

Kevin's Review - 35 NCLEX Practice Questions

1. Clay is an 8-year-old boy diagnosed with heart failure. Which of the following shows that he is strictly following the directed therapeutic regimen?

- A. Daily use of an antibiotic
- B. Pulse rate less than 50 beats/minute
- C. Normal weight for age
- D. Elevation in red blood cell (RBC) count

Correct Answer: C. Normal weight for age

Adequate weight for height demonstrates adequate nutritional intake and lack of edema. Symptoms of heart failure include those due to excess fluid accumulation (dyspnea, orthopnea, edema, pain from hepatic congestion, and abdominal distention from ascites) and those due to a reduction in cardiac output (fatigue, weakness) that is most pronounced with physical exertion.

- **Option A:** Daily use of antibiotics is not indicated in heart failure. Diuretics, beta-blockers, angiotensin-converting enzyme inhibitors, angiotensin receptor blockers, angiotensin receptor neprilysin inhibitor, hydralazine plus nitrate, digoxin, and aldosterone antagonists can produce an improvement in symptoms.
- **Option B:** A pulse rate less than 50 beats/minute, bradycardia, probably indicates digoxin toxicity. Chronic presentations (months) differ in that fatigue, anorexia, abdominal distention, and peripheral edema may be more pronounced than dyspnea. The anorexia is secondary to several factors including poor perfusion of the splanchnic circulation, bowel edema, and nausea induced by hepatic congestion.
- **Option D:** An elevated RBC count demonstrates polycythemia. Cardiac troponin (T or I), complete blood count, serum electrolytes, blood urea nitrogen, creatinine, liver function test, and brain natriuretic peptide (BNP). BNP (or NT-proBNP) level adds greater diagnostic value to the history and physical examination than other initial tests mentioned above.

2. A 70-year-old alcoholic patient with acute lethargy, confusion, and incontinence is admitted to the hospital ED. His wife tells you that he fell down the stairs about a month ago, but “he didn’t have a scratch afterward.” She feels that he has become gradually less active and sleepier over the last 10 days or so. Which of the following collaborative interventions will you implement first?

- A. Place on the hospital alcohol withdrawal protocol.
- B. Transfer to radiology for a CT scan.
- C. Insert a retention catheter to straight drainage.
- D. Give phenytoin (Dilantin) 100 mg PO.

Correct Answer: B. Transfer to radiology for a CT scan.

The patient’s history and assessment data indicate that he may have a chronic subdural hematoma. The priority goal is to obtain a rapid diagnosis and send the patient to surgery to have the hematoma evacuated.

- **Option A:** This can be done after the treatment for any intracranial lesion has been implemented.
- **Option C:** This intervention should be done but is not the priority.

- **Option D:** Administration of phenytoin should be implemented as soon as possible, but the initial nursing activities should be directed toward treatment of any intracranial lesion.

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

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

Correct Answer: A. Bounding pulse

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

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

4. A nurse develops a plan of care for a client following a lumbar puncture. Which interventions should be included in the plan? Select all that apply.

- A. Monitor the client's ability to void.
- B. Maintain the client in a flat position.
- C. Restrict fluid intake for a period of 2 hours.
- D. Monitor the client's ability to move the extremities.
- E. Inspect the puncture site for swelling, redness, and drainage.
- F. Maintain the client on a nothing-by-mouth (NPO) status for 24 hours.

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

Lumbar puncture, also known as a spinal tap, is an invasive procedure where a hollow needle is inserted into the space surrounding the subarachnoid space in the lower back to obtain samples of cerebrospinal fluid (CSF) for qualitative analysis.

- **Option A:** The nurse should monitor the client's ability to void. Take vital signs, measure intake and output, and assess neurologic status at least every 4 hours for 24 hours to allow further evaluation of the patient's condition.
- **Option B:** Following a lumbar puncture, the client remains flat in bed for 6 to 24 hours, depending on the health care provider's prescriptions. He or she may turn from side to side as long as the

head is not elevated.

- **Option C:** A liberal fluid intake is encouraged to replace cerebrospinal fluid removed during the procedure unless contraindicated by the client's condition. An increased amount of fluid intake (up to 3,000 ml in 24 hours) will replace CSF removed during the lumbar puncture.
- **Option D:** The nurse should monitor the client's ability to move the extremities. A feeling of tingling sensation and numbness in the lower back and legs is felt temporarily.
- **Option E:** The nurse checks the puncture site for redness and drainage. Signs of CSF leakage include positional headaches, nausea and vomiting, neck stiffness, photophobia (sensitivity to light), sense of imbalance, tinnitus (ringing in the ear), and phonophobia (sensitivity to sound).

5. A 35-year-old female patient presents to the clinic with fatigue, pallor, and shortness of breath on exertion. Laboratory tests reveal a decreased hemoglobin level, indicating anemia. The physician explains to the patient that a specific component of the musculoskeletal system plays a crucial role in the production of red blood cells. Which of the following components is responsible for this function?

- A. Bones
- B. Muscles
- C. Ligaments
- D. Tendons

Correct Answer: A. Bones

Bones, as part of the musculoskeletal system, contribute to the production of red blood cells due to their unique capability of hosting bone marrow, where red blood cell formation takes place. This function of bones ensures a consistent supply of oxygen-transporting cells in the body.

- **Option B:** Muscles are not primarily responsible for producing red blood cells because their primary function is generating force and facilitating movement, rather than hematopoiesis.
- **Option C:** Ligaments, unlike bones, do not participate in the production of red blood cells because their main role is to connect bones to other bones, providing stability and limiting excessive joint movement.
- **Option D:** Tendons, in contrast to bones, do not have a role in producing red blood cells as their primary function is to attach muscles to bones, enabling the transmission of muscular force to move the skeletal system.

6. The nurse is educating the lady's club in a self-breast exam. The nurse is aware that most malignant breast masses occur in the Tail of Spence. On the diagram below, select where the Tail of Spence is.

- A
- B
- C
- D

Correct Answer: A.

The Tail of Spence is located in the upper outer quadrant of the breast.

- **Option B:** Option B is the areola, a dark area of skin surrounding the nipple.

