

Kevin's Review - 100 NCLEX Practice Questions

1. A community health nurse is conducting a workshop on breast health for a group of women with diverse backgrounds, ranging from those who have never performed Breast Self-Examination (BSE) to some who have had benign breast conditions in the past. As part of the educational session, the nurse emphasizes the importance of BSE for the early detection of potential breast anomalies. What should the nurse identify as the primary goal for these women in performing regular BSE?

- A. To detect any cancerous lumps early in their development
- B. To identify areas of thickness or fullness that differ from the rest of the breast tissue
- C. To notice any changes in the breast tissue from what is normal for each individual
- D. To differentiate between fibrocystic masses and other types of breast lumps
- E. To promote self-awareness of breast health and encourage routine health screening
- F. To understand the normal texture and appearance of their breast tissue for future comparison

Correct Answer: C. To notice any changes in the breast tissue from what is normal for each individual.

The primary purpose of BSE is for individuals to become familiar with their own breasts so they can detect any changes early, which could be indicative of breast cancer or other breast conditions. Detecting cancerous lumps (A) is an important aspect of BSE, but the emphasis is on noticing any change, not only cancer. Identifying areas of thickness or fullness (B) and differentiating types of masses (D) are part of noticing changes, but these are not the primary goals. Promoting self-awareness and encouraging routine screening (E), as well as understanding normal breast tissue (F), are also critical educational points, but the main goal remains the detection of any new or unusual changes since the last examination.

2. Which of the following assessment findings would the nurse expect if the client develops DVT?

- A. Mid Calf pain, tenderness, and redness along the vein.
- B. Chills, fever, malaise, occurring 2 weeks after delivery.
- C. Muscle pain, the presence of Homans sign, and swelling in the affected limb.
- D. Chills, fever, stiffness, and pain occurring 10 to 14 days after delivery.

Correct Answer: C. Muscle pain the presence of Homans sign, and swelling in the affected limb

Classic symptoms of DVT include muscle pain, the presence of Homans sign, and swelling of the affected limb.

- **Option A:** Midcalf pain, tenderness, and redness, along the vein reflect superficial thrombophlebitis. In the absence of a triggering event, neither venous stasis nor abnormal coagulability alone causes clinically important thrombosis, but vascular endothelial injury does reliably result in thrombus formation. The initiating injury triggers an inflammatory response that results in immediate platelet adhesion at the injury site. Further platelet aggregation is mediated by thromboxane A₂ (TxA₂) and by thrombin.

- **Option B:** Chills, fever, and malaise occurring 2 weeks after delivery reflect pelvic thrombophlebitis. The body naturally produces more clotting proteins during pregnancy. This ensures that the blood forms clots quickly after delivery to avoid excess bleeding. These natural changes are meant to protect you from complications during your pregnancy. But they also increase your risk of having a blood clot. Any medical procedure, including delivery of a baby, also carries a risk of infection. Septic pelvic vein thrombophlebitis is caused when a blood clot forms in the pelvic veins and becomes infected by bacteria present in the uterus.
- **Option D:** Chills, fever, stiffness, and pain occurring 10 to 14 days after delivery suggest femoral thrombophlebitis. The femoral vein runs along the inside of the legs from the groin area downward. Femoral vein thrombosis refers to a blood clot present in those veins. These veins are superficial, or close to the surface of the skin, and are often more prone to blood clots than deeper veins.

3. Nurse Alexandra notices other clients on the unit avoiding a client diagnosed with antisocial personality disorder. When discussing appropriate behavior in group therapy, which of the following comments is expected about this client by his peers?

- A. Lack of honesty
- B. Belief in superstition
- C. Show of temper tantrums
- D. Constant need for attention

Correct Answer: A. Lack of honesty

Clients with antisocial personality disorder tend to engage in acts of dishonesty, shown by lying. Antisocial personality disorder (ASPD) is a deeply ingrained and rigid dysfunctional thought process that focuses on social irresponsibility with exploitive, delinquent, and criminal behavior with no remorse. Disregard for and the violation of others' rights are common manifestations of this personality disorder, which displays symptoms that include failure to conform to the law, inability to sustain consistent employment, deception, manipulation for personal gain, and incapacity to form stable relationships.

- **Option B:** Clients with schizotypal personality disorder tend to be superstitious. It is unlikely that a person with a schizoid personality disorder will present in the clinical setting of his own volition unless prompted by family, or as a result of a co-occurring disorder, such as depression. As with most personality disorders, the behavior is in synchrony with the ego, and thus the patient does not acknowledge the need to adapt his or her behavior.
- **Option C:** Histrionic personality disorder, or dramatic personality disorder, is a psychiatric disorder distinguished by a pattern of exaggerated emotionality and attention-seeking behaviors. Histrionic personality disorder falls within the "Cluster B" of personality disorders. Cluster B personality disorders include conditions such as narcissistic personality disorder, borderline personality disorder, and antisocial personality disorder. These personality disorders are commonly described as dramatic, excitable, erratic, or volatile. Specifically, people with histrionic personality disorder typically present as flirtatious, seductive, charming, manipulative, impulsive, and lively.
- **Option D:** Clients with histrionic personality disorders tend to overreact to frustrations and disappointments, have temper tantrums, and seek attention. People with a histrionic personality disorder may feel underappreciated or disregarded when they are not the center of attention. These people are typically the life of the party and have a "larger than life" presence. They may be vibrant, enchanting, overly seductive, or inappropriately sexual with most of the people they meet, even when they are not sexually attracted to them. People presenting with a histrionic personality

disorder may demonstrate rapidly shifting and shallow emotions that others may perceive as insincere.

4. A male adult client is suspected of having a pulmonary embolism. A nurse assesses the client, knowing that which of the following is a common clinical manifestation of pulmonary embolism?

- A. Dyspnea
- B. Bradypnea
- C. Bradycardia
- D. Decreased respirations

Correct Answer: A. Dyspnea

The common clinical manifestations of pulmonary embolism are tachypnea, tachycardia, dyspnea, and chest pain. PE leads to impaired gas exchange due to obstruction of the pulmonary vascular bed leading to a mismatch in the ventilation to perfusion ratio because alveolar ventilation remains the same, but pulmonary capillary blood flow decreases, effectively leading to dead space ventilation and hypoxemia.

- **Option B:** The most common symptoms of PE include the following: dyspnea, pleuritic chest pain, cough, hemoptysis, presyncope, or syncope. Dyspnea may be acute and severe in central PE, whereas it is often mild and transient in small peripheral PE.
- **Option C:** If a patient with PE who has tachycardia on presentation develops sudden bradycardia or develops a new broad complex tachycardia (with right bundle branch block), providers should look for signs of right ventricular strain and possible impending shock.
- **Option D:** On examination, patients with PE might have tachypnea and tachycardia, which are common but nonspecific findings. Other examination findings include calf swelling, tenderness, erythema, palpable cords, pedal edema, rales, decreased breath sounds, signs of pulmonary hypertension such as elevated neck veins, loud P2 component of second heart sound, a right-sided gallop, and a right ventricular parasternal lift might be present on examination.

5. Among toddlers and children up to age five, femur fractures usually result from a low energy fall. In most cases, the orthopedic surgeon realigns the fracture using fluoroscopy or x-ray imaging as a guide and immobilizes the leg in a type of cast called a spica cast. Approximately how many weeks does it take for a fractured femur to heal in a 3-year-old?

- A. 1-2 weeks
- B. 2-4 weeks
- C. 3-8 weeks
- D. 10-12 weeks

Correct Answer: C. 3-8 weeks

In most cases, three to six weeks of early healing is necessary before the child can begin walking on the injured leg. When the bone is completely healed, usually around one year after the injury occurs,

the child returns to the hospital to have the nails removed. Following treatment, the orthopedic surgeon continues to monitor the patient for a period of several years to ensure that there is no limb length discrepancy.

- **Option A:** 1-2 weeks of bone healing is unlikely even among toddlers. Unlike the healing process in adults, a certain amount of variation in the alignment of the bone as it heals is acceptable in infants and older children, notes Dr. Scher. As the body lays down new bone, over time, there is an automatic “correction” or straightening during growth, called remodeling.
- **Option B:** The approximate healing time for a fractured femur during childhood is 4 weeks. Fractures in these very young children and in infants are usually treated by placing the child in a Pavlik harness, a cloth brace that helps hold the thigh in the proper position while it heals. According to Dr. David M. Scher, an associate orthopedic surgeon at the Hospital for Special Surgery, an infant’s bones may heal very rapidly, usually by 3-4 weeks.
- **Option D:** Children remain in the spica cast for a period ranging from six weeks to three months, which can be a challenge for caregivers when it comes to maintaining hygiene and keeping the child distracted and happy. That being said, it continues to be the safest and least complicated method for treating fractures among this age group and yields excellent results.

6. A client with acquired immunodeficiency syndrome is prescribed with zidovudine (Azidothymidine). Which of the following laboratory results should the nurse monitor while on this medication?

- A. Throat swab gram stain.
- B. Complete blood count
- C. Random blood sugar
- D. Blood uric acid

Correct Answer: B. Complete blood count

Zidovudine is an antiretroviral medication used in the prevention and treatment of HIV/AIDS. It may decrease the number of a certain type of white blood cell in the blood and cause anemia and muscle disorders.

- **Options A, C, & D:** These are not related to the medication.

7. The nurse would assess the client experiencing an acute episode of cholecystitis for pain that is located in the right

- A. Upper quadrant and radiates to the left scapula and shoulder.
- B. Upper quadrant and radiates to the right scapula and shoulder.
- C. Lower quadrant and radiates to the umbilicus.
- D. Lower quadrant and radiates to the back.

Correct Answer: B. Upper quadrant and radiates to the right scapula and shoulder

During an acute “gallbladder attack,” the client may complain of severe right upper quadrant pain that radiates to the right scapula and shoulder. This is governed by the pattern on dermatomes in the body. Acute cholecystitis is inflammation of the gallbladder that occurs due to occlusion of the cystic duct or

impaired emptying of the gallbladder. Often this impaired emptying is due to stones or biliary sludge.

- **Option A:** When cystic duct blockage is caused by a stone, it is called acute calculous cholecystitis. It is important to know, one can have pain due to temporary obstruction by gallstones, and that is called biliary colic. The diagnosis of biliary colic is upgraded to acute calculous cholecystitis if the pain does not resolve in six hours. If no stone is identified, it is called acute acalculous cholecystitis.
- **Option C:** Cases of chronic cholecystitis present with progressing right upper quadrant abdominal pain with bloating, food intolerances (especially greasy and spicy foods), increased gas, nausea, and vomiting. Pain in the mid-back or shoulder may also occur. This pain could be present for years until diagnosis.
- **Option D:** The pathophysiologic mechanism of acute cholecystitis is blockage of the cystic duct. Cholecystitis is a condition best treated with surgery; however, it can be treated conservatively if necessary. This condition can be associated with or without the presence of gallstones and can also be classified as acute or chronic.

8. A client with acute asthma showing inspiratory and expiratory wheezes and a decreased expiratory volume should be treated with which of the following classes of medication right away?

- A. Beta-adrenergic blockers
- B. Bronchodilators
- C. Inhaled steroids
- D. Oral steroids

Correct Answer: B. Bronchodilators

Bronchodilators are the first line of treatment for asthma because bronchoconstriction is the cause of reduced airflow. Bronchodilators are indicated for individuals that have lower than optimal airflow through the lungs. The mainstay of treatment is beta-2 agonists that target the smooth muscles in the bronchioles of the lung. Various respiratory conditions may require bronchodilators, including asthma and chronic obstructive pulmonary disease.

