Kevin's Review - 85 NCLEX Practice Questions

1. Which of these statements regarding the conduction system of the heart is NOT correct? Select all that apply.

A. The sinoatrial (SA) node of the heart acts as the pacemaker.

B. The SA node is located on the upper wall of the left atrium.

C. The AV node conducts action potentials rapidly through it.

D. Action potentials are carried slowly through the atrioventricular bundle.

Correct Answer: B, C, and D

The electrical circuit of the heart follows a distinct pathway from the right atrium down throughout the ventricles of the heart. Cardiac physiology is one of the most important pieces of medical knowledge in healthcare. The cardiovascular system is constantly adapting to maintain homeostasis in the body, specifically to maintain oxygen perfusion of tissues.

- **Option A:** The SA node is the heart's natural pacemaker. The SA node is responsible for heart rate under normal conditions; this means that the inherent rate of the SA node is typically around 60 to 100 beats per minute (BPM). As the SA node depolarizes, an electrical signal is simultaneously transmitted across from the right atrium to the left atrium via a bundle of cells termed "Bachmann's Bundle."
- **Option B:** The SA node consists of a cluster of cells that are situated in the upper part of the wall of the right atrium (the right upper chamber of the heart). The electrical circuit begins at the Sinoatrial node, or SA node, which is located in the right atrium. This node is a unique bundle of cells that undergoes automaticity; these cells have their inherent rate of depolarization that is independent of other cells in the heart.
- **Option C:** When action potentials reach the AV node, they spread slowly through it. Following the SA node conduction, the current travels down to the Atrioventricular node, or AV node. The AV node is located further inferior in the Right Atrium by the interatrial septum. An important distinction to make about the AV node is that it creates a small pause in the electrical circuit.
- **Option D:** Action potentials pass slowly through the atrioventricular node. This pause is important because it delays the ventricles from contracting, and thus establishes successive contraction of the ventricles following the atria. If this pause did not occur, the atria and ventricles would contract simultaneously, and blood would not flow appropriately through the heart.
- **Option E:** The current leaves the AV node down a bundle of cells named the "Bundle of His" located inferior to the AV node in the interventricular septum. The Bundle of His then transmits the conduction down two bundle branches that arc throughout the two ventricles; specifically, these are named the right and left bundle branches.

2. Nurse Stephanie is assessing a client who has an acute respiratory infection that puts her at risk for hypoxemia. Which of the following findings are early indications that should alert the nurse that the client is developing hypoxemia? Select all that apply.

A. Restlessness

B. Tachypnea

C. Bradycardia

D. Confusion

E. Cyanosis

Correct Answer: A, B, & E

Restlessness, tachypnea, and pallor are early manifestations of hypoxemia, along with tachycardia, elevated blood pressure, use of accessory muscles, nasal flaring, tracheal tugging, and adventitious lung sounds. Bradycardia and confusion are late manifestations of hypoxemia, along with stupor, cyanotic skin and mucous membranes, bradypnea, hypotension, and cardiac dysrhythmias. Hypoxemia is defined as a decrease in the partial pressure of oxygen in the blood whereas hypoxia is defined by reduced level of tissue oxygenation. It can be due to either defective delivery or defective utilization of oxygen by the tissues.

- **Option A:** When oxygen delivery is severely compromised, organ function will start to deteriorate. Neurologic manifestations include restlessness, headache, and confusion with moderate hypoxia. In severe cases, altered mentation and coma can occur, and if not corrected quickly may lead to death.
- **Option B:** The chronic presentation is usually less dramatic, with dyspnea on exertion as the most common complaint. Symptoms of the underlying condition that induced the hypoxia can help in narrowing the differential diagnosis. The physical exam may show tachypnea and low oxygen saturation. Fever may point to infection as the cause of hypoxia.
- **Option C:** Bradycardia is a late manifestation of hypoxemia. Increase in cardiac output with exercise results in accelerated blood flow through alveoli, reducing the time available for gas exchange. In case of the abnormal pulmonary interstitium, gas exchange time becomes insufficient, and hypoxemia ensues.
- **Option D:** Both confusion and somnolence may occur in respiratory failure. Myoclonus and seizures may occur with severe hypoxemia. Polycythemia is a complication of long-standing hypoxemia.
- **Option E:** Cyanosis, a bluish color of skin and mucous membranes, indicates hypoxemia. Visible cyanosis typically is present when the concentration of deoxygenated hemoglobin in the capillaries of tissues is at least 5 g/dL.

3. A child age 7 was unable to receive the measles, mumps, and rubella (MMR) vaccine at the recommended scheduled time. When would the nurse expect to administer the MMR vaccine?

A. In a month from now

B. In a year from now

C. At age 10

D. At age 13

Correct Answer: C. At age 10

Based on the recommendations of the American Academy of Family Physicians and the American Academy of Pediatrics, the MMR vaccine should be given at the age of 10 if the child did not receive it between the ages of 4 to 6 years as recommended. Immunization for diphtheria and tetanus is required at age 13.

- **Option A:** Children should get two doses of MMR vaccine, starting with the first dose at 12 to 15 months of age, and the second dose at 4 through 6 years of age.

- **Option B:** Children can receive the second dose earlier as long as it is at least 28 days after the first dose.
- **Option D:** MMR vaccine is given later than some other childhood vaccines because antibodies transferred from the mother to the baby can provide some protection from disease and make the MMR vaccine less effective until about 1 year of age.

4. During a prenatal check-up, a 27-year-old primigravida patient expresses concern regarding her recent fatigue and shortness of breath. The healthcare provider decides to check her hemoglobin levels to ensure adequate oxygen transport to both the mother and the fetus. She educates the patient about the structure of hemoglobin and its paramount role in oxygen transportation. In this context, which of the following statements accurately describes a key component of hemoglobin, fundamental to its function in oxygen transport?

A. contains 1 iron atom.

B. contain 2 globin protein molecules.

C. consists of 4 protein chains and 4 heme groups.

D. can carry 1 oxygen molecule only.

E. is bluish in color when bound to oxygen

Correct Answer: C. consists of 4 protein chains and 4 heme groups.
Each hemoglobin molecule consists of 4 globin protein chains, and each of these chains is associated with a heme group. The iron atom present in each heme group allows for the binding of an oxygen molecule, thus playing a crucial role in oxygen transport.

- **Option A:** Each hemoglobin molecule indeed contains iron atoms, but specifically, it has 4 iron atoms, each within a heme group, which bind to oxygen molecules. Therefore, this option is inaccurate.
- **Option B:** The hemoglobin molecule is composed of 4 globin protein molecules (not 2), forming a tetramer. Each globin molecule is associated with a heme group. Therefore, this option is incorrect.
- **Option D:** This statement is incorrect as each hemoglobin molecule can carry up to 4 oxygen molecules, one for each iron atom present in the heme groups.
- **Option E:** Hemoglobin appears red, not bluish, when bound to oxygen. The color change in blood is perceptible when oxygenated (bright red) and deoxygenated (dark red to bluish-red), but it doesn't turn bluish. Therefore, this statement is incorrect.

5. A nurse is planning care for a child with acute bacterial meningitis. Based on the mode of transmission of this infection, which of the following would be included in the plan of care?

A. No precautions are required as long as antibiotics have been started.

B. Maintain enteric precautions.

C. Maintain respiratory isolation precautions for at least 24 hours after the initiation of antibiotics.

D. Maintain neutropenic precautions.

Correct Answer: C. Maintain respiratory isolation precautions for at least 24 hours after the initiation of antibiotics

A major priority of nursing care for a child suspected of having meningitis is to administer the prescribed antibiotic as soon as it is ordered. The child is also placed on respiratory isolation for at least 24 hours while culture results are obtained and the antibiotic is having an effect. Antibiotics are given to treat the underlying causes of inflammation and thus prevent the occurrence of seizure activity.

- **Option A:** Assess neurologic status to include VS pattern, changes in consciousness, behavior patterns and pupillary/ocular responses appropriate for age (measure head circumference in infant) (specify when). Administer antibiotics as prescribed (specify) as soon as ordered based on analysis of CSF, throat cultures.
- **Option B:** Enteric precautions are taken to prevent infections that are transmitted primarily by direct or indirect contact with fecal material. They're indicated for patients with known or suspected infectious diarrhea or gastroenteritis. Clostridium difficile is the most common cause of hospital-acquired infectious diarrhea.
- **Option D:** Neutropenic precautions are steps one can take to prevent infections if they have moderate to severe neutropenia. Neutropenia is a condition that causes the client to have low neutrophils in the blood. Neutrophils are a type of white blood cell that helps the body fight infection and bacteria. Ask a healthcare provider for more information on neutropenia.

6. A nurse has an African American patient who is bedridden for 3 months due to Guillain barre syndrome. During a routine assessment, which characteristic of pressure ulcer will the nurse first identify?

A. Skin feels soft and cold

B. Skin looks shiny or bluish in color

C. Skin looks Reddish in color

D. Skin returns to normal color after pressing it for 10 minutes

Correct Answer: B. Skin looks shiny or bluish in color

- Option B: People with darker skin will have patches of bluish to purplish a skin and will look shiny.
- Option A: Skin may feel hard and warm to touch instead.
- Option C: Usually Caucasian with bedsore will have patches of red skin.
- Option D: The skin color does not return to normal after pressing the area for 10-30 minutes.

7. What laboratory finding is the primary diagnostic indicator for pancreatitis?

A. Elevated blood urea nitrogen (BUN)

B. Elevated serum lipase

C. Elevated aspartate aminotransferase (AST)

D. Increased lactate dehydrogenase (LD)

Correct Answer: B. Elevated serum lipase

Elevation of serum lipase is the most reliable indicator of pancreatitis because this enzyme is produced solely by the pancreas. Serum lipase typically increases 3–6 hours after the onset of acute pancreatitis and usually peaks at 24 hours. Unlike amylase, there is significant reabsorption of lipase in the renal tubules so the serum concentrations remain elevated for 8–14 days.

- **Option A:** A client's BUN is typically elevated in relation to renal dysfunction. A BUN test is done to see how well the kidneys are working. If the kidneys are not able to remove urea from the blood normally, the BUN level rises. Heart failure, dehydration, or a diet high in protein can also make the BUN level higher. Liver disease or damage can lower the BUN level.
- **Option C:** A client's AST is typically elevated in relation to liver dysfunction. The elevated AST-to-ALT ratio in alcoholic liver disease results in part from the depletion of vitamin B6 (pyridoxine) in chronic alcoholics. ALT and AST both use pyridoxine as a coenzyme, but the synthesis of ALT is more strongly inhibited by pyridoxine deficiency than is the synthesis of AST.
- **Option D:** A client's LD is typically elevated in relation to damaged cardiac muscle. Usually, LDH isoenzyme levels increase 24–72 hours following myocardial infarction and reach a peak concentration in 3–4 days. Glycogen phosphorylase BB is released into circulation 2–4 h after onset of cardiac ischemia and returns to baseline levels 1–2 days after acute myocardial infarction, making it an early marker.

8. A nurse is giving instruction to a client who is receiving cholestyramine (Questran) for the treatment of hyperlipidemia. Which of the following statements made by the client indicates the need for further instructions?

A. "This medication comes in a powder that must be mixed with juice or water before administration".

B. "I will avoid eating foods rich in saturated fats".

C. "I will take my Vitamin A 30 minutes after cholestyramine".

D. "Constipation, belching and heartburn are some of the side effects".

Correct Answer: C. "I will take my Vitamin A 30 minutes after cholestyramine".

Cholestyramine (Questran) affects the fat digestion of vitamins such as Vitamin A, D, E, and K, therefore, decreasing its absorption. It is advised that other oral medications should be taken 1 hour before or 4 to 6 hours after taking cholestyramine.

- **Options A, B, & D:** These are correct statements regarding the medication.

9. A patient with diabetes has had many renal calculi over the past 20 years and now has chronic renal failure. Which substance must be reduced in this patient's diet?

A. Carbohydrates

B. Fats

C. Protein

D. Vitamin C

Correct Answer: C. Protein

Because of damage to the nephrons, the kidney can't excrete all the metabolic wastes of protein, so this patient's protein intake must be restricted. Eating animal protein may increase the chances of developing kidney stones. Although you may need to limit how much animal protein you eat each day, you still need to make sure you get enough protein. Consider replacing some of the meat and animal protein you would typically eat with beans, dried peas, and lentils, which are plant-based foods that are high in protein and low in oxalate.

- **Option A:** Eat oxalates wisely. Foods high in this chemical may increase formation of kidney stones. If you've already had kidney stones, you may wish to reduce or eliminate oxalates from your diet completely. If you're trying to avoid kidney stones, check with your doctor to determine if limiting these foods is enough.
- **Option B:** Good sources of calcium include milk, yogurt, cottage cheese, and other types of cheeses. Vegetarian sources of calcium include legumes, calcium-set tofu, dark green vegetables, nuts, seeds, and blackstrap molasses. If you don't like the taste of cow's milk, or, if it doesn't agree with you, try lactose-free milk, fortified soy milk, or goat's milk.
- **Option D:** Citrus fruit, and their juice, can help reduce or block the formation of stones due to naturally occurring citrate. Good sources of citrus include lemons, oranges, and grapefruit. A higher intake of carbs, fats, and vitamin supplements is needed to ensure the growth and maintenance of the patient's tissues.