7. The nurse decides on a teaching plan for a new mother and her infant. The plan should include:

- A. Discussing the matter with her in a non-threatening manner
- B. Showing by example and explanation how to care for the infant
- C. Setting up a schedule for teaching the mother how to care for her baby
- D. Supplying the emotional support to the mother and encouraging her independence

Correct Answer: B. Showing by example and explanation how to care for the infant.

- **Option B:** Teaching the mother by example is a non-threatening approach that allows her to proceed at her own pace.

8. Which of the following should be included in the health teachings among clients receiving Valium:

- A. Avoid taking CNS depressants like alcohol.
- B. There are no restrictions in activities.
- C. Limit fluid intake.
- D. Any beverage like coffee may be taken.

Correct Answer: A. Avoid taking CNS depressants like alcohol.

Valium is a CNS depressant. Taking it with other CNS depressants like alcohol; potentiates its effect. The toxic-to-therapeutic ratio of benzodiazepines is very high, making them relatively safe medications. However, the potential of overdose from diverted diazepam always exists when combined with opioids, alcohol, or other centrally acting agents. Overdose in adults frequently involves the co-ingestion of other CNS depressants, which work synergistically to increase toxicity.

- **Option B:** The client should be taught to avoid activities that require alertness. In mild cases, lethargy, drowsiness, and confusion are common symptoms. In cases of severe overdose, symptoms manifest as ataxia, diminished reflexes, hypotonia, hypotension, respiratory depression, coma (rarely), and death (very rarely).
- **Option C:** Valium causes dry mouth so the client must increase her fluid intake. It is crucial to monitor respiratory and cardiovascular status, blood pressure, heart rate, and symptoms of anxiety in patients taking diazepam. With long-term use, monitor liver enzymes, CBC, and for signs of propylene glycol toxicity, including serum creatinine, BUN, serum lactate, and osmolality gap. With critically ill patients, monitor the depth of sedation.
- **Option D:** Stimulants must not be taken by the client because it can decrease the effect of Valium. Potent inhibition of the 2C19 enzyme by certain drugs (fluoxetine and chloramphenicol) and 3A4 enzymes by certain medications (ketoconazole, protease inhibitors, erythromycin) may cause increased levels of diazepam, while inducers of 2C19 (rifampicin and prednisone) and 3A4 (carbamazepine, topiramate, phenytoin, St. John's wort, rifampin, or barbiturates) may cause lower

levels. Metabolites of diazepam are conjugated with glucuronide and excreted almost entirely in the urine.

9. The nurse has been teaching the role of diet in regulating blood pressure to a client with hypertension. Which meal selection indicates that the client understands his new diet?

- A. Oatmeal, apple juice, dry toast, and coffee
- B. Pancakes, ham, tomato juice, and coffee
- C. Cornflakes, whole milk, banana, and coffee
- D. Scrambled eggs, bacon, toast, and coffee

Correct Answer: A. Oatmeal, apple juice, dry toast, and coffee

- Option A: Oatmeal is low in sodium and high in fiber. Limiting sodium intake and increasing fiber helps to lower cholesterol levels, which reduces blood pressure.
- Answers B and D: They contain animal proteins that are high in both cholesterol and sodium.
- Option C: Cornflakes and whole milk are higher in sodium and are poor sources of fiber.

10. A client with type 1 diabetes mellitus has a fingerstick glucose level of 258mg/dl at bedtime. An order for sliding scale insulin exists. The nurse should:

- A. Call the physician
- B. Encourage the intake of fluids
- C. Administer the insulin as ordered
- D. Give the client 1/2 c. of orange juice

Correct Answer: C. Administer the insulin as ordered

A value of 258 mg/dl is above the expected range of 70-105 mg/dl; the nurse should administer the insulin as ordered. Sliding scale regimens may include a bedtime high blood sugar correction. As the nighttime scale only considers the amount of insulin required to drop the blood sugar level back into the target range, it should not be used to cover a bedtime snack.

- **Option A:** It is unnecessary to call the physician. The term “sliding scale” refers to the progressive increase in the pre-meal or nighttime insulin dose, based on predefined blood glucose ranges. Sliding scale insulin regimens approximate daily insulin requirements.
- **Option B:** When using a sliding scale, eat the same amount of carbohydrates at each meal. In other words, while the foods may change, the time and the carbohydrate content of the meal should not vary. Eat the pre-assigned amount of carbohydrate for each meal, and at a similar time of the day.
- **Option D:** The sliding scale method does not accommodate changes in insulin needs related to snacks or to stress and activity. The sliding scale method may seem easier because there are fewer calculations. However, to be successful, it requires strict adherence to a consistent schedule of meals and activity and following the prescribed diet.

11. The nurse in charge is evaluating the infection control procedures on the unit. Which finding indicates a break in technique and the need for education of staff?

- A. The nurse puts on a mask, a gown, and gloves before entering the room of a client in strict isolation.
- B. A nurse with open, weeping lesions of the hands puts on gloves before giving direct client care.
- C. The nurse aide is not wearing gloves when feeding an elderly client.
- D. A client with active tuberculosis is asked to wear a mask when he leaves his room to go to another department for testing.

Correct Answer: B. A nurse with open, weeping lesions of the hands puts on gloves before giving direct client care.

Persons with exudative lesions or weeping dermatitis should not give direct client care or handle client-care equipment until the condition resolves. Strict isolation requires the use of a mask, gown, and gloves. Personnel involved in treating high-risk infections should be specialized in isolation work and be healthy, not immunosuppressed, and if possible should be vaccinated, if a vaccine is available.

- **Option A:** Strict isolation refers to suspected highly infectious and transmissible virulent and pathogenic microbes, highly resistant bacterial strains and agents that are not accepted in any form of distribution in the society or in the environment. Patients in need of strict isolation should be placed in a separate isolation ward or building.
- **Option C:** There is no need to wear gloves when feeding a client. However, universal precautions (treating all blood and body fluids as if they are infectious) should be observed in all situations.
- **Option D:** A client with active tuberculosis should be on respiratory precautions. Airborne precautions are used in addition to standard precautions to prevent disease transmission from individuals known or suspected to have diseases spread by fine particles, including, TB.

