

Kevin's Review - 100 NCLEX Practice Questions

1. Francis who is addicted to cocaine withdraws from the drug. Nurse Ron should expect to observe:

- A. Hyperactivity
- B. Depression
- C. Suspicion
- D. Delirium

Correct Answer: B. Depression

There is no set of symptoms associated with cocaine withdrawal, only the depression that follows the high caused by the drug. When cocaine use is stopped or when a binge ends, a crash follows almost right away. The cocaine user has a strong craving for more cocaine during a crash. Other symptoms include fatigue, lack of pleasure, anxiety, irritability, sleepiness, and sometimes agitation or extreme suspicion or paranoia. Cocaine withdrawal often has no visible physical symptoms, such as the vomiting and shaking that accompany withdrawal from heroin or alcohol.

- **Option A:** The craving and depression can last for months after stopping long-term heavy use. Withdrawal symptoms may also be associated with suicidal thoughts in some people. During withdrawal, there can be powerful, intense cravings for cocaine. The “high” associated with ongoing use may become less and less pleasant. It can produce fear and extreme suspicion rather than euphoria. Even so, the cravings may remain powerful.
- **Option C:** Feeling depressed, anxious, or irritable is a normal part of cocaine withdrawal. Although these feelings are often intense during cocaine withdrawal, they tend to pass once the withdrawal stage is over. Feeling very tired is a normal part of cocaine withdrawal. In addition to the exhaustion that you naturally feel after the stimulating effects of cocaine, you may have tired yourself out through lack of sleep and energetic activity while you were high on cocaine.
- **Option D:** One of the frustrations that people can have during cocaine withdrawal is difficulty sleeping. Despite the tiredness, cocaine withdrawal often causes sleep problems, such as vivid and unpleasant dreams, insomnia (having trouble getting to sleep or staying asleep) or hypersomnia (too much sleep). Increased appetite is a recognized aspect of cocaine withdrawal, and may be exacerbated by not eating properly while you were high on cocaine. However, it is important to support your recovery through eating a healthy diet, and small, manageable amounts, rather than bingeing.

2. This is characterized by severe symptoms relatively of short duration.

- A. Chronic Illness
- B. Acute Illness
- C. Pain
- D. Syndrome

Correct Answer: B. Acute Illness

Acute illnesses are different than chronic illnesses in that they usually develop quickly and they only last a short time – usually a few days or weeks. Acute illnesses are often caused by viral or bacterial infections.

- **Option A:** Chronic Illness (Choice A) are illnesses that are persistent or long-term. A chronic illness is a condition that develops over time and is present for a long period of time. Some people have chronic conditions for many years. Technically, a chronic disease is defined as a health condition that lasts anywhere from three months to a lifetime. Chronic conditions may get worse over time.
- **Option C:** Pain refers to the product of higher brain center processing; it entails the actual unpleasant emotional and sensory experience generated from nervous signals.
- **Option D:** A syndrome is a set of medical signs and symptoms which are correlated with each other and often associated with a particular disease or disorder. The word derives from the Greek ??????????, meaning “concurrency”.

3. A client with which of the following conditions may experience a dangerous or fatal side effect of theophylline?

- A. Cardiac disorder
- B. Diabetes
- C. Renal disease
- D. Hepatic disease

Correct Answer: A. Cardiac disorder

A client with a heart condition may experience dangerous stimulation from this drug. Use cautiously in patients who have cardiac arrhythmias (excluding bradyarrhythmias), as it may exacerbate arrhythmias. Theophylline should be administered cautiously with all the other choices, but the consequences are most dangerous or possibly fatal for clients with heart conditions.

- **Option B:** Use cautiously in patients with hyperthyroidism, as increased theophylline clearance may occur. Theophylline has a very narrow therapeutic window, and its interaction with various other drugs has led to the limitation of its use. The serum theophylline concentrations require monitoring directly to avoid toxicity as the adverse effects of theophylline are related to its plasma concentration and have been observed when plasma concentrations exceed 20 mg/L. Some patients have also experienced adverse effects at low plasma concentrations. The dose gradually increases until achieving therapeutic plasma concentrations. This approach reduces side effects.
- **Option C:** Serum theophylline concentrations should be checked after the initiation of therapy, before increasing dose and if any signs or symptoms of toxicity appear. Worsening of the current illness, an occurrence of a new illness or any change in the patient’s treatment protocol that may alter theophylline clearance should also prompt the physician to check serum concentrations of theophylline. Attention should also be necessary for the infusion site.
- **Option D:** Use cautiously in patients with a hepatic impairment such as cirrhosis, cholestasis, acute hepatitis because there is an increased risk of severe and potentially fatal complications. This risk exists because clearance decreases by 50% or more in these patients. Frequent monitoring and dose reduction of theophylline are necessary for these patients.

4. The client with an arteriovenous shunt in place for hemodialysis is at risk for bleeding. The nurse would do which of the following as a priority action to prevent this complication from occurring?

- A. Check the results of the PT time as they are ordered.

- B. Observe the site once per shift.
- C. Check the shunt for the presence of a bruit and thrill.
- D. Ensure that small clamps are attached to the AV shunt dressing.

Correct Answer: D. Ensure that small clamps are attached to the AV shunt dressing.

An AV shunt is a less common form of access site but carries a risk of bleeding when it is used because two ends of an external cannula are tunneled subcutaneously into an artery and a vein and the ends of the cannula are joined. If accidental connection occurs, the client could lose blood rapidly. For this reason, small clamps are attached to the dressing that covers the insertion site to use if needed.

- **Option A:** Use of heparin to prevent clotting in bloodlines and hemofilter alters coagulation and potentiates active bleeding. Administer protamine sulfate as appropriate. It may be needed to return clotting times to normal or if heparin rebound occurs (up to 16 hr after hemodialysis).
- **Option B:** The shunt site should be assessed at least every four hours. Apply external shunt dressing. Permit no puncture of shunt. Minimizes stress on cannula insertion site to reduce inadvertent dislodgement and bleeding from site. Verify continuity of shunt and/or access catheter. Disconnected shunt or open access permits exsanguination.
- **Option C:** Checking for a bruit and thrill is done to monitor the patency of the shunt. Assess for oozing or frank bleeding at access site or mucous membranes, incisions, or wounds. Hematest and/or guaiac stools, gastric drainage. Systemic heparinization during dialysis increases clotting times and places the patient at risk for bleeding, especially during the first 4 hr after the procedure.

5. Nurse Martinez is overseeing a group of nursing students during their orthopedic rotation. She presents a case of a 16-year-old male who had a minor bone fracture while playing soccer. As they discuss the recovery and healing processes, Nurse Martinez wants to ensure the students understand the composition of bones. She asks: “Regarding the composition of our bones, most of the mineral is in the form of calcium phosphate crystals known as what?”

- A. Synovial fluid
- B. Marrow
- C. Hydroxyapatite
- D. Proteoglycans

Correct Answer: C. Hydroxyapatite

Hydroxyapatite is a calcium phosphate crystal contained in normal bone. The lattice-like structure of hydroxyapatite crystals accounts for the bones to withstand compression.

- **Option A:** Synovial fluid forms a thin lubricating film covering the joint surfaces.
- **Option B:** Marrow, specifically bone marrow, is a semi-solid tissue which may be found within the spongy or cancellous portions of bones. It is responsible for producing blood cells.
- **Option D:** These are large molecules that are part of the matrix of cartilage. They help to provide the compressive strength of cartilage.

6. Nursing interventions for a patient with hypermagnesemia include administering calcium gluconate to:

- A. Increase calcium levels.
- B. Antagonize the cardiac effects of magnesium.
- C. Lower calcium levels.
- D. Lower magnesium levels.

Correct Answer: B. Antagonize the cardiac effects of magnesium.

In a patient with hypermagnesemia, administration of calcium gluconate will antagonize the cardiac effects of magnesium. Calcium may moderate nerve and muscle performance in hypermagnesemia. Calcium gluconate (Kalcinate) directly antagonizes neuromuscular and cardiovascular effects of magnesium. Use in patients with symptomatic hypermagnesemia that is causing cardiac effects or respiratory distress.

- **Option A:** Although calcium gluconate will raise serum calcium levels, that is not the purpose of administration. Calcium gluconate is a medication used in the management of hypocalcemia, cardiac arrest, and cardiotoxicity due to hyperkalemia or hypermagnesemia. It is classified as a calcium salt.
- **Option C:** Calcium gluconate does not lower calcium levels. The treatment of hypocalcemia initially focuses on symptomatic treatment rather than normalizing serum calcium. In severe hypocalcemia with seizures, laryngospasm, hypotension, or tetany, patients should receive emergent parenteral calcium gluconate to replenish calcium levels until severe and life-threatening abnormalities resolve.
- **Option D:** Calcium gluconate does not lower magnesium levels. It is essential to check magnesium levels during calcium repletion as hypomagnesemia is a crucial cause of hypocalcemia. Hypomagnesemia causes hypocalcemia through impairment of parathyroid hormone secretion and renal resistance to parathyroid hormone, leading to decreased renal reabsorption of calcium.

7. A client is admitted to the psychiatric unit of a local hospital with chronic undifferentiated schizophrenia. During the next several days, the client is seen laughing, yelling, and talking to herself. This behavior is characteristic of:

- A. Delusion
- B. Looseness of association
- C. Illusion
- D. Hallucination

Correct Answer: D. Hallucination

Auditory hallucination, in which one hears voices when no external stimuli exist, is common in schizophrenic clients. Such behaviors as laughing, yelling, and talking to oneself suggest such a hallucination. Auditory hallucinations are the sensory perceptions of hearing voices without an external stimulus. This symptom is particularly associated with schizophrenia and related psychotic disorders but is not specific to it. Auditory hallucinations are one of the major symptoms of psychosis.

- **Option A:** Delusions, also common in schizophrenia, are false beliefs or ideas that arise without external stimuli. Jaspers (1883-1969) was amongst the first to describe and classify delusions. In

his book *General Psychopathology* (1913), he suggests that a delusion is a “perverted view of reality, incorrigibly held.” These perversions are enigmatically derived, held with extraordinary certainty, and absolutely unamenable. He further emphasized that these false beliefs exist along a continuum of thought disturbance, increasing in severity of distortion from normal thinking patterns to ‘true’ delusions. One hundred years later, Jaspers’ postulation remains a leading candidate in the investigation of delusion morphology.

- **Option B:** Clients with schizophrenia may exhibit looseness of association, a pattern of thinking and communicating in which ideas aren’t clearly linked to one another. A thought disturbance demonstrated by speech that is disconnected and fragmented, with the individual jumping from one idea to another unrelated or indirectly related idea. It is essentially equivalent to derailment.
- **Option C:** Illusion is a less severe perceptual disturbance in which the client misinterprets actual external stimuli. Illusions are rarely associated with schizophrenia. Illusion, a misrepresentation of a “real” sensory stimulus—that is, an interpretation that contradicts objective “reality” as defined by general agreement. For example, a child who perceives tree branches at night as if they are goblins may be said to be having an illusion.

8. A 72-year-old male patient with a history of atrial fibrillation and controlled hypertension has been initiated on warfarin therapy. Upon assessment of the patient’s history, it was revealed that he has a history of peptic ulcer. This patient also has a recent history of a peptic ulcer. Given the client’s medical history and current medication regimen, which of the following instructions should the nurse prioritize when providing discharge teaching?

- A. Report incidents of diarrhea
- B. Avoid foods high in vitamin K
- C. Use a straight razor when shaving
- D. Take aspirin for pain relief
- E. Monitor for signs of bleeding, such as bruising or black tarry stools
- F. Check blood pressure regularly at home
- G. Inform all healthcare providers about the anticoagulant therapy

Correct Answer: B. Avoid foods high in vitamin K

Clients taking warfarin should be educated about maintaining a consistent intake of vitamin K, as it is necessary for the clotting cascade, and warfarin works by inhibiting the effects of vitamin K, thereby reducing the blood’s ability to clot. Sudden increases in vitamin K intake can decrease the effectiveness of warfarin and increase the risk of clot formation. Clients should also be advised to report any incidents of diarrhea (A) since it can affect the absorption of the medication and potentially lead to unstable anticoagulation levels. Using a straight razor (C) is not advised due to the increased risk of bleeding; a safety razor or electric razor would be safer alternatives. Taking aspirin for pain relief (D) is not recommended without a physician’s approval because aspirin can increase the risk of bleeding when taken with an anticoagulant. Monitoring for signs of bleeding (E), checking blood pressure regularly (F), and informing all healthcare providers about anticoagulant therapy (G) are also important instructions for a patient on warfarin therapy, but avoiding foods high in vitamin K is directly related to the effectiveness of the anticoagulant medication and is thus the priority teaching point.

9. A male client is recovering from a small bowel resection. To relieve pain, the physician prescribes meperidine (Demerol), 75 mg I.M. every 4 hours. How soon after administration should meperidine onset of action occur?

- A. 5 to 10 minutes
- B. 15 to 30 minutes
- C. 30 to 60 minutes
- D. 2 to 4 hours

Correct Answer: B. 15 to 30 minutes

Meperidine's onset of action is 15 to 30 minutes. It peaks between 30 and 60 minutes and has a duration of action of 2 to 4 hours. Meperidine is in the class of phenylpiperidine as a hydrochloride salt synthetic form of the opioid. Meperidine is used for the treatment of moderate to severe pain. It has intramuscular, subcutaneous, intravenous injection, syrup, and tablet forms.

- **Option A:** Injection should be into large muscle mass, and it is preferable to subcutaneous injection. Using Meperidine for pain control should be considered if no other options are available, in which case the duration of medication use should be limited to less than 48 hours, and the total dosage administered should not exceed 600 mg in 24 hours.
- **Option C:** For intravenous (IV) injection, inject the dose of 10 mg/ml slowly. The injection should be a consideration only when an opiate antagonist and the administration of oxygen and respiratory monitoring facilities are available. In the 20th century, it was the drug of choice amongst the opioids in the management of acute pain by most physicians and the management of some patients with chronic pain. Meperidine is also being used as an adjunct to preoperative medications to reduce shivering.
- **Option D:** Meperidine has the same mechanism of action as morphine, which is acting as an agonist to the mu-opioid receptor. The anti-shivering effect may involve the stimulation of k-opioid receptors.

10. If parents keep a toddler dependent in areas where he is capable of using skills, the toddler will develop a sense of which of the following?

- A. Mistrust
- B. Shame
- C. Guilt
- D. Inferiority

Correct Answer: B. Shame

According to Erikson, toddlers experience a sense of shame when they are not allowed to develop appropriate independence and autonomy. If children are criticized, overly controlled, or not given the opportunity to assert themselves, they begin to feel inadequate in their ability to survive, and may then become overly dependent upon others, lack self-esteem, and feel a sense of shame or doubt in their abilities.

- **Option A:** Infants develop mistrust when their needs are not consistently gratified. Failing to acquire the virtue of hope will lead to the development of fear. This infant will carry the basic sense of mistrust with them to other relationships. It may result in anxiety, heightened insecurities, and an

over feeling of mistrust in the world around them.

- **Option C:** Preschoolers develop guilt when their initiative needs are not met. If this tendency is squelched, either through criticism or control, children develop a sense of guilt. The child will often overstep the mark in his forcefulness, and the danger is that the parents will tend to punish the child and restrict his initiatives too much.
- **Option D:** While school-agers develop a sense of inferiority when their industry needs are not met. If this initiative is not encouraged, if it is restricted by parents or teachers, then the child begins to feel inferior, doubting his own abilities and therefore may not reach his or her potential.

11. A woman comes into the ER in a severe state of anxiety following a car accident. The most appropriate nursing intervention is to:

- A. Remain with the client.
- B. Put the client in a quiet room.
- C. Teach the client deep breathing.
- D. Encourage the client to talk about their feelings and concerns.

Correct Answer: A. Remain with the client.

If a client with severe anxiety is left alone; the client may feel abandoned and become overwhelmed. Remain with the client at all times when levels of anxiety are high (severe or panic); reassure the client of his or her safety and security. The client's safety is an utmost priority. A highly anxious client should not be left alone as his anxiety will escalate.

- **Option B:** Placing the client in a quiet room is also important, but the nurse must stay with the client. Move the client to a quiet area with minimal stimuli such as a small room or seclusion area (dim lighting, few people, and so on.) Anxious behavior escalates by external stimuli. A smaller or secluded area enhances a sense of security as compared to a large area which can make the client feel lost and panicked.
- **Option C:** Teaching the client deep breathing or relaxation is not possible until the anxiety decreases. Encourage the client's participation in relaxation exercises such as deep breathing, progressive muscle relaxation, guided imagery, meditation and so forth. Relaxation exercises are effective nonchemical ways to reduce anxiety.
- **Option D:** Encouraging the client to discuss concerns and feelings would not take place until the anxiety has decreased. Observe for increasing anxiety. Assume a calm manner, decrease environmental stimulation, and provide temporary isolation as indicated. Early detection and intervention facilitate modifying a client's behavior by changing the environment and the client's interaction with it, to minimize the spread of anxiety.

12. On completing a fundal assessment, the nurse notes the fundus is situated on the client's left abdomen. Which of the following actions is appropriate?

- A. Ask the client to empty her bladder.
- B. Straight catheterize the client immediately.
- C. Call the client's health provider for direction.
- D. Straight catheterize the client for half of her uterine volume.

Correct Answer: A. Ask the client to empty her bladder.

A full bladder may displace the uterine fundus to the left or right side of the abdomen. Massage the fundus every 15 minutes during the first hour, every 30 minutes during the next hour, and then, every hour until the patient is ready for transfer.