10. Which client outcome would best indicate successful treatment for a client with an antisocial personality disorder?

A. The client exhibits charming behavior when around authority figures.

B. The client has decreased episodes of impulsive behaviors.

C. The client makes statements of self-satisfaction.

D. The client's statements indicate no remorse for behaviors.

Correct Answer: B. The client has decreased episodes of impulsive behaviors

A client with antisocial personality disorder typically has frequent episodes of acting impulsively with poor ability to delay self-gratification. Therefore, decreased frequency of impulsive behaviors would be evidence of improvement. Of those children with conduct disorder, 25% of girls and 40% of boys will meet the diagnostic criteria for antisocial personality disorder. Boys exhibit symptoms earlier than girls, who often only elicit these symptoms in puberty.

- **Option A:** Disregard for and the violation of others' rights are common manifestations of this personality disorder, which displays symptoms that include failure to conform to the law, inability to sustain consistent employment, deception, manipulation for personal gain, and incapacity to form stable relationships.
- **Option C:** Self-satisfaction would be viewed as a positive change if the client expresses low self-esteem; however, this is not a characteristic of a client with antisocial personality disorder. Many individuals diagnosed with antisocial personality disorder remain a burden to their families, coworkers, and closely associated peers, such as neighbors, despite becoming less troublesome with age. Mental health comorbidities and associated addictive disorders, as well as higher mortality rates due to suicides and homicides, only add to this burden.
- **Option D:** Charming behavior when around authority figures and statements indicating no remorse are examples of symptoms typical of someone with this disorder and would not indicate successful treatment. Antisocial personality disorder (ASPD) is a deeply ingrained and rigid dysfunctional thought process that focuses on social irresponsibility with exploitive, delinquent, and criminal

behavior with no remorse.

11. A patient who has been diagnosed with vasospastic disorder (Raynaud's disease) complains of cold and stiffness in the fingers. Which of the following descriptions is most likely to fit the patient?

A. An adolescent male

B. An elderly woman

C. A young woman

D. An elderly man

Correct Answer: C. A young woman

Raynaud's disease is most common in young women and is frequently associated with rheumatologic disorders, such as lupus and rheumatoid arthritis. Secondary Raynaud phenomenon is associated with different etiologies. It is most commonly associated with connective tissue disorders such as scleroderma, systemic lupus erythematosus, Sjogren syndrome, and antiphospholipid syndrome.

- **Option A:** Primary Raynaud phenomenon usually occurs in the second or third decade of life, with a baseline prevalence rate of 8% in men. Occupations that result in overt vibrational exposure from vibrating machinery mostly affect males. This is known as hand-arm vibration syndrome. Exposure to polyvinyl chloride, cold injury from work, or ammunition work are other occupational-associated causes of secondary Raynaud phenomenon.
- **Option B:** Primary Raynaud phenomenon usually occurs in the second or third decade of life. Secondary Raynaud phenomenon occur more frequently in women (about 20% to 30%), particularly in younger age populations (teens to 20s). The female to male ratio is 9 to 1.
- **Option D:** Primary Raynaud phenomenon occurs more frequently in women than in men. In the population of patients older than 60 years, obstructive vascular disease is a frequent cause of the Raynaud phenomenon. Obstructive vascular disease causes include thromboangiitis obliterans, microemboli, diabetic angiopathy, or atherosclerosis

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

A. Cutaneous T-cell lymphoma

B. Squamous cell carcinoma

C. Merkel cell cancer

D. Sebaceous carcinoma

Correct Answer: B. Squamous cell carcinoma

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

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

13. An employer establishes a physical exercise area in the workplace and encourages all employees to use it. This is an example of which level of health

promotion?

A. Primary prevention

B. Secondary prevention

C. Tertiary prevention

D. Passive prevention

Correct Answer: A. Primary prevention

Primary prevention precedes disease and applies to healthy patients. Primary prevention includes those preventive measures that come before the onset of illness or injury and before the disease process begins. Examples include immunization and taking regular exercise to prevent health problems from developing in the future.

- **Option B:** Secondary prevention focuses on patients who have health problems and are at risk for developing complications. Secondary prevention includes those preventive measures that lead to early diagnosis and prompt treatment of a disease, illness, or injury. This should limit disability, impairment or dependency and prevent more severe health problems from developing in the future.
- **Option C:** Tertiary prevention enables patients to gain health from others' activities without doing anything themselves. Tertiary prevention includes those preventive measures aimed at rehabilitation following a significant illness. At this level, health educators work to retrain, re-educate and rehabilitate the individual who has already had an impairment or disability.
- **Option D:** Prevention, as it relates to health, is really about avoiding disease before it starts. It has been defined as the plans for, and the measures taken, to prevent the onset of a disease or other health problem before the occurrence of the undesirable health event.

14. A client is struggling to explore and solve a problem. Which nursing statement would verbalize the implication of the client's actions?

A. "You seem to be motivated to change your behavior."

B. "How will these changes affect your family relationships?"

C. "Why don't you make a list of the behaviors you need to change."

D. "The team recommends that you make only one behavioral change at a time."

Correct Answer: A. "You seem to be motivated to change your behavior."

This is an example of the therapeutic communication technique of verbalizing the implied. Verbalizing the implied puts into words what the client has only implied or said indirectly. The nurse should take care to express only what is fairly obvious; otherwise, the nurse may be jumping to conclusions or interpreting the client's communication.

- **Option B:** This statement can be referred to as formulating a plan of action, wherein the nurse is asking the client to consider the kinds of behavior likely to be appropriate in future situations. It may be helpful for the client to plan in advance what he or she might do in future similar situations.
- **Option C:** Usually a "why" question is intimidating. In addition, the client is unlikely to know why and may become defensive trying to explain himself. Requesting an explanation or asking the client to provide reasons for thoughts, feelings, behaviors or events is nontherapeutic.

- **Option D:** Advising refers to telling the client what to do; giving an opinion or making decisions for the client is inappropriate. It implies that the client cannot handle life decisions and only the nurse knows what is best for the client.

15. When counseling a client in ways to prevent cholecystitis, which of the following guidelines is most important?

A. Eat a low-protein diet.

B. Eat a low-fat, low-cholesterol diet.

C. Limit exercise to 10 minutes/day.

D. Keep weight proportionate to height.

Correct Answer: D. Keep weight proportionate to height.

Obesity is a known cause of gallstones, and maintaining a recommended weight will help protect against gallstones. Excessive dietary intake of cholesterol is associated with the development of gallstones in many people. Being overweight makes one more likely to develop gallstones. To achieve a healthy weight, reduce calories and increase physical activity. Maintain a healthy weight by continuing to eat well and exercise.

- **Option A:** Dietary protein isn't implicated in cholecystitis. Diets high in fat and low in fiber may increase the risk of gallstones. To lower the risk, choose a diet high in fruits, vegetables, and whole grains.
- **Option B:** Liquid protein and low-calorie diets (with rapid weight loss of more than 5 lb [2.3kg] per week) are implicated as the cause of some cases of cholecystitis. Rapid weight loss can increase the risk of gallstones. If the client needs to lose weight, aim to lose 1 or 2 pounds (0.5 to about 1 kilogram) a week.
- **Option C:** Regular exercise (30 minutes/three times a week) may help reduce weight and improve fat metabolism. Reducing stress may reduce bile production, which may also indirectly decrease the chances of developing cholecystitis.

16. Which of the following medical treatments should the nurse anticipate administering to a client with increased intracranial pressure due to brain hemorrhage, except?

A. acetaminophen (Tylenol)

B. dexamethasone (Decadron)

C. mannitol (Osmitrol)

D. phenytoin (Dilantin)

E. nitroglycerin (Nitrostat)

Correct Answer: E. nitroglycerin (Nitrostat)

Decreasing blood pressure is essential to prevent exacerbation of intracerebral bleeding. However, BP medication such as nitroglycerin is avoided due to its vasodilating effects that increase cerebral blood volume and thus increases intracranial pressure.

- **Option A:** Acetaminophen, an antipyretic, prevents increased temperature. A decrease in temperature reduces metabolism, cerebral blood flow, thus decreasing intracranial pressure. It also relieve headache.
- **Option B:** Dexamethasone, a corticosteroids, decreases intracranial pressure by stabilizing the cell membrane and decreases the leakiness in the blood-brain-barrier.
- **Option C:** Mannitol, an osmotic diuretic, lowers intracranial pressure by increasing intravascular pressure to draw fluid from the interstitial spaces and from the brain cells.
- **Option D:** Phenytoin, an anticonvulsant, is given as prophylaxis to prevent seizures. Seizures increase metabolic rate and cerebral blood flow, and volume that may result in increased intracranial pressure.

17. A child is undergoing remission induction therapy to treat leukemia. Allopurinol is included in the regimen. The main reason for administering allopurinol as part of the client's chemotherapy regimen is to:

A. Prevent metabolic breakdown of xanthine to uric acid

B. Prevent uric acid from precipitating in the ureters

C. Enhance the production of uric acid to ensure adequate excretion of urine

D. Ensure that the chemotherapy doesn't adversely affect the bone marrow

Correct Answer: A. Prevent metabolic breakdown of xanthine to uric acid

The massive cell destruction resulting from chemotherapy may place the client at risk for developing renal calculi; adding allopurinol decreases this risk by preventing the breakdown of xanthine to uric acid. These clients can have increased uric acid levels due to release of uric acid from the dying cancer cells.

- **Option B:** Allopurinol and oxypurinol both inhibit xanthine oxidase, an enzyme in the purine catabolism pathway that converts hypoxanthine to xanthine to uric acid. Allopurinol undergoes metabolism in the liver, where it transforms into its pharmacologically active metabolite, oxypurinol.
- **Option C:** Urate production is accelerated by purine-rich diets, endogenous purine production, and high cell breakdown, and it is responsible for a minority of cases of hyperuricemia. Foods rich in purine include all meats but specifically organ meats (kidneys, liver, "sweet bread"), game meats, and some seafood (anchovies, herring, scallops).
- **Option D:** Allopurinol doesn't act in the manner described in this option. To prevent tumor lysis syndrome, allopurinol shall be initiated 2 to 3 days before starting chemotherapy and continued until 3 to 7 days after chemotherapy.

18. A 43-year-old African American male is admitted with sickle cell anemia. The nurse plans to assess circulation in the lower extremities every 2 hours. Which of the following outcome criteria would the nurse use?

A. Body temperature of 99°F or less

B. Toes moved in active range of motion

C. Sensation reported when soles of feet are touched

D. Capillary refill of < 3 seconds

Correct Answer: D. Capillary refill of < 3 seconds

It is important to assess the extremities for blood vessel occlusion in the client with sickle cell anemia because a change in capillary refill would indicate a change in circulation.

- **Options A, B, and C:** Body temperature, motion, and sensation would not give information regarding peripheral circulation.

19. The depressed client verbalizes feelings of low self-esteem and self-worth typified by statements such as "I'm such a failure… I can't do anything right!" The best nursing response would be:

A. To tell the client this is not true; that we all have a purpose in life.

B. To remain with the client and sit in silence; this will encourage the client to verbalize feelings.

C. To reassure the client that you know how the client is feeling and that things will get better.

D. To identify recent behaviors or accomplishments that demonstrate skill ability.

Correct Answer: D. To identify recent behaviors or accomplishments that demonstrate skill ability.

Feelings of low self-esteem and worthlessness are common symptoms of the depressed client. An effective plan of care to enhance the client's personal self-esteem is to provide experiences for the client that are challenging but will not be met with failure. Reminders of the client's past accomplishments or personal successes are ways to interrupt the client's negative self-talk and distort the cognitive view of self. Silence may be interpreted as agreement.

- **Option A:** Assess the self-esteem level of the patient. Signs of low self-esteem include withdrawal from social relationships, feeling of inadequacy, neglect of personal hygiene and dress, and rejecting self which all may indicate a negative thought pattern. Allow the patient to perform personal care activities. Paying attention to grooming serves as a first step towards achieving positive self-image.
- **Option B:** Give positive feedback after a task is achieved. Positive reinforcement has a big part in building self-esteem. Teach visualization techniques that can help the client replace negative self-images with more positive images and thoughts to promote a healthier and more realistic self-image by helping the client choose more positive thoughts and actions.
- **Option C:** This gives advice and devalues the client's feelings. Encourage the client to participate in a group therapy where the members share the same situations/feelings that they have to minimize the feelings of isolation and provide an atmosphere where positive feedback and a more realistic appraisal of self are available. Involve the client in activities that he or she wants to improve by using problem-solving skills. Assess and evaluate the need for more teaching in this area.

20. Capillary glucose monitoring is being performed every 4 hours for a female client diagnosed with diabetic ketoacidosis. Insulin is administered using a scale of regular insulin according to glucose results. At 2 p.m., the client has a capillary glucose level of 250 mg/dl for which he receives 8 U of regular insulin. Nurse Vince should expect the dose's:

A. Onset to be at 2 p.m. and its peak to be at 3 p.m.

B. Onset to be at 2:15 p.m. and its peak to be at 3 p.m.

C. Onset to be at 2:30 p.m. and its peak to be at 4 p.m.

D. Onset to be at 4 p.m. and its peak to be at 6 p.m.

Correct Answer: C. Onset to be at 2:30 p.m. and its peak to be at 4 p.m.

Regular insulin, which is a short-acting insulin, has an onset of 15 to 30 minutes and a peak of 2 to 4 hours. Because the nurse gave the insulin at 2 p.m., the expected onset would be from 2:15 p.m. to 2:30 p.m. and the peak from 4 p.m. to 6 p.m. Regular insulin is a medication used in the management of Diabetes Mellitus and hyperglycemia of a variety of etiologies. It is in the short-acting insulin class of drugs.