12. Nurse Jay is caring for a client with an ongoing transfusion of packed RBCs when suddenly the client is having difficulty breathing, skin is flushed, and having chills. Which action should nurse Jay take first?

- A. Administer oxygen.
- B. Place the client on a droplight.
- C. Check the client's temperature.
- D. Stop the transfusion.

Correct Answer: D. Stop the transfusion.

The client in this situation is experiencing a transfusion reaction so the priority action of the nurse is to first stop the transfusion. Disconnect the transfusion set-but keep the IV line open with 0.9% saline to provide access for possible IV drug infusion. Send the blood bag and tubing to the blood bank for repeat typing and culture.

- **Option A:** Place the client in Fowler's position with shortness of breath and administer O2 therapy. The nurse remains with the client, observing signs and symptoms and monitoring vital signs as often as every 5 minutes. Obtain a urine specimen and send it to the laboratory to determine presence of hemoglobin as a result of RBC hemolysis.

- **Option B:** Placing the client under a drop light would not manage his difficulty in breathing. For circulatory overload, immediate treatment includes positioning the patient upright with feet dependent; diuretics, oxygen, and aminophylline may be prescribed. The nurse prepares to administer emergency drugs such as antihistamines, vasopressor, fluids, and steroids as per the physician's order or protocol.
- **Option C:** Febrile, nonhemolytic transfusion reactions are treated symptomatically with antipyretics; leukocyte-poor blood products may be recommended for subsequent transfusions. Blood container, tubing, attached label, and transfusion record are saved and returned to the laboratory for analysis.

13. A client has urge incontinence. Which of the following signs and symptoms would the nurse expect to find in this client?

- A. Inability to empty the bladder.
- B. Loss of urine when coughing.
- C. Involuntary urination with minimal warning.
- D. Frequent dribbling of urine.

Correct Answer: C. Involuntary urination with minimal warning.

A characteristic of urge incontinence is involuntary urination with little or no warning. Urge incontinence is a type of urinary incontinence in adults, which involves sudden compelling urges to void and results in involuntary leakage of urine. This is a serious and debilitating condition and has a social stigma attached to it. To avoid the huge socioeconomic burden and high morbidity associated with this condition, early diagnosis, treatment, and referral concepts must be widely practiced among clinicians.

- **Option A:** The inability to empty the bladder is urinary retention. Urinary retention is the inability to void urine voluntarily. It is a common problem around the world and can occur acutely or chronically. Acute retention most commonly occurs in men and can be a urologic emergency. Acute urinary retention in men most commonly occurs secondary to benign prostatic hyperplasia.
- **Option B:** Loss of urine when coughing occurs with stress incontinence. Stress urinary incontinence (SUI) is the involuntary, sudden loss of urine secondary to increased intraabdominal pressure that is bothersome or affecting the patient's quality of life. Physical activities precipitating SUI include laughing, sneezing, straining, coughing, or exercising. Patients may refer to a sudden loss of urine as "leaking," "dripping" or "flooding." The patient may initially present with urinary complaints of frequency, urgency, and dysuria.
- **Option D:** Frequent dribbling of urine is common in male clients after some types of prostate surgery or may occur in women after the development of a vesicovaginal or ureterovaginal fistula. It's common in older men because the muscles surrounding the urethra — the long tube in the penis that allows urine to pass out of the body — don't squeeze as hard as they once did. This leaves a small pool of urine at a dip in the urethra behind the base of the penis. In less than a minute after finishing, this extra urine dribbles out.

14. She says to the nurse who offers her breakfast, "Oh no, I will wait for my husband. We will eat together" The therapeutic response by the nurse is:

- A. "Your husband is dead. Let me serve you your breakfast."
- B. "I've told you several times that he is dead. It's time to eat."

- C. "You're going to have to wait a long time."
- D. "What made you say that your husband is alive?"

Correct Answer: A. "Your husband is dead. Let me serve you your breakfast."

The client should be reoriented to reality and be focused on the here and now. Orient the patient to the environment as needed, if the patient's short-term memory is intact. The use of calendars, radio, newspapers, television, and so forth, are also appropriate. Reality orientation techniques help improve a patient's awareness of self and environment only for patients with confusion related to delirium or with depression. Depending on the stage of AD, it may be reassuring for patients in the very early states who are aware that they are losing their sense of reality, but it does not work when dementia becomes irreversible because the patient can no longer understand reality.

- **Option B:** This is not a helpful approach because of the short-term memory of the client. Maintain consistent scheduling with allowances for patient's specific needs, and avoid frustrating situations and overstimulation. This prevents patient agitation, erratic behaviors, and combative reactions. Scheduling may need revision to show respect for the patient's sense of worth and to facilitate the completion of tasks.
- **Option C:** This indicates a pompous response. Avoid or terminate emotionally charged situations or conversations. Avoid anger and expectation of the patient to remember or follow instructions. Do not expect more than the patient is capable of doing. Catastrophic emotional responses are prompted by task failure when the patient feels expected to perform beyond ability and becomes frustrated and angry. Responding calmly to the patient validates feelings and causes less stress.
- **Option D:** The cognitive limitation of the client makes the client incapable of giving an explanation. Limit sensory stimuli and independent decision-making. This decreases frustration and distractions from the environment. Decreasing the stress of making a choice helps to promote security. Assist with establishing cues and reminders for patient's assistance. Assists patients with early AD to remember the location of articles and facilitates some orientation.

15. The client with a dressing covering the neck is experiencing some respiratory difficulty. What is the nurse's initial action?

- A. Administer oxygen.
- B. Loosen the dressing.
- C. Notify the emergency team.
- D. Document the observation as the only action.

Correct Answer: B. Loosen the dressing

Respiratory difficulty can arise from external pressure. The first action in this situation would be to loosen the dressing and then reassess the client's respiratory status. Generally, it is recommended that pressure should be maintained between 20 and 30 mm Hg, which is above capillary pressure but less than what would diminish peripheral blood circulation.

- **Option A:** It is unnecessary to administer oxygen. Wearing pressure garments is uncomfortable and challenging; problems with movement, appearance, fit, comfort, swelling of extremities, rashes, and blistering are common; consequently, low compliance with PGT is to be expected.
- **Option C:** The nurse may intervene first. However, monitoring of pressure exerted by pressure garments is currently difficult and time-consuming, and not routinely done and currently, the optimal pressure magnitude for PGT remains unsolved.