- **Option A:** Beta-adrenergic blockers aren't used to treat asthma and can cause bronchoconstriction. The catecholamines, epinephrine, and norepinephrine bind to B1 receptors and increase cardiac automaticity as well as conduction velocity. B1 receptors also induce renin release, and this leads to an increase in blood pressure. In contrast, binding to B2 receptors causes relaxation of the smooth muscles along with increased metabolic effects such as glycogenolysis.
- **Option C:** Inhaled steroids may be given to reduce the inflammation but aren't used for emergency relief. Inhaled corticosteroids have potent glucocorticoid activity and work directly at the cellular level by reversing capillary permeability and lysosomal stabilization to reduce inflammation. The onset of action is gradual and may take anywhere from several days to several weeks for maximal benefit with consistent use.
- **Option D:** Corticosteroids produce their effect through multiple pathways. In general, they produce anti-inflammatory and immunosuppressive effects, protein and carbohydrate metabolic effects, water and electrolyte effects, central nervous system effects, and blood cell effects. Oral administration is more common for chronic treatment. Patients should receive non-systemic therapy whenever possible, to minimize systemic exposure.

9. A 4 month-year-old infant has just received diphtheria, tetanus, and acellular pertussis (DtaP). Hours later, the mother reports to the clinic because her child develops redness and swelling at the injection site. The nurse instructs the mother to do which of the following?

- A. Application of cold compress
- B. Application of hot compress
- C. Monitor for signs of fever
- D. Report to the clinic for a repeat injection on the other site

Correct Answer: A. Application of cold compress

Redness, tenderness, or swelling may happen at the site of injection. This will be relieved through cool application for the first 24 hours, followed by warm compress if inflammation persists.

- **Option B:** The child may have a fever, soreness, and some swelling and redness in the area where the shot was given. For pain and fever, check with a doctor to see if either acetaminophen or ibuprofen can be given, and to find out the right dose. A warm, damp cloth or a heating pad on the injection site may help reduce soreness, as can moving or using the arm.
- **Option C:** The vaccine can cause mild side effects: fever; mild crankiness; tiredness; loss of appetite; and tenderness, redness, or swelling in the area where the shot was given. Rarely, a child may have a seizure, a high fever, or uncontrollable crying after getting the vaccine. But these sorts of side effects are so rare that researchers question whether they're even caused by the vaccine. Most kids have a few minor or no side effects.
- **Option D:** Call a physician if not sure whether the vaccine should be postponed or avoided. Children who have had certain problems with the DTaP vaccine usually can safely receive the Td (tetanus and diphtheria) vaccine.

11. The assigned LPN of the unit reports to you that a client's blood pressure and heart rate have decreased, and when her face is assessed, one side twitches. What is the most appropriate thing to do as a nurse?

- A. Assess the client's pupillary reaction to light.
- B. Obtain a neurologic exam request for the client.
- C. Review the client's morning calcium level.
- D. Retake the client's blood pressure and heart rate.

Correct Answer: C. Review the client's morning calcium level.

Facial twitching of one side of the mouth, nose, and cheek in response to tapping the face just below and in front of the ear is a positive Chvostek sign. It is a neurologic manifestation of hypocalcemia.

- **Option A:** Pupillary light reflex is used to assess the brain stem function. Abnormal pupillary light reflex can be found in optic nerve injury, oculomotor nerve damage, brain stem lesions, such as tumors, and medications like barbiturates.
- **Option B:** The neurological examination is an assessment tool to determine a patient's neurologic function. It is beneficial in a variety of ways as it allows the localization of neurologic diseases and helps in ruling in or ruling out differential diagnoses.

- **Option D:** The LPN is experienced and holds the skills to carefully and accurately measure vital signs. The clinical manifestations of hypocalcemia can range from no symptoms if it is mild to life-threatening symptoms like seizures, heart failure, or laryngospasm if it is severe. Also, the clinical manifestation depends on the rate of development of hypocalcemia and its chronicity.

12. A female client with hypothyroidism (myxedema) is receiving levothyroxine (Synthroid), 25 mcg P.O. daily. Which finding should nurse Hans recognize as an adverse drug effect?

- A. Dysuria
- B. Leg cramps
- C. Tachycardia
- D. Blurred vision

Correct Answer: C. Tachycardia

Levothyroxine, a synthetic thyroid hormone, is given to a client with hypothyroidism to simulate the effects of thyroxine. Adverse effects of this agent include tachycardia. Generally, adverse events resulting from incorrect dosing (excessive dosing) often form a hyperthyroid-like picture or due to an allergic reaction to the excipient of the levothyroxine tablets. The other options aren't associated with levothyroxine.

- **Option A:** Adverse effects (frequency undefined) include: angina pectoris, tachycardia, palpitations, arrhythmias, myocardial infarction, dyspnea, anxiety, fatigue, headache, heat intolerance, insomnia, irritability, diaphoresis, skin rash, alopecia, goiter, weight loss, menstrual irregularities, abdominal cramps, diarrhea, emesis, reduced fertility, and decreased bone mineral density (a result of TSH suppression).
- **Option B:** In the initial stage of overdose (6 to 12 hours post-ingestion), the common signs of toxicity would be tremulousness, tachycardia, hypertension, anxiety, and diarrhea. Rarely, convulsions, thyroid storm, acute psychosis, arrhythmias, and acute myocardial infarction may occur.
- **Option D:** In adults, monitor TSH levels approximately 6 to 8 weeks after initiating treatment with levothyroxine. Upon achieving the correct dosing of levothyroxine, monitor TSH levels 4 to 6 months after, and then every 12 months after that.

13. A nurse is assessing a clinic patient with a diagnosis of hepatitis A. Which of the following is the most likely route of transmission?

- A. Sexual contact with an infected partner
- B. Contaminated food
- C. Blood transfusion
- D. Illegal drug use

Correct Answer: B. Contaminated food

Hepatitis A is the only type that is transmitted by the fecal-oral route through contaminated food. Endemic rates are high in developing countries with low socioeconomic conditions and poor sanitation and hygiene practices. Exposure in these developing countries usually occurs in childhood. The

incidence of HAV in a given population correlates with socioeconomic properties such as income, the density of housing, sanitation, and water quality.

- **Option A:** Hepatitis B infection is a serious global healthcare problem. Often transmitted via body fluids like blood, semen, and vaginal secretions, the hepatitis B virus can cause liver injury. It involves the transmission of HBV through sexual contact or mucosal surface contact. Unprotected sex and injection drug use are major modes of transmission in low to intermediate prevalence areas.
- **Option C:** The patients should be told not to donate blood or any organs as the risk of transmission is high. Hepatitis C is a serious infection that has high morbidity and mortality. The management of HCV is prohibitively expensive, and newer antivirals offer a potential cure for the disorder.
- **Option D:** Hepatitis B, C, and D are transmitted through infected bodily fluids. Hepatitis D virus infection is an acute and chronic inflammatory process transmitted parenterally. Hepatitis D replicates independently within hepatocytes but requires hepatitis B surface antigen for propagation. Hepatic cell death occurs due to direct cytotoxic effects of hepatitis D virus or a host-mediated immune response. Risk factors include blood transfusions and intravenous drug use.

14. Which instruction should the nurse provide to the client with diabetes mellitus receiving acarbose (Precose)? Select all that apply.

- A. "Take the medication at bedtime."
- B. "Take the medication with each meal."
- C. "Take the medication on an empty stomach."
- D. "Side effects include abdominal bloating and flatus."
- E. "Take some form of glucose if hypoglycemia occurs."
- F. "Report symptoms such as shortness of breath or tiredness."

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

The mechanism of action of acarbose is a delay in absorption of dietary carbohydrates, thereby reducing the rise in blood glucose after a meal. Acarbose is FDA approved for the treatment of adults with type 2 diabetes mellitus as an adjunct to diet only or diet and exercise, depending on the patient's health status.

- **Option A:** Acarbose acts locally in the gastrointestinal (GI) tract with low systemic bioavailability (less than 2% gets absorbed as the active drug, and 35% as metabolites). Although the acarbose 300 mg three times daily regimen is superior to lower doses at lowering hemoglobin A1c, the approved maximum daily dose of acarbose is 100 mg three times daily.
- **Option B:** To accomplish this, the medication must be taken with each meal. Acarbose is available as a 25 mg, 50 mg, or 100 mg oral tablet. It should be administered orally three times daily with the first bite of each meal. Initial dosing is 25 mg orally three times daily; however, starting with once-daily dosing may limit GI adverse effects.
- **Option C:** From 25 mg by mouth three times daily, the dose can be titrated every 4 to 8 weeks to reach desired glycemic control while limiting GI adverse effects. The maximum daily dose is 100 mg three times daily.
- **Option D:** Because of its bacterial fermentation of unabsorbed carbohydrates in the colon, side effects such as borborygmus, cramps, abdominal distention, and flatulence can occur. A high

carbohydrate diet may worsen the GI adverse effects. GI symptoms tend to become reduced throughout treatment.

- **Option E:** Hypoglycemia should not occur with acarbose monotherapy. However, the therapy can increase the risk of hypoglycemia when used with antidiabetic agents that cause hypoglycemia such as sulfonylureas or insulins.
- **Option F:** The medication also can affect the absorption of iron, leading to symptoms (shortness of breath, tiredness) of anemia.

15. A patient in labor and delivery has just received an amniotomy. Which of the following is correct? Select all that apply.

- A. Frequent checks for cervical dilation will be needed after the procedure.
- B. Contractions may rapidly become stronger and closer together after the procedure.
- C. The FHR (fetal heart rate) will be followed closely after the procedure due to the possibility of cord compression.
- D. The procedure is usually painless and is followed by a gush of amniotic fluid.
- E. The procedure is without pain.

Correct Answer: B, C, D & E.

Uterine contractions typically become stronger and occur more closely together following amniotomy. The FHR is assessed immediately after the procedure and followed closely to detect changes that may indicate cord compression. The procedure itself is painless and results in the quick expulsion of amniotic fluid.

- **Option A:** Following amniotomy, cervical checks are minimized because of the risk of infection. Amniotomy is easily performed with the use of specially designed hooks intended to grab and tear the amniotic membrane. The two most commonly used devices are (1) an approximately 10-inch rod with a hook on the end of the rod or (2) a finger cot with a hook on the end of the cot. With either device, the practitioner first assesses cervical dilation through the performance of a sterile digital exam.
- **Option B:** It is commonly felt that relieving the amniotic sac of amniotic fluid induces uterine contraction activity, increases the strength of contractions, and may augment labor by allowing direct pressure from the fetal scalp on the uterine cervix which may assist in dilating the cervix.
- **Option C:** In the case of an unengaged fetal head, rupture of membranes may allow for the umbilical cord to precede the fetal head when the release of amniotic fluid occurs. This will allow the fetal head to compress the section of umbilical cord preceding the head, generally leading to fetal bradycardia and necessitating emergency cesarean section. This complication should be an easily avoidable, iatrogenic cause of emergency delivery.
- **Option D:** The nurse plays a vital role during the procedure in monitoring the mother as well as the fetus, she also notes the color of the draining amniotic fluid and documents the findings in the medical chart. After the procedure, she assesses the maternal temperature every two hours and watches out for any signs of infection. The nurse also monitors the fetal heart rate via continuous electronic fetal monitoring and communicates the findings to the provider.
- **Option E:** Pain is not associated with amniotomy. Practitioners have believed that artificial rupture of membranes either can assist in inducing labor or augmenting spontaneous labor. It is commonly felt that relieving the amniotic sac of amniotic fluid induces uterine contraction activity, increases the strength of contractions, and may augment labor by allowing direct pressure from the fetal scalp

on the uterine cervix which may assist in dilating the cervix.