- **Option B:** Catheterization is unnecessary invasive if the woman can void on her own. Chart fundal height. Evaluate from the umbilicus using fingerbreadths. This is recorded as two fingers below the umbilicus (U/2), one finger above the umbilicus (1/U), and so forth. The fundus should remain in the midline. If it deviates from the middle, identify this and evaluate for a distended bladder.
- **Option C:** Be able to recognize the difference between a full bladder and a fundus. Full bladders may actually cause postpartum hemorrhage because it prevents the uterus from contracting appropriately. Nerve blocks may alter the sensation of a full bladder to the patient and prevent her from urinating.
- **Option D:** If at all possible, ambulate the patient to the bathroom. Urine output less than 300cc on initial void after delivery may suggest urinary retention. Document the fundal height and bladder status before the patient urinates. Reevaluate and document the fundal height and bladder status after the patient urinates to accurately document an empty bladder.

13. A client who had a transsphenoidal hypophysectomy should be watched carefully for hemorrhage, which may be shown by which of the following signs?

- A. Bloody drainage from the ears
- B. Frequent swallowing
- C. Guaiac-positive stools
- D. Hematuria

Correct Answer: B. Frequent swallowing

Frequent swallowing after brain surgery may indicate fluid or blood leaking from the sinuses into the oropharynx. In the occurrence of a leak in the postoperative period, the patient is advised bed rest, and a lumbar drain is placed. If the leak does not improve in 24 hours, exploration and closure of the defect are to be done. Worsening of vision as a result of bleeding or manipulation and arterial hemorrhage are other immediate complications.

- **Option A:** Blood or fluid draining from the ear may indicate a basilar skull fracture. Basilar skull fractures most commonly involve the temporal bones but may involve the occipital, sphenoid, ethmoid, and the orbital plate of the frontal bone as well. Several clinical exam findings highly predictive of basilar skull fractures include hemotympanum, cerebrospinal fluid (CSF) otorrhea or rhinorrhea, Battle sign (retroauricular or mastoid ecchymosis), and raccoon eyes (periorbital ecchymosis).
- **Option C:** If the patient's fecal occult blood test does not turn blue, it is negative. If the card turns blue, this is positive and requires further gastroenterological workup. Occult fecal blood can be present secondary to several etiologies. Neoplastic causes include adenocarcinoma, gastrointestinal metastasis, lymphoma, and leiomyosarcoma. Inflammatory causes include Crohn disease, ulcerative colitis, gastritis, peptic ulcer disease, and diverticular bleeding.
- **Option D:** Hematuria is the presence of blood in the urine. Hematuria can be gross or microscopic. Gross hematuria is visible blood in the urine. Microscopic hematuria refers to the detection of blood on urinalysis or urine microscopy. Hematuria is usually caused by a genitourinary disease although systemic diseases can also manifest with blood in the urine. Hematuria is divided into glomerular

and nonglomerular hematuria to help in evaluation and management.

14. The client is admitted to the hospital with hypertensive crises. Diazoxide (Hyperstat) is ordered. During administration, the nurse should:

- A. Utilize an infusion pump
- B. Check the blood glucose level
- C. Place the client in Trendelenburg position
- D. Cover the solution with foil

Correct Answer: B. Check the blood glucose level

Hyperstat is given as an IV push for hypertensive crises, but it often causes hyperglycemia. The glucose level will drop rapidly when stopped. This medication is used to treat very low blood sugar (hypoglycemia). Certain conditions (such as tumor on the pancreas, cancer, leucine sensitivity) can cause the release of too much insulin. Insulin is a natural substance that lowers blood sugar. This drug works by preventing insulin release from the pancreas, helping to return the blood sugar to normal levels. Diazoxide is a thiazide drug, but has no diuretic (“water pill”) effects like other thiazides.

- **Option A:** Diazoxide (Hyperstat) is given by IV push. Diazoxide is a potassium channel activator. Its mechanism of action revolves around enhancing cell membrane permeability to potassium ions. This action consequently elicits the relaxation of local smooth muscles. This switches off voltage-gated calcium ion channels which inhibits the generation of an action potential.
- **Option C:** The client should be placed in dorsal recumbent position, not a Trendelenburg position. Diazoxide is used to treat low blood sugar (hypoglycemia) caused by certain cancers or other conditions that can make the pancreas release too much insulin. This medicine is for use in adults and children as young as infants.
- **Option D:** This medication does not have to be covered with foil. Store at room temperature away from moisture, heat, and light. Diazoxide is only part of a treatment program that may also include diet. Follow the doctor’s instructions very closely.

15. Which of the following medications would the nurse expect the physician to order to reverse a dystonic reaction?

- A. prochlorperazine (Compazine)
- B. diphenhydramine (Benadryl)
- C. haloperidol (Haldol)
- D. midazolam (Versed)

Correct Answer: B. diphenhydramine (Benadryl)

Diphenhydramine, 25 to 50 mg I.M. or I.V., would quickly reverse this condition. An acute dystonic reaction is characterized by involuntary contractions of muscles of the extremities, face, neck, abdomen, pelvis, or larynx in either sustained or intermittent patterns that lead to abnormal movements or postures. The symptoms may be reversible or irreversible and can occur after taking any dopamine receptor-blocking agents. Treatment of acute dystonic reaction centers around balancing the disrupted dopaminergic-cholinergic balance in the basal ganglia and discontinuation of the offending agent. The most commonly available drugs in the emergency setting for the treatment of acute dystonic reaction

are diphenhydramine and benztropine.

- **Option A:** Prochlorperazine can be used to treat both acute psychotic episodes and chronic mental illnesses. As a first-generation antipsychotic, the drug is better at treating positive symptoms than negative ones, including delusions, hallucinations, agitation, and disorganized speech and behavior.
- **Option C:** Haloperidol is capable of causing dystonia, not reversing it. Due to the blockade of the dopamine pathway in the brain, typical antipsychotic medications such as haloperidol have correlations with extrapyramidal side effects. The extrapyramidal symptoms are muscular weakness or rigidity, a generalized or localized tremor that may be characterized by the akinetic or agitation types of movements, respectively. Haloperidol overdose is also associated with ECG changes known as torsade de pointes, which may cause arrhythmia or cardiac arrest.
- **Option D:** Midazolam would make this client drowsy. Midazolam can be used for anxiolysis and hypnosis during the maintenance phase of general anesthesia and is also superior to thiopental in the maintenance of anesthesia because of the less need for adjunct medications. Midazolam is used as an adjunct medication to regional and local anesthesia for a wide range of diagnostic and therapeutic procedures and has greater patient and physician acceptance.

16. The community nurse is speaking to a group of new mothers as part of a primary prevention program. Which self-measures would be most helpful as a strategy to decrease the occurrence of mood disorders?

- A. Keeping busy, so as not to confront problem areas.
- B. Medication with antidepressants.
- C. Use of crisis intervention services.
- D. Verbalizing rather than internalizing feelings.

Correct Answer: D. Verbalizing rather than internalizing feelings.

Individuals who develop mood disorders often have difficulty expressing feelings, especially feelings of anger toward significant others. Internalizing those feelings can contribute to loss of self-esteem and guilt, and therefore negative cognitions and depression.

- **Option A:** Ignoring problems is not a helpful strategy. Recognizing problems and using problem-solving methods will contribute to mental health. The nurse can direct their need for movement into socially acceptable, large motor activities such as arranging chairs for a community meeting or walking.
- **Option B:** Antidepressants are certainly necessary in the treatment of the mood disorder of depression; however, they are not used in primary prevention. Decreasing environmental stimulation may assist the client to relax; the nurse must provide a quiet environment without noise, television, and other distractions; finger foods or things the client can eat while moving around are the best options to improve nutrition.
- **Option C:** Crisis intervention would be a useful strategy in handling the immediate needs of someone experiencing a crisis; it is not a tool of primary prevention. A primary nursing responsibility is to provide a safe environment for the client and others; for clients who feel out of control, the nurse must establish external controls emphatically and nonjudgmentally.

17. The nurse is working with a client with a somatoform disorder. Which client outcome goal would the nurse most likely establish in this situation?

- A. The client will recognize signs and symptoms of physical illness.
- B. The client will cope with physical illness.
- C. The client will take prescribed medications.
- D. The client will express anxiety verbally rather than through physical symptoms.

Correct Answer: D. The client will express anxiety verbally rather than through physical symptoms.

The client with a somatoform disorder displaces anxiety into physical symptoms. The ability to express anxiety verbally indicates a positive change toward improved health. These disorders should be considered early in the evaluation of patients with unexplained symptoms to prevent unnecessary interventions and testing. Up to 50 percent of primary care patients present with physical symptoms that cannot be explained by a general medical condition. Some of these patients meet criteria for somatoform disorders.

- **Option A:** The unexplained symptoms of somatoform disorders often lead to general health anxiety; frequent or recurrent and excessive preoccupation with unexplained physical symptoms; inaccurate or exaggerated beliefs about somatic symptoms; difficult encounters with the health care system; disproportionate disability; displays of strong, often negative emotions toward the physician or office staff; unrealistic expectations; and, occasionally, resistance to or noncompliance with diagnostic or treatment efforts. These behaviors may result in more frequent office visits, unnecessary laboratory or imaging tests, or costly and potentially dangerous invasive procedures.
- **Option B:** The challenge in working with somatoform disorders in the primary care setting is to simultaneously exclude medical causes for physical symptoms while considering a mental health diagnosis. The diagnosis of a somatoform disorder should be considered early in the process of evaluating a patient with unexplained physical symptoms. Appropriate nonpsychiatric medical conditions should be considered, but over-evaluation and unnecessary testing should be avoided.
- **Option C:** Studies supporting the effectiveness of pharmacologic interventions targeting specific somatoform disorders are limited. Antidepressants are commonly used to treat depressive or anxiety disorders and may be part of the approach to treating the comorbidities of somatoform disorders. Antidepressants such as fluvoxamine (Luvox, brand not available) for treating body dysmorphic disorder, and St. John's wort for treating somatization and undifferentiated somatoform disorders have been proposed.

18. Situation: The nurse assigned to the detoxification unit attends to various patients with substance-related disorders. A 45 years old male revealed that he experienced a marked increase in his intake of alcohol to achieve the desired effect. This indicates:

- A. Withdrawal
- B. Tolerance
- C. Intoxication
- D. Psychological dependence

Correct Answer: B. Tolerance

Tolerance refers to the increase in the amount of the substance to achieve the same effects. Tolerance means that after continued drinking, consumption of a constant amount of alcohol produces a lesser effect or increasing amounts of alcohol are necessary to produce the same effect. Despite this uncomplicated definition, scientists distinguish between several types of tolerance that are produced by different mechanisms.

- **Option A:** Withdrawal refers to the physical signs and symptoms that occur when the addictive substance is reduced or withheld. Alcohol withdrawal symptoms occur when patients stop drinking or significantly decrease their alcohol intake after long-term dependence. Withdrawal has a broad range of symptoms from mild tremors to a condition called delirium tremens, which results in seizures and could progress to death if not recognized and treated promptly.
- **Option B:** Intoxication refers to the behavioral changes that occur upon recent ingestion of substance. Intoxication is a condition that follows the administration of a psychoactive substance and results in disturbances in the level of consciousness, cognition, perception, judgement, affect, or behaviour, or other psychophysiological functions and responses. The term is most commonly used with regard to alcohol use: its equivalent in everyday speech is “drunkenness”. Alcohol intoxication is manifested by such signs as facial flushing, slurred speech, unsteady gait, euphoria, increased activity, volubility, disorderly conduct, slowed reactions, impaired judgement and motor incoordination, insensibility, or stupefaction.
- **Option D:** Psychological dependence refers to the intake of the substance to prevent the onset of withdrawal symptoms. The term psychological dependence is generally meant to describe the emotional and mental processes that are associated with the development of, and recovery from, a substance use disorder or process addiction.

19. Marlyn is diagnosed with anorexia nervosa and is admitted to the special eating disorder unit. The initial treatment priority for her is:

- A. To determine her current body image.
- B. To identify family interaction patterns.
- C. To initiate a refeeding program.
- D. To promote the client's independence.

Correct Answer: C. To initiate a refeeding program.

The physical need to reestablish near-normal weight takes priority because of the physiologic, life-threatening consequences of anorexia. Maintain a regular weighing schedule, such as Monday and Friday before breakfast in the same attire, and graph results; provides an accurate ongoing record of weight loss or gain. Also diminishes obsessing about changes in weight. 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.

- **Option A:** Establish a minimum weight goal and daily nutritional requirements. Malnutrition is a mood-altering condition, leading to depression and agitation and affecting cognitive function and decision-making. Improved nutritional status enhances thinking ability, allowing initiation of psychological work. Weigh with back to scale (depending on program protocols). Although some programs prefer the patient to see the results of the weighing, this can force the issue of trust in the patient who usually does not trust others.
- **Option B:** 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.

- **Option D:** Use a consistent approach. Sit with the patient while eating; present and remove food without persuasion and comment. Promote a pleasant environment and record intake. Patient detects urgency and may react to pressure. Any comment that might be seen as coercion provides focus on food. When staff responds in a consistent manner, the patient can begin to trust staff responses. The single area in which the patient has exercised power and control is food or eating, and he or she may experience guilt or rebellion if forced to eat. Structuring meals and decreasing discussions about food will decrease power struggles with the patient and avoid manipulative games.

20. A newly admitted client diagnosed with Hodgkin's disease undergoes an excisional cervical lymph node biopsy under local anesthesia. What does the nurse assess first after the procedure?

- A. Vital signs
- B. Incision site
- C. Airway
- D. Level of consciousness

Correct Answer: C. Airway

Assessing for an open airway is the priority. The procedure involves the neck, the anesthesia may have affected the swallowing reflex or the inflammation may have closed in on the airway leading to ineffective air exchange. When the numbness wears off, the throat may feel scratchy for several days. After the test, the cough reflex will return in 1 to 2 hours. Then the client may eat and drink normally.

- **Option A:** The vital signs should be assessed after the procedure, but this may come after assessing the airway first. Infection is relatively rare and can be treated with antibiotics. Numbness can occur if the biopsy is done near nerves. Any numbness typically disappears within a couple of months.
- **Option B:** The incision site should be assessed regularly, but this would not be the priority after the procedure. The patient should contact the physician if any redness, increased swelling, or increased pain develops at the surgery site. Patients may shower or bathe normally. The patient may get water on the incision. If there are stitches, they may get wet. If there is a plastic bandage over the incision, the patient may get this wet.
- **Option D:** The client has only undergone local anesthesia, his level of consciousness should not be a cause of concern. Pain and tenderness can last for a few days after a biopsy. Once the client gets home, he should keep the biopsy site clean and dry at all times. The doctor may ask the client to avoid showers or baths for a couple of days after the surgery.

21. When performing an assessment on a neonate, which assessment finding is most suggestive of hypothermia?

- A. Bradycardia
- B. Hyperglycemia
- C. Metabolic alkalosis
- D. Shivering

Correct Answer: A. Bradycardia.

- **Option A:** Hypothermic neonates become bradycardic proportional to the degree of core temperature. Hypoglycemia is seen in hypothermic neonates.

22. During an outbreak of a novel respiratory virus, a community health clinic organizes informational sessions to educate the public about the infection, prevention measures, and the immune response. At one such session, a patient who recently recovered from a mild form of the viral infection is curious about the type of immunity he has acquired against the pathogen. He asks the physician speaker about the immunity that arises when one naturally encounters and recovers from a specific infectious disease, leading the body to generate a tailored antibody response. In the context of this clinical and community health scenario, which term best describes the form of immunity acquired by the patient?

- A. Active Natural Immunity
- B. Active Artificial Immunity
- C. Passive Natural Immunity
- D. Passive Artificial Immunity

Correct Answer: A. Active Natural Immunity

Active natural immunity is acquired when an individual is exposed to a live pathogen, develops the disease, and becomes immune due to the primary immune response. In this case, the patient's immune system has encountered the natural infection, responded to it by generating specific antibodies, and thereby developed immunity to this particular respiratory virus.

- **Option B:** Active artificial immunity involves exposure to a weakened or inactivated form of the pathogen or to a recombinant antigen, such as a vaccine. This form of immunity also results from the body's own immune response, but the initial exposure is controlled and administered intentionally via vaccination, unlike the natural exposure in the scenario described.
- **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. It does not result from the individual's own immune system responding to a pathogen, and therefore does not apply to the described scenario of a patient recovering from a natural infection.
- **Option D:** Passive artificial immunity is acquired through the administration of pre-formed antibodies, such as immunoglobulin therapy. This form of immunity provides immediate but temporary protection, without engaging the host's own immune system in an active response to the pathogen.

23. Which of the following disorders results from a deficiency of factor VIII?

- A. Sickle cell disease
- B. Christmas disease
- C. Hemophilia A

D. Hemophilia B

Correct Answer: C. Hemophilia A

Hemophilia A results from a deficiency of factor VIII. A hereditary hemorrhagic disorder resulting from congenital deficit or scarcity of factor VIII, hemophilia A, which is known as classical hemophilia, manifests as protracted and excessive bleeding either spontaneously or secondary to trauma. Hemophilia A's X-linked trait manifests as a congenital absence or decrease in plasma clotting Factor VIII, a pro-coagulation cofactor and robust initiator of thrombin that is essential for the generation of adequate amounts of fibrin to form a platelet-fibrin plug at sites of endothelial disruption.

- **Option A:** Sickle cell disease is caused by a defective hemoglobin molecule. Sickle cell disease (SCD) is a multisystem disorder and the most common genetic disease in the United States, affecting 1 in 500 African Americans. About 1 in 12 African Americans carry the autosomal recessive mutation, and approximately 300,000 infants are born with sickle cell anemia annually.
- **Option B:** Christmas disease, also called hemophilia B, results in a factor IX deficiency. Hemophilia B, also known as Christmas disease, is the second most common type of hemophilia. The disease was named after Stephen Christmas, who was the first person diagnosed with the condition in 1952. The disorder was ubiquitous in the royal families of Spain, Germany, and Russia.
- **Option D:** Hemophilia B is an inherited disease, mainly caused by the deficiency of factor IX. It mostly affects males, but carrier females may show some signs of bleeding. One of the most famous families with this condition was that of Queen Victoria of England; thus, it is known as the "Royal disease." It is a hereditary hemorrhagic disorder resulting from congenital deficit or scarcity of factor IX, which manifests either spontaneously or after traumatic events.