- **Option D:** The nurse may loosen the dressing to help the client breathe. Recent evidence suggests that pressure garment therapy is effective for the prevention and/or treatment of abnormal scarring after burn injury but that the clinical benefit is restricted to those patients with moderate or severe scarring.

16. The nurse is teaching a male client with chronic bronchitis about breathing exercises. Which of the following should the nurse include in the teaching?

- A. Make inhalation longer than exhalation.
- B. Exhale through an open mouth.
- C. Use diaphragmatic breathing.
- D. Use chest breathing.

Correct Answer: C. Use diaphragmatic breathing.

In chronic bronchitis the diaphragm is flat and weak. Diaphragmatic breathing helps to strengthen the diaphragm and maximizes ventilation. When the client has COPD, air often becomes trapped in the lungs, pushing down on the diaphragm. The neck and chest muscles must then assume an increased share of the work of breathing. This can leave the diaphragm weakened and flattened, causing it to work less efficiently.

- **Option A:** Exhalation should be longer than inhalation to prevent collapse of the bronchioles. Never allow a patient to force expiration. expiration should be relaxed or lightly controlled. forced expiration only increases turbulence in the airways leading to bronchospasm and increased airway restriction.
- **Option B:** The client with chronic bronchitis should exhale through pursed lips to prolong exhalation, keep the bronchioles from collapsing, and prevent air trapping. The client should tighten his stomach muscles, letting them fall inward as he exhales through pursed lips. The hand on his upper chest must remain as still as possible.
- **Option D:** Diaphragmatic breathing — not chest breathing — increases lung expansion. Controlled breathing techniques, which emphasize diaphragmatic breathing are designed to improve the efficiency of ventilation, decrease the work of breathing, increase the excursion of the diaphragm, and improve gas exchange and oxygenation.

17. The etiology of schizophrenia is best described by:

- A. Genetics due to a faulty dopamine receptor.
- B. Environmental factors and poor parenting.
- C. Structural and neurobiological factors.
- D. A combination of biological, psychological, and environmental factors.

Correct Answer: D. A combination of biological, psychological, and environmental factors.

A reliable genetic marker hasn't been determined for schizophrenia. However, studies of twins and adopted siblings have strongly implicated a genetic predisposition. Since the mid-19th century, excessive dopamine activity in the brain has also been suggested as a causal factor. Communication and the family system have been studied as contributing factors in the development of schizophrenia. Therefore, a combination of biological, psychological, and environmental factors are thought to cause

schizophrenia.

- **Option A:** Several studies postulate that the development of schizophrenia results from abnormalities in multiple neurotransmitters, such as dopaminergic, serotonergic, and alpha-adrenergic hyperactivity or glutaminergic and GABA hypoactivity. Genetics also play a fundamental role – there is a 46% concordance rate in monozygotic twins and a 40% risk of developing schizophrenia if both parents are affected. The gene neuregulin (NGR1) which is involved in glutamate signaling and brain development has been implicated, alongside dysbindin (DTNBP1) which helps glutamate release, and catecholamine O-methyltransferase (COMT) polymorphism, which regulates dopamine function.
- **Option B:** A viral infection, extensive exposure to toxins like marijuana, or highly stressful situations may trigger schizophrenia in people who have inherited a tendency to develop the disorder. It tends to surface when the body is undergoing hormonal and physical changes, such as during the teen and young adult years.
- **Option C:** Twin studies suggest that at least some of these changes may result from other than genetic factors. Functional disturbances of the brain have also been connected with frontal and temporal structures in some schizophrenic patients. Of the single neurotransmitter substances, dopamine and serotonin appear to represent some of the central restitutive mechanisms whose function is to maintain mental stability; the understanding of their interplay with other neurotransmitters such as noradrenaline, acetylcholine, GABA, and glutamate, should provide a more integrated view of both normal and disturbed brain function.

18. A client is scheduled to undergo a transurethral resection of the prostate gland (TURP). The procedure is to be done under spinal anesthesia. Postoperatively, the nurse should be particularly alert for early signs of:

- A. Convulsions
- B. Cardiac arrest
- C. Renal shutdown
- D. Respiratory paralysis

Correct Answer: D. Respiratory paralysis

If paralysis of vasomotor nerves in the upper spinal cord occurs when spinal anesthesia is used, the client is likely to develop respiratory paralysis. Artificial ventilation is required until the effects of the anesthesia subside. The patient's hemodynamics requires monitoring in the immediate post-op period until the resolution of the anesthetic. Nurses and physicians from other fields managing the patient need to be aware of the nature of anesthesia that patient underwent.

- **Option A:** Myoclonus that develops after spinal anesthesia is usually limited to the lower limbs and can involve both the upper and lower limbs unilaterally. There are no convulsions or change in consciousness, and patients generally recover without complications
- **Option B:** Cardiac arrests during spinal anesthesia are described as “very rare,” “unusual,” and “unexpected,” but are actually relatively common. The two largest prospective studies designed to evaluate the incidence of complications during spinal anesthesia reported two arrests in 1881 patients and 26 arrests in 40,640 patients for an overall incidence of seven arrests for every 10,000 (0.07%) spinal anesthetics.
- **Option C:** There is contradictory evidence regarding the effects of anesthetics on renal function. Some studies have shown that the administration of some types of anesthesia during surgery, as

well as surgical stress itself, can affect renal function. Indirect effects are more pronounced than the direct effects. However, other studies have shown that some anesthetic drugs induce anti-inflammatory, anti-necrotic, and anti-apoptotic effects that protect against AKI

19. Which of the following best describes preterm labor?

- A. Labor that begins after 20 weeks gestation and before 37 weeks gestation.
- B. Labor that begins after 15 weeks gestation and before 37 weeks gestation
- C. Labor that begins after 24 weeks gestation and before 28 weeks gestation.
- D. Labor that begins after 28 weeks gestation and before 40 weeks gestation.

Correct Answer: A. Labor that begins after 20 weeks gestation and before 37 weeks gestation

Preterm labor is best described as labor that begins after 20 weeks' gestation and before 37 weeks' gestation. The other time periods are inaccurate.