16. A nurse is providing discharge information to a patient with peripheral vascular disease. Which of the following information should be included in the instructions?

- A. Walk barefoot whenever possible.
- B. Use a heating pad to keep feet warm.
- C. Avoid crossing the legs.
- D. Use antibacterial ointment to treat skin lesions at risk of infection.

Correct Answer: C. Avoid crossing the legs.

Patients with peripheral vascular disease should avoid crossing the legs because this can impede blood flow. PVD, also known as arteriosclerosis obliterans, is primarily the result of atherosclerosis. The atheroma consists of a core of cholesterol joined to proteins with a fibrous intravascular covering. The atherosclerotic process may gradually progress to complete occlusion of medium-sized and large arteries. The disease typically is segmental, with significant variation from patient to patient.

- **Option A:** Walking barefoot is not advised, as foot protection is important to avoid the trauma that may lead to serious infection.
- **Option B:** Heating pads can cause injury, which can also increase the risk of infection.
- **Option D:** Skin lesions at risk for infection should be examined and treated by a physician.

17. Perineal care is an important infection control measure. When evaluating a postpartum woman's perineal care technique, the nurse would recognize the need for further instruction if the woman:

- A. Uses soap and warm water to wash the vulva and perineum.
- B. Washes from symphysis pubis back to episiotomy.
- C. Changes her perineal pad every 2 – 3 hours.
- D. Uses the peri bottle to rinse upward into her vagina.

Correct Answer: D. Uses the peri bottle to rinse upward into her vagina.

The peri bottle should be used in a backward direction over the perineum. The flow should never be directed upward into the vagina since debris would be forced upward into the uterus through the still-open cervix. Rinse perineum with water after using the toilet and before the woman puts on a new peri-pad. Caregivers will show how to use a peri-bottle (hand-held squirt bottle) to rinse the perineum. Squirted warm tap water on the perineum will keep it clean and may provide comfort for pain. While sitting on the toilet, the woman should rinse the perineum. She should aim the bottle opening at her perineum and spray so the water moves from front to back.

- **Option A:** Warm water and soap is sufficient to clean the perineal area. The woman should wash her hands before doing perineal care. She should remove the soiled peri-pad starting at the front (vaginal area) to the back (anus). Rinse the perineum with water after using the toilet and before the woman puts on a new peri-pad.

- **Option B:** Wiping from front to back decreases the transmission of bacteria from the anus. Postpartum perineal care is cleaning and caring for the perineum after having a baby. The perineum is the area between the vagina (birth canal) and the anus (rear end opening). In the first few weeks after childbirth, the woman will probably have soreness or pain in her perineum. She will also have discharge coming out of her vagina.
- **Option C:** Peri-pads should be changed every 2-3 hours to prevent infection. Perineal care will help the perineum heal faster, feel better, and help prevent infection. The woman should ask her caregiver how long she should keep doing perineal care. She may need to continue doing perineal care for 1 to 3 weeks after giving birth.

18. A client with paranoid schizophrenia has been experiencing auditory hallucinations for many years. One approach that has proven to be effective for hallucinating clients is to:

- A. Take an as-needed dose of psychotropic medication whenever they hear voices.
- B. Practice saying “Go away” or “Stop” when they hear voices.
- C. Sing loudly to drown out the voices and provide a distraction.
- D. Go to their room until the voices go away.

Correct Answer: B. Practice saying “Go away” or “Stop” when they hear voices.

Researchers have found that some clients can learn to control bothersome hallucinations by telling the voices to go away or stop. The estimated prevalence of auditory hallucinations in the general population ranges from 5 to 28%. Auditory hallucinations are the most commonly reported in psychotic patients. They are prevalent in 75% of individuals suffering from schizophrenia, 20-50% of individuals with bipolar disorder, 10% of individuals with major psychotic depression, and 40% of individuals with PTSD.

- **Option A:** Taking an as-needed dose of psychotropic medication whenever the voices arise may lead to overmedication and put the client at risk for adverse effects. Because the voices aren’t likely to go away permanently, the client must learn to deal with the hallucinations without relying on drugs.
- **Option C:** Although distraction is helpful, singing loudly may upset other clients and would be socially unacceptable after the client is discharged. In children and adolescents, the prevalence has been noted to be 9% and ranging between 5 to 16%, respectively. In children, it is mostly seen in conjunction with conduct disorder, migraine, and anxiety. The discontinuation rate of auditory hallucinations in adolescence ranges from 3 to 40% each year.
- **Option D:** Hallucinations are most bothersome in a quiet environment when the client is alone, so sending the client to his room would increase, rather than decrease, the hallucinations. Auditory hallucinatory experiences are psychopathological end-points. Disturbances in consciousness may occur earlier in the course that includes thought blocking, thought pressure, obsessive perseveration, and failure to discriminate between thought and perception.

19. To monitor the frequency of the uterine contraction during labor, the right technique is to time the contraction is:

- A. From the beginning of one contraction to the end of the same contraction.
- B. From the beginning of one contraction to the beginning of the next contraction.

- C. From the end of one contraction to the beginning of the next contraction.
- D. From the deceleration of one contraction to the acme of the next contraction.

Correct Answer: B. From the beginning of one contraction to the beginning of the next contraction.

The frequency of the uterine contraction is defined as from the beginning of one contraction to the beginning of another contraction.

- **Option A:** Duration is timed from when the contraction is first felt until it is over. This time is usually measured in seconds.
- **Option C:** The time between contractions includes the length or duration of the contraction and the minutes in between the contractions (called the interval). Mild contractions generally begin 15 to 20 minutes apart and last 60 to 90 seconds. The contractions become more regular until they are less than 5 minutes apart.
- **Option D:** Acme is the highest point or peak of a contraction. It is the period during which the contraction is most intense.

20. A nurse is assessing a clinic patient with a diagnosis of hepatitis A. Which of the following is the most likely route of transmission?

- A. Sexual contact with an infected partner
- B. Contaminated food
- C. Blood transfusion
- D. Illegal drug use

Correct Answer: B. Contaminated food

Hepatitis A is the only type that is transmitted by the fecal-oral route through contaminated food. HAV is a single-stranded, positive-sense, linear RNA enterovirus of the Picornaviridae family. In humans, viral replication depends on hepatocyte uptake and synthesis, and assembly occurs exclusively in the liver cells. Virus acquisition results almost exclusively from ingestion (eg, fecal-oral transmission)

- **Option A:** Hepatitis B infection, caused by the hepatitis B virus (HBV), is commonly transmitted via body fluids such as blood, semen, and vaginal secretions. [1] Consequently, sexual contact, accidental needle sticks or sharing of needles, blood transfusions, and organ transplantation are routes for HBV infection.
- **Option C:** Before widespread screening of the blood supply in 1992, hepatitis C was also spread through blood transfusions and organ transplants. Now, the risk of transmission to recipients of blood or blood products is extremely low.
- **Option D:** Today, most people become infected with hepatitis B, C, or D by sharing needles, syringes, or any other equipment used to prepare and inject drugs.

21. The personality type of Ryan is:

- A. Conforming
- B. Dependent
- C. Perfectionist

D. Masochistic

Correct Answer: B. Dependent

A client with a dependent personality is predisposed to develop asthma. At the heart of dependent personality is a lack of self-efficacy. Individuals with dependent personality believe they are incapable of being independent and may feel unable to make even simple decisions without outside input. They often avoid expressing any type of disagreement for fear of losing their support.

- **Option A:** The conforming non-assertive client is predisposed to develop hypertension because of the tendency to repress rage. Conformity describes the adaptation of behavior that occurs in response to unspoken group pressure. It differs from compliance, which is adaptation of behavior resulting from overt pressure. Individuals conform to or comply with group behavior in an attempt to “fit in” or to follow the norms of the social group.
- **Option C:** The perfectionist and compulsive tend to develop a migraine. Perfectionism is often seen as a positive trait that increases the chances of success, but it can lead to self-defeating thoughts or behaviors that make it harder to achieve goals. It may also cause stress, anxiety, depression, and other mental health issues. People who strive for perfection out of feelings of inadequacy or failure may find it helpful to speak with a therapist; this can often help people manage excessive self-criticism.
- **Option D:** The masochistic, self-sacrificing type is prone to develop rheumatoid arthritis. Masochism may be a means of escaping from high-level awareness of self as a symbolically mediated, temporally extended identity. Such awareness is replaced by a focus on the immediate present and on bodily sensations, and sometimes by a low-level awareness of self as an object.

22. Nurse Penny is aware that the symptoms that distinguish post-traumatic stress disorder from other anxiety disorder would be:

- A. Avoidance of situation & certain activities that resemble the stress.
- B. Depression and a blunted affect when discussing the traumatic situation.
- C. Lack of interest in family & others.
- D. Re-experiencing the trauma in dreams or flashbacks.

Correct Answer: D. Re-experiencing the trauma in dreams or flashback

Experiencing the actual trauma in dreams or flashbacks is the major symptom that distinguishes post-traumatic stress disorder from other anxiety disorders. 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.

- **Option A:** 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. However, the symptoms of PTSD overlap with acute stress disorder. For a patient to be diagnosed as PTSD, the duration of the symptoms must be more than one month.
- **Option B:** Posttraumatic stress disorder is a complex phenomenon, and it is necessary to evaluate for any co-existing psychiatric illness in the patient. After a detailed history is obtained, the next step is to have a thorough mental status examination, which helps confirm the behavioral, emotional, and cognitive aspects of PTSD. On the mental status examination, the patient would likely mention poor sleep and concentration, frequent nightmares and flashbacks related to the

event, guilt or negative emotions associated with the reminder, avoidance, and increased vigilance.

- **Option C:** 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.

23. A nurse prepares to administer an intramuscular injection to a 6-month-old infant. The nurse selects which site to administer the medication?

- A. Rectus femoris
- B. Dorsal gluteal
- C. Ventrogluteal
- D. Vastus lateralis

Correct Answer: D. Vastus lateralis

Intramuscular injection sites are selected based on the child's age and muscle development. The vastus lateralis is the only safe muscle group to use for intramuscular injection in a 6 month-old infant. Muscle has fewer pain-sensing nerves than subcutaneous tissue and is less sensitive to irritating and viscous medications, so pain is lessened.

- **Option A:** I.M. injections are administered in newborns to deliver medications deeply into the muscle without causing injury to the tiny patient. Skeletal muscle can accommodate larger volumes of medication than subcutaneous tissue, and absorption is faster because muscle tissue is highly vascular.
- **Option B:** Never give an IM injection in the buttocks. Using the vastus lateralis muscle avoids the risk of sciatic nerve damage from gluteal injection. Also, the vastus lateralis muscle has a larger muscle mass than the gluteal region and therefore has reduced risk of severe local reactions.
- **Option C:** The ventrogluteal site is unsafe for that age. Avoid subcutaneous and intramuscular injections when intravenous administration is a suitable alternative option. Make sure that infants do not move during the IM injection. This is very important.