24. The nurse is preparing to discharge a multipara 24 hours after a vaginal delivery. The client is breastfeeding her newborn. The nurse instructs the client that if engorgement occurs the client should:

- A. wear a tight fitting bra or breast binder.
- B. apply warm, moist heat to the breasts.
- C. contact the nurse-midwife for a lactation suppressant.
- D. restrict fluid intake to 1000 ml daily.

Correct Answer: B. apply warm, moist heat to the breasts.

- **Option B:** Moist heat has this amazing ability to increase circulation, open milk ducts and stimulate let down – all of which encourage the milk to start flowing.
Option A: If a bra is worn, it should be big enough or stretchy enough to allow for expansion if breasts fill during the night hours; a bra that is too tight can cause soreness and potential problems such as blocked ducts.
Option C: The simplest and safest way to suppress lactation is to let milk production stop on its own.
Option D: Research has found that nursing mothers do not need to drink more fluids than what's necessary to satisfy their thirst.

25. Nurse Mary is assigned to care for a suicidal client. Initially, which is the nurse's highest care priority?

- A. Assessing the client's home environment and relationships outside the hospital.
- B. Exploring the nurse's own feelings about suicide.
- C. Discussing the future with the client.
- D. Referring the client to a clergyperson to discuss the moral implications of suicide.

Correct Answer: B. Exploring the nurse's own feelings about suicide.

The nurse's values, beliefs, and attitudes toward self-destructive behavior influence responses to a suicidal client; such responses set the overall mood for the nurse-client relationship. Therefore, the nurse initially must explore personal feelings about suicide to avoid conveying negative feelings to the client.

- **Option A:** Assessment of the client's home environment and relationships may reveal the need for family therapy; however, conducting such an assessment isn't a nursing priority. A clear and complete evaluation and clinical interview provide the information upon which to base a suicide intervention. Although risk factors offer major indications of the suicide danger, nothing can substitute for a focused patient inquiry. However, although all the answers a patient gives may be inclusive, a therapist often develops a visceral sense that his or her patient is going to commit suicide. The clinician's reaction counts and should be considered in the intervention.
- **Option C:** Discussing the future and providing anticipatory guidance can help the client prepare for future stress, but this isn't a priority. If suicidal ideation is present, the next question must be about any plans for suicidal acts. The general formula is that more specific plans indicate greater danger. Although vague threats, such as a threat to commit suicide sometime in the future, are the reason for concern, responses indicating that the person has purchased a gun, has ammunition, has made out a will, and plans to use the gun are more dangerous. The plan demands further questions. If the person envisions a gun-related death, determine whether he or she has the weapon or access to it.
- **Option D:** Referring the client to a clergyperson may increase the client's trust or alleviate guilt; however, it isn't the highest priority. The only way to prevent suicides is to work in an interprofessional team that includes a mental health nurse, psychiatrist, the primary care provider, social worker, and nurse practitioner. Practitioners must work with the patient's family and friends, as well as with the other patients who knew the client.

26. Miggy, a 6-year-old boy, received a small paper cut on his finger, his mother let him wash it and apply a small amount of antibacterial ointment and bandage. Then she let him watch TV and eat an apple. This is an example of which type of pain intervention?

- A. Pharmacologic therapy
- B. Environmental alteration
- C. Control and distraction
- D. Cutaneous stimulation

Correct Answer: C. Control and distraction

The mother's actions are an example of control and distraction. Involving the child in care and providing distraction took his mind off the pain. The brain can only focus its attention in so many areas at one time. Pain sensations compete for attention with all of the other things going on around. Just how much attention the brain gives each thing depends on a number of factors, including how long you have been hurting and the current mood.

- **Option A:** Pharmacologic agents for pain analgesics — were not used. A wide range of drugs are used to manage pain resulting from inflammation in response to tissue damage, chemical agents/pathogens (nociceptive pain) or nerve damage (neuropathic pain).
- **Option B:** The home environment was not changed. There has recently been heightened recognition that environmental factors can influence pain. Clinicians involved in delivering multidisciplinary pain programs often structure the social environment of their treatment settings to help promote adaptive responses to pain.
- **Option D:** Cutaneous stimulation, such as massage, vibration, or pressure, was not used. Cutaneous stimulation involves stimulation of nerves via skin contact in an effort to reduce pain impulses to the brain, based on the “gate control” theory of pain. A device used to provide electrocutaneous nerve stimulation was studied for its effect on symptoms of peripheral neuropathy.

27. The absence of which pulse may not be a significant finding when a patient is admitted to the hospital?

- A. Apical
- B. Radial
- C. Pedal
- D. Femoral

Correct Answer: C. Pedal

Because the pedal pulse cannot be detected in 10% to 20% of the population, its absence is not necessarily a significant finding. However, the presence or absence of the pedal pulse should be documented upon admission so that changes can be identified during the hospital stay. Absent peripheral pulses may be indicative of peripheral vascular disease (PVD). PVD may be caused by atherosclerosis, which can be complicated by an occluding thrombus or embolus. This may be life-threatening and may cause the loss of a limb.

- **Option A:** Apical pulse rate is indicated during some assessments, such as when conducting a cardiovascular assessment and when a client is taking certain cardiac medications (e.g., digoxin). Sometimes the apical pulse is auscultated pre and post medication administration. It is also a best practice to assess apical pulse in infants and children up to five years of age because radial pulses are difficult to palpate and count in this population.
- **Option B:** Examiners frequently evaluate the radial artery during a routine examination of adults, due to the unobtrusive position required to palpate it and its easy accessibility in various types of clothing. Like other distal peripheral pulses (such as those in the feet) it also may be quicker to show signs of pathology. Palpation is at the anterior wrist just proximal to the base of the thumb.
- **Option D:** The femoral pulse may be the most sensitive in assessing for septic shock and is routinely checked during resuscitation. It is palpated distally to the inguinal ligament at a point less than halfway from the pubis to the anterior superior iliac spine.

28. The nurse is teaching a client with polycythemia vera about potential complications from this disease. Which manifestations would the nurse include in the client’s teaching plan? Select all that apply.

- A. Hearing loss

- B. Visual disturbance
- C. Headache
- D. Orthopnea
- E. Gout
- F. Weight loss

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

Polycythemia vera, a condition in which too many RBCs are produced in the blood serum, can lead to an increase in hematocrit and hypervolemia, hyperviscosity, and hypertension.

- **Option A:** Hearing loss is not a manifestation associated with polycythemia vera. Polycythemia vera-related complications and mortality are related to thrombosis, hemorrhage, peptic ulcer disease, myelofibrosis, acute leukemia, or myelodysplastic syndrome (MDS).
- **Option B:** Since red blood cells are overproduced in the marrow, this leads to abnormally high numbers of circulating red blood cells (red blood mass) within the blood. Subsequently, the client can experience dizziness, tinnitus, visual disturbances, headaches, or a feeling of fullness in the head.
- **Option C:** Thick blood can lead to strokes or tissue and organ damage. Symptoms include lack of energy (fatigue) or weakness, headaches, dizziness, shortness of breath, visual disturbances, nose bleeds, bleeding gums, heavy menstrual periods, and bruising.
- **Option D:** The blood thickens and increases in volume, a condition called hyperviscosity. Thickened blood may not flow through smaller blood vessels properly. The client may also experience cardiovascular symptoms such as heart failure (shortness of breath and orthopnea) and increased clotting time.
- **Option E:** There are also symptoms of an increased uric acid level such as painful swollen joints (usually the big toe). Gout and kidney stones associated with polycythemia vera occur due to the high turnover of red blood cells, which results in higher-than-normal uric acid production.
- **Option F:** Weight loss is not a manifestation associated with polycythemia vera. Weight loss may result from early satiety or from the increased myeloproliferative activity of the abnormal clone.

29. Which statement is correct about a 25-year-old client with newly diagnosed schizophrenia?

- A. Age of onset is typical for schizophrenia.
- B. Age of onset is later than usual for schizophrenia.
- C. Age of onset is earlier than usual for schizophrenia.
- D. Age of onset follows no predictable pattern in schizophrenia.

Correct Answer: A. Age of onset is typical for schizophrenia.

The primary age of onset for schizophrenia is late adolescence through young adulthood (ages 17 to 27). Paranoid schizophrenia may sometimes have a later onset. The incidence is also up to ten times greater in children of African and Caribbean migrants compared to Caucasians according to a study conducted in Britain. All of the other options are incorrect.

- **Option B:** The first schizophrenic episode usually occurs during early adulthood or late adolescence. Individuals often lack insight at this stage; therefore few will present directly to seek

help for their psychotic symptoms. Common presentations include a relative noticing social withdrawal, personality changes or uncharacteristic behavior; deliberate self-harm or suicide attempts; calling the police to report their delusional symptoms or referral via the criminal justice system.

- **Option C:** In schizophrenia, the prognosis is dependent on several factors. Insidious onset, childhood or adolescent onset, poor premorbid adjustment, and cognitive impairment are indicative of a poor prognostic outcome whereas acute onset, female sex, and living in a developed country signal comparatively better prognostic factors.
- **Option D:** Though the prevalence of the disease varies globally, estimates are that schizophrenia affects approximately 1% of adults, whereas prevalence in the US is 0.6% to 1.9%. Men are slightly more likely to be diagnosed and have an earlier onset than women, while African-Caribbean migrants and their descendants also have a higher incidence.

30. Which of the following is the nurse's role in health promotion?

- A. Health risk appraisal
- B. Teach client to be effective health consumer
- C. Worksite wellness
- D. None of the above

Correct Answer: B. Teach client to be effective health consumer

Nurses play a huge role in illness prevention and health promotion. Nurses assume the role of ambassadors of wellness. The World Health Organization (WHO) defines health promotion as a process of enabling people to increase control over and to improve their health (WHO, 1986). Nurses are best qualified to take on the job of health promoter due to their expertise. There are few health care occupations that have the high level of health education knowledge, skills, theory, and research to be able to focus on prevention because it is considered part of their professional development focus.

- **Option A:** An HRA may be a simple questionnaire eliciting self-reported information on risk factors, behaviors, or diagnoses. Questionnaires may be supplemented with clinical examinations to obtain data on variables such as height, weight, body mass index (BMI), heart rate, or blood pressure. Some HRAs may include performance tests such as grip strength, timed-up-and-go, chair rise, or four-meter walk test.
- **Option C:** Studies show that employees are more likely to be on the job and performing well when they are in optimal health. Benefits of implementing a wellness program include: improved disease management and prevention, and a healthier workforce in general, both of which contribute to lower health care costs.
- **Option D:** One of the most critical roles that nurses have in health promotion and disease preventions is that of an educator. Nurses spend the most time with the patients and provide anticipatory guidance about immunizations, nutrition, dietary, medications, and safety.

31. A 30-year-old was admitted to the progressive care unit with a C5 fracture from a motorcycle accident. Which of the following assessments would take priority?

- A. Bladder distension

- B. Neurological deficit
- C. Pulse ox readings
- D. The client's feelings about the injury

Correct Answer: C. Pulse ox readings

After a spinal cord injury, ascending cord edema may cause a higher level of injury. The diaphragm is innervated at the level of C4, so assessment of adequate oxygenation and ventilation is necessary. Maintain patent airway: keep head in neutral position, elevate head of bed slightly if tolerated, use airway adjuncts as indicated. Measure serial ABGs and pulse oximetry. Documents status of ventilation and oxygenation, identifies respiratory problems such as hypoventilation (low Pao₂ and elevated Paco₂) and pulmonary complications.

- **Option A:** Identify and monitor precipitating risk factors (bladder and bowel distension or manipulation; bladder spasms, stones, infection; skin/tissue pressure areas, prolonged sitting position; temperature extremes or drafts). Visceral distention is the most common cause of autonomic dysreflexia, which is considered an emergency. Treatment of acute episodes must be carried out immediately (removing stimulus, treating unresolved symptoms), then interventions must be geared toward prevention.
- **Option B:** Assess and document sensory function or deficit (by means of touch, pinprick, hot or cold, etc.), progressing from an area of deficit to a neurologically intact area. Changes may not occur during acute phase, but as spinal shock resolves, changes should be documented by dermatome charts or anatomical landmarks ("2 in above nipple line").
- **Option D:** Although the other options would be necessary at a later time, observation for respiratory failure is the priority. Encourage expressions of sadness, grief, guilt, and fear among the patient, SO, and friends. Knowledge that these are appropriate feelings that should be expressed may be very supportive to the patient and SO.

32. A client telephones the clinic to ask about a home pregnancy test she used this morning. The nurse understands that the presence of which hormone strongly suggests a woman is pregnant?

- A. Estrogen
- B. Human chorionic gonadotropin (HCG)
- C. Alpha-fetoprotein (AFP)
- D. Progesterone

Correct Answer: B. Human chorionic gonadotropin (HCG)

Human chorionic gonadotropin (HCG) is the biological marker on which pregnancy tests are based. Reliability is about 98%, but the test does not positively confirm pregnancy. Human chorionic gonadotropin is a hormone produced primarily by syncytiotrophoblastic cells of the placenta during pregnancy. The hormone stimulates the corpus luteum to produce progesterone to maintain the pregnancy.

- **Option A:** Estrogen is a steroid hormone associated with the female reproductive organs and is responsible for the development of female sexual characteristics. Estrogen is often referred to as estrone, estradiol, and estriol.
- **Option C:** Alpha-fetoprotein is a protein produced by a fetus. High levels of AFP can be seen from 12 weeks of pregnancy and peak during the early 3rd trimester but are not used as a confirmatory

test for pregnancy.

- **Option D:** Progesterone is an endogenous steroid hormone that is commonly produced by the adrenal cortex as well as the gonads, which consist of the ovaries and the testes. Progesterone is also secreted by the ovarian corpus luteum during the first ten weeks of pregnancy, followed by the placenta in the later phase of pregnancy.

33. Sarah, a hospice nurse visits a client dying of ovarian cancer. During the visit, the client expresses that “If I can just live long enough to attend my daughter’s graduation, I’ll be ready to die.” Which phrase of coping is this client experiencing?

- A. Anger
- B. Denial
- C. Bargaining
- D. Depression

Correct Answer: C. Bargaining

- **Option C:** Denial, bargaining, anger, depression, and acceptance are recognized stages that a person facing a life-threatening illness experience. Bargaining identifies a behavior in which the individual is willing to do anything to avoid loss or change prognosis or fate.
- **Option A:** Anger also may be the first response to upsetting news and the predominant theme is “why me?” or the blaming of others.
- **Option B:** Denial is expressed as shock and disbelief and may be the first response to hearing bad news.
- **Option D:** Depression may be manifested by hopelessness, weeping openly, or remaining quiet or withdrawn.

34. A nurse providing care for the antepartum woman should understand that the contraction stress test (CST):

- A. Sometimes uses vibroacoustic stimulation.
- B. Is an invasive test; however, contractions are stimulated.
- C. Is considered to have a negative result if no late decelerations are observed with the contractions.
- D. Is more effective than nonstress test (NST) if the membranes have already been ruptured.

Correct Answer: C. Is considered to have a negative result if no late decelerations are observed with the contractions.

No late decelerations indicate a positive CST result.

- **Option A:** Vibroacoustic stimulation is sometimes used with NST. Vibroacoustic stimulation (VAS) of the fetus has been used as both a primary and adjunctive method of FHR testing. This device produces a broadband acoustic signal and a complex vibratory component.
- **Option B:** CST is invasive if stimulation is performed by IV oxytocin but not if by nipple stimulation.
- **Option D:** CST is contraindicated if the membranes have ruptured.

35. According to Rubin's theory of maternal role adaptation, the mother will go through 3 stages during the postpartum period. These stages are:

- A. Going through, adjustment period, adaptation period
- B. Taking-in, taking hold and letting-go
- C. Attachment phase, adjustment phase, adaptation phase
- D. Taking-hold, letting-go, attachment phase

Correct Answer: B. Taking-in, taking-hold and letting-go

Rubin's theory states that the 3 stages that a mother goes through for maternal adaptation are: taking-in, taking-hold and letting-go. In the taking-in stage, the mother is more passive and dependent on others for care. In taking-hold, the mother begins to assume a more active role in the care of the child and in letting-go, the mother has become adapted to her maternal role.

- **Option A:** The taking-in phase usually sets 1 to 2 days after delivery. This is the time of reflection for the woman because within the 2 to 3 day period, the woman is passive. The taking-in phase provides time for the woman to regain her physical strength and organize her rambling thoughts about her new role.
- **Option C:** The taking hold phase starts 2 to 4 days after delivery. The woman starts to initiate actions on her own and makes decisions without relying on others. She starts to focus on the newborn instead of herself and begins to actively participate in newborn care. The woman still needs positive reinforcements despite the independence that she is already showing because she might still feel insecure about the care of her child.
- **Option D:** During the letting go phase, the woman finally accepts her new role and gives up her old roles like being a childless woman or just a mother of one child. This is the phase where postpartum depression may set in. Readjustment of relationships is needed for an easy transition to this phase.

36. Which of the following stages is the carcinogen irreversible?

- A. Progression stage
- B. Initiation stage
- C. Regression stage
- D. Promotion stage

Correct Answer: A. Progression stage

Progression stage is the change of tumor from the preneoplastic state or low degree of malignancy to a fast-growing tumor that cannot be reversed. Tumor progression comprises the expression of the malignant phenotype and the tendency of malignant cells to acquire more aggressive characteristics over time. Also, metastasis may involve the ability of tumor cells to secrete proteases that allow invasion beyond the immediate primary tumor location. A prominent characteristic of the malignant phenotype is the propensity for genomic instability and uncontrolled growth.