- **Option B:** At 15 weeks gestation, the fetus weighs around 4 ounces (oz) and its facial features will be starting to take shape. The bones in its ears will be developing for the first time, and the fetus will be able to hear the sounds of the mother's heart, digestive system, and voice. Even though the eyes of the fetus will remain closed, it will be able to sense and respond to light.
- **Option C:** At 24 weeks gestation, the branches of the baby's lungs are forming, as well as the cells that make surfactant, a natural substance that lines the tiny air sacs (called alveoli) in the lungs to make breathing possible.⁴ While a small amount of surfactant is now present, the lungs are still immature. Babies born this early have a hard time breathing.
- **Option D:** Babies begin having eye movements as early as 14 weeks, but these movements increase around 28 weeks. The higher frequency of eye movements is associated with REM sleep and healthy brain development.

20. A client who has ulcerative colitis has persistent diarrhea. He is thin and has lost 12 pounds since the exacerbation of his ulcerative colitis. The nurse should anticipate that the physician will order which of the following treatment approaches to help the client meet his nutritional needs?

- A. Initiate continuous enteral feedings.
- B. Encourage a high protein, high-calorie diet.
- C. Implement total parenteral nutrition.
- D. Provide six small meals a day.

Correct Answer: C. Implement total parenteral nutrition.

Food will be withheld from the client with severe symptoms of ulcerative colitis to rest the bowel. To maintain the client's nutritional status, the client will be started on TPN. Dietary measures depend on the patient's condition (if disease is mild, the patient may do well on a low-residue, low-fat diet high in protein and calories with lactose restriction). In moderate disease, elemental enteral products may be given to provide nutrition without overstimulating the bowel. Patient with toxic colitis is NPO and placed on parenteral nutrition.

- **Option A:** Enteral feedings do not allow the bowel to rest. Recommend rest before meals. This quiets peristalsis and increases available energy for eating. Encourage bed rest and limited activity during the acute phase of illness. Decreasing metabolic needs aids in preventing caloric depletion and conserves energy.
- **Option B:** A high-calorie, high-protein diet will worsen the client's symptoms. Avoid or limit foods that might cause or exacerbate abdominal cramping, flatulence (milk products, foods high in fiber or fat, alcohol, caffeinated beverages, chocolate, peppermint, tomatoes, orange juice). Individual tolerance varies, depending on the stage of disease and area of bowel affected.
- **Option D:** Dividing the diet into 6 small meals does not allow the bowel to rest. Keep patient NPO as indicated. Resting the bowel decreases peristalsis and diarrhea, limiting malabsorption and loss of nutrients.

21. Sarah, a nursing student, is caring for a patient with hypertension. During her pre-clinical studies, she remembers reading about the renin-angiotensin-aldosterone system (RAAS) and its role in regulating blood pressure. She's trying to recall the details of the pathway and states: "Renin is an enzyme that acts on a protein produced by the liver called (2) angiotensinogen. Amino acids are removed from, leaving (3) angiotensin I. Angiotensin I is rapidly converted to a smaller peptide called (4) angiotensin II by (5) angiotensin-converting enzyme (ACE). Angiotensin II acts on the (6) adrenal cortex, causing it to secrete aldosterone." Her preceptor, Nurse Johnson, hears her and asks, "Sarah, is that statement correct?" Which of the following is the best response to Nurse Johnson's question?

- A. Yes, Sarah's statement is correct.
- B. No, (1) should be angiotensinogen, and (2) is renin.
- C. No, (3) should be angiotensin II, and (4) is angiotensin I.
- D. No, (6) should be adrenal medulla.

Correct Answer: A. The statement is correct

Renin is an enzyme that acts on angiotensinogen, a protein produced by the liver, to initiate a series of biochemical reactions known as the renin-angiotensin-aldosterone system (RAAS). This system plays a critical role in regulating blood pressure and fluid balance by ultimately leading to the constriction of blood vessels and the release of aldosterone, which promotes sodium and water retention. Amino acids are removed from, leaving angiotensin I. Angiotensin I is rapidly converted to a smaller peptide called angiotensin II by angiotensin-converting enzyme (ACE). Angiotensin II acts on the adrenal cortex, causing it to secrete aldosterone.

22. A male client had a nephrectomy 2 days ago and is now complaining of abdominal pressure and nausea. The first nursing action should be to:

- A. Auscultate bowel sounds.
- B. Palpate the abdomen.
- C. Change the client's position.

D. Insert a rectal tube.

Correct Answer: A. Auscultate bowel sounds.

If abdominal distention is accompanied by nausea, the nurse must first auscultate bowel sounds. If bowel sounds are absent, the nurse should suspect gastric or small intestine dilation and these findings must be reported to the physician.

- **Option B:** Palpation is the examination of the abdomen for crepitus of the abdominal wall, for any abdominal tenderness, or for abdominal masses. It may be used to assess the client but this will not be the first choice following a nephrectomy.
- **Option C:** Changing positions would not diminish the client's nausea and abdominal pressure.
- **Option D:** If peristalsis is absent, inserting a rectal tube won't relieve the client's discomfort.

23. The client who has a cold is seen in the emergency room with inability to void. Because the client has a history of BPH, the nurse determines that the client should be questioned about the use of which of the following medications?

- A. Diuretics
- B. Antibiotics
- C. Antitussives
- D. Decongestants

Correct Answer: D. Decongestants

In the client with BPH, episodes of urinary retention can be triggered by certain medications, such as decongestants, anticholinergics, and antidepressants. The client should be questioned about the use of these medications if the client has urinary retention. Retention can also be precipitated by other factors, such as alcoholic beverages, infection, bedrest, and becoming chilled.

- **Option A:** Diuretics are drugs that pharmacologically tilt the renal fluid regulation in favor of excretion of water and electrolytes. Thus, diuretics are substances that increase the production and volume of urine. This class of drugs achieves this objective primarily by suppressing receptors that aid in reabsorption of Na⁺, the most abundant extracellular cation, from the renal tubules, thereby increasing the osmolality of the renal tubules and consequently suppressing water reabsorption.
- **Option B:** Gentamicin is known to cause decreased urine output. If a medication causes a release of less urine, discuss concerns with a doctor. They may change the medication or adjust the current dosage.
- **Option C:** Antitussives are medicines that suppress coughing, also known as cough suppressants. Antitussives are thought to work by inhibiting a coordinating region for coughing located in the brain stem, disrupting the cough reflex arc; although the exact mechanism of action is unknown.