- **Option A:** Insulin, regular when administered subcutaneously, it should be injected 30 to 40 minutes before each meal. Avoid cold injections. The injection is in the buttocks, thighs, arms, or abdomen; it is necessary to rotate injection sites to avoid lipodystrophy. Do not inject if the solution is viscous or cloudy; use only if clear and colorless.
- **Option B:** When administered intravenously, U-100 administration should be with close monitoring of serum potassium and blood glucose. Do not use if the solution is viscous or cloudy; administration should only take place if it is colorless and clear.
- **Option D:** For intravenous infusions, to minimize insulin adsorption to plastic IV tubing, flush the intravenous tube with priming infusion of 20 mL from a 100 mL-polyvinyl chloride bag insulin, every time a new intravenous tubing is added to the insulin infusion container.

21. A client with a hiatal hernia has been taking magnesium hydroxide for relief of heartburn. Overuse of magnesium-based antacids can cause the client to have:

A. Constipation

B. Weight gain

C. Anorexia

D. Diarrhea

Correct Answer: D. Diarrhea

- Option D: Overuse of magnesium-containing antacids have a laxative effect that results in diarrhea.
- Option A: Antacids containing calcium and aluminum cause constipation
- Options B and C: Weight gain and anorexia are not associated with the use of magnesium antacids.

22. A client on an in-patient psychiatric unit tells the nurse, “I should have died because I am totally worthless.” In order to encourage the client to continue talking about feelings, which should be the nurse’s initial response?

A. "How would your family feel if you died?"

B. "You feel worthless now, but that can change with time."

C. "You've been feeling sad and alone for some time now?"

D. "It is great that you have come in for help."

Correct Answer: C. “You’ve been feeling sad and alone for some time now?”

This nursing statement is an example of the therapeutic communication technique of reflection. When reflection is used, questions and feelings are referred back to the client so that they may be recognized and accepted.

- **Option A:** Testing is appraising the client’s degree of insight. These types of questions force the client to try to recognize his problems. The client’s acknowledgment that he doesn’t know these things may meet the nurse’s needs but it is not helpful for the client.
- **Option B:** False reassurance refers to indicating there is no reason for anxiety or other feelings of discomfort. Attempts to dispel the client’s anxiety by implying that there is not sufficient reason for concern completely devalue the client’s feelings. Vague reassurances without accompanying facts are meaningless to the client.
- **Option D:** Saying what the client thinks or feels is “good” implies that the opposite is “bad”. Approval, then, tends to limit the client’s freedom to think, speak, or act in a certain way. This can lead to the client’s acting in a particular way just to please the nurse.

23. A client is hospitalized with hepatitis A. Which of the client’s regular medications is contraindicated due to the current illness?

A. Premarin (conjugated estrogens)

B. Lipitor (atorvastatin)

C. Prilosec (omeprazole)

D. Synthroid (levothyroxine)

Correct Answer: B. Lipitor (atorvastatin)

- Option B: Lipid-lowering agents are contraindicated in the client with active liver disease due to risk for hepatotoxicity.
- Options A, C, and D: These are not contraindicated in the client with active liver disease.

24. Which of the following heart muscle diseases is unrelated to other cardiovascular diseases?

A. Cardiomyopathy

B. Coronary artery disease

C. Myocardial infarction

D. Pericardial effusion

Correct Answer: A. Cardiomyopathy

Cardiomyopathy isn’t usually related to an underlying heart disease such as atherosclerosis. The etiology in most cases is unknown. Although most cases are idiopathic, a number of conditions (e.g. coronary artery disease, wet beriberi), infections (e.g., Coxsackie B virus, Chagas disease), and substances (e.g. heavy drinking,c cocaine) have been identified as causes.

- **Option B:** The hallmark of the pathophysiology of CAD is the development of atherosclerotic plaque. Plaque is a build-up of fatty material that narrows the vessel lumen and impedes the blood flow. Growth factors released activate smooth muscles, which also take up oxidized LDL particles and collagen and deposit along with activated macrophages and increase the population of foam cells. This process leads to the formation of subendothelial plaque.
- **Option C:** MI is directly related to atherosclerosis. Smoking and abnormal apolipoprotein ratio showed the strongest association with acute myocardial infarction. The increased risk associated with diabetes and hypertension were found to be higher in women, and the protective effect of exercise and alcohol was also found to be higher in women.
- **Option D:** Pericardial effusion is the escape of fluid into the pericardial sac, a condition associated with pericarditis and advanced heart failure. The fluid accumulation increases pressure in the pericardial sac leading to the compression of the heart, especially the right heart due to a thinner wall. Impaired diastolic filling of the right heart causes venous congestion.

25. The client is having fetal heart rates of 90–110 bpm during the contractions. The first action the nurse should take is:

A. Reposition the monitor

B. Turn the client to her left side

C. Ask the client to ambulate

D. Prepare the client for delivery

Correct Answer: B. Turn the client to her left side

The normal fetal heart rate is 120–160 bpm; 100–110bpm is bradycardia. The first action would be to turn the client to the left side and apply oxygen. A slow heart rate, or bradycardia, may indicate the baby is not getting enough oxygen delivery to the brain. A fast heart rate, or tachycardia, may indicate oxygen deprivation. There is an acceptable range of acceleration and deceleration – or speeding up and slowing down – of fetal heart rates during contractions and labor.

- **Option A:** Repositioning the monitor is not indicated at this time. Obstetricians and nurses must carefully review fetal monitor strips throughout labor and delivery to ensure fetal heart tones are reassuring and the baby is getting enough oxygen. If non-reassuring conditions occur, appropriate and timely actions must be taken.
- **Option C:** Asking the client to ambulate is not the best action for clients experiencing bradycardia. Generally, nursing interventions are attempted first to restore normal oxygenation to the baby. These include the administration of supplemental oxygen, changes in maternal position, increasing intravenous fluids, and the administration of medications that subdue contractions and maximize placental blood flow.
- **Option D:** There is no data to indicate the need to move the client to the delivery room at this time. If fetal heart tones remain non-reassuring despite nursing interventions, the fetus should be delivered by emergency cesarean section. Emergency cesarean section should be performed within 5 to 30 minutes depending on the circumstances.

26. On auscultation, which finding suggests a right pneumothorax?

A. Bilateral inspiratory and expiratory crackles.

B. Absence of breaths sound in the right thorax.

C. Inspiratory wheezes in the right thorax.

D. Bilateral pleural friction rub.

Correct Answer: B. Absence of breaths sound in the right thorax

In pneumothorax, the alveoli are deflated and no air exchange occurs in the lungs. Therefore, breath sounds in the affected lung field are absent. A pneumothorax is defined as a collection of air outside the lung but within the pleural cavity. It occurs when air accumulates between the parietal and visceral pleura inside the chest. The air accumulation can apply pressure on the lung and make it collapse. The degree of collapse determines the clinical presentation of pneumothorax. None of the other options are associated with pneumothorax.

- **Option A:** Bilateral crackles may result from pulmonary congestion. Pneumonia is an infection in the lungs. It may be in one or both lungs. The infection causes air sacs in the lungs to become pus-filled and inflamed. This causes a cough, difficulty breathing, and crackles. Pneumonia may be mild or life-threatening.
- **Option C:** Inspiratory wheezes may signal asthma. Asthma is a heterogeneous syndrome characterized by variable, reversible airway obstruction and abnormally increased responsiveness (hyperreactivity) of the airways to various stimuli. The syndrome is characterized by wheezing, chest tightness, dyspnea, and/or cough, and results from widespread contraction of tracheobronchial smooth muscle (bronchoconstriction), hypersecretion of mucus, and mucosal edema, all of which narrow the caliber of the airways.
- **Option D:** A pleural friction rub may indicate pleural inflammation. Auscultation of a pleural friction rub can occur when the normally smooth surfaces of the visceral and parietal pleura become roughened by inflammation. A pleural friction rub is an adventitious breath sound heard on auscultation of the lung. The pleural rub sound results from the movement of inflamed and roughened pleural surfaces against one another during movement of the chest wall. This sound is non-musical, and described as “grating,” “creaky,” or “the sound made by walking on fresh snow.”

27. A 31-year-old multipara is admitted to the birthing room after initial examination reveals her cervix to be at 8 cm, completely effaced (100 %), and at 0 station. What phase of labor is she in?

A. Active phase

B. Latent phase

C. Expulsive phase

D. Transitional phase

Correct Answer: D. Transitional phase

The transitional phase of labor extends from 8 to 10 cm; it is the shortest but most difficult and intense for the patient.

- **Option A:** The active phase extends from 4 to 7 cm; it is moderate for the patient.
- **Option B:** The latent phase extends from 0 to 3 cm; it is mild in nature.
- **Option C:** The expulsive phase begins immediately after the birth and ends with separation and expulsion of the placenta.

28. The mother of a three (3)-year-old is concerned because her child still is insisting on a bottle at nap time and bedtime. Which of the following is the most appropriate suggestion to the mother?

A. Do not allow the child to have the bottle

B. Allow the bottle during naps but not at bedtime

C. Allow the bottle if it contains juice

D. Allow the bottle if it contains water

Correct Answer: D. Allow the bottle if it contains water

It is recommended that parents should wean their children off the bottle at 15-18 months of age. But If a bottle is still attached to the child at 3 years of age during naptime or bedtime, it should contain only water to prevent the risk of dental caries.

- **Option A:** Generally, the last bottle to stop should be the nighttime bottle. That bottle tends to be a part of the bedtime routine and is the one that most provides comfort to babies. If you keep getting asked for a bottle, find out what the child really needs or wants and offer that instead.
- **Option B:** As the parent weans the baby from the bottle, try diluting the milk in the bottle with water. For the first few days, fill half of it with water and half of it with milk. Then slowly add more water until the entire bottle is water. By that time, it's likely that the child will lose interest and be asking for the milk that comes in a cup.
- **Option C:** A toddler should never be allowed to fall asleep with a bottle containing milk, juice, soda, or sweetened water because frequent and long exposure to drinks containing sugar may cause tooth decay and cavities.

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

A. Oil retention

B. Return flow

C. High large volume

D. Low, small volume

Correct Answer: D. Low, small volume

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

- **Option A:** An oil retention enema is used to soften hard stool. A rectal injection of mineral oil or vegetable Oil, introduced at low pressure and retained for 30 minutes to 3 hours before being expelled. given to soften feces in cases of constipation or impaction. The volume of oil is relatively low, four to six ounces are commonly used, which allows the oil to be more easily retained.
- **Option B:** Return flow enemas help expel flatus because of the risk of loss of fluid and electrolytes A return-flow enema, or Harris flush, is used to remove intestinal gas and stimulate peristalsis. A large volume fluid is used but the fluid is instilled in 100-200 ml increments. Then, the fluid is drawn out by lowering the container below the level of the bowel. This brings the flatus out with the fluid.

- **Option C:** High, large volume enemas are seldom used. The purpose of a large volume enema is to clean as much of the colon as possible of feces, as an intervention for constipation as well as “bowel prep” before a diagnostic procedure. The amount used is 500-1000 ml and the bag is raised as high as 18 inches above the anal opening. The patient is instructed to retain and hold the fluid as long as possible to induce peristalsis and cause evacuation of feces.

30. A client is admitted to the labor and delivery unit in active labor. During the examination, the nurse notes a papular lesion on the perineum. Which initial action is most appropriate?

A. Document the finding

B. Report the finding to the doctor

C. Prepare the client for a C-section

D. Continue primary care as prescribed

Correct Answer: B. Report the finding to the doctor

Any lesion should be reported to the doctor. This can indicate a herpes lesion. Clients with open lesions related to herpes are delivered by Cesarean section because there is a possibility of transmission of the infection to the fetus with direct contact to lesions. During pregnancy there is a higher risk of perinatal transmission with primary HSV infection than with recurrent infection. If a primary HSV outbreak is diagnosed in pregnancy, oral antiviral treatment may be administered to help reduce the duration and severity of symptoms and viral shedding.

- **Option A:** It is not enough to document the finding. Viral or serologic testing should be performed to confirm suspected HSV infections; the basic groups of tests used are viral and antibody detection techniques. For viral detection, the primary testing techniques are viral culture and HSV antigen detection by polymerase chain reaction.
- **Option C:** The physician must make the decision to perform a C-section. Cesarean delivery is recommended to prevent perinatal HSV transmission in women with active genital lesions or prodromal symptoms, but it is not recommended for women with HSV lesions found only on nongenital areas, such as the back, thigh, or buttock.
- **Option D:** It is not enough to continue primary care. Antiviral agents commonly used to treat HSV infections are acyclovir (Zovirax), famciclovir (Famvir), and valacyclovir (Valtrex), which are all U.S. Food and Drug Administration pregnancy category B medications. For patients with more severe HSV infection, oral treatment can be used for more than 10 days if the lesions have not healed completely.

31. Oral steroids are prescribed on a taper in order to:

A. Achieve optimal serum levels.

B. Ensure drug reliability.

C. Ensure compliance.

D. Prevent steroid withdrawal syndrome.

Correct Answer: D. Prevent steroid withdrawal syndrome.

Steroids are tapered off in order to prevent a withdrawal syndrome. Tapering the dosage over 2 months or more may be necessary for patients on prolonged treatment (more than 1 year). Depending on the dosage, duration of therapy, and risk of systemic disease, decrease dosage by the equivalent of 2.5 to 5 mg prednisone every 3 to 7 days until a dosage of 5 mg of prednisone is reached.