- **Option B:** Initiation is the first step in the two-stage model of cancer development. Initiators cause irreversible changes to DNA that increase cancer risk. The early concept of tumor initiation indicated that the initial changes in chemical carcinogenesis are irreversible genetic damage.

However, recent data from molecular studies of preneoplastic human lung and colon tissues implicate epigenetic changes as an early event in carcinogenesis.

- **Option C:** There is no regression stage in the development of cancer. Malignant conversion is the transformation of a preneoplastic cell into one that expresses the malignant phenotype. This process requires further genetic changes. The total dose of a tumor promoter is less significant than frequently repeated administrations, and if the tumor promoter is discontinued before malignant conversion has occurred, premalignant or benign lesions may regress.
- **Option D:** The promotion stage is considered to be a relatively lengthy and reversible process in which actively proliferating preneoplastic cells accumulate. Tumor promotion comprises the selective clonal expansion of initiated cells. Because the accumulation rate of mutations is proportional to the rate of cell division, or at least the rate at which stem cells are replaced, clonal expansion of initiated cells thus, produces a larger population of cells that are at risk of further genetic changes and malignant conversion.

37. The nurse teaches the client with angina about the common expected side effects of nitroglycerin, including:

- A. Headache
- B. High blood pressure
- C. Shortness of breath
- D. Stomach cramps

Correct Answer: A. Headache

Because of the widespread vasodilating effects, nitroglycerin often produces such side effects as headache, hypotension, and dizziness. The client should lie or sit down to avoid fainting. Headaches can be severe, throbbing, and persistent and may occur immediately after use. Nitro does not cause shortness of breath or stomach cramps.

- **Option B:** Many of these adverse effects are secondary to the hypotensive effects of nitroglycerin. Patients may report symptoms of orthostatic hypotension which manifest as dizziness, weakness, palpitations, and vertigo. Profound hypotension may occur in patients with preload-dependent conditions.
- **Option C:** Syncope is the most dangerous adverse effect and can result in falls and their resultant injuries. The risk of syncope significantly increases with the concurrent use of a phosphodiesterase-5 (PDE-5) inhibitor. A further discussion is included below under contraindications.
- **Option D:** Some patients can be more sensitive to the hypotension caused by nitrates, which can result in nausea, vomiting, diaphoresis, pallor, and collapse even at therapeutic doses. Vasodilation and venous pooling can increase the amount of blood in the cranial space, resulting in increased intracranial pressures; this can cause persistent, throbbing headaches, along with confusion, fever, vertigo, nausea, vomiting, and visual disturbances.

38. The nurse is conducting nutrition counseling for a patient with cholecystitis. Which of the following information is important to communicate?

- A. The patient must maintain a low calorie diet.

- B. The patient must maintain a high protein/low carbohydrate diet.
- C. The patient should limit sweets and sugary drinks.
- D. The patient should limit fatty foods.

Correct Answer: D. The patient should limit fatty foods.

Cholecystitis, inflammation of the gallbladder, is most commonly caused by the presence of gallstones, which may block bile (necessary for fat absorption) from entering the intestines. Patients should decrease dietary fat by limiting foods like fatty meats, fried foods, and creamy desserts to avoid irritation of the gallbladder.

- **Option A:** People who go on an extremely low-calorie diet are more likely to develop gallstones than people on a moderately low-calorie diet. Eating a healthy, well-balanced diet full of fruits and vegetables is the best way to improve and protect the gallbladder's health. Fruits and vegetables are full of nutrients and fiber, the latter of which is essential to a healthy gallbladder.
- **Option B:** A low-fat diet with lean proteins is recommended for patients with cholecystitis. Foods with trans fats, like those in processed or commercially baked products, can also be harmful to gallbladder health.
- **Option C:** Moderate consumption of sweet drinks can be allowed. Avoiding refined white foods, like white pasta, bread, and sugar, can protect the gallbladder. Eat whole-grain cereals, whole-grain bread, whole-grain crackers, brown rice, or whole-grain pasta. Avoid high-fat foods such as croissants, scones, biscuits, waffles, doughnuts, muffins, granola, and high-fat bread.

39. The nursing intervention to relieve pain in breast engorgement while the mother continues to breastfeed is

- A. Apply cold compress on the engorged breast.
- B. Apply warm compress on the engorged breast.
- C. Massage the breast.
- D. Apply analgesic ointment.

Correct Answer: B. Apply warm compress on the engorged breast

Warm compress is applied if the purpose is to relieve pain but ensure lactation to continue. If the purpose is to relieve pain as well as suppress lactation, the compress applied is cold.

- **Option A:** Using cold packs on the affected breast can help reduce swelling and relieve pain. Use warm packs just before a feed (for up to a few minutes) to help trigger the let-down reflex to help clear the blockage and may relieve pain.
- **Option C:** Gentle massage by stroking toward the nipple while the baby feeds may help in draining the breast of too much milk.
- **Option D:** The doctor may recommend an over-the-counter pain reliever, such as acetaminophen or ibuprofen. Ointments may interfere with the infant's breastfeeding.

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

- A. Current range of motion in all extremities

- B. Heart rate and rhythm
- C. Respiratory rate and pulse oximetry reading
- D. Orientation to time, place, and person

Correct Answer: B. Heart rate and rhythm.

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

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

41. The nurse is performing colostomy irrigation on a male client. During the irrigation, the client begins to complain of abdominal cramps. What is the appropriate nursing action?

- A. Notify the physician
- B. Stop the irrigation temporarily
- C. Increase the height of the irrigation
- D. Medicate for pain and resume the irrigation

Correct Answer: B. Stop the irrigation temporarily.

If cramping occurs during colostomy irrigation, the irrigation flow is stopped temporarily and the client is allowed to rest. Cramping may occur from an infusion that is too rapid or is causing too much pressure. Have the colostomy patient sit on or near the toilet for about 15 to 20 minutes so the initial colostomy returns can drain into the toilet. (If the patient is on bed rest, allow the colostomy to drain into the bedpan.)

- **Option A:** The physician does not need to be notified. Unless contraindicated or otherwise ordered by the physician, it is best to establish a routine of daily irrigation in accordance with the patient's former bowel habits.
- **Option C:** Increasing the height of the irrigation will cause further discomfort. Hold the enema can approximately 12 inches above the bed and allow the solution to flow in slowly to avoid painful cramps usually caused by too rapid flow.
- **Option D:** Medicating the client for pain is not the appropriate action in this situation. If cramping occurs, slow down the flow rate and ask the patient to deep breathe until cramps subside. Cramping during irrigation may indicate that the flow is too fast or the water is too cold.

42. Biperiden hydrochloride (Akineton) is added to a list of antiparkinsonian medications that an elderly client is taking. Which of the following instructions made by the nurse that needs further learning?

- A. Avoiding alcohol and caffeine.
- B. Using ice chips, candy or gum for dry mouth.
- C. Walking in the morning to have a daily source of direct sunlight.
- D. Eating foods rich in fiber and increase fluid intake.

Correct Answer: C. Walking in the morning to have a daily source of sunlight.

Biperiden hydrochloride (Akineton) is an anticholinergic antiparkinson agent used to treat the stiffness, tremors, spasms, and poor muscle control of Parkinson's disease. Photophobia is one of the side effects of this medication so instruct the client to use sunglasses in direct sunlight.

- **Options A, B, & D:** These are correct instructions regarding the use of this medication.

43. The nurse should observe for side effects associated with the use of bronchodilators. A common side effect of bronchodilators is:

- A. Decreased urine output
- B. Tremors
- C. Vision changes
- D. Hypotension

Correct Answer: B. Tremors

- Option B: Bronchodilators are medications that relax the muscles surrounding the airway. Common side effects of bronchodilators include nausea, dry mouth, increased heart rate, and tremors.
- Options A, C, and D: Decreased urine output, vision changes, and hypotension are signs of bronchodilator overdose.

44. The nursing manager decides to form a committee to address the issue of violence against ED personnel. Which combination of employees would be best suited to fulfill this assignment?

- A. ED physicians and charge nurses
- B. RNs, LPNs, and nursing assistants
- C. Experienced RNs and experienced paramedics
- D. At least one representative from each group of ED personnel

Correct Answer: D. At least one representative from each group of ED personnel.

At least one representative from each group of ED personnel should be included because all employees are potential targets for violence in the ED. The diversity of the group should also be considered and assure that each department or each employee is represented.

- **Option A:** The policies against violence in the workplace must be developed by management and employee representatives, including the health and safety committee or representative, and union, if present.
- **Option B:** Administrative practices may also include education and training for employees. This education and training would include not only information about the workplace's policy and process to respond to incidents, but may also include how to respond to an incident of violence (e.g., emergency response, when to contact security or police, etc.).
- **Option C:** Preventive measures generally fall into three categories, workplace design, administrative practices, and work practices. All employees should know how to respond to customers or members of the public who may be angry or frustrated, such as how to de-escalate a conflict.

45. A client is to begin taking rifampin (Rifadin). The nurse correctly teaches the client this medication:

- A. Is to be discontinued after three months.
- B. Is to be taken with food and antacids.
- C. Take an additional dose once with skip dose.
- D. Will cause orange discoloration of sweat, urine, and feces.

Correct Answer: D. Will cause orange discoloration of sweat, urine, and feces.

Rifampin causes red-orange discolorations of bodily secretions such as sweat, urine, tears, and feces.

- **Option A:** The client should not stop the therapy unless with a doctor's advice.
- **Option B:** The medication is taken on an empty stomach.
- **Option C:** Doses are not to be doubled or skipped.

46. Glenda has cholelithiasis (gallstones). You expect her to complain of:

- A. Pain in the right upper quadrant, radiating to the shoulder.
- B. Pain in the right lower quadrant, with rebound tenderness.
- C. Pain in the left upper quadrant, with shortness of breath.
- D. Pain in the left lower quadrant, with mild cramping.

Correct Answer: A. Pain in the right upper quadrant, radiating to the shoulder.

The gallbladder is located in the RUQ and a frequent sign of gallstones is pain radiating to the shoulder. Patients with gallstone disease typically present with symptoms of biliary colic (intermittent episodes of constant, sharp, right upper quadrant (RUQ) abdominal pain often associated with nausea and vomiting), normal physical examination findings, and normal laboratory test results.

- **Option B:** Clinical symptoms and signs suggestive of appendicitis include a history of central abdominal pain migrating to the right lower quadrant (RLQ), anorexia, fever, and nausea/vomiting. On examination, RLQ tenderness, along with "classical" signs of peritoneal irritation (e.g., rebound tenderness, guarding, rigidity, referred pain), may be present.

- **Option C:** LUQ pain can originate from the chest, abdomen, diaphragm/peritoneum, or from general 'medical' causes. Note that intra-abdominal organs may not localize pain accurately and diaphragmatic pain can be referred to the shoulder tip.
- **Option D:** Crampy pain may be due to gas, indigestion, inflammation, or infection, or it may result from menstrual cramps, endometriosis, or pelvic inflammatory disease in women. Severe pain that comes in waves may be caused by kidney stones. Trauma to the body wall, hernias, and shingles can also cause left lower quadrant pain.

47. Tom is admitted to the emergency department with an acute spinal cord injury. Methylprednisolone is contraindicated for treatment when the injury:

- A. Is a high cervical lesion.
- B. Occurred less than 4 hours ago.
- C. Occurred less than 8 hours ago.
- D. Occurred more than 8 hours ago.

Correct Answer: D. Occurred more than 8 hours ago.

Research has shown that steroids are ineffective when given more than 8 hours after acute spinal injury. The American Association of Neurological Surgeons (AANS) and the Congress of Neurological Surgeons (CNS) released a consensus statement in 2013 that the use of glucocorticoids in acute traumatic SCI is no longer recommended. This view was balanced by a position statement by the American Academy of Emergency Medicine stating that treatment with glucocorticoids remains an acceptable treatment option though not a standard.

- **Option A:** In terms of the safety of high-dose methylprednisolone, Sauerland et al. performed a systematic review of approximately 2500 patients from 51 trials that involved the use of high-dose methylprednisolone. They found no evidence that methylprednisolone increased the risk of GI bleeding, wound complication, pulmonary complications, or death.
- **Option B:** The pathogenesis of SCI can be divided into two stages. The first stage involves the initial physical trauma with resulting tissue damage. Following this stage, a cascade of destructive biological changes occurs, resulting in secondary injury. Most therapeutic strategies for SCI aim to mitigate these "secondary" events, which include inflammation, lipid peroxidation, and excitotoxicity. The pathogenesis of SCI can be divided into two stages. The first stage involves the initial physical trauma with resulting tissue damage. Following this stage, a cascade of destructive biological changes occurs, resulting in secondary injury. Most therapeutic strategies for SCI aim to mitigate these "secondary" events, which include inflammation, lipid peroxidation, and excitotoxicity.
- **Option C:** Because glucocorticoids suppress many of these secondary events, investigators have explored its utility as SCI therapy. While there are compelling data in experimental models, randomized control trials (RCTs) have generally not demonstrated compelling efficacy.

48. A schizophrenic client states, "I hear the voice of King Tut." Which response by the nurse would be most therapeutic?

- A. "I don't hear the voice, but I know you hear what sounds like a voice."
- B. "You shouldn't focus on that voice."

- C. "Don't worry about the voice as long as it doesn't belong to anyone real."
- D. "King Tut has been dead for years."

Correct Answer: A. "I don't hear the voice, but I know you hear what sounds like a voice."

This response states reality about the client's hallucination. Voicing doubt can be a gentler way to call attention to the incorrect or delusional ideas and perceptions of patients. By expressing doubt, nurses can force patients to examine their assumptions.

- **Option B:** Sometimes during a conversation, patients mention something particularly important. When this happens, nurses can focus on their statement, prompting patients to discuss it further. Patients don't always have an objective perspective on what is relevant to their case; as impartial observers, nurses can more easily pick out the topics to focus on.
- **Option C:** For patients experiencing sensory issues or hallucinations, it can be helpful to ask about them in an encouraging, non-judgmental way. Phrases like "What do you hear now?" or "What does that look like to you?" give patients a prompt to explain what they're perceiving without casting their perceptions in a negative light.
- **Option D:** The other options are judgmental, flippant, or dismissive. Similar to active listening, asking patients for clarification when they say something confusing or ambiguous is important. Saying something like "I'm not sure I understand. Can you explain it to me?" helps nurses ensure they understand what's actually being said and can help patients process their ideas more thoroughly.

49. Baby Ellie is diagnosed with gastroesophageal reflux (GER). Which of the following nursing diagnoses would be inappropriate?

- A. Risk for aspiration
- B. Impaired oral mucous membrane
- C. Deficient fluid volume
- D. Imbalanced nutrition: Less than body requirements

Correct Answer: B. Impaired oral mucous membrane

GER is the backflow of gastric contents into the esophagus resulting from relaxation or incompetence of the lower esophageal (cardiac) sphincter. No alteration in the oral mucous membranes occurs with this disorder.

- **Option A:** Avoid placing the patient in a supine position, have the patient sit upright after meals. Supine position after meals can increase regurgitation of acid. Elevate HOB while in bed to prevent aspiration by preventing the gastric acid to flow back into the esophagus.
- **Option C:** Instruct the patient to avoid highly seasoned food, acidic juices, alcoholic drinks, bedtime snacks, and foods high in fat. These can reduce the lower esophageal sphincter pressure.
- **Option D:** Encourage small frequent meals of high calories and high protein foods. Small and frequent meals are easier to digest. Obtain a nutritional history. Determining the feeding habits of the client can provide a basis for establishing a nutritional plan.

50. The nurse teaches a patient with cancer of the liver about high-protein, high-calorie diet choices. Which snack choice by the patient indicates that the teaching has been effective?

- A. Fresh fruit salad
- B. Orange sherbet
- C. French fries
- D. Strawberry yogurt

Correct Answer: D. Strawberry yogurt

- **Option D:** Yogurt has high biologic value because of the protein and fat content.
- **Option A:** Fruit salad does not have high amounts of protein or fat.
- **Option B:** Orange sherbet is lower in fat and protein than yogurt.
- **Option C:** French fries are high in calories from fat but low in protein.

51. Nitrosocarcinogen production can be inhibited with the intake of:

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

Correct Answer: A. Vitamin C

Vitamin C and refrigeration of foods inhibit nitroso carcinogen. Humans are exposed to a wide range of nitrogen-containing compounds and nitrosating agents, such as nitrite, nitrate, and nitrogen oxides (NO_x), that can react in vivo to form potentially carcinogenic N-nitroso compounds (NOCs), as well as several carcinogenic C-nitro(so) or reactive diazo compounds.

- **Option B:** Ascorbic acid, alpha-tocopherol, phenolic compounds, and fruit, vegetable and plant extracts inhibit NOC formation by destroying nitrosating agents. Fresh fruits and vegetables (sources of nitrosation inhibitors) exert a protective effect against various epithelial cancers.
- **Option C:** Although vitamin C has been known to stimulate immune function, inhibit nitrosamine formation, and block the metabolic activation of carcinogens, its cancer-preventive effects may be associated mainly with its protective effects against oxidative stress.
- **Option D:** Vitamin C, not fiber, is considered to be one of the most prevalent antioxidative components of fruit and vegetables, and it could exert chemopreventive effects without apparent toxicity at doses higher than the current recommended dietary allowance of 60 mg/d. It has also been used as a dietary supplement intended to prevent oxidative stress-mediated chronic diseases such as cancer, cardiovascular disease, hypertension, stroke, and neurodegenerative disorder.

52. When several areas of a daycare center collapsed due to an earthquake, children, especially injured ones, were brought to the ED. As a competent nurse, you know that children will be more predisposed to which of the following? Select all that apply.