24. The high-pressure alarm on a patient's ventilator goes off. When you enter the room to assess the patient, who has ARDS, the oxygen saturation monitor reads 87% and the patient is struggling to sit up. Which action should you take next?

- A. Reassure the patient that the ventilator will do the work of breathing for him.
- B. Manually ventilate the patient while assessing possible reasons for the high-pressure alarm.
- C. Increase the fraction of inspired oxygen on the ventilator to 100% in preparation for endotracheal suctioning.
- D. Insert an oral airway to prevent the patient from biting on the endotracheal tube.

Correct Answer: B. Manually ventilate the patient while assessing possible reasons for the high-pressure alarm

Manual ventilation of the patient will allow you to deliver a FiO₂ of 100% to the patient while you attempt to determine the cause of the high-pressure alarm. Proper ventilation techniques with the BVM should consider safe ventilation parameters for each individual patient and their conditions.

- **Option A:** The patient may need reassurance, but this is not the priority nursing intervention. Indicators of appropriate ventilation include but are not limited to patient chest rise, skin color, electronic vital sign monitoring, resistance on bag squeeze according to patient lung pathology, CO₂ monitoring, and a flashing light on the BVM for rate of breath delivery.
- **Option C:** Excessive volume, pressure or flow may result in morbidity from lung damage, stomach insufflation, or hemodynamic and pulmonary compromise. Lower tidal volumes are needed in ARDS to prevent regional overdistension.
- **Option D:** The patient may need insertion of an oral airway, but the first step should be an assessment of the reason for the high-pressure alarm and resolution of the hypoxemia. PEEP (5–20?cmH₂O) is a key element of protective ventilation and is routinely applied in all patients with ARDS to facilitate adequate oxygenation and maintain alveolar recruitment.

25. Which of the following findings would the nurse expect to assess in hypercalcemia?

- A. Prolonged QRS complex
- B. Tetany
- C. Petechiae
- D. Urinary calculi

Correct Answer: D. Urinary calculi

Urinary calculi may occur with hypercalcemia. Symptoms of hypercalcemia are usually seen when serum calcium levels are more than 12 mg/dl. Irrespective of the etiology, the broad signs and symptoms can be summarized as “groans, bones, stones, moans, thrones and psychic overtones”. Tetany and petechiae are signs of hypocalcemia.

- **Option A:** Shortened, not prolonged QRS complex would be seen in hypercalcemia. Severe hypercalcemia inhibits neuromuscular and myocardial depolarization leading to muscle weakness and arrhythmias. Cardiovascular effects include prolonged PR interval, short QT interval, widened QRS complex, and bradycardia.
- **Option B:** Generally induced by a rapid decline in serum ionized calcium. Tetany is usually most dangerous and most commonly seen in the presence of respiratory alkalosis causing hypocalcemia. Hypocalcemia is a common cause of tetany and neuromuscular irritability. An alkaline environment lowers calcium levels and induces tetany, whereas an acidic environment is protective.

- **Option C:** Parathyroid hormone enhances osteoclastic bone resorption and distal tubular reabsorption of calcium. In addition, it mediates the absorption of calcium from the intestine. Vitamin D is known to regulate PTH release, intestinal absorption of calcium, and also mediate's PTH stimulated bone reabsorption.

26. As a knowledgeable nurse, you know that you should never give amphetamines in combination with:

- A. Oral hypoglycemics
- B. Insulin
- C. MAO inhibitors
- D. Antihypertensives

Correct Answer: C. MAO inhibitors

MAO inhibitors must never be given with drugs affecting the CNS because hypertension can occur. Amphetamine is contraindicated during or within 14 days of MAOI therapy, e.g., phenelzine, due to the risk of hypertensive crisis.

- **Option A:** Amphetamines can be given with oral hypoglycemics and insulin as long as blood sugar levels are monitored because these can decrease antidiabetic requirements.
- **Option B:** Amphetamines mediate their behavioral effects by stimulating dopaminergic signaling throughout reward circuits of the brain. This property of amphetamine relies on its actions at the dopamine transporter (DAT), a presynaptic plasma membrane protein responsible for the reuptake of extracellular dopamine. Recently, researchers have revealed the novel ability of insulin signaling pathways in the brain to regulate DAT function as well as the cellular and behavioral actions of amphetamine.
- **Option D:** Amphetamine enhances recovery after experimental ischemia and has shown promise in small clinical trials when combined with motor or sensory stimulation. Amphetamine, a sympathomimetic, might have hemodynamic effects in stroke patients, although limited data have been published.

27. Nurse Winona teaches a patient how to use an incentive spirometer. What patient outcome will support the conclusion that the use of the incentives spirometer was effective?

- A. Supplemental oxygen use will be reduced.
- B. Inspiratory volume will be increased.
- C. Sputum will be expectorated.
- D. Coughing will be stimulated.

Correct Answer: B. Inspiratory volume will be increased.

An incentive spirometry or provides a visual goal for and measurement of inspiration. It encourages the patient to execute and maintain a sustained inspiration. A sustained inspiration opens airways, increases the inspiratory volume, and reduces the risk of atelectasis. Spirometry is one of the most readily available and useful tests for pulmonary function. It measures the volume of air exhaled at specific time points during complete exhalation by force, which is preceded by a maximal inhalation.

- **Option A:** Patients who use an incentive spirometer may or may not be receiving oxygen. All patients must be informed that they must abstain from smoking, physical exercise in the hours before the procedure. Any bronchodilator therapy must also be stopped beforehand.
- **Option C:** Although sputum may be expectorated after the use of an incentive spirometer, this is not the primary reason for its use. Recent evidence also supports the use of spirometry in non thoracic surgeries. A recent retrospective observational study found that lower preoperative spirometry FVC may predict postoperative pulmonary complications in high-risk patients undergoing abdominal surgery.
- **Option D:** Although the deep breathing associated with the use of an incentive barometer may stimulate coughing, this is not the primary reason for its use. Complete spirometry exams will identify FEV1, forced vital capacity (FVC), vital capacity (VC), residual lung volume (RV), maximum voluntary minute ventilation (MMV), and total lung capacity (TLC). One parametric that is highly indicative of postoperative complications is predicted postoperative FEV 1(ppo FEV 1). Predicted postoperative FEV1 <30% are at a higher risk of postoperative pulmonary complications after thoracic surgery.