- **Option A:** Optimal serum levels do not require tapering in order to be maintained. Before initiating long-term systemic corticosteroid therapy, a thorough history and physical examination should be performed to assess for risk factors or pre-existing conditions that may potentially be exacerbated by GC therapy, such as diabetes, dyslipidemia, CVD, GI disorders, affective disorders, or osteoporosis.
- **Option B:** Tapering has nothing to do with drug reliability. If the client takes prednisone for more than a few weeks, the adrenal glands will decrease the natural production of cortisol. If the client stops prednisone abruptly before production is restored, the lack of hormones can trigger an array of withdrawal symptoms.
- **Option C:** Compliance is not dependent on tapering. To avoid prednisone withdrawal, the drug should be gradually reduced in stages according to a specific schedule prescribed by the doctor. An exception is if prednisone has been given over a very short period of time. Don't try to stop or taper prednisone without the doctor's knowledge or advice.

32. The nursing students gather in a classroom equipped with stethoscopes and audio equipment. As they put on their headphones, they hear various heart sounds being played. The nursing instructor, eager to engage the students in active learning, says, "You will encounter these sounds frequently during your clinical practice." The instructor then plays a distinct heart sound and challenges the students with a question: "Based on what we've studied, which heart sound is produced during the closure of the semilunar valves?" Identify the heart sound that is produced during the closure of the semilunar valves:

A. S1 (First heart sound)

B. S2 (Second heart sound)

C. S3 (Third heart sound)

D. S4 (Fourth heart sound)

Correct Answer: B) S2 (Second heart sound)
S2 is the second heart sound and is produced during the closure of the semilunar valves (aortic and pulmonic) at the end of ventricular systole. It is often described as "dub."

- **Option A:** S1 is produced by the closure of the atrioventricular (AV) valves (mitral and tricuspid) and marks the beginning of ventricular systole. It is often described as "lub."
- **Option C and D:** S3 and S4 are additional heart sounds that are abnormal in most adults and are related to ventricular filling and resistance to ventricular filling, respectively, but they are not associated with semilunar valve closure.

33. The ABCD method offers one way to assess skin lesions for possible skin cancer. What does the A stand for?

A. Assessment

B. Arcus

C. Actinic

D. Asymmetry

Correct Answer: D. Asymmetry

- **Option D:** When following the ABCD method for assessing skin lesions, the A stands for “asymmetry,” the B for “border irregularity,” the C for “color variation,” and the D for “diameter.”

34. Your patient with peritonitis is NPO and complaining of thirst. What is your priority?

A. Increase the I.V. infusion rate.

B. Use diversion activities.

C. Provide frequent mouth care.

D. Give ice chips every 15 minutes.

Correct Answer: C. Provide frequent mouth care.

Frequent mouth care helps relieve dry mouth. Maintain NPO with nasogastric or intestinal aspiration. This reduces hyperactivity of bowel and diarrhea losses. Observe skin or mucous membrane dryness, turgor. Note peripheral and sacral edema. Hypovolemia, fluid shifts, and nutritional deficits contribute to poor skin turgor, taut edematous tissues.

- **Option A:** Administer plasma or blood, fluids, electrolytes, diuretics as indicated. Replenishes circulating volume and electrolyte balance. Colloids (plasma, blood) help move water back into the intravascular compartment by increasing the osmotic pressure gradient. Diuretics may be used to assist in the excretion of toxins and to enhance renal function.
- **Option B:** Change position frequently, provide frequent skincare, and maintain dry or wrinkle-free bedding. Edematous tissue with compromised circulation is prone to breakdown.
- **Option D:** Eliminate noxious sights and smells from the environment. Limit intake of ice chips. This reduces gastric stimulation and vomiting response. Excessive use of ice chips during gastric aspiration can increase gastric washout of electrolytes.

35. Veronica’s parents were told that their daughter needs ribavirin (Virazole). This drug is used to treat which of the following?

A. Cystic fibrosis

B. Otitis media

C. Respiratory syncytial virus (RSV)

D. Bronchitis

Correct Answer: C. Respiratory syncytial virus (RSV)

Ribavirin is an antiviral medication used for treating RSV infection and for children with RSV who are compromised (such as children with bronchopulmonary dysplasia or heart disease). There is a single antiviral medication approved for use against RSV in the United States, ribavirin. It is a nucleoside analog with application in several RNA viruses, and it shows in vitro activity against RSV and may be

administered in aerosolized form.

- **Option A:** A new class of medications known as CFTR modulator therapies is designed to correct the dysfunction by improving production, intracellular processing, or function of the CFTR protein caused by the mutated gene. Each medication is targeted at a specific dysfunction caused by a specific gene mutation. Ivacaftor is used in the treatment of class 3 dysfunctions, where a mutation at G551D is the primary aberration. This was the first medication to directly impact the protein channel rather than treating the effects of CF.
- **Option B:** Once the diagnosis of acute otitis media is established, the goal of treatment is to control pain and to treat the infectious process with antibiotics. Non-steroidal anti-inflammatory drugs (NSAIDs), such as acetaminophen, can be used to achieve pain control. When a bacterial etiology is suspected, the antibiotic of choice is high-dose amoxicillin for ten days in both children and adult patients who are not allergic to penicillin.
- **Option D:** Antitussive agents like dextromethorphan, codeine, and guaifenesin are frequently used in clinical practice to suppress cough based on their effectiveness in chronic bronchitis and studies on cough in the common cold. Beta-agonists are routinely used in acute bronchitis patients with wheezing. Analgesic and antipyretic agents may be used to treat associated malaise, myalgia, and fever.

36. An infant who weighs 8 pounds at birth would be expected to weigh how many pounds at 1 year?

A. 14 pounds

B. 16 pounds

C. 18 pounds

D. 24 pounds

Correct Answer: D. 24 pounds

By 1 year of age, the infant is expected to triple his birth weight. Between six months and one year, weight gain slows down a little. Most babies double their birth weight by five to six months of age and triple it by the time they are a year old. By one year, the average weight of a baby girl is approximately 19 pounds 10 ounces (8.9 kg), with boys weighing about 21 pounds 3 ounces (9.6 kg).

- **Option A:** During the first few days of life, it's normal for both breastfed and bottle-fed newborns to lose weight. A bottle-fed baby may lose up to 5% of his body weight, and an exclusively breastfed newborn can lose up to 10%.
- **Option B**: On average, babies gain about one pound each month for the first six months. The average weight at six months is about 16 pounds 2 ounces (7.3 kg) for girls and 17 pounds 8 ounces (7.9 kg) for boys.
- **Option C:** Most infants will gain about a pound over their birth weight by month one. At this age, infants are not as sleepy, they begin developing a regular feeding pattern, and they have a stronger suck during feedings.

37. Which of the following behaviors indicates that the client on a bladder training program has met the expected outcomes? Select all that apply.

A. Voids each time there is an urge.

B. Practices slow, deep breathing until the urge decreases.

C. Uses adult diapers, for "just in case".

D. Drinks citrus juices and carbonated beverages.

E. Performs pelvic muscle exercises.

Correct Answer: B, E

It is important for the client to inhibit the urge to void sensation when a premature urge is experienced. Bladder training, a program of urinating on schedule, enables the client to gradually increase the amount of urine the client can comfortably hold. Bladder training is a mainstay of treatment for urinary frequency and overactive bladder in both women and men, alone or in conjunction with medications or other techniques.

- **Option A:** Choose an interval. Based on the typical interval between urinations, select a starting interval for training that is 15 minutes longer. If the typical interval is one hour, make a starting interval one hour and 15 minutes.
- **Option B:** When the client starts training, he should empty his bladder first thing in the morning and not again until the interval he set. If the time arrives before he can feel the urge, he should go anyway. If the urge hits first, he should remind himself that his bladder isn't really full, and use whatever techniques he can to delay going.
- **Option C:** Some clients may need diapers; this is not the best indicator of a successful program.
- **Option D:** Citrus juices may irritate the bladder. Carbonated beverages increase diuresis and the risk of incontinence.
- **Option E:** Try the pelvic floor exercises sometimes called Kegels, or simply try to wait another five minutes before walking slowly to the bathroom. Once comfortable with a set interval, increase it by 15 minutes. Over several weeks or months, the client may find that they are able to wait much longer and that they have experienced far fewer feelings of urgency or episodes of urge incontinence.

38. The intracellular compartment holds water and:

A. Proteins

B. Glucose

C. Sodium

D. Uric acid

Correct Answer: A. Proteins

The intracellular compartment holds large amounts of water and proteins. Potassium, lipids, and nucleic acids are also components of the intracellular compartment. Intracellular fluids tend to be inversed with high levels of phosphate, magnesium, potassium, and proteins but lower sodium, chloride, and bicarbonate. Interstitial fluids physiologically tend to have a low concentration of proteins.

- **Option B:** Intracellular fluid is approximately 40% of the total body weight. It is the total space within cells primarily defined as the cytoplasm of cells. In general, intracellular fluids are stable and do not readily adjust to rapid changes. This space is where much of chemical reactions occur, as such, it is important to maintain an appropriate osmolality.

- **Option C:** Extracellular fluid and interstitial fluid are similar in composition. Extracellular spaces contain high concentrations of sodium, chloride, bicarbonate, and proteins but are relatively lower in potassium, magnesium, and phosphate.
- **Option D:** Uric acid is normally found in the body as a byproduct of the way the body breaks down certain proteins called purines. Causes of an elevated blood uric acid level (hyperuricemia) include genetics, obesity, certain medications such as diuretics (water pills), and chronic decreased kidney function (kidney disease).

39. After routine patient contact, handwashing should last at least:

A. 30 seconds

B. 1 minute

C. 2 minutes

D. 3 minutes

Correct Answer: A. 30 seconds

Depending on the degree of exposure to pathogens, hand washing may last from 10 seconds to 4 minutes. After routine patient contact, hand washing for 30 seconds effectively minimizes the risk of pathogen transmission. According to the Centers for Disease Control and Prevention (CDC), hand hygiene is the single most important practice in the reduction of the transmission of infection in the healthcare setting.

- **Option B:** According to the CDC, hand hygiene encompasses the cleansing of your hands with soap and water, antiseptic hand washes, antiseptic hand rubs such as alcohol-based hand sanitizers, foams or gels, or surgical hand antisepsis. Indications for handwashing include when hands are visibly soiled, contaminated with blood or other bodily fluids, before eating, and after restroom use.
- **Option C:** Handwashing is the act of washing hands with soap, either antimicrobial or non-antimicrobial, and water for at least 15 to 20 seconds with a vigorous motion to cause friction making sure to include all surfaces of the hands and fingers. Hand rubbing with an alcohol-based rub should not be performed when the hands are visibly soiled. In this case, the CDC and WHO guidelines recommend that handwashing with soap and water
- **Option D:** Alcohol-based hand sanitizers are the recommended product for hand hygiene when hands are not visibly soiled. Apply alcohol-based products per manufacturer guidelines on dispensing of the product. Typically, 3 mL to 5 mL in the palm, rubbing vigorously, ensuring all surfaces on both hands get covered, about 20 seconds is required for all surfaces to dry completely.

40. A diagnosis of Hodgkin's disease was made to a 58- year old man and is admitted for the initial cycle of chemotherapy. During the hospitalization, the nurse should watch out for the following complication, except?

A. Fertility problems

B. Benign prostatic hyperplasia

C. Secondary cancer

D. Infection

Correct Answer: B. Benign prostatic hyperplasia

- **Option B:** Hodgkin's disease (Hodgkin's lymphoma) is a type of cancer that affects the lymphatic system (bone marrow, spleen, liver, and lymph node tissue. Symptoms include painless swelling of a lymph node, recurrent fever, night sweats, pruritus, and unexplained weight loss. Prostate involvement is rare in Hodgkin's disease.
- **Options A, C, and D:** Complications of the disease would lead to a weakened immune system resulting in various infections, It can also result in fertility problems related to chemotherapy, and a probability of secondary cancers in the future.

41. A nurse is caring for a client receiving a heparin intravenous (IV) infusion. The nurse expects that which of the following laboratory will be prescribed to monitor the therapeutic effect of heparin?

A. Prothrombin time (PT)

B. Activated partial thromboplastin time (aPTT)

C. Hematocrit (Hgb)

D. Hemoglobin (Hct)

Correct Answer: B. Activated partial thromboplastin time (aPTT)

Activated partial thromboplastin time assesses the therapeutic level of heparin.

- **Option A:** Prothrombin time (PT) assesses the therapeutic level of warfarin sodium (Coumadin).
- **Options C & D:** Hematocrit (Hgb) and Hemoglobin (Hct) measure the aspect of the red blood cells.

42. A pregnant client is making her first antepartum visit. She has a 2-year-old son born at 40 weeks, a 5-year-old daughter born at 38 weeks, and 7-year-old twin daughters born at 35 weeks. She had a spontaneous abortion 3 years ago at 10 weeks. Using the GTPAL format, the nurse should identify that the client is:

A. G4 T3 P2 A1 L4

B. G5 T2 P2 A1 L4

C. G5 T2 P1 A1 L4

D. G4 T3 P1 A1 L4

Correct Answer: C. G5 T2 P1 A1 L4.

5 pregnancies; 2 term births; twins count as 1; one abortion; 4 living children. A good starting point is to ask about the number of children the patient has given birth to. Next, sensitively ask about miscarriages, stillbirths, ectopics and terminations.

- **Option A:** Gravida should be 5, term births should be 3, and parity should be 1. Gravidity is the total number of pregnancies, regardless of outcome.
- **Option B:** Parity should be 1. Parity is the total number of pregnancies carried over the threshold of visibility.