24. When she presents the nursing procedures to be followed, she refers to what type of standards?

- A. Process
- B. Outcome
- C. Structure
- D. Criteria

Correct Answer: A. Process

Process standards include care plans, the nursing procedures to be done to address the needs of the patients. Process standards focus on the practitioner and the activities carried out in delivering care. The development of standards and related criterion measures are then guided by the basic principles.

- **Option B:** Outcome standards focus on the end result of the nursing services and activities carried out and the changes which occurred. This approach is based on the belief that structure, process, and outcome are interdependent.
- **Option C:** Structure standards focus on the settings and environment in which nursing is practiced. This approach may be most suitable for standards developed at the local operational level and written within the framework of the broader standards developed at the national level.
- **Option D:** Criteria is the plural of criterion—a standard or principle for judging, evaluating, or selecting something. Criteria are the ideals or requirements on which a judgment, evaluation, or selection is based.

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

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

Correct Answer: B. Measure the fetal activity

A nonstress test determines periodic movement of the fetus.

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

26. The priority nursing intervention for a client receiving amantadine is to teach the client to:

- A. Monitor the pulse for rate and regularity.
- B. Take the last dose of medication at bedtime.
- C. Inspect the skin for erythematous rash.
- D. Stop taking the drug if the mouth becomes dry.

Correct Answer: A. Monitor the pulse for rate and regularity.

Dopaminergic agents can cause heart rate changes and cardiac arrhythmias. The main advantage of amantadine is that it has a low side effect profile. The primary adverse effects of amantadine may include orthostatic hypotension, syncope, peripheral edema, dizziness, delusions, hallucinations, falls, xerostomia, and constipation.

- **Option B:** Amantadine can cause insomnia. When administering amantadine, renal monitor function, mental status, such as depression/suicidality and psychosis, and blood pressure. Those with seizure disorders have monitoring for seizure activity. Patients with heart failure require vigilance for increased water retention and lower leg edema. Clinicians also need to watch liver enzymes in patients with liver disease as an irreversible elevation in transaminases has been reported.

- **Option C:** An adverse effect of amantadine is a mottled discoloration of the skin. Although livedo reticularis is a less common side effect, amantadine is one of the best-known drugs to cause it. This side effect is reversible with the withdrawal of medication.
- **Option D:** Dry mouth is an expected side effect and not an indication to discontinue amantadine. Amantadine is a weak, non-competitive antagonist of the NMDA receptor, which increases dopamine release and prevents dopamine reuptake. Although amantadine does not have anticholinergic activity, there may be anticholinergic side effects such as dry mouth, urinary retention, and constipation clinically.

27. George, age 8, is admitted with rheumatic fever. Which clinical finding indicates to the nurse that George needs to continue taking the salicylates he had received at home?

- A. Chorea
- B. Polyarthrititis
- C. Subcutaneous nodules
- D. Erythema marginatum

Correct Answer: B. Polyarthrititis

Polyarthrititis is characterized by swollen, painful, hot joints that respond to salicylates. Polyarthrititis refers to a joint disease that involves at least five joints. One or more signs of inflammation, including pain, movement restriction, swelling, warmth, and redness, are seen in the joints involved.

- **Option A:** Chorea is the restless and sudden aimless and irregular movements of the extremities suddenly seen in persons with rheumatic fever, especially girls. Chorea may be viewed as resulting from increased dopaminergic activity in the projections from the substantia nigra to the striatum, resulting in decreased GABAergic projection from the striatum to the globus pallidus.
- **Option C:** Subcutaneous nodules are non tender swellings over bony prominences sometimes seen in persons with rheumatic fever. Subcutaneous nodules are deep-seated lesions in the skin, located in the deep dermis and subcutis, often with minimal changes appreciated on the surface of the skin. They are often easier to feel than see.
- **Option D:** Erythema marginatum is a skin condition characterized by nonpruritic rash, affecting the trunk and proximal extremities, seen in persons with rheumatic fever. The pathogenesis for the occurrence of these lesions in cases of hereditary angioedema is proposed to be bradykinin mediated. This was evidenced by the presence of dense stromal and endothelial deposits of bradykinin in skin biopsy specimens taken from lesions of erythema marginatum in patients with hereditary angioedema.

28. When planning care for Dory with a schizotypal personality disorder, which of the following would help the client become involved with others?

- A. Attending an activity with the nurse.
- B. Leading a sing along in the afternoon.
- C. Participating solely in group activities.
- D. Being involved with primarily one to one activities.

Correct Answer: C. Participating solely in group activities

Attending activities with the nurse assists the client to become involved with others slowly. The client with schizotypal personality disorder needs support, kindness & gentle suggestions to improve social skills & interpersonal relationships. Problem solve and role play with client acceptable social skills that will help obtain needs effectively and appropriately. Over time, alternative ways of experiencing interpersonal relationships might emerge. Take one small skill that the client is willing to work on, break it down into small parts, and work on it with the client.

- **Option A:** 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 B:** In a respectful, neutral manner, explain expected client behaviors, limits, and responsibilities during sessions with the 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 clients can expect from the nurse. Clients need to be fully aware that they will be held responsible for their behaviors.
- **Option D:** Expand limits by clarifying expectations for clients in a number of settings. When time is taken in initial meetings to clarify expectations, confrontations, and power struggles with clients can be minimized and even avoided. Understand that PD clients, in particular, will be resistant to change and that this is symptomatic of PDs. This is particularly true in the beginning phases of therapy. Responding to the client's resistance and seeming lack of change in a neutral manner is part of the foundation for trust. In other words, the nurse does not have a vested interest in the client "getting better.". The nurse remains focused on the client's needs and issues in any event.

29. A client receiving hemodialysis treatment arrives at the hospital with a blood pressure of 200/100, a heart rate of 110, and a respiratory rate of 36. Oxygen saturation in room air is 89%. He complains of shortness of breath, and +2 pedal edema is noted. His last hemodialysis treatment was yesterday. Which of the following interventions should be done first?

- A. Administer oxygen.
- B. Elevate the foot of the bed.
- C. Restrict the client's fluids.
- D. Prepare the client for hemodialysis.

Correct Answer: A. Administer oxygen.

Airway and oxygenation are always the first priority. Because the client is complaining of shortness of breath and his oxygen saturation is only 89%, the nurse needs to try to increase his levels by administering oxygen. Evaluate development of tachypnea, dyspnea, increased respiratory effort. Drain dialysate, and notify the physician.

- **Option B:** The foot of the bed may be elevated to reduce edema, but this isn't the priority. Turn from side to side, elevate the head of the bed, apply gentle pressure to the abdomen. May enhance outflow of fluid when the catheter is malpositioned and obstructed by the omentum.
- **Option C:** Maintain fluid restriction as indicated. Fluid restrictions may have to be continued to decrease fluid volume overload. Monitor BP and pulse, noting hypertension, bounding pulses, neck

vein distension, peripheral edema; measure CVP if available.

- **Option D:** The client is in pulmonary edema from fluid overload and will need to be dialyzed and have his fluids restricted, but the first interventions should be aimed at the immediate treatment of hypoxia. Alter dialysate regimen as indicated. Changes may be needed in the glucose or sodium concentration to facilitate efficient dialysis.

30. Which of the following instruments is used to record intraocular pressure?

- A. Goniometer
- B. Ophthalmoscope
- C. Slit lamp
- D. Tonometer

Correct Answer: D. Tonometer

A tonometer is a device used in glaucoma screening to record intraocular pressure. Instruments measuring intraocular pressure assume the eye is a closed globe with uniform pressure distributed throughout the anterior chamber and vitreous cavity. The normal range of intraocular pressure is 10 to 21 millimeters of mercury.

- **Option A:** A goniometer measures joint movement and angles. A goniometer is a device that measures an angle or permits the rotation of an object to a definite position. In orthopedics, the former applies more. The art and science of measuring the joint ranges in each plane of the joint are called goniometry.
- **Option B:** An ophthalmoscope examines the interior of the eye, especially the retina. The ophthalmoscope illuminates the retina through the normal iris defect that is the pupil. Light rays forming the image of the retina re-emerge through the pupil. The viewing aperture (window) of the ophthalmoscope contains a lens that modifies light rays to assist the user.
- **Option C:** A slit-lamp evaluates structures in the anterior chamber in the eye. A slit lamp is a microscope with a bright light used during an eye exam. It gives the ophthalmologist a closer look at the different structures at the front of the eye and inside the eye. It's a key tool in determining the health of the eyes and detecting eye disease.

31. A nurse states to a client, "Things will look better tomorrow after a good night's sleep." This is an example of which communication technique?

- A. The therapeutic technique of "giving advice"
- B. The therapeutic technique of "defending"
- C. The nontherapeutic technique of "presenting reality"
- D. The nontherapeutic technique of "giving false reassurance"

Correct Answer: D. The non-therapeutic technique of "giving false reassurance."

The nurse's statement, "Things will look better tomorrow after a good night's sleep." is an example of the nontherapeutic technique of giving false reassurance. Giving false reassurance indicates to the client that there is no cause for anxiety, thereby devaluing the client's feelings.

- **Option A:** Telling the client what to do, giving opinions, or making decisions for the client, implies the client cannot handle his or her own life decisions and that the nurse is accepting responsibility.
- **Option B:** Defensiveness occurs when the nurse feels the need to defend themselves, their actions, their employers, or others for their failures and shortcomings. Again, this technique fulfills the needs of the nurse rather than the client and, as such, it is not therapeutic.
- **Option C:** Presenting reality is offering for consideration that which is real. When it is obvious that the client is misinterpreting reality, the nurse can indicate what is real. The nurse does this by calmly and quietly expressing the nurse's perceptions or the facts not by way of arguing with the client to consider, not to "convince" the client that he is wrong.

32. A nurse performs an admission assessment on a female client with a diagnosis of tuberculosis. The nurse reviews the result of which diagnosis test that will confirm this diagnosis?

- A. Bronchoscopy
- B. Sputum culture
- C. Chest x-ray
- D. Tuberculin skin test

Correct Answer: B. Sputum culture

Tuberculosis is definitively diagnosed through culture and isolation of *Mycobacterium tuberculosis*. Mycobacterial culture is the gold standard for diagnosis. Mycobacterial culture should be performed on both the solid and liquid medium. Liquid media culture can detect very low bacterial load and is considered a gold standard. Culture essential for drug susceptibility testing. A presumptive diagnosis is made based on a tuberculin skin test, a sputum smear that is positive for acid-fast bacteria, a chest x-ray, and histological evidence of granulomatous disease on biopsy. Active tuberculosis is diagnosed by isolating *Mycobacterium tuberculosis* complex bacilli from bodily secretions.

- **Option A:** If all measures fail to obtain a sputum sample, a fiberoptic bronchoscopy with bronchoalveolar lavage can be performed with or without a transbronchial biopsy. Bronchoscopy can also be performed in high clinical suspicion with negative sputum studies and to rule out an alternative diagnosis.
- **Option C:** Primary tuberculosis often causes middle and lower lung field opacities associated with mediastinal adenopathy. Whereas secondary tuberculosis commonly involves upper lobes, causing opacities, cavities, or fibrotic scar tissue.
- **Option D:** The Mantoux test is a two-part test consisting of an intradermal injection of .1ml purified protein derivative and observing for induration 48-72 hours. The patient's risk of exposure is taken into consideration when interpreting the result. Patients are then classified into three groups based on the size of the induration and the risk of exposure.