28. He opts to use a self-report method. Which of the following is not true about this method?

- A. Most direct means of gathering information.
- B. Versatile in terms of content coverage.
- C. Most accurate and valid method of data gathering.
- D. Yields information that would be difficult to gather by another method.

Correct Answer: C. Most accurate and valid method of data gathering.

The most serious disadvantage of this method is the accuracy and validity of the information gathered. Self-reporting is a common approach for gathering data in epidemiologic and medical research. This method requires participants to respond to the researcher's questions without his/her interference.

- **Option A:** In general, they are inexpensive and simple to administer, making it possible to collect a broad amount of data in a short time. Today, the possibility of online surveys has made data collection even easier.
- **Option B:** Another important consideration is the relevance of the questions for the specific participants of the survey. If the participant finds the topic interesting and relevant, they are more motivated to respond and complete all the questions.
- **Option D:** In addition, the results can be automatically collected, reducing the risk of errors occurring with manual registration processes. Further, the results are not dependent on an interviewer's interpretation of behavior, which may influence the results from a clinical interview.

29. Which of the following best describes pleural effusion?

- A. The collapse of alveoli.
- B. The collapse of bronchiole.
- C. The fluid in the alveolar space.
- D. The accumulation of fluid between the linings of the pleural space.

Correct Answer: D. The accumulation of fluid between the linings of the pleural space.

The pleural fluid normally seeps continually into the pleural space from the capillaries lining the parietal pleura and is reabsorbed by the visceral pleural capillaries and lymphatics. Any condition that interferes with either the secretion or drainage of this fluid will lead to a pleural effusion.

- **Option A:** The word “atelectasis” is Greek in origin; It is a combination of the Greek words atelez (ateles) and ektasiz (ektasis) meaning “imperfect” and “expansion” respectively. It results from the partial or complete, reversible collapse of the small airways leading to an impaired exchange of CO₂ and O₂ – i.e., intrapulmonary shunt.
- **Option B:** Bronchomalacia is a term for weak cartilage in the walls of the bronchial tubes, often occurring in children under a day. Bronchomalacia means ‘floppiness’ of some part of the bronchi. Patients present with noisy breathing and/or wheezing. There is collapse of a main stem bronchus on exhalation.
- **Option C:** The fluid within the alveoli, often referred to as alveolar fluid, is part of the alveolar surface network (Scarpelli, 2003). This network within the alveoli can be envisaged as a foam made of surfactant and water. The foam forms a network within the alveoli and has a gas: fluid volume ratio of 900:1 (Scarpelli, 2003).

30. The chart of a client with schizophrenia states that the client has perseveration. The nurse can expect the client to:

- A. Speak using words that rhyme
- B. Say the same thing over and over
- C. Include irrelevant details in conversation
- D. Make up new words with new meanings

Correct Answer: B. Say the same thing over and over

- Option B: A client with schizophrenia often has disordered speech such as perseveration where there is an unintentional repetition of a response (word, phrase, or gesture).
Option A: A client with a clang association speaks using rhyme words.
Option C: A client with circumstantiality includes irrelevant details in conversation.
Option D: A client with neologisms make up new words with new meanings.

31. Amid a hazardous material incident in the city, a young woman is rushed to the hospital following exposure to a potentially lethal toxin. Upon arrival, her vitals are stable, but the medical team is aware of the time-sensitive nature of the toxin’s effect. The medical toxicologist recommends the administration of antiserum containing specific pre-formed immunoglobulins to neutralize the toxin. A medical student observing the case is then quizzed by his professor about the type of immunity being utilized in this clinical scenario to provide the patient with immediate, temporary protection against the toxin. Which term best describes this form of immunity?

- A. Active Natural Immunity
- B. Active Artificial Immunity

C. Passive Natural Immunity

D. Passive Artificial Immunity

Correct Answer: D. Passive Artificial Immunity

Passive artificial immunity is acquired through the administration of pre-formed antibodies or immunoglobulins to provide immediate protection against a specific pathogen or toxin. In this clinical scenario, the patient is being given an antiserum containing pre-formed immunoglobulins to neutralize the toxin, representing an application of passive artificial immunity.

- **Option A:** Active natural immunity arises when an individual encounters a live pathogen naturally, and the body's immune system responds by generating a specific immune response including the production of antibodies. This scenario does not describe active natural immunity as the patient is being given pre-formed antibodies rather than generating her own.
- **Option B:** Active artificial immunity is acquired through vaccination where an individual is exposed to a weakened or inactivated form of the pathogen, or a part of the pathogen, and the body responds by generating a specific immune response. This is not the form of immunity being utilized in this clinical scenario as the patient is not being vaccinated but is receiving pre-formed antibodies.
- **Option C:** Passive natural immunity refers to the transmission of antibodies from mother to infant, either through the placenta during pregnancy or through breast milk postnatally. This type of immunity is naturally acquired and temporary. This scenario does not describe passive natural immunity as the patient is receiving antibodies through medical intervention, not from a maternal source.

32. Nurse Claire is caring for a client diagnosed with bulimia. The most appropriate initial goal for a client diagnosed with bulimia is?

A. Encourage to avoid food.

B. Identify anxiety-causing situations.

C. Eat only three meals a day.

D. Avoid shopping for plenty of groceries.

Correct Answer: B. Identify anxiety-causing situations

Bulimia disorder generally is a maladaptive coping response to stress and underlying issues. The client should identify anxiety-causing situations that stimulate the bulimic behavior and then learn new ways of coping with the anxiety. Assist the patient to learn strategies other than eating for dealing with feelings. Have the patient keep a diary of feelings, particularly when thinking about food. Feelings are the underlying issue, and the patient often uses food instead of dealing with feelings appropriately. The patient needs to learn to recognize feelings and how to express them clearly.