- **Option D:** Gravida should be 5, and term births should be 2.

43. The nurse is taking the history of a client who has had benign prostatic hyperplasia in the past. To determine whether the client currently is experiencing difficulty, the nurse asks the client about the presence of which of the following early symptoms?

A. Urge incontinence

B. Nocturia

C. Decreased force in the stream of urine

D. Urinary retention

Correct Answer: C. Decreased force in the stream of urine

Decreased force in the stream of urine is an early sign of BPH. The stream later becomes weak and dribbling. The client then may develop hematuria, frequency, urgency, urge incontinence, and nocturia. If untreated, complete obstruction and urinary retention can occur. Men with BPH are likely to report predominant symptoms of nocturia, poor stream, hesitancy, or prolonged micturition.

- **Option A:** Lower urinary tract symptoms can be divided into storage (frequency, nocturia, urgency) and voiding symptoms (stream, straining, hesitancy, prolonged micturition) and can help establish other causes of urinary symptoms such as urinary tract infections/overactive bladder, in addition to determining the site affected (bladder vs. prostate).
- **Option B:** Red flags help point to more sinister causes of urinary symptoms such as bladder/prostate cancer, neurology such as cauda equina, or chronic high-pressure retention (which can lead to silent renal failure). The presence of these can be established by asking about visible haematuria/bone pain/weight loss, neurology, and nocturnal enuresis/incontinence, respectively.
- **Option D:** The development of benign prostatic hyperplasia is characterized by stromal and epithelial cell proliferation in the prostate transition zone (surrounding the urethra), this leads to compression of the urethra and the development of bladder outflow obstruction (BOO) which can result in clinical manifestations of lower urinary tract symptoms (LUTS), urinary retention or infections due to incomplete bladder emptying.

44. A client is admitted with a diagnosis of hypothyroidism. An initial assessment of the client would reveal:

A. Slow pulse rate, weight loss, diarrhea, and cardiac failure

B. Weight gain, lethargy, slowed speech, and decreased respiratory rate

C. Rapid pulse, constipation, and bulging eyes

D. Decreased body temperature, weight loss, and increased respirations

Correct Answer: B. Weight gain, lethargy, slowed speech, and decreased respiratory rate

- Option B: Hypothyroidism occurs when the thyroid gland does not make enough thyroid hormone. Symptoms of hypothyroidism include weight gain, lethargy, slow speech, and decreased respirations.

- Options A and D: They do not describe symptoms associated with myxedema.
- Option C: These symptoms are associated with Grave's disease.

45. Mr. Bartowski who is newly diagnosed with rheumatoid arthritis asks the community nurse how stress can affect his disease. The nurse would explain that:

A. The psychological experience of stress will not affect symptoms of physical disease.

B. Psychological stress can cause painful emotions, which are harmful to a person with an illness.

C. Stress can overburden the body's immune system, and therefore one can experience increased symptoms.

D. The body's stress response is stimulated when there are major disruptions in one's life.

Correct Answer: C. Stress can overburden the body's immune system, and therefore one can experience increased symptoms.

The stress response causes stimulation of the hypothalamic-pituitary-adrenal axis, which can further compromise an immune system that has been activated by the autoimmune disorder of rheumatoid arthritis. Consequently, the client can expect disease symptoms to exacerbate when under stress.

- **Option A:** Research says that rheumatoid arthritis can be caused by stress. Stress triggers rheumatoid arthritis by setting off the immune system's inflammatory response in which cytokines are released. Cytokines are chemicals that play an important role in inflammation and can increase the severity of rheumatoid arthritis in some patients. The greater the exposure to stress, the greater the inflammation becomes. This triggers a rheumatoid arthritis flare.
- **Option B:** Around one out of five patients with rheumatoid arthritis has depression due to the illness. Depression, in turn, further aggravates rheumatoid arthritis and leads to a greater number of painful joints, reduced functioning (higher number of days in bed), and increased visits to the doctor's clinic. All these further affect the patient's mental health and cause more stress and depression.
- **Option D:** Stress can cause rheumatoid arthritis and rheumatoid arthritis itself can also cause stress. Treatments that don't work or their side effects might affect the patient's mind. Joint pain and swelling can make routine activities difficult for the patient. All these things that come with rheumatoid arthritis can make the patient stressed, which can further trigger joint inflammation.

46. After a change of shift, you are assigned to care for the following patients. Which patient should you assess first?

A. A 60-year old patient on a ventilator for whom a sterile sputum specimen must be sent to the lab.

B. A 55-year old with COPD and a pulse oximetry reading from the previous shift of 90% saturation.

C. A 70-year old with pneumonia who needs to be started on intravenous (IV) antibiotics.

D. A 50-year old with asthma who complains of shortness of breath after using a bronchodilator.

Correct Answer: D. A 50-year old with asthma who complains of shortness of breath after using a bronchodilator.

The patient with asthma did not achieve relief from shortness of breath after using the bronchodilator and is at risk for respiratory complications. This patient's needs are urgent. In particular, a patient who is chronically on short-acting beta-2 agonists risks not achieving the same relief from their medicine as they once did. This phenomenon is called receptor downregulation. It happens because a portion of the receptors targeted end up being inactivated by the body due to overuse.

- **Option A:** The sterile sputum specimen of the patient should be sent to the laboratory for not more than 60 minutes, or it will not be acceptable. This is not an urgent case and can be done after the nurse sees the other patients.
- **Option B:** In COPD patients pulse oximetry oxygen saturations of more than 90% are acceptable. In the treatment of exacerbations of chronic obstructive pulmonary disease (COPD), oxygen should be titrated to achieve a target oxygen saturation range of 88–92%. This results in a greater than twofold reduction in mortality, compared with the routine administration of high-concentration oxygen therapy
- **Option C:** The other patients need to be assessed as soon as possible, but none of their situations are urgent. Patients older than 60 years or younger than 4 years of age have a relatively poorer prognosis than young adults. If pneumonia is left untreated, the overall mortality may become 30%. The Pneumonia Severity Index (PSI) may be utilized as a tool to establish a patient's risk of mortality.

47. In assessing a 46-year-old patient with a diagnosis of Chronic Lymphocytic Leukemia (CLL), who presents with fatigue, lymphadenopathy, and frequent infections, which of the following findings would the nurse least expect to be reported in the diagnostic assessment?

A. Predominance of lymphoblasts

B. Leukocytosis

C. Abnormal blast cells in the bone marrow

D. Elevated thrombocyte counts

Correct Answer: B. Leukocytosis

Chronic Lymphocytic leukemia (CLL) is characterized by increased production of leukocytes and lymphocytes resulting in leukocytosis, and proliferation of these cells within the bone marrow, spleen, and liver.

- **Option A:** Lymphoblasts are most probably common in clients with CLL.
- **Option C:** The increase in WBC production also involves abnormal blast cell production.
- **Option D:** Elevated thrombocyte counts follow as the WBCs increase.

48. Normal lochial findings in the first 24 hours post-delivery include:

A. Bright red blood

B. Large clots or tissue fragments

C. A foul odor

D. The complete absence of lochia

Correct Answer: A. Bright red blood

Lochia should never contain large clots, tissue fragments, or membranes. A foul odor may signal infection, as may absence of lochia.

- **Option B:** The blood clots in the lochia should get smaller and happen less often as the bleeding gets less over the first few days.
- **Option C:** Lochia with offensive odor may indicate infection.
- **Option D:** Complete absence of lochia might be a sign of infection.

49. A nurse is making initial rounds at the beginning of the shift and notices that the parenteral nutrition (PN) bag of an assigned client is empty. Which of the following solutions readily available on the nursing unit should the nurse hang until another PN solution is mixed and delivered to the nursing unit?

A. 10% dextrose in water.

B. 5% dextrose in water.

C. 5% dextrose in normal saline.

D. 5% dextrose in lactated Ringer solution.

Correct Answer: A. 10% dextrose in water.

The client is at risk of hypoglycemia. Hence the nurse will hang a solution that has the highest amount of glucose until the new parenteral nutrition solution becomes readily available. Crystalloid fluids are a subset of intravenous solutions that are frequently used in the clinical setting. Crystalloid fluids are the first choice for fluid resuscitation in the presence of hypovolemia, hemorrhage, sepsis, and dehydration.

- **Option B:** Option B is also a crystalloid fluid, but contains less glucose than option A. Other clinical applications include acting as a solution for intravenous medication delivery, to deliver maintenance fluid in patients with limited or no enteral nutrition, blood pressure management, and to increase diuresis to avoid nephrotoxic drug or toxin-mediated end-organ damage.
- **Option C:** Dextrose 5 in .9 Sodium Chloride is a prescription medicine used to treat the symptoms of hypoglycemia. Dextrose 5 in .9 Sodium Chloride may be used alone or with other medications. Dextrose 5 in .9 Sodium Chloride belongs to a class of drugs called Glucose-Elevating Agents; Metabolic and Endocrine, Other.
- **Option D:** 5% Dextrose in Lactated Ringer's Injection provides electrolytes and calories, and is a source of water for hydration. It is capable of inducing diuresis depending on the clinical condition of the patient. This solution also contains lactate which produces a metabolic alkalinizing effect.

50. Grace is exhibiting withdrawn patterns of behavior. Nurse Johnny is aware that this type of behavior eventually produces a feeling of:

A. Repression

B. Loneliness

C. Anger

D. Paranoia

Correct Answer: B. Loneliness

The withdrawn pattern of behavior presents the individual from reaching out to others for sharing the isolation produces a feeling of loneliness. Prolonged loneliness can affect mental health, too. It can make any symptoms you're already dealing with worse, for one. But it can also factor into the development of serious mental health conditions, including depression. Loneliness may not feel very comfortable, but it's a transient emotional state that specifically relates to your needs for connection and belonging. Once you meet those needs, you'll probably feel less lonely.

- **Option A:** Repression is a type of psychological defense mechanism that involves keeping certain thoughts, feelings, or urges out of conscious awareness. The goal of this form of defense is to keep unacceptable desires or thoughts out of the conscious mind in order to prevent or minimize feelings of anxiety. This process involves pushing painful or disturbing thoughts into the unconscious in order to remain unaware of them. The concept was first identified and described by Sigmund Freud, who was most famous for the development of psychoanalysis.
- **Option C:** Anger is an emotion characterized by antagonism toward someone or something you feel has deliberately done you wrong. Anger can be a good thing. It can give you a way to express negative feelings, for example, or motivate you to find solutions to problems. But excessive anger can cause problems. Increased blood pressure and other physical changes associated with anger make it difficult to think straight and harm your physical and mental health.
- **Option D:** Paranoia involves intense anxious or fearful feelings and thoughts often related to persecution, threat, or conspiracy. Paranoia occurs in many mental disorders, but is most often present in psychotic disorders. Paranoia can become delusions, when irrational thoughts and beliefs become so fixed that nothing (including contrary evidence) can convince a person that what they think or feel is not true. When a person has paranoia or delusions, but no other symptoms (like hearing or seeing things that aren't there), they might have what is called a delusional disorder. Because only thoughts are impacted, a person with delusional disorder can usually work and function in everyday life, however, their lives may be limited and isolated.

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

A. Hypertension

B. pH below 7.35

C. Hypoglycemia

D. Hyporeflexia

Correct Answer: D. Hyporeflexia

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

- **Option A:** Hypokalemia can result in a variety of cardiac dysrhythmias. Although cardiac dysrhythmias or ECG changes are more likely to be associated with moderate to severe hypokalemia, there is a high degree of individual variability and can occur with even mild decreases in serum levels.
- **Option B:** Prolonged hypokalemia can cause structural and functional changes in the kidney that include impairing concentrating ability, increased ammonia production, altered sodium reabsorption and increased bicarbonate absorption. Hypokalemia can also result in glucose intolerance by

reducing insulin secretion.

- **Option C:** Hypomagnesemia often occurs with and may worsen hypokalemia especially in the presence of chronic diarrhea, alcoholism, genetic disorders, diuretic use, and chemotherapy. Both promote the development of cardiac dysrhythmias. The combination of hypokalemia and hypomagnesemia is associated with an increased risk of torsades de pointes, particularly in individuals receiving QT-prolonging medications.

52. A nurse is administering IV furosemide to a patient admitted with congestive heart failure. After the infusion, which of the following symptoms is not expected?

A. Increased urinary output

B. Decreased edema

C. Decreased pain

D. Decreased blood pressure

Correct Answer: C. Decreased pain

Furosemide, a loop diuretic, does not alter pain. The Food and Drug Administration (FDA) has approved the use of furosemide in the treatment of conditions with volume overload and edema secondary to congestive heart failure exacerbation, liver failure, or renal failure including the nephrotic syndrome.

- **Option A:** Furosemide acts on the kidneys to increase urinary output. Furosemide inhibits tubular reabsorption of sodium and chloride in the proximal and distal tubules, as well as in the thick ascending loop of Henle by inhibiting sodium-chloride cotransport system resulting in excessive excretion of water along with sodium, chloride, magnesium, and calcium.
- **Option B:** Fluid may move from the periphery, decreasing edema. Careful monitoring of the clinical condition of the patient, daily weight, fluids intake, and urine output, electrolytes, i.e., potassium and magnesium, kidney function monitoring with serum creatinine and serum blood urea nitrogen level is vital to monitor the response to furosemide. Replete electrolytes if indicated as diuresis with furosemide lead to electrolyte depletion, and adjust the dose or even hold off on furosemide if laboratory work shows signs of kidney dysfunction.
- **Option D:** Fluid load is reduced, lowering blood pressure. Furosemide can be a second-line agent in heart failure patients with symptoms, and in patients with advanced kidney disease with an estimated glomerular filtration rate, less than 30 ml per minute the loop diuretics (furosemide) are preferred over thiazide diuretics to treat hypertension.