33. Which laboratory result, obtained on a client 24 hours post-burn injury, will the nurse report to the physician immediately?

- A. Arterial pH, 7.32
- B. Hematocrit, 52%
- C. Serum potassium, 7.5 mmol/L (mEq/L)

D. Serum sodium, 131 mmol/L (mEq/L)

Correct Answer: C. Serum potassium, 7.5 mmol/L (mEq/L)

The serum potassium level is changed to the degree that serious life-threatening responses could result. With such a rapid rise in the potassium level, the client is at high risk of experiencing severe cardiac dysrhythmias and death.

- **Option A:** Acid-base studies were carried out on 76 consecutive burn patients admitted within 36 hours of injury. Admission blood pH and base excess (BE) values all decreased in a linear relationship to the extent of the burn. Blood Pco-2 changes were unrelated to the extent of the burn. Significant acidosis developed within 2 hours of burn injury.
- **Option B:** The hematocrit (Hct) is the percentage of the volume of the whole blood that is made up of red blood cells. In burns, the patient has lost a lot of fluid from leaky blood vessels. There are more red cells than fluid so the hematocrit is high.
- **Option D:** Serum sodium is abnormal, but not to the same degree of severity, and would be expected in the emergent phase after a burn injury. Severe cutaneous injuries such as burn injuries and blast injuries result in the loss of both water and sodium. For burn patients, hypernatremia that occurs within a few days of injury may be associated with an increased risk of death.

34. Nurses and other healthcare providers often have difficulty helping a terminally ill patient through the necessary stages leading to acceptance of death. Which of the following strategies is most helpful to the nurse in achieving this goal?

- A. Taking psychology courses related to gerontology.
- B. Reading books and other literature on the subject of thanatology.
- C. Reflecting on the significance of death.
- D. Reviewing varying cultural beliefs and practices related to death.

Correct Answer: C. Reflecting on the significance of death

According to thanatologists, reflecting on the significance of death helps to reduce the fear of death and enables the health care provider to better understand the terminally ill patient's feelings. It also helps to overcome the belief that medical and nursing measures have failed, when a patient cannot be cured. Thanatology is the science and study of death and dying from multiple perspectives—medical, physical, psychological, spiritual, ethical, and more.

- **Option A:** Professionals in a wide range of disciplines use thanatology to inform their work, from doctors and coroners to hospice workers and grief counselors. There also are thanatology specialists who focus on a specific aspect of the dying process or work directly with people facing their own death or that of loved ones.
- **Option B:** A wide variety of professionals incorporate thanatology into their work. How they do so depends on what they need to know about the dying process. For example, a medical examiner, coroner, doctor, nurse, or other medical practitioners might study thanatology to better understand the physical process of death—what happens to the body during death as well as immediately after.
- **Option D:** Thanatology also examines attitudes toward death, the meaning and behaviors of bereavement and grief, and the moral and ethical questions of euthanasia, organ transplants, and life support.

35. After the nurse instills atropine drops into both eyes for a client undergoing ophthalmic examination, which of the following instructions would be given to the client?

- A. "Be careful because the blink reflex is paralyzed."
- B. "Avoid wearing your regular glasses when driving."
- C. "Be aware that the pupils may be unusually small."
- D. "Wear dark glasses in bright light because the pupils are dilated."

Correct Answer: D. "Wear dark glasses in bright light because the pupils are dilated."

Atropine, an anticholinergic drug, has mydriatic effects causing pupil dilation. This allows more light onto the retina and may cause photophobia and blurred vision. Atropine causes the muscles in the eye to become relaxed. This widens (dilates) the pupil so that it will not respond to light.

- **Option A:** Atropine doesn't paralyze the blink reflex. Atropine ophthalmic (for the eye) is used to dilate the pupils when there is an inflammatory condition or in postsurgery situations in which this effect may be helpful.
- **Option B:** Driving may be contraindicated to blurred vision. Atropine ophthalmic may make the eyes more sensitive to light. Wear sunglasses to protect the eyes whenever outdoors or in bright light. Do not use atropine eye drops while wearing contact lenses. The medicine may contain a preservative that can discolor soft contact lenses. Wait at least 15 minutes after using the eye drops before putting in contact lenses.
- **Option C:** Atropine doesn't cause miosis (pupil constriction). Atropine ophthalmic is also used in people with a condition called amblyopia (sometimes called "lazy eye"). Atropine ophthalmic can be placed into the stronger eye to temporarily blur the vision in that eye. This helps strengthen the weaker eye because the brain will force that eye to work harder to focus.

36. A nurse is developing a care plan for a client with an injury to the frontal lobe of the brain. Which nursing interventions should be included as part of the care plan? Select all that apply.

- A. Keep instructions simple and brief because the client will have difficulty concentrating.
- B. Speak clearly and slowly because the client will have difficulty hearing.
- C. Assist with bathing because the client will have vision disturbances.
- D. Orient the client to person, place, and time as needed because of memory problems.
- E. Assess vital signs frequently because vital bodily functions are affected.

Correct Answer: A & D.

Damage to the frontal lobe affects personality, memory, reasoning, concentration, and motor control of speech. The cortex of the frontal lobe is the largest of the four and in many ways the lobe which participates most in making us human.

- **Option A:** The prefrontal cortex is known to be the higher-order association center of the brain as it is responsible for decision making, reasoning, personality expression, maintaining social appropriateness, and other complex cognitive behaviors.

- **Option B:** Damage to the temporal lobe, not the frontal lobe, causes hearing and speech problems. Another study divides the temporal area into 4 major subregions: a) dorsal, mostly language and auditory/somatosensory networks b) ventromedial, mostly visual network c) medial, connected to paralimbic structures and d) anterolateral, associated with a default-semantic network. These areas have many important functions such as processing of language, social cues, and emotions, facial recognition (auditory and visual aspects), emotional processing of different stimuli (auditory, olfactory, and visual), and theory of mind.
- **Option C:** Damage to the occipital lobe causes vision disturbances. The occipital lobe is the visual processing area of the brain. It is associated with visuospatial processing, distance and depth perception, color determination, object and face recognition, and memory formation.
- **Option D:** Research has proven that the dominant (left) superior frontal gyrus is a key component in the neural network of working memory as well as spatial processing. Research has proven that the dominant (left) superior frontal gyrus is a key component in the neural network of working memory as well as spatial processing.
- **Option E:** Damage to the brain stem affects vital functions. The brainstem is the structure that connects the cerebrum of the brain to the spinal cord and cerebellum. It is composed of four sections in descending order: the diencephalon, midbrain, pons, and medulla oblongata. It is responsible for many vital functions of life, such as breathing, consciousness, blood pressure, heart rate, and sleep.

37. A 39-year-old mother with obsessive-compulsive disorder has become immobilized by her elaborate hand washing and walking rituals. Nurse Trish recognizes that the basis of O.C. disorder is often:

- Problems with being too conscientious
- Problems with anger and remorse
- Feelings of guilt and inadequacy
- Feeling of unworthiness and hopelessness

Correct Answer: C. Feelings of guilt and inadequacy

Ritualistic behavior seen in this disorder is aimed at controlling guilt and inadequacy by maintaining an absolute set pattern of behavior. An inability to cope with uncertainty, an increased sense of responsibility as well as magical thinking seem to predispose those to obsessive-compulsive habits.

- **Option A:** Obsessive-compulsive disorder (OCD) is often a disabling condition consisting of bothersome intrusive thoughts that elicit a feeling of discomfort. To reduce the anxiety and distress associated with these thoughts, the patient may employ compulsions or rituals. These rituals may be personal and private, or they may involve others to participate; the rituals are to compensate for the ego-dystonic feelings of the obsessional thoughts and can cause a significant decline in function.
- **Option B:** The behaviors or mental acts aim at reducing anxiety or distress or preventing some dreaded situation; however, these behaviors or mental actions do not connect in a realistic way with what they are designed to prevent or are clearly excessive.
- **Option D:** Obsessions are defined as intrusive thoughts or urges that cause significant distress; the patient attempts to neutralize this distress by diverting thoughts or performing rituals. Compulsions are actions the patient feels pressured to do in response to the anxiety/distress producing obsessions or to prevent an uncomfortable situation from occurring. These compulsions

may be illogical or excessive.

38. The A. digoxin (Lanoxin). toxic antiarrhythmic agent is:

- A. digoxin (Lanoxin).
- B. lidocaine (Xylocaine).
- C. amiodarone (Cordarone).
- D. quinidine (Cardioquin).

Correct Answer: C. amiodarone (Cordarone).

This is the most toxic drug and should be used only if other less toxic agents have been tried. Amiodarone is one of the most commonly used anti-arrhythmic drugs. While the United States FDA has labeled amiodarone for the treatment of life-threatening ventricular arrhythmias, the drug is commonly used off-label to treat supraventricular tachyarrhythmias such as atrial fibrillation as well as for the prevention of ventricular tachyarrhythmias (VTs) in high-risk patients.

- **Option A:** Digoxin, on the other hand, is cardiotoxic, not an antiarrhythmic agent. Digoxin comes from the foxgloves plant known as *Digitalis purpurea*. It is a cardiotoxic glycoside and belongs to the digitalis class. 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 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.
- **Option B:** The drug is commonly used for local anesthesia, often in combination with epinephrine (which acts as a vasopressor and extends its duration of action at a site by opposing the local vasodilatory effects of lidocaine). As with other local anesthetics, the site of action of lidocaine is a sodium ion channel on the internal surface of nerve cell membranes.
- **Option D:** Quinine is a derivative of the bark of the South American cinchona tree. Quinidine is a stereoisomer of quinine; it is a “class 1a antiarrhythmic drug” and also an antimalarial agent. Class 1a antiarrhythmic agents (for example – quinidine, procainamide, disopyramide, ajmaline) work by inhibiting the fast inward sodium current, depressing the phase 0 of the action potential hence dampening the excitability of cardiac muscles which in turn prolongs the action potential and decreases automaticity.

39. A clinic nurse is preparing to examine a Hispanic child who was brought by the mother for his first physical check-up. While assessing the child, the nurse would avoid doing which of the following?

- A. Weighing the client.
- B. Asking the mother questions about the child.
- C. Having an interpreter if necessary.
- D. Admiring the child.

Correct Answer: D. Admiring the child.

Admiring a Hispanic-American child during the first encounter with a stranger should be avoided since this may give the child the “evil eye” (the child will get sick). If this is done, it can be avoided by touching

the child afterward. Beliefs about illnesses affecting the child and infants include mal de ojo (evil eye)/illness affecting children caused by admiration of others.

- **Option A:** Latinos have disproportionately higher rates of obesity and diabetes mellitus. Approximately 43 percent of Mexican Americans older than 20 years are obese, compared with 33 percent of the non-Latino white population. Diabetes and hypertension are closely linked with obesity; 11.8 percent of Latinos older than 20 years have type 2 diabetes (13.3 percent of Mexican Americans), making it the foremost health issue in this population.
- **Option B:** Spanish language handouts are a better option. However, the most useful technique is “teach back” or “show me”: having patients repeat their care instructions until they do it correctly. The extra time necessary for this technique is justified by the prospect of much better understanding and adherence.
- **Option C:** There is ample evidence that Latinos, especially those of Mexican and Central American origin, face significant obstacles to obtaining health care, especially language barriers. Many hospitals and offices lack trained interpreters and rely on ad hoc interpretation by bilingual staff or even the children of patients.