- **Option A:** Make a selective menu available, and allow the patient to control choices as much as possible. Patient who gains confidence in herself and feels in control of the environment is more likely to eat preferred foods. Be alert to choices of low-calorie foods and beverages; hoarding food; disposing of food in various places, such as pockets or wastebaskets. The patient will try to avoid taking in what is viewed as excessive calories and may go to great lengths to avoid eating.
- **Option C:** Provide diet and snacks with substitutions of preferred foods when available. Having a variety of foods available enables the patient to have a choice of potentially enjoyable foods. Provide smaller meals and supplemental snacks, as appropriate. Gastric dilation may occur if refeeding is too rapid following a period of starvation dieting. Note: the patient may feel bloated for 3–6 weeks while the body adjusts to food intake.

- **Option D:** Involve the patient in setting up or carrying out a program of behavior modification. Provide a reward for weight gain as individually determined; ignore the loss. Provides structured eating situations while allowing the patient some control in choices. Behavior modification may be effective in mild cases or for short-term weight gain.

33. In a pediatric primary care clinic, Nurse Patterson is preparing to conduct a physical examination on a 2-year-old toddler, Amelia. The toddler presents with a mild cough and runny nose for two days, as reported by her mother. Amelia, being at an age characterized by curiosity yet also anxiety towards unfamiliar situations, appears uneasy about the impending examination. Nurse Patterson, having a vast experience in pediatric nursing, recognizes the importance of employing a child-friendly, systematic approach during the examination to ensure accuracy while minimizing distress for both Amelia and her anxious mother. Utilizing her in-depth understanding of child development and behavior, alongside her clinical skills, Nurse Patterson plans the sequence of the examination to foster a cooperative environment and to glean accurate assessment data. Among the following methods, which would be the most appropriate strategy for Nurse Patterson to employ while performing the physical examination on toddler Amelia?

- A. Proceeding from head to toe
- B. Moving distally to proximally
- C. Transitioning from abdomen to toes, then to head
- D. Progressing from least to most intrusive
- E. Utilizing a play-oriented approach throughout the examination
- F. Adhering to a system-specific approach, based on the presenting symptoms
- G. Involving the parent in distracting the toddler during more intrusive examinations

Correct Answer: D. Progressing from least to most intrusive

Progressing from least to most intrusive is a recognized child-friendly approach. Starting with less invasive examination steps like listening to the heart or lungs can help the toddler acclimate to the examination process before moving onto more invasive steps, making the examination less stressful and more efficient.

- **Option A:** A head-to-toe approach is systematic but might not be child-friendly. Toddlers may feel threatened or fearful, especially when starting with the head which can be perceived as a more invasive part of the examination.
- **Option B:** Moving distally to proximally is not a traditional or recognized method of examination and does not specifically cater to the comfort or the anxiety levels of a toddler.
- **Option C:** Transitioning from abdomen to toes, then to head is not a traditional or recognized method of examination and does not specifically cater to the comfort or the anxiety levels of a toddler.
- **Option E:** Utilizing a play-oriented approach can be beneficial but it's not a method of examination. It's more of a technique to keep the child engaged and less anxious during the examination process.

- **Option F:** A system-specific approach, while efficient, does not specifically cater to the comfort or the anxiety levels of a toddler. This approach is more symptom or condition focused and may not be child-friendly.
- **Option G:** Involving the parent can be beneficial for distraction and comfort but again, it's not a method of examination. It's more of a technique to ensure a smoother examination process.

34. Mrs. Johansson, who had undergone surgery in the post-anesthesia care unit (PACU), is difficult to arouse two hours following surgery. Nurse Florence in the PACU has been administering Morphine Sulfate intravenously to the client for complaints of post-surgical pain. The client's respiratory rate is 7 per minute and demonstrates shallow breathing. The patient does not respond to any stimuli. The nurse assesses the ABCs (remember Airway, Breathing, Circulation!) and obtains ABGs STAT! Measurement of arterial blood gas shows pH 7.10, PaCO₂ 70 mm Hg, and HCO₃ 24 mEq/L. What does this mean?

- A. Respiratory Alkalosis, Partially Compensated
- B. Respiratory Acidosis, Uncompensated
- C. Metabolic Alkalosis, Partially Compensated
- D. Metabolic Acidosis, Uncompensated

Correct Answer: B. Respiratory Acidosis, Uncompensated

The results show that Mrs. Johansson has respiratory acidosis because of decreased pH and increased PaCO₂ which means acidic in nature. Meanwhile, it is uncompensated because HCO₃ is within the normal range.

35. Which of the following additional assessment data should immediately be gathered to determine the status of a client with a respiratory rate of 4 breaths/minute?

- A. Arterial blood gas (ABG) and breath sounds.
- B. Level of consciousness and a pulse oximetry value.
- C. Breath sounds and reflexes.
- D. Pulse oximetry value and heart sounds.

Correct Answer: B. Level of consciousness and a pulse oximetry value.

First, the nurse should attempt to rouse the client because this should increase the client's respiratory rate. If available, a spot pulse oximetry check should be done and breath sounds should be checked. The physician should be notified immediately of the findings. The care of the patient at the scene depends on the vital signs. If the patient is comatose and in respiratory distress, airway control must be obtained before doing anything else.

- **Option A:** He'll probably order ABG analysis to determine specific carbon dioxide and oxygen levels, which will indicate the effectiveness of ventilation. If the physician suspects that the individual has overdosed on an opiate and has signs of respiratory and CNS depression, no time should be wasted on laboratory studies; instead, naloxone should be administered as soon as

possible.

- **Option C:** Reflexes and heart sounds will be part of the more extensive examination done after these initial actions are completed. An ECG is recommended in all patients with suspected opioid overdose. Coingestants like tricyclics have the potential to cause arrhythmias.
- **Option D:** When a patient presents to the emergency department with any type of drug overdose, the ABCDE protocol has to be followed. In some cases, airway control has been obtained by emergency medical personnel at the scene, but if there is any sign of respiratory distress or failure to protect the airways in an un-intubated patient with a morphine overdose, one should not hesitate to intubate. In most emergency rooms, patients who present with an unknown cause of lethargy or loss of consciousness have their blood glucose levels drawn.