53. A nurse is assessing a client with chronic airflow limitation and notes that the client has a “barrel chest.” The nurse interprets that this client has which of the following forms of chronic airflow limitation?

A. Chronic obstructive bronchitis

B. Emphysema

C. Bronchial asthma

D. Bronchial asthma and bronchitis

Correct Answer: B. Emphysema

The client with emphysema has hyperinflation of the alveoli and flattening of the diaphragm. These lead to increased anteroposterior diameter, which is referred to as “barrel chest.” The client also has dyspnea with prolonged expiration and has hyperresonant lungs to percussion.

- **Option A:** Chronic bronchitis is a type of chronic obstructive pulmonary disease (COPD) that is defined as a productive cough of more than 3 months occurring within a span of 2 years. Patients typically present with chronic productive cough, malaise, and symptoms of excessive coughing such as chest or abdominal pain.
- **Option C:** Asthma is a condition of acute, fully reversible airway inflammation, often following exposure to an environmental trigger. The pathological process begins with the inhalation of an irritant (e.g., cold air) or an allergen (e.g., pollen), which then, due to bronchial hypersensitivity, leads to airway inflammation and an increase in mucus production. This leads to a significant increase in airway resistance, which is most pronounced on expiration.
- **Option D:** Acute bronchitis is the result of acute inflammation of the bronchi secondary to various triggers, most commonly viral infection, allergens, pollutants, etc. Inflammation of the bronchial wall leads to mucosal thickening, epithelial-cell desquamation, and denudation of the basement membrane. At times, a viral upper respiratory infection can progress to infection of the lower respiratory tract resulting in acute bronchitis.

54. A maternity nurse is providing instruction to a new mother regarding the psychosocial development of the newborn infant. Using Erikson’s psychosocial development theory, the nurse would instruct the mother to

A. Allow the newborn infant to signal a need

B. Anticipate all of the needs of the newborn infant

C. Avoid the newborn infant during the first 10 minutes of crying

D. Allow the infant to cry, once lessen, then attend to the infant

Correct Answer: A. Allow the newborn infant to signal a need.

If a newborn is not allowed to signal a need, the newborn will not learn how to control the environment. The primary way the caregiver can build trust with the baby is to respond when they try to communicate. Because babies can’t use words to express themselves, they use nonverbal strategies to communicate what they’re thinking and feeling at all times.

- **Option B:** According to Erikson, the caregiver should not try to anticipate the newborn infant’s needs at all times but must allow the newborn infant to signal needs. Crying is one of the most common strategies babies use to communicate with their caregivers, and it carries different meanings.
- **Option C:** It is important for caregivers to provide comfort to an infant by holding them closely and securely. This provides both warmth and physical contact. Feeding, bathing, and comforting your child helps them learn to trust that their needs will be met.
- **Option D:** Erikson believed that a delayed or prolonged response to a newborn’s signal would inhibit the development of trust and lead to mistrust of others. By responding quickly and appropriately to the infant’s cries, the caregiver is building a foundation of trust.

55. While changing the tapes on a tracheostomy tube, the client coughs, and the tube is dislodged. Which is the initial nursing action?

A. Call a respiratory therapist to reinsert the tracheotomy.

B. Cover the tracheostomy site with a sterile dressing.

C. Call the physician to reinsert the tracheotomy.

D. Grasp the retention sutures to spread the opening.

Correct Answer: D. Grasp the retention sutures to spread the opening.

If the tube is dislodged accidentally, the initial nursing action is to grasp the retention sutures and spread the opening. The stay suture (if present) or tracheal dilator may be used to help keep the stoma open if necessary. Once replaced, tie the tube securely, leaving one finger space between ties and the patient's neck.

- **Option A:** Ask the patient to breathe normally via their stoma while waiting for the doctor. Check tube position by (a) asking the patient to inhale deeply – they should be able to do so easily and comfortably, and (b) hold a piece of tissue in front of the opening – it should be "blown" during the patient's exhalation.
- **Option B:** Covering the tracheostomy site will block the airway. Use tracheostomy covers to protect the airway from outside elements (such as dust, cold air, etc.). All trach tubes have an outer cannula (main shaft) and a neck plate (flange). The flange rests on the neck over the stoma (opening). Holes on each side of the neck plate allow you to insert trach tube ties to secure the trach tube in place.
- **Option C:** Calling a respiratory therapist or the physician will delay treatment in this emergency situation. Accidental dislodgement of the tracheostomy tube during the first several days is not uncommon and can be life-threatening, particularly in patients with severe oxygenation problems and/or high demands for pressure and volume from the ventilator.

56. Because of difficulties with hemodialysis, peritoneal dialysis is initiated to treat a female client's uremia. Which finding signals a significant problem during this procedure?

A. Potassium level of 3.5 mEq/L

B. Hematocrit (HCT) of 35%

C. Blood glucose level of 200 mg/dl

D. White blood cell (WBC) count of 20,000/mm3

Correct Answer: D. White blood cell (WBC) count of 20,000/mm3

An increased WBC count indicates infection, probably resulting from peritonitis, which may have been caused by insertion of the peritoneal catheter into the peritoneal cavity. Peritonitis can cause the peritoneal membrane to lose its ability to filter solutes; therefore, peritoneal dialysis would no longer be a treatment option for this client.

- **Option A:** A potassium level of 3.5 mEq/L can be treated by adding potassium to the dialysate solution. People on peritoneal dialysis (PD) are usually encouraged to eat more potassium-rich foods than people dialyzing with traditional in-center hemodialysis. PD is performed daily and as a result, the body does not have as much potassium buildup.

- **Option B:** An HCT of 35% is lower than normal. However, in this client, the value isn't abnormally low because of the daily blood samplings. A lower HCT is common in clients with chronic renal failure because of the lack of erythropoietin.
- **Option D:** Hyperglycemia occurs during peritoneal dialysis because of the high glucose content of the dialysate; it's readily treatable with sliding-scale insulin. Since PD uses sugar-based solutions (glucose) to perform dialysis, people with diabetes starting PD often see a rise in their blood sugar levels. Very high sugar levels (greater than 300 mg/dl) can occur in PD patients, but it is uncommon for this to cause symptoms.

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

A. 1-3

B. 7-8

C. 9-10

D. 6-7

Correct Answer: A. 1-3

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

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

58. A patient on the cardiac telemetry unit unexpectedly goes into ventricular fibrillation. The advanced cardiac life support team prepares to defibrillate. Which of the following choices indicates the correct placement of the conductive gel pads?

A. The left clavicle and right lower sternum.

B. Right of midline below the bottom rib and the left shoulder.

C. The upper and lower halves of the sternum.

D. The right side of the sternum just below the clavicle and left of the precordium.

Correct Answer: D. The right side of the sternum just below the clavicle and left of the precordium.

One gel pad should be placed to the right of the sternum, just below the clavicle and the other just left of the precordium, as indicated by the anatomic location of the heart. To defibrillate, the paddles are

placed over the pads. According to the ILCOR guidelines, the sternal paddle should be placed ‘just to the right of the upper sternal border below the clavicle’ and the apical paddle ‘to the left of the nipple with the centre of the electrode in the mid-axillary line’.

- **Option A:** During the gel pad placement study it was noticed that about 50% of doctors placed the rectangular apical paddle vertically upwards, pointing towards the left armpit. The other 50% placed it in a horizontal position across the chest. The present ILCOR guidelines do not specify which orientation should be used for defibrillation. It was hypothesized that, with the paddle method for defibrillation, it would be more difficult to get good skin contact across the curved chest wall with the horizontal orientation, and in a small study this proved to be the case.
- **Option B:** In theory, a paddle position that is too superomedial means that less current will traverse the myocardium. When 60 N (the median force used by defibrillator operators in clinical practice) is applied to both paddles, the resulting TTI is 5% greater with the horizontal orientation. Thus, if paddles are used, it is recommended to use a vertical orientation. It is expected that their flexibility will allow better electrode/skin contact across the curved chest wall; however, in the absence of any evidence to the contrary, it is advised to use vertical orientation for this method as well.
- **Option C:** Most healthcare workers are not achieving optimal TTI during defibrillation. There is now good evidence that the use of a coupling agent, chest hair removal, placement of the apical paddle in a vertical orientation lateral to the nipple in the mid-axillary line, and application of at least 80 N of force are all measures that help minimize the TTI.

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

A. Accepting the client's ritualistic behaviors.

B. Challenging the client's need for rituals.

C. Expressing concern about the harmfulness of the client's rituals.

D. Limiting the client's rituals that are excessive.

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

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

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

- **Option D:** Encourage the recognition of situations that provoke obsessive thoughts or ritualistic behaviors. Recognition of precipitating factors is the first step in teaching the client to interrupt escalation of anxiety. Provide positive reinforcement for non-ritualistic behaviors. Positive reinforcement enhances self-esteem and encourages the repetition of desired behaviors.

60. A neonate is admitted to a hospital's central nursery. The neonate's vital signs are: temperature = 96.5 degrees F., heart rate = 120 bpm, and respirations = 40/minute. The infant is pink with slight acrocyanosis. The priority nursing diagnosis for the neonate is:

A. Ineffective thermoregulation related to fluctuating environmental temperatures.

B. Potential for infection related to lack of immunity.

C. Altered nutrition, less than body requirements related to diminished sucking reflex.

D. Altered elimination pattern related to lack of nourishment.

Correct Answer: A. Ineffective thermoregulation related to fluctuating environmental temperatures.

- **Option A:** Normal newborn temperature is around 97.8 to 98.8 F (axillary). Newborns have very small bodies and don't produce much heat themselves, but they readily absorb heat when they are held. Most cooling of the newborn occurs immediately after birth. During the first 10 to 20 minutes, the newborn may lose enough heat for the body temperature to fall by 2-4°C if appropriate measures are not taken. Continued heat loss will occur in the following hours if proper care is not provided. The temperature of the environment during delivery and the postnatal period has a significant effect on the risk to the newborn of developing hypothermia.

61. 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.

62. A female client arrives at the emergency department with chest and stomach pain and a report of black tarry stool for several months. Which of the following orders should the nurse Oliver anticipate?

A. Cardiac monitor, oxygen, creatine kinase and lactate dehydrogenase levels

B. Prothrombin time, partial thromboplastin time, fibrinogen and fibrin split product values

C. Electrocardiogram, complete blood count, testing for occult blood, comprehensive serum metabolic panel

D. Electroencephalogram, alkaline phosphatase, and aspartate aminotransferase levels, basic serum metabolic panel

Correct Answer: C. Electrocardiogram, complete blood count, testing for occult blood, comprehensive serum metabolic panel.

An electrocardiogram evaluates the complaints of chest pain, laboratory tests determine anemia, and the stool test for occult blood determines blood in the stool.

- **Option A:** Cardiac monitoring, oxygen, and creatine kinase, and lactate dehydrogenase levels are appropriate for a cardiac primary problem. A basic metabolic panel and alkaline phosphatase and aspartate aminotransferase levels assess liver function.
- **Option B:** Prothrombin time, partial thromboplastin time, fibrinogen and fibrin split products are measured to verify bleeding dyscrasias.
- **Option D:** An electroencephalogram evaluates brain electrical activity.

63. A nurse is told in a report that a client has a positive Chvostek's sign. What other data would the nurse expect to find on data collection? Select all that apply.

A. Coma

B. Tetany

C. Diarrhea

D. Possible seizure activity

E. Hypoactive bowel sounds

F. Positive Trousseau's sign

Correct Answer: B, C, D, & F.

A positive Chvostek's sign is indicative of hypocalcemia. Other signs and symptoms include tachycardia, hypotension, paresthesias, twitching, cramps, tetany, seizures, positive Trousseau's sign, diarrhea, hyperactive bowel sounds, and a prolonged QT interval.

- **Option A:** Severe hypercalcemia can damage the kidneys, limiting their ability to cleanse the blood and eliminate fluid. Severe hypercalcemia can lead to confusion, dementia, and coma, which can be fatal.
- **Option B:** Tetany is generally induced by a rapid decline in serum ionized calcium. Tetany is usually more dangerous and most commonly seen in the presence of respiratory alkalosis causing hypocalcemia.
- **Option C:** The presence of chronic diarrhea or intestinal disease (eg, Crohn's disease, sprue, chronic pancreatitis) suggests the possibility of hypocalcemia due to malabsorption of calcium and/or vitamin D.
- **Option D:** Seizures are usually present in very severe hypocalcemia. It can be the sole manifestation or a part of the myriad of clinical presentations.
- **Option E:** Signs of chronic hypocalcemia include hyperactive bowel sounds, dry and brittle hair, and abnormal clotting.
- **Option F:** It represents increased neuromuscular excitability which may be related to the gating function of calcium ions for ion channels at a cellular level (particularly in neurons). It manifests as a spasm of the hand characterized by adduction of the thumb, flexion of the metacarpophalangeal joints, an extension of the interphalangeal joints, and flexion of the wrist when a sphygmomanometer is inflated above systolic blood pressure for three minutes.

