and see the patient and who is waiting until the patient gets closer to death.
- **Option B:** Correct information given to a family clearly, sensitively, and in a professional manner can accommodate relatives' understanding of why their loved one is in a critical condition, which can help them accept death and therefore consider the option of organ donation. Nurses must acquire through regular training specific skills and knowledge in order to practice efficiently and adhere to the needs of a dying patient's family.
- **Option D:** Following the death of a patient, the nurse should offer their condolences to the family and extend assistance with contacting any other family members or individuals the family requests. Depending on the location of the death, the nurse would contact the medical examiner to notify them of the death, as well as the physician and other clinicians who were involved with the patient. The nurse can also contact the funeral home for the family as requested.

69. Which of the following nursing interventions should be implemented to manage a client with appendicitis?

- A. Assessing pain.
- B. Encouraging oral intake of clear fluids.
- C. Providing discharge teaching.
- D. Assessing for symptoms of peritonitis.

Correct Answer: D. Assessing for symptoms of peritonitis

The focus of care is to assess for peritonitis, or inflammation of the peritoneal cavity. Peritonitis is most commonly caused by appendix rupture and invasion of bacteria, which could be lethal. Monitor vital signs. Note onset of fever, chills, diaphoresis, changes in mentation, reports of increasing abdominal pain. This can be suggestive of the presence of infection or developing sepsis, abscess, peritonitis.

- **Option A:** The client with appendicitis will have pain that should be controlled with analgesia. Assess pain, noting location, characteristics, severity (0–10 scale). Investigate and report changes in pain as appropriate. Keep the client at rest in semi-Fowler's position to lessen the pain. Gravity localizes inflammatory exudate into the lower abdomen or pelvis, relieving abdominal tension, which is accentuated by a supine position.
- **Option B:** The nurse should discourage oral intake in preparation for surgery. Aperients should also be avoided as induced peristalsis may cause perforation. If appendicitis has been diagnosed regular analgesia, usually an opioid depending on the pain severity, should be given to make the patient comfortable before treatment.
- **Option C:** Discharge teaching is important; however, in the acute phase, management should focus on minimizing preoperative complications and recognizing when such may be occurring.

70. The nurse places an aquathermia pad on a client with a muscle sprain. The nurse informs the client the pad should be removed in 30 minutes. Why will the nurse return in 30 minutes to remove the pad?

- A. Reflex vasoconstriction occurs.
- B. Reflex vasodilation occurs.
- C. Systemic response occurs.
- D. Local response occurs.

Correct Answer: A. Reflex vasoconstriction occurs.

If heat is applied for 1 hour or more, blood flow is reduced by reflex vasoconstriction. Vasoconstriction is the opposite of the desired effect of heat application. An aquathermia (Aqua-K) pad, which produces dry heat, is used to treat muscle sprains and mild inflammations and for pain relief.

Temperature-controlled, distilled water flows through the waterproof pad.

- **Option B:** Aquathermia pad is used as a heating pad for various parts of the body. This heating pad is used on the upper side of the body because it cannot be placed on the underside of the body part. There is a specific time period, beyond which blood vessels will start shrinking leading to increased blood pressure.
- **Option C:** Hot aquathermia pad is applied for 20 to 40 minutes and then it should be removed to avoid vasoconstriction. The human body cannot tolerate this heating aquathermia pad for more than 40 minutes, if it exceeds 40 minutes, the patient will start feeling a burning sensation and the blood vessels will constrict leading to further complications.
- **Option D:** Increased temperature of aquathermia pad may burn the skin and the blood vessels may constrict. Due to vasoconstriction, blood pressure may rise. So there is a specific temperature that should be maintained. The ideal temperature set for adults is 45°C. A thin cloth or pillowcase should be placed between a hot aquathermia pad and skin, as it prevents direct heat action on the skin. 20 to 40 minutes is the ideal time for the application of these pads and they should not be placed for more than 40 minutes.

71. Nurse Maria is administering a cleansing enema to a client with severe constipation. She will place the client in which position?