- A. Bradycardia
- B. Fracture of the long bones

- C. Head trauma
- D. Hypothermia
- E. Hypoxemia
- F. Junctional arrhythmias
- G. Liver and spleen contusions
- H. Lumbar spine injuries

Correct Answer: C, D, E, and G

Children will be more prone to head trauma, hypothermia, hypoxemia, and liver and spleen injuries.

- **Option A:** Children have strong hearts; hence pulse rate will increase to compensate. A fast heart rate in children in most situations is a normal response to increased levels of activity or, occasionally, anxiety.
- **Option B:** They have almost flexible bones compared with those adults. A child's bones are more flexible because their chemical composition is different from that of adult bones. This means a kid's bone might bend or "bow" instead of breaking.
- **Option C:** They have proportionately larger heads that predispose them to head injuries or trauma. When one looks at an average growth chart for a child who has reached the age of 18, it can be seen that the steepest curve is from 0 to 2 years of age. From the ages of two to 18, a child experiences more growth in the size of their head, reaching its full size at anywhere from 54 to 60 cm.
- **Option D:** Hypothermia is more likely due to their thinner skin and proportionately larger body surface area. Newborns, infants, and young children are more likely to develop hypothermia because they have a larger surface area compared to body weight so they can lose body heat faster than older children and adults.
- **Option E:** Hypoxemia is more likely because of their higher oxygen demand. Neonates, infants, and children are at increased risk of hypoxemia because of smaller functional residual capacities, increased heart rates, and increased metabolic requirements compared with adults.
- **Option F:** Other arrhythmias are less likely to occur. In most cases an irregular heartbeat is abnormal. The most common cause of an irregular heartbeat in children is isolated premature beats. Both premature atrial contractions and premature ventricular contractions are relatively common in children. Fortunately, in many instances these can be completely benign.
- **Option G:** Liver and spleen injuries are more likely due to the thoracic cage of children giving less protection. The liver, spleen, and pancreas lie in the upper abdomen. They are partly protected by the ribs. This protection is less effective in children than in adults because the ribs are very pliable and because the liver and spleen may extend caudally beyond the ribs, especially in infants and toddlers. In addition, children have relatively larger viscera, less overlying fat, and weaker abdominal musculature.
- **Option H:** Injury to the cervical area is the most likely spinal injury in children. Majority of the pediatric cervical spine injuries (CSIs) occur between the skull and C4 vertebra; and around 10.8% to 38.7% of these injuries involve C1 and C2 vertebrae. Children suffer from atlanto-axial injuries 2.5 times more often than adults.

53. Which of the following outcomes would be appropriate for a client with COPD who has been discharged to home? The client:

- A. Promises to do pursed lip breathing at home.
- B. States actions to reduce pain.
- C. States that he will use oxygen via a nasal cannula at 5 L/minute.
- D. Agrees to call the physician if dyspnea on exertion increases.

Correct Answer: D. Agrees to call the physician if dyspnea on exertion increases.

Increasing dyspnea on exertion indicates that the client may be experiencing complications of COPD, and therefore the physician should be notified. There are things that everyone with COPD should do to manage their disease; quitting smoking (if they smoke) is the most important. In addition, there are other non-medication treatments that can help relieve symptoms and improve quality of life.

- **Option A:** Extracting promises from clients is not an outcome criterion. Pulmonary rehabilitation programs have been shown to improve a person's ability to exercise, enhance quality of life, and decrease the frequency of COPD exacerbations (when symptoms flare up more than usual). Even people with severe shortness of breath can benefit from a rehabilitation program.
- **Option B:** Pain is not a common symptom of COPD. Although COPD usually worsens over time, it is difficult to predict how quickly it will progress and how long the client will live (the prognosis). A number of factors play a role in the severity of COPD symptoms, including whether the client continues to smoke, are underweight, or have other medical problems, and how the lungs function during exercise. People with COPD who have less severe symptoms, are a healthy weight, and do not smoke tend to live longer.
- **Option C:** Clients with COPD use low-flow oxygen supplementation (1 to 2 L/minute) to avoid suppressing the respiratory drive, which, for these clients, is stimulated by hypoxia. People with severe or advanced COPD can have low oxygen levels in the blood. This condition, known as hypoxemia, can occur even if the client does not feel short of breath or have other symptoms. The oxygen level can be measured with a device placed on the finger (pulse oximeter) or with a blood test (arterial blood gas). People with hypoxemia may be placed on oxygen therapy, which can improve survival and quality of life.

54. A patient is brought to the emergency department after a bee sting. The family reports a history of severe allergic reaction, and the patient appears to have some oral swelling. Which of the following is the most urgent nursing action?

- A. Consult a physician.
- B. Maintain a patent airway.
- C. Administer epinephrine subcutaneously.
- D. Administer diphenhydramine (Benadryl) orally.

Correct Answer: B. Maintain a patent airway.

The patient may be experiencing an anaphylactic reaction. Airway management is paramount. Thoroughly examine the patient for airway patency or any indications of an impending loss of airway. Perioral edema, stridor, and angioedema are very high risk, and obtaining a definitive airway is imperative. Delay may reduce the chances of successful intubation as continued swelling occurs, increasing the risk for a surgical airway.

- **Option A:** The physician will see the patient as soon as possible with the above actions underway. Often when anaphylaxis is diagnosed co-treatment is initiated with steroids, antihistamines, inhaled bronchodilators, and vasopressors. Glucagon can also be used if indicated. These agents can assist in refractory initial anaphylaxis or aid in the prevention of recurrence and biphasic reactions.
- **Option C:** The most urgent action is to maintain an airway, particularly with visible oral swelling, followed by the administration of epinephrine by subcutaneous injection. Epinephrine is given through intramuscular injection and at a dose of 0.3 to 0.5 mL of 1:1,000 concentration of epinephrine. Pediatric dosing is 0.01 mg/kg or 0.15 mg intramuscularly (IM) (epinephrine injection for pediatric dosage). Intramuscular delivery has proven to provide more rapid delivery and produce better outcomes than subcutaneous or intravascular.
- **Option D:** Oral diphenhydramine is indicated for mild allergic reactions and is not appropriate for anaphylaxis. Antihistamines are often routinely used; most commonly is H blocker administration of diphenhydramine 25 to 50 mg IV/IM. While the clinical benefit is unproven in anaphylaxis, its utility is evident in more minor allergic processes.

55. Arvic, a 16-year-old student, has acquired systemic fungal infection, he should be treated with:

- A. Amphotericin B (Fungizone)
- B. Miconazole (Monistat IV)
- C. Ketoconazole (Nizoral)
- D. Griseofulvin (Fulvicin)

Correct Answer: A. Amphotericin B (Fungizone)

Serious life-threatening fungal infections are treated with amphotericin B. Amphotericin B deoxycholate belongs to the polyene class of antifungals. It is also known by the name conventional amphotericin B and has been in use for the treatment of invasive fungal infections for more than 50 years. It was first isolated as a natural product of a soil actinomycete.

- **Option B:** Topical miconazole is approved to treat cutaneous and mucocutaneous mycoses, particularly vulvovaginal candidiasis. Oral formulations of miconazole are indicated for oropharyngeal candidiasis.
- **Option C:** Ketoconazole, when applied topically, has been approved for treating tinea corporis, tinea cruris, tinea pedis, tinea versicolor, cutaneous candidiasis, and seborrheic dermatitis. Off-label, topical ketoconazole is used to treat several oral candidal pathologies, including chronic mucocutaneous candidiasis and oral thrush.
- **Option D:** Griseofulvin is only approved as a systemic (oral) agent and is indicated for the treatment of dermatophytoses of the skin, hair, and nails, which is severe or refractory to topical therapy. Specifically, this drug treats tinea (corporis, pedis, cruris, barbae, capitis, and unguium).

56. When prioritizing care, which of the following clients should the nurse Olivia assess first?

- A. A 17-year-old client 24-hours post appendectomy.
- B. A 33-year-old client with a recent diagnosis of Guillain-Barre syndrome.
- C. A 50-year-old client 3 days post myocardial infarction.

D. A 50-year-old client with diverticulitis.

Correct Answer: B. A 33-year-old client with a recent diagnosis of Guillain-Barre syndrome

Guillain-Barre syndrome is characterized by ascending paralysis and potential respiratory failure. The order of client assessment should follow client priorities, with disorder of airways, breathing, and then circulation.

- **Option A:** The client who is post appendectomy has no signs of hemorrhage or unstable vital signs. Possible complications of appendectomy are bleeding, wound infection, peritonitis, blocked bowels, and injury to nearby organs.
- **Option C:** There's no information to suggest the postmyocardial infarction client has an arrhythmia or other complication. About 90% of patients who have an acute MI develop some form of cardiac arrhythmia during or immediately after the event.
- **Option D:** There's no evidence to suggest perforation for the client with diverticulitis as a priority of care. Diverticula are small, bulging pouches that can form in the lining of the digestive system when one or more of the pouches become inflamed, and in some cases infected, that condition is known as diverticulitis.

57. A client who is receiving edrophonium chloride suddenly is complaining of abdominal cramps and the nurse observes the client is experiencing increased perspiration and salivation. The nurse makes sure the availability of which of the following?

- A. levodopa
- B. methylphenidate hydrochloride (Ritalin)
- C. atropine sulfate (Atropine)
- D. carbamazepine (Tegretol)

Correct Answer: C. atropine sulfate (Atropine)

The client is experiencing signs of a cholinergic crisis. When administering edrophonium chloride, have emergency resuscitation equipment on hand and atropine sulfate available.

- **Option A:** Levodopa is used alone or in combination with carbidopa to treat Parkinson's disease.
- **Option B:** Methylphenidate hydrochloride (Ritalin) is a central nervous system stimulant used to treat ADHD and narcolepsy
- **Option D:** Carbamazepine (Tegretol) is used to prevent and control seizures.

58. Methylergonovine (Methergine) is prescribed to a patient who is having postpartum bleeding. Prior to giving the medication, the nurse contacts the physician who prescribed the medication if which of the following condition is documented in the patient's chart?

- A. Hypotension
- B. Uterine atony
- C. Ischemic heart disease

D. Acute Gastroenteritis

Correct Answer: C. Ischemic heart disease.

Methergine (methylergonovine maleate) is a semi-synthetic ergot alkaloid used for the prevention and control of postpartum hemorrhage. Ergot alkaloids are contraindicated in patients with cardiovascular diseases such as ischemic heart disease, stroke, peripheral vascular disease, rheumatic heart disease.

- **Options A, B, & D:** These are not contraindicated with the use of methergine.

59. Which of the following is a contraindication for digoxin administration?

A. Blood pressure of 140/90.

B. Heart rate above 80.

C. Heart rate below 60.

D. Respiratory rate above 20.

Correct Answer: C. Heart rate below 60.

The apical heart rate must be monitored during therapy with digoxin, and the drug held for a pulse below 60 and above 120. Remember that digoxin lowers the heart rate; therefore, the choice that reflects a low heart rate is the best selection. Digoxin toxicity is clinically relevant as it can lead to fatal cardiac arrhythmias. The estimated frequency is at about 0.8 to 4% of patients on steady digoxin therapy. The rate of toxicity increases as serum digoxin concentration reaches over 2.0 ng/ml.

- **Option A:** However, toxicity can also occur at lower levels, especially in the setting of other risk factors such as low body weight, advanced age, decreased renal function, and hypokalemia.
- **Option B:** It increases the force of contraction of the heart by reversibly inhibiting the activity of the myocardial Na-K ATPase pump, an enzyme that controls the movement of ions into the heart. Digoxin induces an increase in intracellular sodium that will drive an influx of calcium in the heart and cause an increase in contractility. Cardiac output increases with a subsequent decrease in ventricular filling pressures.
- **Option D:** Digoxin has vagomimetic effects on the AV node. By stimulating the parasympathetic nervous system, it slows electrical conduction in the atrioventricular node, therefore, decreases the heart rate. The rise in calcium levels leads to prolongation of phase 4, and phase 0 of the cardiac action potential thus increases the refractory period of the AV node. Slower conduction through the AV node carries a decreased ventricular response.

60. The nurse is caring for a client with systemic lupus erythematosus (SLE). The major complication associated with systemic lupus erythematosus is:

A. Meningitis

B. Nephritis

C. Cardiomegaly

D. Desquamation

Correct Answer: B. Nephritis

- Option B: Systemic lupus erythematosus is a form of lupus and an autoimmune disease in which the antibodies attack the body's own cells and tissue causing inflammation and damage to organs such as the kidneys resulting in complications such as nephritis.
- Options A and C: SLE affects the musculoskeletal, integumentary, renal, nervous, and cardiovascular systems, but the major complication is renal involvement.
- Option D: SLE produces a "butterfly" rash, not desquamation.

61. Which of the following interventions is essential when instilling Cortisporin suspension, 2 gtt right ear?

- A. Verifying the proper client and route.
- B. Warming the solution to prevent dizziness.
- C. Holding an emesis basin under the client's ear.
- D. Positioning the client in the Semi-fowler's position.

Correct Answer: A. Verifying the proper client and route.

When giving medications, a nurse follows the five R's of medication administration. The right patient: check that you have the correct patient using two patient identifiers (e.g., name and date of birth). The right route: check that the route is appropriate for the patient's current condition.

- **Option B:** The drops may be warmed to prevent pain or dizziness, but this action is not essential. Internal ear structures are particularly sensitive to temperature extremes. Therefore, ear (otic) medications should always be administered at room temperature. Always use sterile ear drops in case the eardrum is ruptured.
- **Option C:** An emesis basin would be used for irrigation of the ear. Apply gentle pressure to the tragus several times. Pressure helps move medication toward the tympanic membrane. If ordered, a cotton ball may be placed loosely in the ear canal. Cotton balls help prevent the medication from escaping from the ear.
- **Option D:** Put the client in the lateral position to prevent the drops from draining out for 5 minutes, not Semi-fowler's position. Position patient with affected ear uppermost, on the unaffected side, if lying down, or tilt head to the side if sitting up. Proper positioning helps to stop the medication from escaping. Do not tilt the head if the patient has a cervical spine injury.

62. A client who has been receiving heparin therapy also is started on warfarin. The client asks a nurse why both medications are being administered. In formulating a response, the nurse incorporates the understanding that warfarin:

- A. Stimulates the breakdown of specific clotting factors by the liver, and it takes two (2)- three (3) days for this to exert an anticoagulant effect.
- B. Inhibits synthesis of specific clotting factors in the liver, and it takes 3-4 days for this medication to exert an anticoagulant effect.
- C. Stimulates production of the body's own thrombolytic substances, but it takes 2-4 days for this to begin.
- D. Has the same mechanism of action as Heparin, and the crossover time is needed for the serum level of warfarin to be therapeutic.

Correct Answer: B. Inhibits synthesis of specific clotting factors in the liver, and it takes 3-4 days for this medication to exert an anticoagulant effect.

Warfarin works in the liver and inhibits synthesis of four vitamin K-dependent clotting factors (X, IX, VII, and II), but it takes 3 to 4 days before the therapeutic effect of warfarin is exhibited. Because of the delay in factor II (prothrombin) suppression, heparin is administered concurrently for four to five days to prevent thrombus propagation. Loading doses of warfarin are not warranted and may result in bleeding complications.

- **Option A:** Warfarin is the oral anticoagulant most frequently used to control and prevent thromboembolic disorders. Prescribing the dose that both avoids hemorrhagic complications and achieves sufficient suppression of thrombosis requires a thorough understanding of the drug's unique pharmacology.
- **Option C:** The earliest changes in the International Normalized Ratio (INR) are typically noted 24 to 36 hours after a dose of warfarin is administered. These changes are due to the clearance of functional factor VII, which is the vitamin K–dependent clotting factor with the shortest half-life (six hours).
- **Option D:** Loading doses theoretically may cause clot formation and/or expansion by limiting the production of proteins C and S, which have shorter half-lives than prothrombin. Consequently, the concurrent use of heparin is extremely important.

63. A client has been admitted to the hospital with a diagnosis of suspected bacterial endocarditis. The complication the nurse will constantly observe for is:

- A. Presence of heart murmur
- B. Systemic emboli
- C. Fever
- D. Congestive heart failure

Correct Answer: B. Systemic emboli

Emboli are the major problem; those arising in the right heart chambers will terminate in the lungs and left chamber emboli may travel anywhere in the arteries. Complications include conduction disease (first-degree atrioventricular block, bundle branch block, or complete heart block), ischemia (emboli to the coronary arteries), embolic stroke, intracerebral hemorrhage, brain abscess, septic emboli leading to infarction of the kidneys, spleen, lungs and other organs, hematogenous spread of infection leading to vertebral osteomyelitis, septic arthritis, or psoas abscess and systemic immune reaction such as glomerulonephritis.

- **Option A:** Cardiac murmurs are observed in about 85% of patients. Heart murmurs may be present, but do not indicate a problem with emboli.
- **Option C:** Fever is the most common symptom. It can be associated with chills, night sweats, anorexia, weight loss, loss of appetite, malaise, headache, myalgias, arthralgias, abdominal pain, dyspnea, cough, and pleuritic pain.
- **Option D:** CHF may be a result, but this is not as dangerous an outcome as emboli. Congestive heart failure develops in 30% to 40% of patients usually due to valvular dysfunction. Other signs include cutaneous manifestations such as petechiae or splinter hemorrhages (non-blanching linear reddish-brown lesions under the nail bed).

64. A client is brought to the emergency department and states that he has accidentally been taking two times his prescribed dose of Warfarin (Coumadin). After observing that the client has no evidence of any obvious bleeding, the nurse should do which of the following?

- A. Draw a sample for activated partial thromboplastin time (aPTT) level.
- B. Draw a sample for prothrombin time (PT) level and international normalized ratio (INR).
- C. Prepare to administer Vitamin K.
- D. Prepare to administer Protamine sulfate.