64. The nurse is preparing to give a liquid oral potassium supplement. The nurse should:

A. Give the medication on an empty stomach

B. Give the medication with warm water

C. Give the medication without diluting it

D. Give the medication with 4 oz. of juice

Correct Answer: D. Give the medication with 4 oz. of juice

- Option D: Oral liquid potassium supplements should be diluted in at least 4oz. of juice or cold water to prevent gastric upset, unpleasant taste, and the laxative effect of the medication.
- Options A, B, and C: They can cause gastric upset.

65. The nurse is preparing for a female client for magnetic resonance imaging (MRI) to confirm or rule out a spinal cord lesion. During the MRI scan, which of the following would pose a threat to the client?

A. The client lies still

B. The client asks questions

C. The client hears thumping sounds

D. The client wears a watch and wedding band

Correct Answer: D. The client wears a watch and wedding band

- **Option D:** During an MRI, the client should wear no metal objects, such as jewelry, because the strong magnetic field can pull on them, causing injury to the client and (if they fly off) to others.
- **Options A and B:** The client must lie still during the MRI but can talk to those performing the test by way of the microphone inside the scanner tunnel.
- **Option C:** The client should hear thumping sounds, which are caused by the sound waves thumping on the magnetic field.

67. Which statement represents the best rationale for using noninvasive and non-pharmacologic pain-control measures in conjunction with other measures?

A. These measures are more effective than analgesics.

B. These measures decrease input to large fibers.

C. These measures potentiate the effects of analgesics.

D. These measures block transmission of type C fiber impulses.

Correct Answer: C. These measures potentiate the effects of analgesics.

Noninvasive measures may result in the release of endogenous molecular neuropeptides with analgesic properties. They potentiate the effect of analgesics. The role of non-pharmacological approaches to pain management is evolving, and some non-pharmacological and complementary therapies have an increasingly important contribution to make to holistic patient care alongside analgesics.

- **Option A:** No evidence indicates that noninvasive and nonpharmacologic measures are more effective than analgesics in relieving pain. Exercise, multidisciplinary rehabilitation, acupuncture, CBT, mindfulness practices, massage, and mind-body practices most consistently improve function and/or pain beyond the course of therapy for specific chronic pain conditions.
- **Option B:** Decreased input over large fibers allows more pain impulses to reach the central nervous system. When deciding the most effective non-pharmacological technique, take into consideration the patient's age, developmental level, medical history and prior experiences, the current degree of pain, and/or anticipated pain. The advantage of non-pharmacological treatments is that they are relatively inexpensive and safe.
- **Option D:** There is no connection between type C fiber impulses and noninvasive and nonpharmacologic pain-control measures. Non-pharmacological pain therapy refers to interventions that do not involve the use of medications to treat pain. The goals of non-pharmacological interventions are to decrease fear, distress, and anxiety, and reduce pain and provide patients with a sense of control.

68. A patient with a spinal cord injury (SCI) complains about a severe throbbing headache that suddenly started a short time ago. Assessment of the patient reveals increased blood pressure (168/94) and decreased heart rate (48/minute), diaphoresis, and flushing of the face and neck. What action should you take first?

A. Administer the ordered acetaminophen (Tylenol).

B. Check the Foley tubing for kinks or obstruction.

C. Adjust the temperature in the patient's room.

D. Notify the physician about the change in status.

Correct Answer: B. Check the Foley tubing for kinks or obstruction.

These signs and symptoms are characteristic of autonomic dysreflexia, a neurologic emergency that must be promptly treated to prevent a hypertensive stroke. The cause of this syndrome is noxious stimuli, most often a distended bladder or constipation, so checking for poor catheter drainage, bladder distention, or fecal impaction is the first action that should be taken.

- **Option C:** Adjusting the room temperature may be helpful, since too cool a temperature in the room may contribute to the problem.
- **Option A:** Tylenol will not decrease the autonomic dysreflexia that is causing the patient's headache.
- **Option D:** Notification of the physician may be necessary if nursing actions do not resolve symptoms.

69. The nurse closely observes the client who has been displaying aggressive behavior. The nurse observes that the client's anger is escalating. Which approach is least helpful for the client at this time?

A. Acknowledge the client's behavior.

B. Maintain a safe distance from the client.

C. Assist the client to an area that is quiet.

D. Initiate confinement measures.

Correct Answer: D. Initiate confinement measures

The proper procedure for dealing with harmful behavior is to first try to calm the patient verbally. When verbal and psychopharmacologic interventions are not adequate to handle aggressiveness, seclusion or restraints may be applicable. Alert staff if a potential for seclusion appears imminent. Usual priority of interventions would be firmly setting limits; chemical restraints (tranquilizers); and seclusions.

- **Option A:** Frequently assess client's behavior for signs of increased agitation and hyperactivity. Early detection and intervention of escalating mania will prevent the possibility of harm to self or others, and decrease the need for seclusions.
- **Option B:** Redirect agitation and potentially violent behaviors with physical outlets in an area of low stimulation (e.g., punching bag). Can help to relieve pent-up hostility and relieve muscle tension.
- **Option C:** Assisting the client in a quiet place an appropriate approach during the escalation phase of aggression. Decrease environmental stimuli (e.g., by providing a calming environment or assigning a private room). Helps decrease escalation of anxiety and manic symptoms.

70. In addition to analgesia, narcotic effects include:

A. Euphoria, diarrhea, increased respirations

B. Euphoria, miosis, nausea and vomiting

C. Respiratory depression, increased blood pressure

D. Dependence, seizures, muscle spasms

Correct Answer: B. Euphoria, miosis, nausea, and vomiting

These are the effects that often occur with the administration of narcotics. Common side effects of opioid administration include sedation, dizziness, nausea, vomiting, constipation, physical dependence, tolerance, and respiratory depression.

- **Option A:** Constipation (not diarrhea) noted during the administration of narcotics. The most common side effects of opioid usage are constipation (which has a very high incidence) and nausea. These 2 side effects can be difficult to manage and frequently tolerance to them does not develop; this is especially true for constipation. They may be severe enough to require opioid discontinuation and contribute to under-dosing and inadequate analgesia.
- **Option C:** Decreased respirations (not increased) are noted in narcotics administration. Decreased blood pressure results from narcotic administration. Less common side effects may include delayed gastric emptying, hyperalgesia, immunologic and hormonal dysfunction, muscle rigidity, and myoclonus.
- **Option D:** Narcotics do not cause the effects in choice D at all. Physical dependence and addiction are clinical concerns that may prevent proper prescribing and in turn inadequate pain management.

71. A client with an acute exacerbation of rheumatoid arthritis is admitted to the hospital for treatment. Which drug, used to treat clients with rheumatoid arthritis, has both an anti-inflammatory and immunosuppressive effect?

A. Gold sodium thiomalate (Myochrysine)

B. Azathioprine (Imuran)

C. Prednisone (Deltasone)

D. Naproxen (Naprosyn)

Correct Answer: C. Prednisone (Deltasone)

Prednisone is used to treat persons with acute exacerbations of rheumatoid arthritis. This medication is given for its anti-inflammatory and immunosuppressive effects. Prednisone is in a class of medications called corticosteroids. It works to treat patients with low levels of corticosteroids by replacing steroids that are normally produced naturally by the body. It works to treat other conditions by reducing swelling and redness and by changing the way the immune system works.

- **Option A:** Gold sodium thiomalate is usually used in combination with aspirin and nonsteroidal anti-inflammatory drugs to relieve pain. Gold has an immunosuppressive effect. Gold sodium thiomalate is a form of gold that affects the process of inflammation in the body. Gold sodium thiomalate is used to treat rheumatoid arthritis in adults and children.
- **Option B:** Azathioprine is used for clients with life-threatening rheumatoid arthritis for its immunosuppressive effects. Azathioprine is in a class of medications called immunosuppressants. It works by decreasing the activity of the body’s immune system so it will not attack the transplanted organ or the joints.
- **Option D:** Naproxen is a nonsteroidal anti-inflammatory drug. Immunosuppression does not occur. Naproxen is a nonsteroidal anti-inflammatory drug (NSAID). It works by reducing hormones that cause inflammation and pain in the body. Naproxen is used to treat pain or inflammation caused by conditions such as arthritis, ankylosing spondylitis, tendinitis, bursitis, gout, or menstrual cramps. It

can also be used to treat acute pain caused by other conditions not listed in this medication guide.

72. Andy is admitted to the psychiatric unit with a diagnosis of borderline personality disorder. Nurse Hilary should expect the assessment to reveal:

A. Coldness, detachment, and lack of tender feelings

B. Somatic symptoms

C. Inability to function as responsible parent

D. Unpredictable behavior and intense interpersonal relationships

Correct Answer: D. Unpredictable behavior and intense interpersonal relationships

A client with borderline personality displays a pervasive pattern of unpredictable behavior, mood, and self-image. Interpersonal relationships may be intense and unstable and behavior may be inappropriate and impulsive. Borderline personality disorder (BPD) is characterized by hypersensitivity to rejection and resulting instability of interpersonal relationships, self-image, affect, and behavior. Borderline personality disorder causes significant impairment and distress and is associated with multiple medical and psychiatric co-morbidities.

- **Option A:** A pervasive pattern of instability of interpersonal relationships, self-image, and affects as well as marked impulsivity beginning by early adulthood. The client exhibits affective instability caused by a marked reactivity of mood, for example, intense episodic dysphoria, anxiety, or irritability, usually lasting a few hours and rarely more than a few days.
- **Option B:** Somatic symptom disorder involves a person having a significant focus on physical symptoms, such as pain, weakness, or shortness of breath, that results in major distress and/or problems functioning. The individual has excessive thoughts, feelings, and behaviors relating to the physical symptoms.
- **Option C:** A personality disorder is a disorder involving a rigid and unhealthy pattern of thinking. Personality disorders are prevalent in the general population and more so in clinical populations. In the pediatric population, all personality disorders can be diagnosed, except antisocial personality disorder, as long as the pathologic behavior has been present for a year or more.

73. 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.

74. A male client recently admitted to the hospital with sharp, substernal chest pain suddenly complains of palpitations. Nurse Ryan notes a rise in the client's arterial blood pressure and a heart rate of 144 beats/minute. On further questioning, the client admits to having used cocaine recently after previously denying use of the drug. The nurse concludes that the client is at high risk for which complication of cocaine use?

A. Coronary artery spasm

B. Bradyarrhythmias

C. Neurobehavioral deficits

D. Panic disorder

Correct Answer: A. Coronary artery spasm

Cocaine use may cause such cardiac complications as coronary artery spasm, myocardial infarction, dilated cardiomyopathy, acute heart failure, endocarditis, and sudden death. Cocaine blocks reuptake of norepinephrine, epinephrine, and dopamine, causing an excess of these neurotransmitters at postsynaptic receptor sites. Cocaine and its metabolites may cause arterial vasoconstriction hours after use. Epicardial coronary arteries are especially vulnerable to these effects, leading to a decreased myocardial oxygen supply.

- **Option B:** Consequently, the drug is more likely to cause tachyarrhythmias than bradyarrhythmias. Cocaine-induced central sympathetic stimulation and direct cardiac effects may lead to tachycardia, hypertension, and coronary or cerebral artery vasoconstriction leading to myocardial infarction and stroke.
- **Option C:** Although neurobehavioral deficits are common in neonates born to cocaine users, they are rare in adults. CNS reactions may be more excitatory than depressant. In its mild form, the patient may display anxiety, restlessness, and excitement. Full-body tonic-clonic seizures may result from moderate to severe CNS stimulation. These seizures are often followed by CNS depression, with death resulting from respiratory failure and/or asphyxiation if concomitant emesis is present.
- **Option D:** As craving for the drug increases, a person who's addicted to cocaine typically experiences euphoria followed by depression, not panic disorder. Cardiovascular toxicity and agitation are best-treated first-line with benzodiazepines to decrease CNS sympathetic outflow. However, there is a risk of over-sedation and respiratory depression with escalating and numerous doses of benzodiazepines, which is often necessary. Non-dihydropyridine calcium channel blockers such as diltiazem and verapamil have shown the ability to reduce hypertension reliably,

but not tachycardia.

75. A nurse is caring for a client in labor. The nurse determines that the client is beginning in the second stage of labor when which of the following assessments is noted?

A. The client begins to expel clear vaginal fluid.

B. The contractions are regular.

C. The membranes have ruptured

D. The cervix is dilated completely.

Correct Answer: D. The cervix is dilated completely.

The second stage of labor begins when the cervix is dilated completely and ends with the birth of the neonate. After cervical dilation is complete, the fetus descends into the vaginal canal with or without maternal pushing efforts. The fetus passes through the birth canal via 7 movements known as the cardinal movements.

- **Option A:** The first stage of labor is further subdivided into two phases, which are defined by the degree of cervical dilation. The latent phase is commonly defined as the 0 to 6 cm, while the active phase commences from 6 cm to full cervical dilation.
- **Option B:** Although precisely determining when labor starts may be inexact, labor is generally defined as beginning when contractions become strong and regularly spaced at approximately 3 to 5 minutes apart
- **Option C:** Rupture of membranes results from a variety of factors that ultimately lead to accelerated membrane weakening. This is caused by an increase in local cytokines, an imbalance in the interaction between matrix metalloproteinases and tissue inhibitors of matrix metalloproteinases, increased collagenase and protease activity, and other factors that can cause increased intrauterine pressure.

76. Nurse Rachel teaches a client who has been recently diagnosed with hepatitis A about untoward signs and symptoms related to Hepatitis that may develop. The one that should be reported immediately to the physician is:

A. Restlessness

B. Yellow urine

C. Nausea

D. Clay-colored stools

Correct Answer: D. Clay-colored stools

Clay-colored stools are indicative of hepatic obstruction. Acute HAV infection is typically a self-limited illness characterized by nausea, vomiting, right upper quadrant abdominal discomfort, malaise, anorexia, myalgia, fatigue, and fever. Patients may develop dark urine and pale stools within a week, followed by jaundice, icteric (yellow-tinted) sclera, and pruritus.