- A. Low Fowler's position.
- B. High Fowler's position.
- C. Left Sim's position.
- D. Right Sim's position.

Correct Answer: C. Left Sim's position.

During a cleansing enema, place the client in the left Sim's position to allow the solution to flow by gravity in the natural direction of the colon. Position the patient on the left side, lying with the knees drawn to the abdomen. This eases the passage and flow of fluid into the rectum. Gravity and the anatomical structure of the sigmoid colon also suggest that this will aid enema distribution and retention.

- **Option A:** Position the patient on his left side in Sims' position or left lateral position with the right knee flexed, which will adequately expose the anus. This position allows the solution to flow

downward by gravity along the curve of the sigmoid colon and rectum, thus improving the effectiveness of the enema.

- **Option B:** The ideal positions for enema administration are the left-side position and the knee-chest position. It is advised that the patient remains in one of these positions to receive the enema for one-third of the time.
- **Option D:** The left lateral position is the most appropriate position for giving an enema because of the anatomical characteristics of the colon. Although the length of the tube to be inserted is designated as approximately 5-6 cm, do not try to force it but pull it back slightly if any resistance is felt.

72. The nurse suspects that a client with polyuria is experiencing water diuresis. Which laboratory value suggests water diuresis?

- A. High urine specific gravity
- B. High urine osmolarity
- C. Normal to low urine specific gravity
- D. Elevated urine pH

Correct Answer: C. Normal to low urine specific gravity

Water diuresis causes low urine specific gravity, low urine osmolarity, and a normal to elevated serum sodium level. Water diuresis was accompanied by (i) a rapid increase in urea excretion during the phase of increasing urine flow, followed by a fall in later periods to values similar to those in non-diuresis, (ii) a slower increase in sodium output, continuing after the establishment of the constant water load, (iii) unchanged potassium excretion, but slightly increased ammonium outputs.

- **Option A:** High specific gravity indicates dehydration. Hypernatremia signals acidosis and shock. In water diuresis, some of the changes in solute excretion may similarly result from altered tubular reabsorption, perhaps influenced by suppression of antidiuretic hormone (A.D.H.). In addition, the slower changes in sodium output may be related to several consequences of changes in body fluid volume.
- **Option B:** Mannitol diuresis was accompanied by (i) a rapid increase in urea outputs which subsequently fell but remained significantly higher, (ii) a steep rise in sodium and potassium outputs to values that remained far higher than those in non-diuretic and water diuretic animals.
- **Option D:** Elevated urine pH can result from potassium deficiency, a high-protein diet, or uncontrolled diabetes. The changes in mannitol diuresis are considered to result mainly from decreased tubular reabsorption, due to the lowered intraluminal sodium, potassium, and urea concentrations and increased intratubular fluid flow. Some of the acute increase in urea excretion may be due to washout of medullary urea into the tubular fluid.

74. A client who has undergone a cholecystectomy asks the nurse whether there are any dietary restrictions that must be followed. Nurse Hilary would recognize that the dietary teaching was well understood when the client tells a family member that:

- A. "Most people need to eat a high protein diet for 12 months after surgery"
- B. "I should not eat those foods that upset me before the surgery"

- C. "I should avoid fatty foods as long as I live"
- D. "Most people can tolerate regular diet after this type of surgery"

Correct Answer: D. "Most people can tolerate regular diet after this type of surgery"

It may take 4 to 6 months to eat anything, but most people can eat anything they want. Start with clear liquids after the surgery to prevent nausea, vomiting, and constipation, (soup, Jell-O, juices, popsicles, and carbonated beverages.) then advance to a regular low-fat diet. Eat smaller meals more often instead of fewer larger meals.