Correct Answer: B. Draw a sample for prothrombin time (PT) level and international normalized ratio (INR).

The next action for the nurse to take is to draw a sample for INR and PT level to check the client's anticoagulation status and risk for bleeding. These results will provide information on how to manage the client by either giving an antidote such as Vitamin K or administering a blood transfusion. Specific evaluation of warfarin toxicity should involve evaluation of the patient's PT, INR, CBC, and BMP with hepatic function, in addition to the standard co-ingestions and a focused evaluation surrounding their symptoms.

- **Option A:** The aPTT determines the effects of heparin therapy. It is recommended that patients undergo measurement of PT/INR and PTT during the initial presentation. For acute exposures, patients should receive serial INR assessments every 12-24 hours. If INR remains normalized at 36 hours and there are no signs of bleeding, no further testing is generally necessary.
- **Option C:** The results of the INR and PT level will be needed first. For these recommendations, coagulopathy is defined as INR > 1.4. Warfarin toxicity is defined as INR > 3.0 or >3.5 in a patient with a mechanical heart valve. Unintentional toxicity in patients who are treated with warfarin for an underlying condition (most common presentation).
- **Option D:** Protamine sulfate is the antidote for heparin overdose. Patients with elevated INR displaying evidence of coagulopathy during evaluation, do not need to be started on vitamin K unless the INR is greater than 10 or they have evidence of bleeding.

65. A client with diabetes visits the prenatal clinic at 28 weeks gestation. Which statement is true regarding insulin needs during pregnancy?

- A. Insulin requirements moderate as the pregnancy progresses.
- B. A decreased need for insulin occurs during the second trimester.
- C. Elevations in human chorionic gonadotropin decrease the need for insulin.
- D. Fetal development depends on adequate insulin regulation.

Correct Answer: D. Fetal development depends on adequate insulin regulation.

Fetal development depends on adequate nutrition and insulin regulation. Significant alterations in maternal metabolism during pregnancy ensure a continuous supply of nutrients to the fetus. Glucose is the primary energy source for the fetus. In early pregnancy, increases in maternal insulin sensitivity enable the storage of energy and nutrients.

- **Option A:** Insulin requirements do not moderate as the pregnancy progresses. To counteract insulin resistance and achieve adequate metabolic control in late pregnancy, the dose of insulin

may need to be increased. Understanding insulin requirements in pregnant women with type 1 diabetes would help them to maintain tight glycemic control.

- **Option B:** Insulin needs to increase during the second and third trimesters. In late pregnancy, maternal insulin resistance develops due to increases in pregnancy-related hormones, such as progesterone, human placental lactogen and prolactin, as well as inflammatory cytokines, such as tumor necrosis factor-?. These changes facilitate the supply of glucose toward the fetus.
- **Option C:** Elevated human chorionic gonadotropin elevates insulin needs, not decreases them. Insulin dose prior to pregnancy was associated with pre-pregnancy body weight, BMI, and HbA1c levels before pregnancy and in the first trimester. Insulin dose prior to pregnancy was higher in patients with male infants than patients with female infants.

66. Mark, a 7-year-old client, is brought to the emergency department. He's tachypneic and afebrile and has a respiratory rate of 36 breaths/minute and has a nonproductive cough. He recently had a cold. Form this history; the client may have which of the following conditions?

- A. Acute asthma
- B. Bronchial pneumonia
- C. Chronic obstructive pulmonary disease (COPD)
- D. Emphysema

Correct Answer: A. Acute asthma

Based on the client's history and symptoms, acute asthma is the most likely diagnosis.

- **Option B:** Bronchial pneumonia most often exhibits a productive cough. It is the type of pneumonia that affects the bronchi in the lungs. This condition commonly results from a bacterial infection, but viral and fungal infections can also cause it.
- **Option C:** COPD commonly occurs in middle-aged people, mostly over the age of 40. Chronic obstructive pulmonary disease is a chronic inflammatory lung disease that causes obstructed airflow from the lungs.
- **Option D:** Emphysema is most common in men between the ages of 50 and 70. It is a lung condition that causes shortness of breath. The air sacs in the lungs are damaged. Over time, the inner walls of the air sacs weaken and rupture-creating larger air spaces instead of many small ones.

67. Nurse Tina is caring for a client with delirium and states that "look at the spiders on the wall". What should the nurse respond to the client?

- A. "You're having hallucination, there are no spiders in this room at all"
- B. "I can see the spiders on the wall, but they are not going to hurt you"
- C. "Would you like me to kill the spiders"
- D. "I know you are frightened, but I do not see spiders on the wall"

Correct Answer: D. "I know you are frightened, but I do not see spiders on the wall"

When hallucination is present, the nurse should reinforce reality with the client. Interrupt periods of unreality and reorient; client safety is jeopardized during periods of disorientation; correcting misinterpretations of reality enhances client's feelings of self-worth and personal dignity.

- **Option A:** Assess the client's level of anxiety and behaviors that indicate the anxiety is increasing; recognizing these behaviors, the nurse may be able to intervene before violence occurs. Maintain a low level of stimuli in the client's environment (low lighting, few people, simple decor, low noise level) because anxiety increases in a highly stimulating environment.
- **Option B:** Maintain a calm manner with the client; attempt to prevent frightening the client unnecessarily; Provide continual reassurance and support. Have sufficient staff available to execute a physical confrontation, if necessary; assistance may be required from others to provide for the physical safety of the client or primary nurse or both.
- **Option C:** Remove all potentially dangerous objects from the client's environment; in a disoriented, confused state, clients may use objects to harm self or others. Sit with the client and provide one-to-one observation if assessed to be actively suicidal; client safety is a nursing priority, and one-to-one observation may be necessary to prevent a suicidal attempt.

68. A 65-year-old female who has diabetes mellitus and has sustained a large laceration on her left wrist asks the nurse, "How long will it take for my scars to disappear?" Which statement would be the nurse's best response?

- A. "The contraction phase of wound healing can take 2 to 3 years."
- B. "Wound healing is very individual but within 4 months the scar should fade."
- C. "With your history and the type of location of the injury, it's hard to say."
- D. "If you don't develop an infection, the wound should heal any time between 1 and 3 years from now."

Correct Answer: C. "With your history and the type of location of the injury, it's hard to say."

Wound healing in a client with diabetes will be delayed. Providing the client with a time frame could give the client false information. There is no doubt that diabetes plays a detrimental role in wound healing. It does so by affecting the wound healing process at multiple steps. Wound hypoxia, through a combination of impaired angiogenesis, inadequate tissue perfusion, and pressure-related ischemia, is a major driver of chronic diabetic wounds.

- **Option A:** Ischemia can lead to prolonged inflammation, which increases the levels of oxygen radicals, leading to further tissue injury. Elevated levels of matrix metalloproteases in chronic diabetic wounds, sometimes up to 50-100 times higher than acute wounds, cause tissue destruction and prevent normal repair processes from taking place. Furthermore, diabetes is associated with impaired immunity, with critical defects occurring at multiple points within the immune system cascade of the wound healing process.
- **Option B:** To further complicate matters, these wounds have defects in angiogenesis and neovascularization. Normally, wound hypoxia stimulates mobilization of endothelial progenitor cells via vascular endothelial growth factor (VEGF). In diabetic wounds, there are aberrant levels of VEGF and other angiogenic factors such as angiopoietin-1 and angiopoietin-2 that lead to dysangiogenesis.
- **Option D:** Diabetic neuropathy may also play a role in poor wound healing. Lower levels of neuropeptides, as well as reduced leukocyte infiltration as a result of sensory denervation, have been shown to impair wound healing. When combined, all these diverse factors play a role in the formation and propagation of chronic, debilitating wounds in patients with diabetes.

69. Nurse Skye is assigned to the cardiac unit caring for four clients. He is preparing to do initial rounds. Which client should the nurse assess first?

- A. A client scheduled for cardiac ultrasound this morning.
- B. A client with syncope being discharged today.
- C. A client with chronic bronchitis on nasal oxygen.
- D. A client with diabetic foot ulcer that needs a dressing change.

Correct Answer: C. A client with chronic bronchitis on nasal oxygen.

A client with airway problems should be attended first. When the nurse needs to prioritize patients, Maslow's hierarchy of needs theory is used to decide which patient is to be seen first. A part of Maslow's hierarchy of needs is airway, breathing, and circulation (ABC), which are physiological elements that are needed for the body to survive and help determine one's level of health. Observing ABCs is a rapid assessment of life-threatening conditions in order of priority.

- **Option A:** Clinical judgment and prioritization of patient care is built on the nursing process. Nurses learn the steps of the nursing process in their foundational nursing course and utilize it throughout their academic and clinical career to direct patient care and determine priorities. Analysis (interpreting what is going on with the patient through reviewing lab work, diagnostic testing, patient history, complaints and observations) comes after assessment.
- **Option B:** The client who was discharged today is not a priority because he is stable enough to be sent home. Maslow's Hierarchy of Needs identifies the physiological or biological needs, including the ABCs, the safety/psychological/emotional needs, the need for love and belonging, the needs for self-esteem and the esteem by others and the self-actualization needs in that order of priority.
- **Option D:** The client needing a dressing change for her pressure ulcer belongs to Maslow's physical and biological needs. Some physical needs include the need for the ABCs of airway, breathing and cardiovascular function, nutrition, sleep, fluids, hygiene and elimination.

70. A male client suffers acute respiratory distress syndrome as a consequence of shock. The client's condition deteriorates rapidly, and endotracheal (ET) intubation and mechanical ventilation are initiated. When the high-pressure alarm on the mechanical ventilator sounds, the nurse starts to check for the cause. Which condition triggers the high-pressure alarm?

- A. Kinking of the ventilator tubing.
- B. A disconnected ventilator tube.
- C. An ET cuff leak.
- D. A change in the oxygen concentration without resetting the oxygen level alarm.

Correct Answer: A. Kinking of the ventilator tubing

Conditions that trigger the high-pressure alarm include kinking of the ventilator tubing, bronchospasm or pulmonary embolism, mucus plugging, water in the tube, coughing or biting on the ET tube, and the client's being out of breathing rhythm with the ventilator.

- **Option B:** A disconnected ventilator tube or an ET cuff leak would trigger the low-pressure alarm. The low-pressure alarm indicates a possible disconnection or mechanical ventilator malfunction.

- **Option C:** The high peak pressure alarm indicates bronchospasm, retained secretions, obstruction of ET tube, atelectasis, acute respiratory distress syndrome (ARDS), or pneumothorax, among others.
- **Option D:** Changing the oxygen concentration without resetting the oxygen level alarm would trigger the oxygen alarm. Listen for alarms. Know the range in which the ventilator will set off the alarm and how to troubleshoot.

71. Nurse Benjamin, who works at Little Stars Pediatric Hospital, has been assigned to care for 4-year-old Mia. Mia has been admitted for a corrective surgery related to her cleft palate. While reviewing Mia's medical history, Nurse Benjamin observes that Mia has had multiple instances of otitis media in the past year. Remembering his pediatric nursing training and understanding the interrelation between cleft palate and otitis media, Nurse Benjamin anticipates the potential reasons behind Mia's recurrent ear infections. He is preparing to discuss these with Mia's parents, to help them understand the risks and possible preventative measures. When assessing a child like Mia with a cleft palate, the nurse understands that the child is at risk for more frequent episodes of otitis media due to which of the following reasons?

- A. Lowered resistance from malnutrition.
- B. Ineffective functioning of the Eustachian tubes.
- C. Plugging of the Eustachian tubes with food particles.
- D. Associated congenital defects of the middle ear.
- E. Nasal congestion leading to impaired drainage.
- F. Chronic exposure to upper respiratory tract infections.

Correct Answer: B. Ineffective functioning of the Eustachian tubes.

Children with cleft palate often have altered muscle function which affects the Eustachian tube function. This can result in poor drainage of fluid from the middle ear, increasing the risk of otitis media. Understanding the link between cleft palate and ineffective functioning of the Eustachian tubes will help Nurse Benjamin educate Mia's parents about her increased risk and discuss preventative measures to reduce future occurrences.

- **Option A:** While children with cleft palate can face feeding difficulties which may lead to malnutrition, it isn't the direct cause of increased otitis media in these children.
- **Option C:** Food particles don't typically enter the Eustachian tubes. However, children with cleft palate are at risk of aspirating food into the airways, not the ears.
- **Option D:** Some children with cleft palate may have associated middle ear defects, but this isn't the primary reason for the increased risk of otitis media in most children with cleft palate.
- **Option E:** While nasal congestion can contribute to otitis media, it's not directly related to the presence of a cleft palate.
- **Option F:** Children with frequent respiratory infections can have an increased risk of otitis media, but this is not a direct correlation with having a cleft palate.

72. Which technique is considered the gold standard for diagnosing DVT?

- A. Ultrasound imaging
- B. Venography
- C. MRI
- D. Doppler flow study

Correct Answer: B. Venography

Proximal leg vein ultrasound, which when positive, indicates that the patient should be treated as having a DVT. If a patient scores 2 or above, either a proximal leg vein ultrasound scan should be done within 4 hours, and if the result is negative, a D-dimer test should be done. If imaging is not possible within 4 hours, a D-dimer test should be undertaken, and an interim 24-hour dose of a parenteral anticoagulant should be given. A proximal leg vein ultrasound scan should be carried out within 24 hours of being requested.

- **Option A:** Complex duplex ultrasound is the imaging modality of choice. There is non-compressible venous segment; loss of phasic flow on Valsalva maneuver; absent color flow if completely occlusive; lack of flow augmentation with calf squeeze; and increased flow in superficial veins.
- **Option C:** Vascular structures should always be interrogated during a routine assessment of the peripheries and pelvis. Incidental DVT has a prevalence of around 0.3% on routine outpatient knee MRI
- **Option D:** Doppler flow is a type of ultrasound. It uses sound waves to measure the flow of blood through a blood vessel. The results are shown on a computer screen in lines called waveforms. It's sometimes called Doppler velocimetry. A Doppler flow study may be used during pregnancy to check the health of the unborn baby (fetus).

73. A 6-year-old client is admitted to the unit with a hemoglobin of 6g/dL. The physician has written an order to transfuse 2 units of whole blood. When discussing the treatment, the child's mother tells the nurse that she does not believe in having blood transfusions and that she will not allow her child to have the treatment. What nursing action is most appropriate?

- A. Ask the mother to leave while the blood transfusion is in progress
- B. Encourage the mother to reconsider
- C. Explain the consequences without treatment
- D. Notify the physician of the mother's refusal

Correct Answer: D. Notify the physician of the mother's refusal

If the client's mother refuses the blood transfusion, the doctor should be notified. Because the client is a minor, the court might order treatment. Appropriate management of such patients entails understanding of ethical and legal issues involved, providing meticulous medical management, use of prohemostatic agents, essential interventions and techniques to reduce blood loss and hence, reduce the risk of subsequent need for blood transfusion.

- **Option A:** It is inappropriate to ask the mother to leave during blood transfusion, especially as she has not consented to it. Respect for patient's autonomy and human rights require obtaining informed consent before any medical intervention. This is fundamental to good medical practice. The rejection of blood transfusions causes an ethical dilemma between the patient's freedom to

accept or to reject a medical treatment even unto death (i.e., autonomy), and the physician's duty to provide optimal treatment.

- **Option B:** It is better to discuss with patients the specifics of blood transfusion refusal, if possible. A mentally competent individual has an absolute moral and legal right to refuse or reject the consent for medical treatment or transfusion except when he has diminished decision-making capacity or a legal intervention mandates treatment.
- **Option C:** It is the physician's primary responsibility to explain the consequences to the mother and try to encourage her to consent for the procedure. It is important to convince that every attempt will be made to avoid blood, but also convey that a doctor would not allow a child to let die for lack of blood transfusion. In the UK, children under 16 years of age can legally give consent if they can understand the issues involved (Gillick Competence).

74. A woman delivers a 3,250 g neonate at 42 weeks' gestation. Which physical finding is expected during an examination if this neonate?

- A. Abundant lanugo
- B. Absence of sole creases
- C. Breast bud of 1-2 mm in diameter
- D. Leathery, cracked, and wrinkled skin

Correct Answer: D. Leathery, cracked, and wrinkled skin.

- **Option D:** Neonatal skin thickens with maturity and is often peeling by postterm.

75. Nurse Sandra had just received a postoperative total hip replacement client from the recovery unit. Which is the best position in which she should place the client?

- A. Side-lying with the affected leg externally rotated.
- B. Side-lying with the affected leg internally rotated.
- C. On the nonoperative side with the legs abducted.
- D. On the nonoperative side with the legs adducted.

Correct Answer: C. On the nonoperative side with the legs abducted.

Abduction is maintained when the client is in a supine position or positioned on the non-operative side. The patient's leg should be positioned in abduction. This is to prevent dislocation of the prosthesis. It is very crucial that the femoral head component of the acetabular cap is maintained in the correct position. Abduction splints, wedge pillows, and two or three pillows between the legs of the patient will keep the hip in abduction.

- **Option A:** In cases where the patient needs to be turned, the operative hip must be kept in abduction and the entire length of the leg supported by pillows. The hip of the patient should NOT be flexed more than 45 to 60 degrees.
- **Option B:** To prevent acute hip flexion, the head of the bed should not be elevated more than 45 degrees. Remind the patient not to sleep on the operated side until this position is cleared with the surgeon.

- **Option D:** An abduction splint or pillows should be kept between the legs. The patient is encouraged to keep the operative hip in extension when transferring or sitting. The patient is instructed to pivot in the unoperated leg while assisted by the nurse, who protects the operative leg from adduction, flexion, and excessive weight-bearing.

76. A client with a diagnosis of paranoid schizophrenia comments to the nurse, “How do I know what is really in those pills?” Which of the following is the best response?

- A. Say, “You know it’s your medicine.”
- B. Allow him to open the individual wrappers of the medication.
- C. Say, “Don’t worry about what is in the pills. It’s what is ordered.”
- D. Ignore the comment because it’s probably a joke.