- **Option A:** Restlessness is not a symptom related to hepatitis A. The incubation period usually ranges from 14 to 28 days but can last up to 50 days. The severity of symptoms varies with age

and comorbidities, particularly underlying chronic liver disease. Most children with acute HAV infection are asymptomatic.

- **Option B:** One of the symptoms of hepatitis A is dark urine. Patients usually have elevated levels of serum alanine aminotransferase, aspartate aminotransferase, bilirubin, alkaline phosphatase, and lambda-glutamyl transpeptidase. These lab abnormalities typically resolve within 1 to 6 weeks following the onset of symptoms.
- **Option C:** Sudden nausea and vomiting are some of the symptoms, but it is not of immediate concern. Extrahepatic manifestations rarely occur but may include pancreatitis, rash, acute kidney injury with interstitial nephritis or glomerulonephritis, pneumonitis, pericarditis, hemolysis, and acute cholecystitis.

77. When planning care for a male client with burns on the upper torso, which nursing diagnosis should take the highest priority?

A. Ineffective airway clearance related to edema of the respiratory passages

B. Impaired physical mobility related to the disease process

C. Disturbed sleep pattern related to facility environment

D. Risk for infection related to breaks in the skin

Correct Answer: A. Ineffective airway clearance related to edema of the respiratory passages

When caring for a client with upper torso burns, the nurse's primary goal is to maintain respiratory integrity. Therefore, option A should take the highest priority. Immediately assess the patient's airway, breathing, and circulation. Be especially alert for signs of smoke inhalation, and pulmonary damage: singed nasal hairs, mucosal burns, voice changes, coughing, wheezing, soot in the mouth or nose, and darkened sputum.

- **Option B:** This nursing diagnosis isn't appropriate because burns aren't a disease. Note circulation, motion, and sensation of digits frequently. Edema may compromise circulation to extremities, potentiating tissue necrosis and the development of contractures.
- **Option C:** Disturbed sleep pattern may be appropriate, but don't command a higher priority than the ineffective airway clearance because they don't reflect immediately life-threatening problems. Initially, the patient may use denial and repression to reduce and filter information that might be overwhelming. Some patients display a calm manner and alert mental status, representing a dissociation from reality, which is also a protective mechanism.
- **Option D:** Examine wounds daily, note and document changes in appearance, odor, or quantity of drainage. Indicators of sepsis (often occurs with full-thickness burn) requiring prompt evaluation and intervention. Note: Changes in sensorium, bowel habits, and the respiratory rate usually precede fever and alteration of laboratory studies.

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

A. Encourage the client to use his or her own eye drops until the drops can be ordered.

B. Administer the TCA as orders, and expect an ophthalmology consult.

C. Administer the TCA as ordered, and monitor for visual changes.

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

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

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

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

79. When using a Snellen alphabet chart, the nurse records the client's vision as 20/40. Which of the following statements best describes 20/40 vision?

A. The client has alterations in near vision and is legally blind.

B. The client can see at 20 feet what the person with normal vision can see at 40 feet.

C. The client can see at 40 feet what the person with normal vision sees at 20 feet.

D. The client has a 20% decrease in acuity in one eye, and a 40% decrease in the other eye.

Correct Answer: B. The client can see at 20 feet what the person with normal vision can see at 40 feet.

The numerator refers to the client's vision while comparing the normal vision in the denominator. The results of visual acuity are classically reported using 20/20 (6/6 when using meters) for standard vision. The numerator describes the distance from the chart, typically 20 ft (6 m). The denominator describes the distance that an individual with normal vision (20/20 vision) can read the same line on the chart.

- **Option A:** The WHO describes individuals with low vision as having a best-corrected vision of 20/60 or worse, and blind as best corrected vision worse than 20/400, whereas legal blindness is identified as 20/200 in the United States. These formal definitions can have ramifications when it comes to accommodations and abilities to operate a motor vehicle.
- **Option C:** Visual acuity decreases as the number increases and improves as the number decreases. Although 20/20 visual acuity has been referred to as "perfect vision," it is important to remember that this is only one aspect of vision and does not include other elements such as depth perception, peripheral vision, and colorblindness.
- **Option D:** Visual acuity testing is essential as many of these factors can be benefited from early intervention. It is crucial to determine an individual's best-corrected visual acuity. The goal of the visual acuity test is to determine clarity or sharpness of vision. Visual acuity testing examines a patient's ability to distinguish different optotypes (recognizable letters or symbols) at a standard distance.

80. A 56-year-old patient with a recent diagnosis of glioblastoma multiforme (GBM) is brought into the neuro-oncology clinic for initiation of treatment planning. The oncologist explains the difficulties in delivering chemotherapeutic agents to the tumor site due to certain anatomic and physiologic barriers within the central nervous system. The discussion advances towards the understanding of these barriers which segregate the circulating blood from the brain extracellular fluid, maintaining a tightly regulated environment for neural function. The oncologist poses a question to the medical staff to elucidate on which of the following structures or processes serves as either physical barriers or physiological processes (transport system) that primarily function to separate the circulating blood from the brain extracellular fluid in the central nervous system (CNS)?

A. Circle of Willis

B. Lateral corticospinal tract

C. Corticobulbar projections

D. Blood-brain barrier

Correct Answer: D. Blood-brain barrier
The blood-brain barrier is a highly selective and protective barrier that separates the bloodstream from the brain and spinal cord tissues. It consists of specialized endothelial cells lining the capillaries in the brain, tight junctions between these cells, and the surrounding astrocytes, all of which work together to restrict the passage of most substances, including toxins and pathogens, from the bloodstream into the brain, ensuring a stable and protected environment for neural function.

- **Option A:** The Circle of Willis is an arterial polygon at the base of the brain that provides collateral circulation between the anterior and posterior cerebral circulations. While it is a crucial structure for cerebral blood flow, it does not act as a barrier to separate circulating blood from the brain extracellular fluid.
- **Option B:** The lateral corticospinal tract is a part of the motor system and carries motor fibers from the cerebral cortex to the spinal cord. This tract is critical for voluntary motor control but does not act as a barrier or a transport system between circulating blood and the brain extracellular fluid.
- **Option C:** Corticobulbar projections are pathways by which cerebral motor centers communicate with medullary and pontine nuclei. They are involved in the control of cranial nerve motor nuclei but do not serve as a barrier between the circulating blood and the brain extracellular fluid.

81. A 3-year-old child is receiving dextrose 5% in water and half-normal saline solution at 100 ml/hour. Which sign or symptom suggests excessive I.V. fluid intake?

A. Temperature of 102°F (38.9°C)

B. Worsening dyspnea

C. Gastric distension

D. Nausea and vomiting

Correct Answer: B. Worsening dyspnea

Dyspnea and other signs of respiratory distress signify fluid volume excess (overload), which can occur quickly in a child as fluid shifts rapidly between the intracellular and extracellular compartments. The excess fluid circulating around the body can cause waterlogging of the lungs, leading to breathlessness. If fluid overload goes on for a long term it eventually leads to heart failure.

- **Option A:** An elevated temperature may indicate a fluid volume deficit. Hypohydration increases heat storage by reducing sweating rate and skin blood flow responses for a given core temperature. Hypertonicity and hypovolemia both contribute to reduced heat loss and increased heat storage.
- **Option C:** Gastric distention may suggest excessive oral fluid intake or infection. Abdominal distension occurs when substances, such as air (gas) or fluid, accumulate in the abdomen causing its outward expansion beyond the normal girth of the stomach and waist. It is typically a symptom of an underlying disease or dysfunction in the body, rather than an illness in its own right.
- **Option D:** Conditions that cause blood or body fluid loss can cause hypovolemia, as can inadequate fluid intake. If persistent or severe, diarrhea and vomiting can deplete body fluids. All living organisms must maintain an adequate fluid balance to preserve homeostasis. Water constitutes the most abundant fluid in the body, at around 50% to 60% of the body weight.

82. Which of the following symptoms is associated with relapse of multiple sclerosis?

A. Diarrhea

B. Hearing loss

C. Jaundice

D. Diplopia

Correct Answer: D. Diplopia

- Option D: A relapse of MS is the occurrence of new symptoms or a return of old symptoms. An example of this is double vision (diplopia) which occurs when the nerve pathways responsible for eye movements are damaged.
- Option A: Patients with MS are more likely to experience constipation rather than diarrhea. This is due to decrease motility or lack of coordination of the anal muscles.
- Diarrhea in MS may happen because of the overuse of laxatives, fecal impaction, Or side effects of the medication.
- Options B and C: Hearing loss and jaundice are uncommon symptoms of exacerbation of MS.

83. The statement, “The Holy Spirit Medical Center aims to provide patient-centered care in a total healing environment” refers to which of the following?

A. Vision

B. Goal

C. Philosophy

D. Mission

Correct Answer: B. Goal

Goals define the general intentions and ambitions of the business but can be difficult to measure. Setting goals is an important step of business planning, as a well-defined broad primary outcome will have an impact on areas including your mission statement, financial objectives, corporate culture, and marketing strategy.

- **Option A:** A vision refers to what the institution wants to become within a particular period of time. A vision statement looks forward and creates a mental image of the ideal state that the organization wishes to achieve. It is inspirational and aspirational and should challenge employees.
- **Option C:** In a conventional sense, company philosophy stands for the basic beliefs that people in the business are expected to hold and be guided by – informal unwritten guidelines on how people should perform and conduct themselves.
- **Option D:** A mission statement is a concise explanation of the organization's reason for existence. It describes the organization's purpose and its overall intention. The mission statement supports the vision and serves to communicate purpose and direction to employees, customers, vendors, and other stakeholders.

84. Nurse Mary is caring for a wheelchair-bound client. Which piece of equipment impedes circulation to the area it's meant to protect?

A. Polyurethane foam mattress

B. Ring or donut

C. Gel flotation pad

D. Waterbed

Correct Answer: B. Ring or donut

Rings or donuts aren't to be used because they restrict circulation. Selection of a device may depend on factors such as mobility of the individual, the results of skin assessment, the level of and site at risk, weight, staff availability and skill plus the general health and condition of the individual. It is also important that any device is able to be cleaned and decontaminated effectively. It is accepted that these devices should be used in conjunction with other preventative strategies such as repositioning.

- **Option A:** Foam mattresses evenly distribute pressure. All studies showed a clinical benefit of higher specification foam mattresses (cubed foam mattress, soft foam mattress, pressure redistributing foam mattress), in reducing the incidence of pressure ulcers when compared to standard hospital mattresses.
- **Option C:** Gel pads redistribute with the client's weight. A gel-filled pad and a pressure-reducing cushion (designed to improve tissue tolerance in sitting by providing more surface area and reducing peak pressure) were clinically beneficial compared to foam cushions for reducing the incidence of pressure ulcers in people who use a wheelchair.
- **Option D:** The water bed also distributes pressure over the entire surface. Both a bead-filled mattress and a water-filled mattress showed a clinical benefit for reducing the incidence of pressure ulcers when compared to standard hospital mattresses (type not specified).

85. Nurse Greta is aware that the following is classified as an Axis I disorder by the Diagnosis and Statistical Manual of Mental Disorders, Text Revision (DSM-IV-TR) is:

A. Obesity

B. Borderline personality disorder

C. Major depression

D. Hypertension

Correct Answer: C. Major depression

The DSM-IV-TR classifies major depression as an Axis I disorder. Axis I disorders tend to be the most commonly found in the public. They include anxiety disorders, such as panic disorder, social anxiety disorder, and post-traumatic stress disorder. Other examples of Axis I disorders are as follows: Dissociative disorders. Eating disorders (anorexia nervosa, bulimia nervosa, etc.) Mood disorders (major depression, bipolar disorder, etc.) Published by the American Psychiatric Association, the DSM is the mental health bible of sorts. The DSM-IV organized all psychiatric disorders and other problems into five different categories or axes.

- **Option A:** Obesity was in Axis III. DSM-IV approached psychiatric assessment and organization of biopsychosocial information using a multi-axial formulation (American Psychiatric Association, 2013b). There were five different axes. Axis I consisted of mental health and substance use disorders (SUDs); Axis II was reserved for personality disorders and mental retardation; Axis III was used for coding general medical conditions; Axis IV was to note psychosocial and environmental problems (e.g., housing, employment); and Axis V was an assessment of overall functioning known as the GAF.
- **Option B:** Mental disorders are diagnosed according to a manual published by the American Psychiatric Association called the Diagnostic and Statistical Manual of Mental Disorders. A diagnosis under the fourth edition of this manual, which was often referred to as simply the DSM-IV, had five parts, called axes. Each axis of this multi-axial system gave a different type of information about the diagnosis. Borderline personality disorder as an Axis II. Axis II provided information about personality disorders and mental retardation.
- **Option D:** Hypertension was in Axis III. Axis III provided information about any medical conditions that were present which might impact the patient's mental disorder or its management. General Medical Condition (GMC) Axis III is for reporting current general medical conditions that are potentially relevant to the understanding or management of the individual's mental disorder. The purpose of recording General Medical Conditions on Axis III is to encourage thoroughness in evaluation/assessment and to enhance communication among healthcare providers. Axis III also ensures that medical or physical conditions that can directly or indirectly influence management and treatment are not forgotten.