- **Option A:** A high protein diet is unnecessary. A healthy meal should include small amounts of lean protein. If the patient has diarrhea, he should try avoiding spicy foods, dairy products, fatty foods, and alcohol. If diarrhea continues for more than 2 weeks, he should talk to his doctor.
- **Option B:** High-fat foods should be avoided not only before the surgery, but it should be restricted a week after surgery as well. The patient can eat a normal diet, but avoid eating fatty foods for about one (1) month. Fatty foods include hamburgers, whole milk, cheese, and many snack foods. If the stomach is upset, try bland, low-fat foods like plain rice, broiled chicken, toast, and yogurt
- **Option C:** Fatty foods, fried and greasy foods, and sauces should be avoided for at least a week after surgery. Eat lots of whole grains, fruits, and green leafy vegetables. Avoid foods that cause constipation such as dairy products, red meat, processed foods such as pizza, frozen dinners, pasta, and sugar products such as cakes, pies, pastries, doughnuts, and drinks containing caffeine.

75. A pediatric nurse health educator provides a teaching session to the nursing staff regarding hemophilia. Which of the following information regarding this disorder would the nurse plan to include in the discussion?

- A. Hemophilia is a Y linked hereditary disorder
- B. Males inherit hemophilia from their fathers
- C. Females inherit hemophilia from their mothers
- D. Hemophilia A results from a deficiency of factor VIII

Correct Answer: D. Hemophilia A results from a deficiency of factor VIII

Hemophilia A results from a deficiency of factor VIII. Hemophilia B (Christmas disease) is a deficiency of factor IX. Both hemophilia A and B result from factor VIII and factor IX protein deficiency or dysfunction, respectively, and is characterized by prolonged and excessive bleeding after minor trauma or sometimes even spontaneously.

- **Option A:** Hemophilia is inherited in a recessive manner via a genetic defect on the X-chromosome. Hemophilia is usually an inherited condition and is caused by the deficiency of clotting factors in the blood. It is almost always due to a defect or mutation in the gene for the clotting factor.
- **Option B:** Males inherit hemophilia from their mothers. Female carrier mothers have a 50% chance of having affected males and a 50% chance of having carrier females. Females could also be affected if there is a complete inactivation of chromosome X through lyonization, partial or complete absence of chromosome X such as in Turner Syndrome or if both parents carry the abnormal gene.
- **Option C:** Females inherit the carrier status from their fathers. Both hemophilia A and B are inherited via an X-linked recessive pattern where 100% of females born from affected fathers will be carriers, and none of the males born will be affected.

76. Sterile technique is used whenever:

- A. Strict isolation is required
- B. Terminal disinfection is performed
- C. Invasive procedures are performed
- D. Protective isolation is necessary

Correct Answer: C. Invasive procedures are performed

All invasive procedures, including surgery, catheter insertion, and administration of parenteral therapy, require a sterile technique to maintain a sterile environment. All equipment must be sterile, and the nurse and the physician must wear sterile gloves and maintain surgical asepsis. In the operating room, the nurse and physician are required to wear sterile gowns, gloves, masks, hair covers, and shoe covers for all invasive procedures.

- **Option A:** Strict isolation requires the use of clean gloves, masks, gowns, and equipment to prevent the transmission of highly communicable diseases by contact or by airborne routes. Strict isolation is used for diseases spread through the air and in some cases by contact. Patients must be placed in isolation to prevent the spread of infectious diseases. Those who are kept in strict isolation are often kept in a special room at the facility designed for that purpose.
- **Option B:** Terminal disinfection is the disinfection of all contaminated supplies and equipment after a patient has been discharged to prepare them for reuse by another patient. Terminal disinfection has the objective of preparing complete rooms or areas for subsequent patients or residents for them to be treated or cared for without the risk of acquiring an infection. This disinfection measure is applied in rooms and areas where an infected or colonized patient/resident has been cared for or treated. Depending on the existing disease or type of pathogen all near-patient surfaces/objects or all accessible surfaces (e.g. also floors or walls) are to be disinfected.
- **Option D:** The purpose of protective (reverse)isolation is to prevent a person with seriously impaired resistance from coming into contact with potentially pathogenic organisms. Protective Isolation aims to protect an immunocompromised patient who is at high risk of acquiring micro-organisms from either the environment or from other patients, staff, or visitors.

77. Which of the following would the nurse use as the basis for the teaching plan when caring for a pregnant teenager concerned about gaining too much weight during pregnancy?