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

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

Correct Answer: C. Administer the insulin as ordered

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

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

41. Which of the following client comments demonstrates that teaching has been successful regarding cyclosporine therapy?

- A. "I need to mix the medicine in Styrofoam."

- B. "I should take the medication on an empty stomach."
- C. "If I vomit I should take another dose."
- D. "I need to be consistent about when I take it and also monitor how much fat is in my food."

Correct Answer: D. "I need to be consistent about when i take it and also monitor how much fat is in my food."

Cyclosporine needs to be taken consistently in relation to meals, and fat content should not vary to maintain serum levels. 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 A:** Liquid cyclosporine can be diluted in milk, chocolate milk, or orange juice. Do not dilute in grapefruit, pineapple, or papaya juice. Use a glass container, not a Styrofoam cup. Stir the mixture well and have the child drink it immediately.
- **Option B:** Capsules should be swallowed whole; they can be taken with or without food. Avoid taking this medication with grapefruit, pineapple, or papaya juice. Cyclosporine should be taken at the same time each day.
- **Option C:** If the child misses several doses of cyclosporine because of vomiting, surgery, inability to swallow, or other reasons, he or she can receive cyclosporine intravenously. Tell the coordinator if the child is having problems receiving cyclosporine.

42. The neonatal circulation differs from the fetal circulation because

- A. The fetal lungs are non-functioning as an organ and most of the blood in the fetal circulation is mixed blood.
- B. The blood at the left atrium of the fetal heart is shunted to the right atrium to facilitate its passage to the lungs.
- C. The blood in the left side of the fetal heart contains oxygenated blood while the blood on the right side contains unoxygenated blood.
- D. None of the above.

Correct Answer: A. The fetal lungs are non-functioning as an organ and most of the blood in the fetal circulation is mixed blood.

The fetal lungs are fluid-filled while in utero and are still not functioning. It only begins to function in extrauterine life. Except for the blood as it enters the fetus immediately from the placenta, most of the fetal blood is mixed blood.

- **Option B:** The hole between the top two heart chambers (right and left atrium) is called a patent foramen ovale (PFO). This hole allows the oxygen rich blood to go from the right atrium to the left atrium and then to the left ventricle and out the aorta. As a result the blood with the most oxygen gets to the brain.
- **Option C:** The placenta accepts the blood without oxygen from the fetus through blood vessels that leave the fetus through the umbilical cord (umbilical arteries, there are two of them). When blood goes through the placenta it picks up oxygen. The oxygen rich blood then returns to the fetus via the third vessel in the umbilical cord (umbilical vein). The oxygen rich blood that enters the fetus passes through the fetal liver and enters the right side of the heart.

43. In acid-base balance, the normal plasma PCO₂ and bicarbonate levels are disturbed. Match the changes in this parameter with the disorders in the given choices: Decreased plasma bicarbonate (HCO₃⁻)

- A. Metabolic Acidosis
- B. Respiratory Alkalosis
- C. Metabolic Alkalosis
- D. Respiratory Acidosis

Correct Answer: A. Metabolic Acidosis

The body compensates by using body fat for energy, producing abnormal amounts of ketone bodies. In an effort to neutralize the ketones and maintain the acid-base balance of the body, plasma bicarbonate is exhausted. This condition can develop in anyone who does not eat an adequate diet and whose body fat must be burned for energy. Symptoms include headache and mental dullness.

44. All of the following are crucial needs of the dying client except:

- A. Control of pain
- B. Preservation of dignity and self-worth
- C. Love and belonging
- D. Freedom from decision making

Correct Answer: D. Freedom from decision making

Patients should be made aware that they can participate in their end-of-life care in two distinct ways: by actively making decisions at the end of their life and by making decisions about how they believe they would wish to be cared for based on a hypothetical scenario of impairment. The patient should understand that while his or her health care provider may strongly disagree with or object to the patient's decision to refuse the plan of care, the patient's decision is constitutionally protected.

- **Option A:** Health care professionals should understand that personal, social, and cultural experiences influence a patient's definition of pain, health, and illness, and responses to pain vary among individuals and cultural groups.³ A patient's reaction to pain is influenced by his or her individual perception of it, and the perception of pain reflects his or her attitude toward pain and characteristic way of responding.
- **Option B:** Two key factors which influence the preservation of dignity at the end of life are promoting self-respect and treating the patient with respect; but how are these translated in practice into palliative care? Most end-of-life interventions focus predominantly on symptom control, rather than holistic care. Therefore it may be helpful to consider the physical, emotional, and spiritual needs of patients in palliative care settings.
- **Option C:** Regarding emotional needs, a review found that important actions for healthcare professionals providing end-of-life care include communicating, listening, conveying empathy, and involving patients in decision-making.⁸ Furthermore, good communication between the patient and their partner about their feelings should be promoted.

45. The nurse is assisting the physician with the removal of a central venous catheter. To facilitate removal, the nurse should instruct the client to:

- A. Perform the Valsalva maneuver as the catheter is advanced
- B. Turn his head to the left side and hyperextend the neck
- C. Take slow, deep breaths as the catheter is removed
- D. Turn his head to the right while maintaining a sniffing position

Correct Answer: A. Perform the Valsalva maneuver as the catheter is advanced

The client who is having a central venous catheter removed should be told to hold his breath and bear down. This prevents air from entering the line.

- **Option B:** Although there are many steps in the process of CVC removal, essential elements of the procedure include (for internal jugular and subclavian CVCs), positioning of the patient in the head down (Trendelenburg) position, having the patient perform a Valsalva maneuver as the catheter is being withdrawn, application of pressure to the catheter-entry site as the catheter is being withdrawn, placement of an air-occlusive dressing over the site after removal, and a period of post-procedure monitoring.
- **Option C:** The patient is asked to take a deep breath, hold it, and bear down during the removal to avoid introduction of an air embolism. Breath-holding or Valsalva maneuver will increase intracardiac pressures. Immediate occlusion is required to prevent air embolism.
Option D: The patient's head should be placed in a supine position with the head of the bed flat to reduce the risk of air embolism. Risk for air embolism increases when the catheter insertion site is above heart level (e.g., in a sitting position), if the patient is hypovolemic or during spontaneous inspiration.

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

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

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

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

- **Option A:** Itching under the cast is common and fairly benign. A cast can cause the client's underlying skin to feel itchy. To relieve itchy skin, turn a hair dryer on a cool setting and aim it under the cast.
- **Option B:** Neurovascular compromise in the arm would not cause pain in the shoulder, as perfusion there would not be affected. Pain is typically severe, out of proportion to the injury. Early on, pain may only be present with passive stretching. However, this symptom may be absent in

advanced acute compartment syndrome. In the initial stages, pain may be characterized as a burning sensation or as a deep ache of the involved compartment.

- **Option D:** Impaired perfusion would cause the fingers to be cool and pale. Increased warmth would indicate increased blood flow or infection. Classically, the presentation of acute compartment syndrome has been remembered by “The Five P’s”: pain, pulselessness, paresthesia, paralysis, and pallor. However, aside from paresthesia, which may occur earlier in the course of the condition, these are typically late findings.

47. Nicolas is experiencing hallucinations and tells the nurse, “The voices are telling me I’m no good.” The client asks if the nurse hears the voices. The most appropriate response by the nurse would be:

- A. “It is the voice of your conscience, which only you can control.”
- B. “No, I do not hear your voices, but I believe you can hear them”.
- C. “The voices are coming from within you and only you can hear them.”
- D. “Oh, the voices are a symptom of your illness; don’t pay any attention to them.”

Correct Answer: B. “No, I do not hear your voices, but I believe you can hear them”.

The nurse, demonstrating knowledge and understanding, accepts the client’s perceptions even though they are hallucinatory. Accept the fact that the voices are real to the client, but explain that you do not hear the voices. Refer to the voices as “your voices” or “voices that you hear”. Validating that your reality does not include voices can help the client cast “doubt” on the validity of their voices.

- **Option A:** Help the client to identify the needs that might underlie the hallucination. What other ways can these needs be met? Hallucinations might reflect needs for anger, power, self-esteem, and sexuality. Explore how the hallucinations are experienced by the client. Exploring the hallucinations and sharing the experience can help give the person a sense of power that he or she might be able to manage the hallucinatory voices.
- **Option C:** Help the client to identify times that the hallucinations are most prevalent and frightening. Helps both nurse and client identify situations and times that might be most anxiety-producing and threatening to the client. Stay with clients when they are starting to hallucinate, and direct them to tell the “voices they hear” to go away. Repeat often in a matter-of-fact manner. The client can sometimes learn to push voices aside when given repeated instructions. especially within the framework of a trusting relationship.
- **Option D:** Decrease environmental stimuli when possible (low noise, minimal activity). Decrease the potential for anxiety that might trigger hallucinations. Helps calm the client. Keep to simple, basic, reality-based topics of conversation. Help the client focus on one idea at a time. The client's thinking might be confused and disorganized; this intervention helps the client focus and comprehend reality-based issues.

48. You are caring for a newly admitted client with increasing dyspnea and dehydration who has possible avian influenza (bird flu). Which of these prescribed actions will you implement first?

- A. Provide oxygen using a non-rebreather mask
- B. Infuse 5% dextrose in water at 75ml/hr

- C. Administer the first dose of oseltamivir (Tamiflu)
- D. Obtain blood and sputum specimens for testing

Correct Answer: A. Provide oxygen using a non-rebreather mask.

Because the respiratory manifestations associated with avian influenza are potentially life-threatening, the nurse's initial action should be to start oxygen therapy. Patients with respiratory compromise should be placed on supplemental oxygen and monitored closely for signs of deterioration as these patients are at high risk of requiring intubation and mechanical ventilation. The other interventions should be implemented after addressing the client's respiratory problem.

- **Option B:** Treatment may include hospitalization and supportive care, such as intravenous fluids. Additionally, studies suggest that antiviral drugs help minimize the severity of bird flu in people. However, changes in the virus may limit its effectiveness in the future.
- **Option C:** The World Health Organization released Rapid Advice Guidelines in 2007, outlining consensus treatment recommendations for H5N1 influenza outbreaks. These recommendations include neuraminidase inhibitors (especially oseltamivir) for strongly suspected or confirmed cases of H5N1.
- **Option D:** The preferred source of a sample for testing is a nasopharyngeal swab or aspirate, but other body fluids are usable if the nasopharyngeal swab or aspirate is not available. RT-PCR identification of the virus in viral cultures is the standard of care for diagnosis of AIV, and viral detection is typically possible within a few days of disease onset.

49. Most antipsychotic medications exert the following effects on the central nervous system (CNS)?

- A. Stimulates the CNS by blocking postsynaptic dopamine, norepinephrine, and serotonin receptors.
- B. Sedate the CNS by stimulating serotonin at the synaptic cleft.
- C. Depress the CNS by blocking the postsynaptic transmission of dopamine, serotonin, and norepinephrine.
- D. Depress the CNS by stimulating the release of acetylcholine.

Correct Answer: C. Depress the CNS by blocking the postsynaptic transmission of dopamine, serotonin, and norepinephrine.

The exact mechanism of antipsychotic medication action is unknown, but appears to depress the CNS by blocking the transmission of three neurotransmitters: dopamine, serotonin, and norepinephrine. The first-generation antipsychotics work by inhibiting dopaminergic neurotransmission. Their effectiveness is best when they block about 72% of the D2 dopamine receptors in the brain. They also have noradrenergic, cholinergic, and histaminergic blocking action.