Correct Answer: B. Allow him to open the individual wrappers of the medication.

This is correct because allowing a paranoid client to open his medication can help reduce suspiciousness. Talk openly with the client about their beliefs and thoughts, showing empathy and support. Help build trust and rapport with clients. Paranoid clients may be more reluctant to trust anyone, but open communication generally offers more cooperation. Explain all procedures clearly and carefully, and their purpose, before starting them. Prevents aggressive behavior and suspicion. Promotes cooperation and compliance. Helps develop trust.

- **Option A:** This is incorrect because the client doesn’t know that it’s his medication and he’s obviously suspicious. Discuss feelings and help the client identify behaviors that cause conflict or alienate others. Helping clients see the reality of their behaviors can help treatment progress and lead to more appropriate behaviors and interactions.
- **Option C:** Discuss and have the client demonstrate (through role-play if appropriate) more acceptable responses and reactions to behaviors and stressors. Helps the client develop more positive coping skills for dealing with delusions, suspicions, and fears. Provide reorientation as appropriate, but avoid confrontation of the delusions. The client may need to be refocused to reality at times, but avoid confrontation that may be interpreted as argumentative to avoid non-compliance and uncooperative behaviors.
- **Option D:** Telling the client not to worry or ignoring the comment isn’t supportive and doesn’t offer reassurance. Set behavior boundaries and enforce per facility protocols with medications or restraints as necessary. Promote the safety of clients during agitated moments and the safety of others from aggressive behaviors. Follow your facility’s specific protocol regarding supervision, restraint, and documentation.

77. Ricardo is scheduled for a prostatectomy, and the anesthesiologist plans to use a spinal (subarachnoid) block during surgery. In the operating room, the nurse positions the client according to the anesthesiologist’s instructions. Why does the client require special positioning for this type of anesthesia?

- A. To prevent confusion.
- B. To prevent seizures.
- C. To prevent cerebrospinal fluid (CSF) leakage.

D. To prevent cardiac arrhythmias.

Correct Answer: C. To prevent cerebrospinal fluid (CSF) leakage

The client receiving a subarachnoid block requires special positioning to prevent CSF leakage and headache and to ensure proper anesthetic distribution.

- **Option A:** Anesthetics are well known to cause confusion, but this typically decreases as the body processes the medications and removes them from circulation.
- **Option B:** Generalized seizure as a complication following epidural anesthesia has been reported, but rarely following spinal anesthesia.
- **Option D:** The incidence of arrhythmias, as well as hypotension during spinal anesthesia, is higher for Cesarean section mostly.

78. Which of the following psychological symptoms would the nurse expect to find in a hospitalized client who is the only survivor of a train accident?

- A. Denial
- B. Indifference
- C. Perfectionism
- D. Trust

Correct Answer: A. Denial

Denial can act as a protective response. If a situation is just too much to handle, the person may respond by refusing to perceive it or by denying that it exists. Many people use denial in their everyday lives to avoid dealing with painful feelings or areas of their life they don't wish to admit. This is a primitive and dangerous defense – no one disregards reality and gets away with it for long! It can operate by itself or, more commonly, in combination with other, more subtle mechanisms that support it.

- **Option B:** The client tends to be overwhelmed and disorganized by the trauma, not indifferent to it. The symptoms of PTSD include persistently re-experiencing the traumatic event, intrusive thoughts, nightmares, flashbacks, dissociation (detachment from oneself or reality), and intense negative emotional (sadness, guilt) and physiological reaction on being exposed to the traumatic reminder. Furthermore, problems with sleep and concentration, irritability, increased reactivity, increased startle response, hypervigilance, avoidance of traumatic triggers also occur. There is a significant impairment in social, occupational, and other areas of functioning.
- **Option C:** Perfectionism is more commonly seen in clients with eating disorders, not in clients with PTSD. Perfectionism—the tendency to hold unrealistically high standards—has been implicated in the development of and maintenance of eating disorders. Clinical perfectionism is a primary target of intervention in Cognitive Behavioral Therapy (CBT-E), the leading treatment for adults with eating disorders. Studies have shown that patients with anorexia nervosa and bulimia nervosa have higher levels of perfectionism than control subjects.
- **Option D:** Clients who have had a severe trauma often experience an inability to trust others. The initial step in the diagnosis of posttraumatic stress disorder is to obtain a detailed history. It is challenging for the patient at times to describe the nature and severity of the traumatic event, and they may choose to avoid mentioning it. However, the presentation and the duration of the symptoms are useful in making an accurate diagnosis. The health care workers must inquire about any depressive or anxiety symptoms, suicidal ideation or previous attempts, substance abuse, access to firearms.

79. Stimulation of the sympathetic nervous system produces which of the following responses?

- A. Bradycardia
- B. Tachycardia
- C. Hypotension
- D. Decreased myocardial contractility

Correct Answer: B. Tachycardia

Stimulation of the sympathetic nervous system causes tachycardia and increased contractility. The other symptoms listed are related to the parasympathetic nervous system, which is responsible for slowing the heart rate. Studies have mainly focused on the role of the sympathetic nervous system, specifically evaluating the effect of increased sympathetic activity. It has been well documented that heart rate variability is diminished, and heart rate increases, before ventricular tachycardia in humans, which is likely reflective of increased sympathetic tone.

- **Option A:** Via the vagus nerve, the parasympathetic nervous system stimulates neurons that release the neurotransmitter acetylcholine (ACh) at synapses with cardiac muscle cells. Acetylcholine then binds to M2 muscarinic receptors, causing the decrease in heart rate that is referred to as reflex bradycardia.
- **Option C:** A key modulator of blood viscosity is the renin-angiotensin system (RAS) or the renin-angiotensin-aldosterone system (RAAS), a hormone system that regulates blood pressure and water balance. When blood volume is low, juxtaglomerular cells in the kidneys secrete renin directly into circulation.
- **Option D:** The activation of M2 receptors reduces the contractility of atrial cardiomyocytes, thus reducing, in part, the overall cardiac output of the heart as a result of reduced atrial kick, smaller stroke volume, and slower heart rate. Cardiac output is determined by heart rate and stroke volume ($CO = HR \times SV$).

80. When caring for a client with a diagnosis of schizotypal personality disorder, the nurse should:

- A. Set limits on manipulative behavior.
- B. Encourage participation in group therapy.
- C. Respect the client's needs for social isolation.
- D. Understand that seductive behavior is expected.

Correct Answer: C. Respect the client's needs for social isolation.

These clients are withdrawn, aloof, and socially distant; allowing distance and providing support may encourage the eventual development of a therapeutic alliance. Group therapy would increase this client's anxiety; cognitive or behavioral therapy would be more appropriate.

- **Option A:** In a respectful, neutral manner, explain expected client behaviors, limits, and responsibilities during sessions with nurse clinician. Clearly state the rules and regulations of the institution, and the consequences when these rules are not adhered to. From the beginning, clients need to have explicit guidelines and boundaries for expected behaviors on their part, as well as what the client can expect from the nurse. Clients need to be fully aware that they will be held

responsible for their behaviors.

- **Option B:** Assess the need for and encourage skills training workshops. Skills training workshops offer the client wants to increase social skills through role-play and interactions with others who are learning similar skills. This often acts as a motivating factor where positive feedback and helpful suggestions are readily available.
- **Option D:** Intervene in manipulative behavior. All limits should be adhered to by all staff involved. Behaviors should be documented objectively (give times, dates, circumstances). Provide clear boundaries and consequences. The client will test limits, and, once they understand that the limits are solid, this understanding can motivate them to work on other ways to get their needs met. Hopefully, this will be done with the nurse clinician throughout problem-solving alternative behaviors and learning new effective communication skills.

81. Ms. Caputo is newly promoted to a patient care manager position. She updates her knowledge on the theories in management and leadership in order to become effective in her new role. She learns that some managers have low concern for services and high concern for staff. Which style of management refers to this?

- A. Organization Management
- B. Impoverished Management
- C. Country Club Management
- D. Team Management

Correct Answer: C. Country Club Management

Country club management style puts concern for the staff as the number one priority at the expense of the delivery of services. He/she runs the department just like a country club where everyone is happy including the manager. This leadership style assumes that if people are happy in their job, they will naturally work harder.

- **Option A:** Organization management binds the employees together and gives them a sense of loyalty towards the organization. Organization management enables the optimum use of resources through meticulous planning and control at the workplace. Organization management gives a sense of direction to the employees. The individuals are well aware of their roles and responsibilities and know what they are supposed to do in the organization.
- **Option B:** The impoverished leader has the least concern for people and for production. This leader has no system of getting work done, nor is the work environment satisfying or motivating for employees. This leader's low interest in the work and the work environment results in disorganized work, dissatisfied employees, and a lack of harmony.
- **Option D:** Team management is the ability of an individual or an organization to administer and coordinate a group of individuals to perform a task. Team management involves teamwork, communication, objective setting, and performance appraisals.

82. Nurse Patrick is acquiring information from a client in the emergency department. Which is an example of biographic information that may be obtained during a health history?

- A. The chief complaint
- B. Past health status
- C. History immunizations
- D. Location of an advance directive

Correct Answer: D. Location of an advance directive

Biographic information may include name, address, gender, race, occupation, and location of a living will or durable power of attorney for health care. Biographic data usually include information that identifies the client, such as name, address, phone number, gender, and who provided the information—the client or significant others. The client's birth date, Social Security number, medical record number, or similar identifying data may be included in the biographic data section. The chief complaint, past health status, and history of immunizations are part of assessing the client's health and illness patterns.

- **Option A:** Encourage the client to explain the health problem or symptom in as much detail as possible by focusing on the onset, progression, and duration of the problem; signs and symptoms and related problems; and what the client perceives as causing the problem. The client's answers to the questions provide the nurse with a great deal of information about the client's problem and especially how it affects the lifestyle and activities of daily living. This helps the nurse to evaluate the client's insight into the problem and the client's plans for managing it.
- **Option B:** This portion of the health history focuses on questions related to the client's past, from the earliest beginnings to the present. These questions elicit data related to the client's strengths and weaknesses in her health history. The client's strengths may be physical (e.g., optimal body weight), social (e.g., active in community services), emotional (e.g., expresses feeling openly), or spiritual (often turns to faith for support).
- **Option C:** Information covered in the past health history includes questions about birth, growth, development, childhood diseases, immunizations, allergies, previous health problems, hospitalizations, surgeries, pregnancies, births, previous accidents, injuries, painful experiences, and emotional or psychiatric problems.

83. He wants to influence the customary way of thinking and behaving that is shared by the members of the department. Which of the following terms refer to this?

- A. Organizational chart
- B. Cultural network
- C. Organizational structure
- D. Organizational culture

Correct Answer: D. Organizational culture

Organizational culture refers to the way the members of the organization think together and do things around them together. It's their way of life in that organization. An organization's culture defines the proper way to behave within the organization. This culture consists of shared beliefs and values established by leaders and then communicated and reinforced through various methods, ultimately shaping employee perceptions, behaviors, and understanding.

- **Option A:** An organizational chart is a diagram that visually conveys a company's internal structure by detailing the roles, responsibilities, and relationships between individuals within an entity.

Organizational charts are alternatively referred to as “org charts” or “organization charts.”

- **Option B:** A cultural network hierarchy is presented which classifies these tools according to the CEO’s personal involvement with each element. Guidelines are presented for using the tools of cultural communication to change or maintain the culture at both the managerial level and the operational level of the organization.
- **Option C:** An organizational structure is a system that outlines how certain activities are directed in order to achieve the goals of an organization. These activities can include rules, roles, and responsibilities. The organizational structure also determines how information flows between levels within the company.

84. You’re developing a care plan with the nursing diagnosis risk for infection for your patient that received a kidney transplant. A goal for this patient is to:

- A. Remain afebrile and have negative cultures.
- B. Resume normal fluid intake within 2 to 3 days.
- C. Resume the patient’s normal job within 2 to 3 weeks.
- D. Try to discontinue cyclosporine (Neoral) as quickly as possible.

Correct Answer: A. Remain afebrile and have negative cultures.

The immunosuppressive activity of cyclosporine places the patient at risk for infection, and steroids can mask the signs of infection. The patient’s BUN creatinine ratio, magnesium levels, and blood pressure require monitoring while on therapy. Uric acid monitoring is debatable. Therapeutic monitoring of cyclosporine in transplant patients is a valuable tool in adjusting drug dosage to prevent acute rejection, nephrotoxicity, and predictable dose-dependent adverse reactions.

- **Option B:** The patient may not be able to resume normal fluid intake or return to work for an extended period of time and the patient may need cyclosporine therapy for life. The range between effective cyclosporine concentrations and the concentrations associated with serious toxicity is fairly narrow. Sub-optimal doses or concentrations can lead to therapeutic failure or severe toxicity.
- **Option C:** Patients on cyclosporine are at a slight risk of lymphoproliferative malignancies and infections; thus, a thorough history and physical exam are vital at each clinic visit. Cyclosporine therapy has a much higher opportunity for patient success with the communication and collaboration of an interprofessional healthcare team.
- **Option D:** In solid organ transplantation, it has clinical use for the treatment of organ rejection in kidney, liver, and heart allogeneic transplants. Cyclosporine is subject to therapeutic monitoring based on pharmacokinetics measures. The medication has low-to-moderate within-subject variability.

85. Which of the following outcome criteria is appropriate for the client with dementia?

- A. The client will return to an adequate level of self-functioning.
- B. The client will learn new coping mechanisms to handle anxiety.
- C. The client will seek out resources in the community for support.
- D. The client will follow an established schedule for activities of daily living.

Correct Answer: D. The client will follow an established schedule for activities of daily living.

Following established activity schedules is a realistic expectation for clients with dementia. Maintain a regular daily schedule routine to prevent problems that may result from thirst, hunger, lack of sleep, or inadequate exercise. If the needs of a patient with AD are not met, it may cause the patient to become agitated and anxious. Predictable behavior is less threatening to the patient and does not tax limited ability to function with ADLs.

- **Option A:** Allow the patient the freedom to sit in a chair near the window, utilize books and magazines as desired. This validates the patient's sense of reality and assists the patient in differentiating between day and night. Respect for the patient's personal space allows the patient to exert some control.
- **Option B:** Allow hoarding and wandering in a controlled environment, as appropriate or within acceptable limitations. Increases patient's security and decreases hostility and agitation by permitting behaviors that are difficult to prevent, to be allowed within the confines of a safe supervised environment.
- **Option C:** Instruct family members in the disease process, what can be expected, and assist with providing a list of community resources for support. Once diagnosis of AD is made, the family should be prepared to make long-term plans in order to discuss problems before they arise. Choices for resuscitation, legal competency, and guardianship including financial responsibility needed to be addressed. The care of a person with AD is expensive and time-consuming, as well as energy-draining and emotionally devastating for the family. Community resources can help delay the need for placement in a long-term care facility and may help defray some costs.

86. Tonometry is performed on the client with a suspected diagnosis of glaucoma. The nurse analyzes the test results as documented in the client's chart and understands that normal intraocular pressure is:

- A. 2-7 mmHg
- B. 10-21 mmHg
- C. 22-30 mmHg
- D. 31-35 mmHg

Correct Answer: B. 10-21 mmHg

Tonometry is the method of measuring intraocular fluid pressure using a calibrated instrument that indents or flattens the corneal apex. Pressures between 10 and 21 mmHg are considered within the normal range. Tonometry is a common procedure employed by ophthalmologists to measure intraocular pressure (IOP) using a calibrated instrument. Instruments measuring intraocular pressure assume the eye is a closed globe with uniform pressure distributed throughout the anterior chamber and vitreous cavity.

- **Option A:** 2-7 mmHg is low intraocular pressure. Tonometry is used to measure intraocular pressure in open-angle glaucoma, acute closed-angle glaucoma, in the setting of ocular trauma without globe rupture, and before and after ophthalmic surgical procedures.
- **Option C:** 22-30 mmHg indicates an increased intraocular pressure. Measurement of intraocular pressure is important in the screening and monitoring of glaucoma, a progressive optic neuropathy that can be slowed with intraocular pressure reduction. Intraocular pressure is the only modifiable risk factor for glaucoma progression at this time

- **Option D:** 31-35 mmHg is high intraocular pressure. Tonometry is also used to evaluate for acutely elevated intraocular pressure as seen in acute-angle closure glaucoma and following ocular trauma. Acute angle-closure glaucoma is an ophthalmic emergency requiring immediate intervention to lower IOP and avoid vision loss.

87. A 15-year-old boy was hospitalized in a psychiatric unit because he initiates frequent fights with peers. Which implementation is most appropriate?

- A. Anticipate and neutralize potentially explosive situations
- B. Ignore minor infractions of rules against fighting
- C. Isolate the adolescent from contact with peers
- D. Talk to the adolescent each time fighting occurs

Correct Answer: A. Anticipate and neutralize potentially explosive situations.

The nurse is responsible for maintaining a safe environment; therefore, it would be appropriate to observe for signs that an explosive situation is developing and intervene to neutralize the situation, thereby preventing a fight.

- **Option B:** Ignoring minor infractions of rules against fighting in a psychiatric unit would not be a minor infraction and should not be ignored. This could lead to unsafe situations that could escalate out of control.
- **Option C:** Isolation and seclusion are methods of intervention that can be used as a last resort after less restrictive means are employed. Opponents of seclusion have based their arguments on a concern for the rights of mental patients and a dedication to treat patients in the least restrictive environment.
- **Option D:** Talking to the adolescent each time a fight occurs does not indicate that the nurse is setting and enforcing clear, consistent rules. The nurse needs to maintain safety and would not allow fighting to occur if it could be avoided.