- A. 10 pounds per trimester.
- B. 1 pound per week for 40 weeks.
- C. ½ pound per week for 40 weeks.
- D. A total gain of 25 to 30 pounds.

Correct Answer: D. A total gain of 25 to 30 pounds

To ensure adequate fetal growth and development during the 40 weeks of a pregnancy, a total weight gain of 25 to 30 pounds is recommended:

- **Option A:** 1.5 pounds in the first 10 weeks; 9 pounds by 30 weeks; and 27.5 pounds by 40 weeks. The pregnant woman should gain less weight in the first and second trimester than in the third.

- **Option B:** During the first trimester, the client should only gain 1.5 pounds in the first 10 weeks, not 1 pound per week.
- **Option C:** A weight gain of ½ pound per week would be 20 pounds for the total pregnancy, less than the recommended amount.

78. Brittany who is undergoing chemotherapy for her throat cancer is experiencing stomatitis. To promote oral hygiene and comfort, the nurse-in-charge should: Provide frequent mouthwash with normal saline.

- A. Provide frequent mouthwash with normal saline.
- B. Apply viscous Lidocaine to oral ulcers as needed.
- C. Use lemon glycerine swabs every 2 hours.
- D. Rinse mouth with Hydrogen Peroxide.

Correct Answer: B. Apply viscous Lidocaine to oral ulcers as needed.

Stomatitis can cause pain and this can be relieved by applying topical anesthetics such as lidocaine before mouth care.

- **Option A:** Before providing oral care, ensure that the patient is comfortable with the procedure first.
- **Option C:** Use saline solution mixed with equal parts of water or hydrogen peroxide or oral care.
- **Option D:** When the patient is already comfortable, the nurse can proceed with providing the patient with oral rinses of saline solution mixed with equal parts of water or hydrogen peroxide mixed water in 1:3 concentrations to promote oral hygiene. Every 2-4 hours.

79. A male client is diagnosed with a schizotypal personality disorder. Which signs would this client exhibit during a social situation?

- A. Paranoid thoughts
- B. Emotional affect
- C. Independence need
- D. Aggressive behavior

Correct Answer: A. Paranoid thoughts

Clients with schizotypal personality disorder experience excessive social anxiety that can lead to paranoid thoughts. People with schizotypal personality disorder are often described as odd or eccentric and usually have few, if any, close relationships. They generally don't understand how relationships form or the impact of their behavior on others. They may also misinterpret others' motivations and behaviors and develop significant distrust of others. These problems may lead to severe anxiety and a tendency to avoid social situations, as the person with schizotypal personality disorder tends to hold peculiar beliefs and may have difficulty with responding appropriately to social cues.

- **Option B:** People with schizotypal personality disorder are loners who prefer to keep their distance from others and are uncomfortable being in relationships. They sometimes exhibit odd speech or behavior, and they have a limited or flat range of emotions. This pattern begins early in adulthood and continues throughout life. Those with this disorder also tend to have markedly illogical thinking, with unusual ideas or odd beliefs that are not consistent with prevailing ideas, for example, a strong

belief in extrasensory perception (ESP). They may report unusual perceptions or strange body experiences.

- **Option C:** People with schizotypal personality disorder are loners who prefer to keep their distance from others and are uncomfortable being in relationships. They sometimes exhibit odd speech or behavior, and they have a limited or flat range of emotions. This pattern begins early in adulthood and continues throughout life.
- **Option D:** Many people with schizotypal personality disorder have subtle difficulties with memory, learning, and attention. They usually do not have the more severe and disabling psychotic symptoms, such as delusions and hallucinations that appear in schizophrenia. However, people with a schizotypal personality disorder do sometimes develop schizophrenia.

80. To determine if a patient's respiratory system is functioning, the nurse would assess which of the following parameters:

- A. Respiratory rate
- B. Pulse
- C. Arterial blood gas
- D. Pulse oximetry

Correct Answer: C. Arterial blood gas

Arterial blood gases will indicate CO₂ and O₂ levels. This is an indication that the respiratory system is functioning. Blood gas analysis is a commonly used diagnostic tool to evaluate the partial pressures of gas in blood and acid-base content. Understanding and use of blood gas analysis enable providers to interpret respiratory, circulatory, and metabolic disorders.