- **Option A:** Second-generation antipsychotics work by blocking D2 dopamine receptors as well as serotonin receptor antagonist action. the 5-HT2A subtype of serotonin receptor is most commonly involved. Second-generation antipsychotics are serotonin-dopamine antagonists and are also known as atypical antipsychotics. The Food and Drug Administration (FDA) has approved 12 atypical antipsychotics as of the year 2016. They are risperidone, olanzapine, quetiapine, ziprasidone, aripiprazole, paliperidone, asenapine, lurasidone, iloperidone, cariprazine, brexpiprazole, and clozapine.
- **Option B:** First and second-generation antipsychotics (except clozapine) are indicated for the treatment of an acute episode of psychoses as well as maintenance therapy of schizophrenia and

schizoaffective disorders. First-generation antipsychotics are better for treating positive symptoms of schizophrenia, e.g., hallucinations, delusions, among others. They also decrease the risk of a repeat episode of psychosis. Second-generation antipsychotics treat both positive symptoms and negative symptoms of schizophrenia, e.g., withdrawal, ambivalence, among others, and are known to reduce relapse rates.

- **Option D:** They don't sedate the CNS by stimulating serotonin, and they don't stimulate neurotransmitter action or acetylcholine release. First-generation antipsychotics are effective in the treatment of acute mania with psychotic symptoms. All second-generation antipsychotics except clozapine can also be used as a treatment of symptoms of acute mania. Antipsychotics are used with mood stabilizers like lithium, valproic acid, or carbamazepine initially, and then after symptoms stabilize can be gradually decreased and withdrawn.

50. The client with chronic renal failure who is scheduled for hemodialysis this morning is due to receive a daily dose of enalapril (Vasotec). The nurse should plan to administer this medication:

- A. Just before dialysis.
- B. During dialysis.
- C. On return from dialysis.
- D. The day after dialysis.

Correct Answer: C. On return from dialysis

Antihypertensive medications such as enalapril are given to the client following hemodialysis. This prevents the client from becoming hypotensive during dialysis and also from having the medication removed from the bloodstream by dialysis.

- **Option A:** Dosage is an important area that deserves further attention. It is possible that concern about intradialytic hypotension and ability to achieve adequate fluid removal may underlie this conservative approach; whether more aggressive antihypertensive doses result in better BP control during dialysis without significant adverse effects should be studied prospectively.
- **Option B:** To improve BP control in hemodialysis patients, technical advances in our ability to optimize intravascular volume need to be complemented by a better understanding of the pharmacologic treatment of hypertension.
- **Option D:** No rationale exists for waiting a full day to resume the medication. This would lead to ineffective control of the blood pressure. Multidrug antihypertensive therapy was common among hemodialysis patients and was associated with significantly lower BP; calcium-channel blockers were the most frequently prescribed agents.

51. What is the priority nursing assessment in the first 24 hours after admission of the client with thrombotic CVA?

- A. Pupil size and pupillary response
- B. Cholesterol level
- C. Echocardiogram
- D. Bowel sounds

Correct Answer: A. Pupil size and papillary response

It is crucial to monitor the pupil size and pupillary response to indicate changes around the cranial nerves. Pupil reactions are regulated by the oculomotor (III) cranial nerve and are useful in determining whether the brain stem is intact. Pupil size and equality is determined by balance between parasympathetic and sympathetic innervation. Response to light reflects the combined function of the optic (II) and oculomotor (III) cranial nerves.

- **Option B:** The cholesterol levels may be monitored after the client has been cleared from imminent danger. Closely assess and monitor neurological status frequently and compare with baseline. Closely assess and monitor neurological status frequently and compare with baseline.
- **Option C:** Echocardiogram can be done once the patient has been stabilized. Assess heart rate and rhythm, and assess for murmurs. Changes in rate, especially bradycardia, can occur because of the brain damage. Dysrhythmias and murmurs may reflect cardiac disease, which may have precipitated CVA (stroke after MI or from valve dysfunction).
- **Option D:** Assessing the bowel sound is unnecessary for clients undergoing CVA. Assess higher functions, including speech, if the patient is alert. Changes in cognition and speech content are an indicator of location and degree of cerebral involvement and may indicate deterioration or increased ICP.

52. A child with scoliosis has a spica cast applied. Which action specific to the spica cast should be taken?

- A. Check the bowel sounds
- B. Assess the blood pressure
- C. Offer pain medication
- D. Check for swelling

Correct Answer: A. Check the bowel sounds

A body cast or spica cast extends from the upper abdomen to the knees or below. Bowel sounds should be checked to ensure that the client is not experiencing a paralytic ileus. Auscultate the abdomen for bowel sounds, if bowel sounds are present, or the patient reports they are passing flatus, clear fluids can commence and aperiments can be administered. Patients must not commence oral fluids if bowel sounds are not present as this finding indicates an ileus.

- **Option B:** Checking the blood pressure is a treatment for any client. Routine post anaesthetic observations are a requirement for patient assessment and the recognition of clinical deterioration in post-operative patients; acknowledging that children are at a high risk of complications post anesthetics, surgeries and procedures.
- **Option C:** Offering pain medication is inappropriate. Patients who have had a closed reduction usually only require oral analgesia. Patients who have sustained a fracture or who have had open reduction or osteotomy will usually require an opioid infusion and/or epidural. Pain scores, interventions, and evaluation of interventions performed, should be documented in the observation flowsheet.
- **Option D:** Checking for swelling isn't specific to the stem. Evaluate patients' skin integrity regularly. Observe for any redness, irritation, or burning sensation. In the acute postoperative period, swelling can occur and a tight cast can potentially cause neurovascular compromise. Children who have had an open reduction or osteotomy may have significant swelling in the groin area. Monitor swelling and plaster to ensure the cast is not too tight.

53. Which laboratory test value is elevated in clients who smoke and can't be used as a general indicator of cancer?

- A. Acid phosphatase level
- B. Serum calcitonin level
- C. Alkaline phosphatase level
- D. Carcinoembryonic antigen level

Correct Answer: D. Carcinoembryonic antigen level

In clients who smoke, the level of carcinoembryonic antigen is elevated. Therefore, it can't be used as a general indicator of cancer. However, it is helpful in monitoring cancer treatment because the level usually falls to normal within 1 month if treatment is successful.

- **Option A:** An elevated acid phosphatase level may indicate prostate cancer. Prostatic acid phosphatase is a non-specific phosphomonoesterase synthesized in prostate epithelial cells and its level proportionally increases with prostate cancer progression.
- **Option C:** An elevated alkaline phosphatase level may reflect bone metastasis. When abnormal bone tissue is being formed by cancer cells, levels of alkaline phosphatase increase. Therefore, high levels of this enzyme could suggest that a patient has bone metastasis.
- **Option B:** An elevated serum calcitonin level usually signals thyroid cancer. Calcitonin can be measured as a blood test to help diagnose medullary thyroid cancer and its level can indicate the amount of medullary thyroid cancer present before thyroid surgery.

54. A mother is admitted to the emergency department following complaints of fever and chills. The nurse on duty took her vital signs and noted the following: Temp = 100 °F; apical pulse = 95; respiration = 20 and deep. Measurement of arterial blood gas shows pH 7.37, PaO₂ 90 mm Hg, PaCO₂ 40 mm Hg, and HCO₃ 24 mmol/L. What is your assessment?

- A. Hyperthermia
- B. Hyperthermia and Respiratory Alkalosis
- C. Hypothermia
- D. Hypothermia and Respiratory Alkalosis

Correct Answer: A. Hyperthermia

An individual is considered to have hyperthermia if he or she has a temperature of >37.5 or 38.3 °C (99.5 or 100.9 °F). The measurement of arterial blood gases are normal.

55. Nurse Celine is caring for a client with clinical depression who is receiving an MAO inhibitor. When providing instructions about precautions with this medication, the nurse should instruct the client to:

- A. Avoid chocolate and cheese.

- B. Take frequent naps.
- C. Take the medication with milk.
- D. Avoid walking without assistance.

Correct Answer: A. Avoid chocolate and cheese.

Foods high in tryptophan, tyramine, and caffeine, such as chocolate and cheese may precipitate hypertensive crises. Tyramine is an amino acid that helps regulate blood pressure. It occurs naturally in the body, and it's found in certain foods. Medications called monoamine oxidase inhibitors (MAOIs) block monoamine oxidase, which is an enzyme that breaks down excess tyramine in the body. Blocking this enzyme helps relieve depression.

- **Option B:** Naps do not have an effect on MAO inhibitors. MAOIs, although effective, generally have been replaced by newer antidepressants that are safer and cause fewer side effects. Still, an MAOI is a good option for some people. In certain cases, an MAOI relieves depression when other treatments have failed.
- **Option C:** Aged, mature, or hard cheeses (aged cheddar, Swiss, Parmesan, blue cheese, Camembert) and milk should be avoided. Beverages with caffeine also may contain tyramine, so your doctor may recommend limits.
- **Option D:** Perform a thorough physical assessment to establish baseline data before drug therapy begins, to determine the effectiveness of therapy, and to evaluate for the occurrence of any adverse effects associated with drug therapy.

56. Rico with diabetes mellitus must learn how to self-administer insulin. The physician has prescribed 10 U of U-100 regular insulin and 35 U of U-100 isophane insulin suspension (NPH) to be taken before breakfast. When teaching the client how to select and rotate insulin injection sites, the nurse should provide which instruction?

- A. "Inject insulin into healthy tissue with large blood vessels and nerves."
- B. "Rotate injection sites within the same anatomic region, not among different regions."
- C. "Administer insulin into areas of scar tissue or hypertrophy whenever possible."
- D. "Administer insulin into sites above muscles that you plan to exercise heavily later that day."

Correct Answer: B. "Rotate injection sites within the same anatomic region, not among different regions."

The nurse should instruct the client to rotate injection sites within the same anatomic region. Rotating sites among different regions may cause excessive day-to-day variations in the blood glucose level; also, insulin absorption differs from one region to the next.

- **Option A:** Insulin should be injected only into healthy tissue lacking large blood vessels, nerves, or scar tissue, or other deviations.
- **Option C:** Injecting insulin into areas of hypertrophy may delay absorption. The client shouldn't inject insulin into areas of lipodystrophy (such as hypertrophy or atrophy); to prevent lipodystrophy, the client should rotate injection sites systematically.
- **Option D:** Exercise speeds drug absorption, so the client shouldn't inject insulin into sites above muscles that will be exercised heavily.

57. Sickle cell disease (SCD) primarily affects:

- A. children of African descent and Hispanics of Caribbean ancestry.
- B. children of Middle-Eastern and Indian descent.
- C. children of Asian descent.
- D. both African descent and Hispanics of Caribbean ancestry and Middle-Eastern and Indian descent.

Correct Answer: D. Both African descent and Hispanics of Caribbean ancestry and Middle-Eastern and Indian descent.

Sickle cell disease primarily affects children of African descent and Hispanics of Caribbean ancestry. It also occurs in children of Middle-Eastern and Indian descent. Sickle cell anemia is the most common monogenic disorder. Prevalence of the disease is high among the people of Sub-Saharan Africa, South Asia, the Middle East, and the Mediterranean.