88. The mechanism of action of diphenoxylate (Lotomil) is:

- A. An increase in intestinal excretion of water.
- B. An increase in intestinal motility.
- C. A decrease in peristalsis in the intestinal wall.
- D. A decrease in the reabsorption of water in the bowel.

Correct Answer: C. A decrease in peristalsis in the intestinal wall.

Diphenoxylate acts on the smooth muscle of the intestinal tract to inhibit GI motility and excessive propulsion of the GI tract (peristalsis). Diphenoxylate is an active ingredient of commonly available antimotility agents. Its indication is for the treatment of diarrhea in adults and children 13 years or older, or as add-on therapy in the management of acute non-infectious diarrhea.

- **Option A:** By acting on the presynaptic opioid receptors, it blocks the release of acetylcholine in the synaptic cleft and hence inhibits the motility and secretory action of the enteric nervous system. This action leads to a decrease in segmental contractions and prolongation of gastrointestinal transit time. Diphenoxylate reduces the epithelial secretion of fluid and electrolytes and enhances active absorption by mild action on delta receptors.

- **Option B:** It does not have analgesic effects of morphine at standard doses, but at higher doses, it can lead to CNS effects, like euphoria. The drug can have a misuse potential if used for a prolonged time and classified as Schedule V drug under Food and Drug Administration.
- **Option D:** Diphenoxylate can precipitate GI complications, including sepsis and prolonged diarrhea, when administered in patients with infectious diarrhea. This effect is because of the prolongation of GI transit time and decreased GI motility, which leads to bacterial overgrowth and release of enterotoxins into the bloodstream, creating a septic shock-like picture.

89. In planning care for a client with borderline personality disorder, a nurse must be aware that this client is prone to develop which of the following conditions?

- A. Binge eating
- B. Memory loss
- C. Cult membership
- D. Delusional thinking

Correct Answer: A. Binge eating

Clients with borderline personality disorder are likely to develop dysfunctional coping and act out in self-destructive ways such as binge eating. Help clients to cope and to control emotions. The nurse can help the clients to identify their feelings and learn to tolerate them without exaggerated responses such as destruction of property or self-harm; keeping a journal often helps clients gain awareness of feelings.

- **Option B:** Cognitive restructuring is a technique useful in changing patterns of thinking by helping clients to recognize negative thoughts and feelings and to replace them with positive patterns of thinking; thought stopping is a technique to alter the process of negative or self-critical thought patterns.
- **Option C:** Minimizing unstructured time by planning activities can help clients to manage time alone; clients can make a written schedule that includes appointments, shopping, reading the paper, and going for a walk.
- **Option D:** Regardless of the clinical setting, the nurse must provide structure and limit setting in the therapeutic relationship; in a clinic setting, this may mean seeing the client for scheduled appointments of a predetermined length rather than whenever the client appears and demands the nurse's immediate attention.

90. Clay-colored stools indicate:

- A. Upper GI bleeding
- B. Impending constipation
- C. An effect of medication
- D. Bile obstruction

Correct Answer: D. Bile obstruction

Bile colors the stool brown. Any inflammation or obstruction that impairs bile flow will affect the stool pigment, yielding light, clay-colored stool. The liver releases bile salts into the stool, giving it a normal brown color. One may have clay-colored stools if they have a liver infection that reduces bile

production, or if the flow of bile out of the liver is blocked. Yellow skin (jaundice) often occurs with clay-colored stools.

- **Option A:** Upper GI bleeding results in black or tarry stool. Melena is a black, tarry stool that is caused by GI bleeding. The black color is due to the oxidation of blood hemoglobin during the bleeding in the ileum and colon. Melena also refers to stools or vomit stained black by blood pigment or dark blood products and may indicate upper GI bleeding.
- **Option B:** Constipation is characterized by small, hard masses. The problem may arise in the colon or rectum or it may be due to an external cause. In most people, slow colonic motility that occurs after years of laxative abuse is the problem. In a few patients, the cause may be related to an outlet obstruction like rectal prolapse or a rectocele. External causes of constipation may include poor dietary habits, lack of fluid intake, overuse of certain medications, an endocrine problem like hypothyroidism or some type of an emotional issue.
- **Option C:** Many medications and foods will discolor stool – for example, drugs containing iron turn stool black; beets turn stool red. Blue feces may be caused by boric acid, chloramphenicol, or methylene blue. Causative diseases for clay feces may include alcoholic hepatitis, biliary cirrhosis, gallstones, sclerosing cholangitis, biliary strictures, or viral hepatitis. Causative medications for gray feces may include cocoa or colchicines. Potential causes for green stools may include spinach, Indomethacin, iron, or medroxyprogesterone.

91. Following a diagnosis of acute glomerulonephritis (AGN) in their 6-year-old child, the parent's remark: "We just don't know how he caught the disease!" The nurse's response is based on an understanding that:

- A. AGN is a streptococcal infection that involves the kidney tubules.
- B. The disease is easily transmissible in schools and camps.
- C. The illness is usually associated with chronic respiratory infections.
- D. It is not "caught" but is a response to a previous B-hemolytic strep infection.

Correct Answer: D. It is not "caught" but is a response to a previous B-hemolytic strep infection.

AGN is generally accepted as an immune-complex disease in relation to an antecedent streptococcal infection of 4 to 6 weeks prior and is considered as a noninfectious renal disease.

- **Option A:** Acute glomerulonephritis comprises a specific set of renal diseases in which an immunologic mechanism triggers inflammation and proliferation of glomerular tissue that can result in damage to the basement membrane, mesangium, or capillary endothelium.
- **Option B:** The disease is most commonly caused by Streptococcus species. Glomerulonephritis may develop a week or two after recovery from a strep throat infection or, rarely, a skin infection (impetigo). To fight the infection, the body produces extra antibodies that can eventually settle in the glomeruli, causing inflammation.
- **Option C:** Acute glomerulonephritis is usually associated with staphylococcal infection. Infections with other types of bacteria, such as staphylococcus and pneumococcus, viral infections, such as chickenpox, and parasitic infections, such as malaria, can also result in acute glomerulonephritis. Acute glomerulonephritis that results from any of these infections is called postinfectious glomerulonephritis.

92. Dr. Thompson, a seasoned endocrinologist, is presenting a case to a group of medical students. He discusses a 40-year-old woman, Mrs. Garcia, who presented with persistent hypertension, fatigue, and muscle weakness. Lab tests revealed abnormally high levels of a particular hormone responsible for sodium and potassium balance in the blood. As Dr. Thompson delves into the source of this hormone, he quizzes the students: “Considering Mrs. Garcia’s condition, from which specific region of the adrenal glands would this hormone, notably a mineralocorticoid like aldosterone, originate?”

- A. Parafollicular cells
- B. Zona reticularis
- C. Zona glomerulosa
- D. Zona fasciculata

Correct Answer: C. Zona glomerulosa

The zona glomerulosa is the outermost layer of the adrenal cortex, responsible for producing mineralocorticoids, with aldosterone being the key hormone. Aldosterone plays a pivotal role in regulating sodium and potassium levels in the body, primarily influencing the reabsorption of sodium ions and the excretion of potassium ions in the kidneys.

- **Option A:** Parafollicular cells. These cells are located in the thyroid gland, not the adrenal glands. They are responsible for producing calcitonin, a hormone involved in calcium homeostasis.
- **Options B:** Zona reticularis. This is the innermost layer of the adrenal cortex. It primarily produces androgens, the precursors to male and female sex hormones.
- **Option D:** Zona fasciculata. This middle layer of the adrenal cortex predominantly produces glucocorticoids, such as cortisol, which are involved in glucose metabolism and the body’s response to stress.

93. A miotic medication has been given to a patient with glaucoma. The nurse tells the client that the purpose of this medication is to?

- A. It blocks the responses that are sent to the eye muscles.
- B. It will relax the eye muscles and decrease blurring of vision.
- C. It will constrict the eye to reduce intraocular pressure.
- D. It will dilate the eye to reduce intraocular pressure.

Correct Answer: C. It will constrict the eye to reduce intraocular pressure.

Miotics cause pupillary constrictions and are used to treat glaucoma. These medications reduce eye pressure by increasing the drainage of intraocular fluid through the trabecular meshwork.

- **Options A, B, & D:** These are related to mydriatic medications.

94. The passageway in labor and delivery of the fetus include the following, except?

- A. Distensibility of lower uterine segment
- B. Cervical dilatation and effacement
- C. Distensibility of vaginal canal and introitus
- D. Flexibility of the pelvis

Correct Answer: D. Flexibility of the pelvis

The pelvis is a bony structure that is part of the passageway but is not flexible. The lower uterine segment including the cervix as well as the vaginal canal and introitus are all part of the passageway in the delivery of the fetus.

- **Option A:** As uterine contractions cause pressure on the membranes, the hydrostatic action of the amniotic sac in turn dilates the cervical canal like a wedge. In the absence of intact membranes, the pressure of the presenting fetal part against the cervix and lower uterine segment is similarly effective.
- **Option B:** Effacement may be compared to a funneling process in which the whole length of a narrow cylinder is converted into a very obtuse, flaring funnel with a small circular opening. Because of increased myometrial activity during uterine preparedness for labor, appreciable effacement of a softened cervix sometimes is accomplished before active labor begins. Effacement causes expulsion of the mucous plug as the cervical canal is shortened. Because the lower segment and cervix have lesser resistance during a contraction, a centrifugal pull is exerted on the cervix and creates cervical dilatation.
- **Option C:** The tailbone (sacrum or coccyx) needs to be sufficiently mobile to be gently pressed back out of the way when the baby moves through. The sacroiliac joint allows this nutation or counter-nutation of the sacrum. The symphysis pubis is a cartilaginous joint in the front of the pelvis. It also needs to be properly mobile to help the pelvis flex to allow the baby to pass through. The relaxin hormone in your body helps both the tailbone and the symphysis pubis become more mobile to facilitate birth.

95. A client with depressive symptoms is given prescribed medications and talks with his therapist about his belief that he is worthless and unable to cope with life. Psychiatric care in this treatment plan is based on which framework?

- A. Behavioral framework
- B. Cognitive framework
- C. Interpersonal framework
- D. Psychodynamic framework

Correct Answer: B. Cognitive framework

Cognitive thinking therapy focuses on the client's misperceptions about self, others, and the world that impact functioning and contribute to symptoms. Using medications to alter neurotransmitter activity is a psychobiologic approach to treatment. The cognitive framework is based on a unique set of elements from psychosocial theories that are consistent with economic theory, experimental data, and historical data on human behavior. The theories are consistent with one another and are easily translated into mathematical equations.

- **Option A:** Behaviorism, also known as behavioral psychology, is a theory of learning which states all behaviors are learned through interaction with the environment through a process called conditioning. Thus, behavior is simply a response to environmental stimuli.

- **Option C:** Interpersonal psychotherapy (IPT) is a time-limited, focused, evidence-based approach to treat mood disorders. The main goal of IPT is to improve the quality of a client's interpersonal relationships and social functioning to help reduce their distress. IPT provides strategies to resolve problems within four key areas.
- **Option D:** The psychodynamic approach includes all the theories in psychology that see human functioning based upon the interaction of drives and forces within the person, particularly unconscious, and between the different structures of the personality.

96. A client arrives in the emergency with complaints of chest pain and is diagnosed with acute MI. A morphine 4mg IV was given 5 minutes ago. Which of the following assessments made by the nurse indicates a further immediate action?

- A. Respiratory rate from 20 bpm to 12 bpm.
- B. Blood pressure from 120/70 to 100/60 mmHg.
- C. The client still complains of chest pain with a pain scale of 2/10.
- D. Cardiac rate of 103 bpm and a normal sinus rhythm of the ECG.

Correct Answer: C. The client still complains of chest pain with a pain scale of 2/10.

The goal for the client with an acute myocardial infarction is to eliminate the pain. Even pain related to a level of 2/10 should be managed with an additional dose of morphine.

- **Options A, B, & D:** Although hypotension, respiratory depression, and tachycardia are the side effects of morphine, they do not require further action at this time.

97. Which assessment data would the nurse expect as the chief complaint from a client who is experiencing an acute exacerbation of Ménière's disease?

- A. Vertigo
- B. Dizziness
- C. Severe ear pain
- D. Sudden deafness

Correct Answer: A. Vertigo

Ménière's disease is characterized by sudden, severe episodes of vertigo during which the client has a sensation of spinning. If Meniere disease is suspected, the patient should be questioned about the character of vertigo, hearing loss, and earlier episodes. A full otologic history is part of the clinical investigation.

- **Option B:** Dizziness is not vertigo and must be distinguished from true rotational vertigo. Red flags for a central origin of vertigo, according to Harcourt et al., are neurological symptoms or signs, acute deafness, new type or onset of headache, or vertical/torsional/rotatory nystagmus.
- **Option C:** A feeling of pressure but not pain is also characteristic. If Meniere disease is suspected, one should perform a full otologic examination, facial nerve testing, and assessment of nystagmus with Frenzel goggles, Rinne, and Weber tests.

- **Option D:** Hearing loss is progressive, not sudden. Audiometric evaluation is mandatory in all patients with Meniere disease. Fluctuating low frequency unilateral sensorineural hearing loss is characteristic of the disease. The hearing loss can progress to all frequencies.

98. Teaching has been adequate when a client being treated with acetylsalicylic acid states: "I can crush the pills before I swallow them."

- A. "I can crush the pills before I swallow them."
- B. "I should take the pills with antacids."
- C. "Taking the pills on an empty stomach will help absorption."
- D. "If the pills smell like vinegar, I should throw them out."

Correct Answer: D. "If the pills smell like vinegar, I should throw them out."

Any aspirin should be discarded if a vinegar odor is noticed. Aspirin reacts slowly with water to give salicylic acid and acetic acid. The green line shows the ester bond that is broken during the hydrolysis reaction. So, when you open an old bottle of aspirin it is common to smell the vinegar. This means that at least some of the aspirin has degraded.

- **Option A:** Crushing is not recommended for sustained-release preparations. Aspirin absorption from the gastrointestinal (GI) tract depends on the formulation state. When consumed as a liquid preparation, it is rapidly absorbed as opposed to tablets. Its hydrolysis yields salicylic acid. Salicylic acid has a narrow therapeutic window. If maintained within that narrow range, it provides the appropriate anti-inflammatory effect.
- **Option B:** Antacids impair absorption. Aspirin's absorption is pH sensitive at the level of the small intestine. Absorption is higher through the small intestine than the stomach for the same pH range. At pH 3.5 or 6.5, aspirin's intestinal absorption is greater than the gastric absorption of the compound. The stomach does not absorb aspirin at pH 6.5.
- **Option C:** Taking the medication on an empty stomach will increase GI irritation. Aspirin increases the risk of GI bleeding in patients who already suffer from peptic ulcer disease or gastritis. The risk of bleeding is still present even without these conditions if there is concomitant consumption of alcohol or if the patient is on warfarin.

99. A client with a fractured hip has been placed in Buck's traction. Which statement is true regarding balanced skeletal traction? Balanced skeletal traction:

- A. Utilizes a Steinman pin
- B. Requires that both legs be secured
- C. Utilizes Kirschner wires
- D. Is used primarily to heal the fractured hips

Correct Answer: A. Utilizes a Steinman pin

Balanced skeletal traction uses pins and screws. A Steinman pin goes through large bones and is used to stabilize large bones such as the femur. For some types of femur fractures, a pin is placed in the child's broken bone and the pin is connected to the weights. This is called "balanced skeletal traction." The weights keep the parts of the bone in the proper place so the bone can heal well.

- **Option B:** Only the affected leg is in traction. Weights, ropes and pulleys are used to balance and hold the leg up for best healing. The equipment cradles the leg to help the child relax and feel more comfortable while the ends of the bones are healing together.
- **Option C:** Kirschner wires are used to stabilize small bones such as fingers and toes. The nurses will also check the skin around the pin for these signs: redness, flaking, and blisters. These are signs of skin breakdown and irritation.
- **Option D:** Buck's traction is not used for fractured hips. For people with hip fractures, traction involves either using tapes (skin traction) or pins (skeletal traction) attached to the injured leg and connected to weights via a pulley. The application of traction before surgery is thought to relieve pain and make the subsequent surgery easier.

100. A client is suspected of having hepatitis. Which diagnostic test result will assist in confirming this diagnosis?

- A. Elevated hemoglobin level
- B. Elevated serum bilirubin level
- C. Elevated blood urea nitrogen level
- D. Decreased erythrocyte sedimentation rate

Correct Answer: B. Elevated serum bilirubin level.

Laboratory indicators of hepatitis include elevated liver enzyme levels, elevated serum bilirubin levels, elevated erythrocyte sedimentation rates, and leukopenia. Baseline evaluation in a patient suspected to have viral hepatitis can be started by checking a hepatic function panel. Patients who have a severe disease can have elevated total bilirubin levels. Typically, levels of alkaline phosphatase (ALP) remain in the reference range, but if it is elevated significantly, the clinician should consider biliary obstruction or liver abscess.

- **Option A:** A hemoglobin level is unrelated to this diagnosis. In advanced liver disease, prothrombin time (PT) and international normalized ratio (INR) may appear prolonged. Patients may also have leukopenia and thrombocytopenia. Patients who suffer from easy bruising, variceal bleed, or hemorrhoidal bleed due to advanced liver disease may have anemia with low hemoglobin and hematocrit levels.
- **Option C:** An elevated blood urea nitrogen level may indicate renal dysfunction. Blood urea nitrogen (BUN) and serum creatinine levels are also necessary for patients suspected to have advanced liver disease to look for renal impairment. Patients who present with altered mental status should have serum ammonia levels checked and are usually elevated in the presence of hepatic encephalopathy.
- **Option D:** Elevated erythrocyte sedimentation rate is a laboratory indicator of hepatitis. The increase in the ESR in type A hepatitis could be explained by changes in the serum protein levels in the course of acute viral hepatitis and/or by the different inflammatory activity of the underlying disease.