- **Option A:** Respiratory rate can reveal data about other systems, such as the brain, making letter c a better choice. The respiratory rate is the number of breaths per minute. The normal breathing rate is about 12 to 20 breaths per minute in an average adult. In the pediatric age group, it is defined by the particular age group. Parameters important here again include its rate, depth of breathing, and its pattern rate of breathing is a crucial parameter.
- **Option B:** Pulse rate is not a measure of respiratory status. Parameters for assessment of pulse include its rate, rhythm, volume, amplitude, and rate of increase, besides its symmetry. The rate of the pulse is significant to measure for assessing the physiological and pathological processes affecting the body. The normal range used in an adult is between 60 to 100 beats /minute with rates above 100 beats/minute and rates and below 60 beats per minute.
- **Option D:** Pulse oximetry yields oxygen saturation levels, which is not a measure of acid-base balance. Pulse oximetry is a non-invasive monitor that measures the oxygen saturation in the blood by shining light at specific wavelengths through tissue (most commonly the fingernail bed).

81. A client with emphysema should receive only 1 to 3 L/minute of oxygen if needed, or he may lose his hypoxic drive. Which of the following statements is correct about hypoxic drive?

- A. The client doesn't notice he needs to breathe.
- B. The client breathes only when his oxygen levels climb above a certain point.
- C. The client breathes only when his oxygen levels dip below a certain point.

D. The client breathes only when his carbon dioxide level dips below a certain point.

Correct Answer: C. The client breathes only when his oxygen levels dip below a certain point.

Clients with emphysema breathe when their oxygen levels drop to a certain level; this is known as the hypoxic drive. In the meantime, his carbon dioxide levels continue to climb, and the client will pass out, leading to a respiratory arrest. The hypoxic drive theory then goes on to say that if the healthcare provider gives these patients too much oxygen they blunt their hypoxic drive. As their chemoreceptors are already tolerant of high levels of carbon dioxide, and therefore they have also lost that drive, their respirations will begin to slow causing a further rise in carbon dioxide levels, and a consequent acidosis.

- **Option A:** They don't take a breath when their levels of carbon dioxide are higher than normal, as do those with healthy respiratory physiology. COPD patients tend to have chronically elevated levels of carbon dioxide due to the nature of their illness. The theory goes then that because of this chronically elevated level of carbon dioxide in the chemoreceptors become tolerant of these high levels and therefore the carbon dioxide ceases to be that person's drive to breathe. What therefore drives them to breathe is the hypoxic drive or the lower levels of oxygen.
- **Option B:** If too much oxygen is given, the client has little stimulus to take another breath. The peripheral chemoreceptors are sensitive to the levels of oxygen in the body. They will send a signal to breathe when the partial pressure of oxygen begins to fall. This is referred to as the hypoxic drive but this drive has a much more minor role in breathing.
- **Option D:** The central chemoreceptors monitor carbon dioxide levels in the body. When those carbon dioxide levels are high a signal is sent to speed up the drive to breathe to blow off the excess carbon dioxide. So the levels of carbon dioxide dictate how fast we will breathe.

82. Which of the following conditions indicates that spinal shock is resolving in a client with C7 quadriplegia?

- A. Absence of pain sensation in chest
- B. Spasticity
- C. Spontaneous respirations
- D. Urinary continence

Correct Answer: B. Spasticity

Spasticity, the return of reflexes, is a sign of resolving shock. Spinal or neurogenic shock is characterized by hypotension, bradycardia, dry skin, flaccid paralysis, or the absence of reflexes below the level of injury. Spinal shock is a result of severe spinal cord injury. It usually requires high-impact, direct trauma that leads to spinal cord injury and spinal shock. The initial encounter with a patient that has spinal shock is usually under a trauma scenario.

- **Option A:** The absence of pain sensation in the chest doesn't apply to spinal shock. With high cervical injuries, the diaphragmatic function will be compromised, and these patients will necessitate early tracheotomy since they will be ventilator dependent. Deep vein thrombosis is excessively high in these patients.
- **Option C:** Spinal shock descends from the injury, and respiratory difficulties occur at C4 and above. In spinal shock, there is a transient increase in blood pressure due to the release of catecholamines. This is followed by a state of hypotension, flaccid paralysis, urinary retention, and fecal incontinence. The symptoms of spinal shock may last a few hours to several days/weeks.

- **Option D:** The full spinal examination should include motor, sensory reflexes including bulbocavernosus reflex and anal wink reflex. Motor activity and strength decrease not only in the skeletal muscles but the motor activity of internal organs like bowel and bladder. This decrease leads to constipation and urinary retention.

83. Nurse Marty is monitoring a client for adverse reactions to dantrolene (Dantrium). Which adverse reaction is most common?

- A. Excessive tearing
- B. Urine retention
- C. Muscle weakness
- D. Slurred speech

Correct Answer: C. Muscle weakness

The most common adverse reaction to dantrolene is muscle weakness. The drug also may depress liver function or cause idiosyncratic hepatitis. The intravenous administration of dantrolene in healthy volunteers has resulted in skeletal muscle weakness, dyspnea, respiratory muscle weakness, and decreased inspiratory capacity. These are expected symptoms given the mechanism of action of the medication.

- **Option A:** For those taking the oral capsule for muscle spasticity, liver function tests require monitoring, and dantrolene discontinued if signs and symptoms of liver injury appear. These include elevated LFTs, jaundice, right upper quadrant pain, etc. These symptoms typically resolve upon the discontinuation of dantrolene. If dantrolene is to be reinstated, per recommendations, the patient should be inpatient, and the drug initiated in very small doses with gradual increases.
- **Option B:** Although urine retention is an adverse reaction associated with dantrolene use; they aren't as common as muscle weakness. When using the lyophilized form of dantrolene, large volumes of sterile water are administered with the medication. Although mannitol is included with the dantrolene, monitoring fluid status and output is paramount to the ongoing care of resuscitation of these patients.
- **Option D:** Muscle weakness is rarely severe enough to cause slurring of speech, drooling, and enuresis. Oral dantrolene carries a black box warning for the potential for hepatotoxicity, including overt hepatitis. Hepatic function should be evaluated before the administration of the oral capsule form and require monitoring throughout the course of treatment. The medication should stop immediately if liver function becomes impaired.

84. A client underwent ileostomy, when should the drainage appliance be applied to the stoma?

- A. 24 hours later, when edema has subsided
- B. In the operating room
- C. After the ileostomy begins to function
- D. When the client is able to begin self-care procedures

Correct Answer: B. In the operating room

The stoma drainage bag is applied in the operating room. Drainage from the ileostomy contains secretions that are rich in digestive enzymes and highly irritating to the skin. Protection of the skin from the effects of these enzymes is begun at once. Skin exposed to these enzymes even for a short time becomes reddened, painful, and excoriated.

- **Option A:** If the application of the drainage appliance is delayed after surgery, the skin around the stoma would be most likely irritated and damaged due to the digestive enzymes present in the secretions of the drainage.
- **Option C:** An ileostomy needs a drainage bag before it starts to function so that the secretions from the drainage would be caught up by the bag, preventing contamination of the skin.
- **Option D:** The client would have irritated, damaged skin once the drainage comes out from the stoma and comes into contact with the skin.

85. Which action by a nursing assistant (NA) when caring for a patient who has pancytopenia indicates a need for the nurse to intervene?

- A. The NA adds baking soda to the patient's saline oral rinses
- B. The NA makes an oral rinse using 1 teaspoon of salt in a liter of water
- C. The NA puts fluoride toothpaste on the patient's toothbrush
- D. The NA assists the patient to use dental floss after eating

Correct Answer: D. The NA assists the patient to use dental floss after eating

- **Option D:** The use of dental floss is avoided in patients with pancytopenia because of the risk for infection and bleeding.
- **Options A, B, and C:** The other actions are appropriate for oral care of a patient with pancytopenia.