- **Option A:** 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:** Sickle cell disease (SCD) affects millions of people throughout the world and is particularly common among those whose ancestors came from sub-Saharan Africa; Spanish-speaking regions in the Western Hemisphere (South America, the Caribbean, and Central America); Saudi Arabia; India; and Mediterranean countries such as Turkey, Greece, and Italy.
- **Option C:** In Europe and Africa, when there is a high frequency of the malaria parasite, there is a high frequency of the sickle-cell allele. In Asia, the frequency of the sickle cell allele is very low, regardless of the frequency of malaria parasites present.

58. A female client sees a dermatologist for a skin problem. Later, the nurse reviews the client's chart and notes that the chief complaint was intertrigo. This term refers to which condition?

- A. Spontaneously occurring wheals.
- B. A fungus that enters the skin's surface, causing infection.
- C. Inflammation of a hair follicle.
- D. Irritation of opposing skin surfaces caused by friction.

Correct Answer: D. Irritation of opposing skin surfaces caused by friction.

Intertrigo refers to irritation of opposing skin surfaces caused by friction. Intertrigo is a superficial inflammatory skin condition of the skin's flexural surfaces, prompted or irritated by warm temperatures, friction, moisture, maceration, and poor ventilation. Characteristically, the lesions are erythematous patches of various intensity with secondary lesions appearing as the condition progresses or is manipulated.

- **Option A:** Spontaneously occurring wheals occur in hives. Contact urticaria (CU) is a transient wheal and flare reaction that occurs within 10 to 60 minutes at the site of contact of the offending agent and completely resolves within 24 hours. The risk for developing CU increases when there is an interruption of the stratum corneum due to filaggrin gene mutations or skin irritants.

- **Option B:** A fungus that enters the skin surface and causes infection is a dermatophyte. The dermatophyte's ability to attach to the keratinized tissue of skin forms the basis for dermatophytosis (superficial fungal skin infections). The dermatophytes causing tinea corporis belong to genera Trichophyton, Epidermophyton, and Microsporum.
- **Option C:** Inflammation of a hair follicle is called folliculitis. Folliculitis is a common, generally benign, skin condition in which the hair follicle becomes infected/inflamed and forms a pustule or erythematous papule of overlying hair-covered skin. While this is a non-life-threatening condition and in most cases is self-limited, it can present challenges for immunocompromised patients and in some cases progress to more severe diseases.

59. A 23-year-old patient with a recent history of encephalitis is admitted to the medical unit with new-onset generalized tonic-clonic seizures. Which nursing activities included in the patient's care will be best to delegate to an LPN/LVN whom you are supervising? Select all that apply.

- A. Document the onset time, nature of seizure activity, and postictal behaviors for all seizures.
- B. Administer phenytoin (Dilantin) 200 mg PO daily.
- C. Teach the patient about the need for good oral hygiene.
- D. Develop a discharge plan, including physician visits and referral to the Epilepsy Foundation.
- E. Gather information about the seizure activity

Correct Answer: B & E

Administration of medications that are not a high risk is included in LPN education and scope of practice. Collection of data about the seizure activity may be accomplished by an LPN/LVN who observes initial seizure activity. An LPN/LVN would know to call the supervising RN immediately if a patient started to seize.

- **Option A:** Documentation is a nursing responsibility.
- **Option C:** Patient education must be accomplished by the registered nurse because it is within their scope of practice.
- **Option D:** Planning of care is a complex activity that requires RN level education and scope of practice.

60. The nurse is planning dietary changes for a client following an episode of pancreatitis. Which diet is suitable for the client?

- A. Low calorie, low carbohydrate
- B. High fiber, low fat
- C. High protein, high fat
- D. Low protein, high carbohydrate

Correct Answer: B. High fiber, low fat

- **Option B:** The pancreas produces digestive enzymes during digestion wherein these enzymes help break down fats, protein, and carbohydrates. A client recovering from pancreatitis (inflammation of the pancreas) needs a diet that is low in fat so that it would give the organ time to rest. While a high

diet will decrease the risk of gallstone formation and elevated levels of triglycerides both of which are the common causes of acute pancreatitis.

- Options A, C, and D: These diets can worsen the symptoms of pancreatitis and can cause discomfort.

61. An unexpected effect of the drug is known as a(n):

- A. Side effect
- B. Adverse effect
- C. Toxic reaction
- D. Allergic reaction

Correct Answer: B. Adverse effect

An adverse reaction is a harmful and unexpected reaction. An unexpected medical problem that happens during treatment with a drug or other therapy. Adverse effects may be mild, moderate, or severe, and may be caused by something other than the drug or therapy being given. C and D are incorrect because a toxic reaction is a type of adverse reaction.

- **Option A:** A side effect is expected and predictable. A side effect is usually regarded as an undesirable secondary effect which occurs in addition to the desired therapeutic effect of a drug or medication. Side effects may vary for each individual depending on the person's disease state, age, weight, gender, ethnicity, and general health.
- **Option C:** Drug toxicity can occur as a result of the over-ingestion of a medication—having too much of a drug in a person's system at once. This can happen if the dose taken exceeds the prescribed dose, either intentionally or accidentally. With certain medications, drug toxicity can also occur as an adverse drug reaction (ADR).
- **Option D:** An allergic reaction occurs when cells in the immune system interpret a foreign substance or allergen as harmful. The immune system overreacts to these allergens and produces histamine, which is a chemical that causes allergy symptoms, such as inflammation, sneezing, and coughing.

62. The nurse is caring for a neonate whose mother is diabetic. The nurse will expect the neonate to be:

- A. Hypoglycemic, small for gestational age
- B. Hyperglycemic, large for gestational age
- C. Hypoglycemic, large for gestational age
- D. Hyperglycemic, small for gestational age

Correct Answer: C. Hypoglycemic, large for gestational age

The infant of a diabetic mother is usually large for gestational age. After birth, glucose levels fall rapidly due to the absence of glucose from the mother. Hypoglycemia is caused by hyperinsulinemia due to hyperplasia of fetal pancreatic beta cells consequent to maternal-fetal hyperglycemia. Because the continuous supply of glucose is stopped after birth, the neonate develops hypoglycemia because of insufficient substrate.

- **Option A:** The infant will not be small for gestational age. Fetal macrosomia (>90th percentile for gestational age or >4000 g in the term infant) occurs in 15-45% of diabetic pregnancies. It is most commonly observed as a consequence of maternal hyperglycemia. When macrosomia is present, the infant appears puffy, fat, ruddy, and often hypotonic.
- **Option B:** The infant will not be hyperglycemic. Stimulation of fetal insulin release by maternal hyperglycemia during labor significantly increases the risk of early hypoglycemia in these infants. Perinatal stress may have an additive effect on hypoglycemia due to catecholamine release and glycogen depletion.
- **Option D:** The infant will be large, not small, and will be hypoglycemic, not hyperglycemic. The overall risk of hypoglycemia is anywhere from 25-40%, with LGA and preterm infants at the highest risk. Fetal growth is assessed by plotting birth weight against gestational age on standard growth curves. Infants whose weight exceeds the 90th percentile for gestational age are classified as large for gestational age (LGA).

63. Which of the following is an appropriate toy for an 18-month-old?

- A. Multiple-piece puzzle
- B. Miniature cars
- C. Finger paints
- D. Comic book

Correct Answer: C. Finger paints

Young toddlers have a preference for soft textures. Thus, finger paints would be an appropriate toy choice.

- **Option A:** Multiple-piece puzzles are still sensorimotor learners and they enjoy the experience of feeling objects, such as puzzle, are too difficult to manipulate and may be hazardous if the pieces are small enough to be aspirated.
- **Option B:** Miniature cars also have a high potential for aspiration.
- **Option D:** Comic books are on too high a level for toddlers. Although they may enjoy looking at some of the pictures, toddlers are more likely to rip a comic book apart.

64. Which of the following would be most appropriate for a nurse to use when describing menarche to a 13-year-old?

- A. A female's first menstruation or menstrual "periods."
- B. The first year of menstruation or "period."
- C. The entire menstrual cycle or from one "period" to another.
- D. The onset of uterine maturation or peak growth.

Correct Answer: A. A female's first menstruation or menstrual "periods".

Menarche refers to the onset of the first menstruation or menstrual period and refers only to the first cycle. Uterine growth and broadening of the pelvic girdle occur before menarche. The average age of onset of menarche is 12.4 years.

- **Option B:** Pulsatile hypothalamic production of gonadotropin-releasing hormone (GnRH) at puberty stimulates the pituitary production of follicle-stimulating hormone (FSH) and luteinizing hormone (LH).

hormone (LH). This pulsatile secretion pattern appears to be necessary as continuous secretion of GnRH, or its synthetic analogs, inhibits pituitary production of FSH and LH and delays menarche.

- **Option C:** Most menstrual periods last between 3 and 7 days, and menses that last more than 10 days is considered abnormal.
- **Option D:** Menarche signals maturation of the adolescent female body. It commonly is associated with the ability to ovulate and reproduce. However, the appearance of menarche does not guarantee either ovulation or fertility.

65. A female client admitted to an acute care facility after a car accident develops signs and symptoms of increased intracranial pressure (ICP). The client is intubated and placed on mechanical ventilation to help reduce ICP. To prevent a further rise in ICP caused by suctioning, the nurse anticipates administering which drug endotracheally before suctioning?

- A. phenytoin (Dilantin)
- B. mannitol (Osmitrol)
- C. lidocaine (Xylocaine)
- D. furosemide (Lasix)

Correct Answer: C. lidocaine (Xylocaine)

Administering lidocaine via an endotracheal tube may minimize elevations in ICP caused by suctioning. Lidocaine use, both intravenous (IV) and laryngotracheal (LT), has been reported to blunt the ICP elevations during intubation. Though one would assume that the ICP mediated effects of lidocaine stem from its local anesthetic effect, there are other proposed mechanisms of ICP reduction via the IV route. Lidocaine injected IV has been shown in models to induce cerebral vasoconstriction leading to a decrease in cerebral blood volume and thus ICP. Furthermore, IV lidocaine leads to sodium channel inhibition and thus a reduction in cerebral activity and metabolic demands, as well as excitotoxicity, leading to a potential ICP reduction effect.

- **Option A:** Phenytoin doesn't reduce ICP directly but may be used to abolish seizures, which can increase ICP. However, phenytoin isn't administered endotracheally. Phenytoin is a hydantoin derivative, a first-generation anticonvulsant drug that is effective in the treatment of generalized tonic-clonic seizures, complex partial seizures, and status epilepticus without significantly impairing neurological function.
- **Option B:** Mannitol may be used for the reduction of intracranial pressure. In this indication, mannitol administration is intravenous. Mannitol then constitutes a new solute in the plasma, which increases the tonicity of the plasma. Since mannitol cannot cross the intact blood-brain barrier, the increased tonicity from the mannitol draws water out of the brain parenchyma and into the intravascular space. The water then travels with the mannitol to the kidneys, where it gets excreted in the urine.
- **Option D:** Although furosemide may be given to reduce ICP, they're administered parenterally, not endotracheally. Furosemide inhibits tubular reabsorption of sodium and chloride in the proximal and distal tubules, as well as in the thick ascending loop of Henle by inhibiting sodium-chloride cotransport system resulting in excessive excretion of water along with sodium, chloride, magnesium, and calcium.

66. A laboring client has external electronic fetal monitoring in place. Which of the following assessment data can be determined by examining the fetal heart rate strip produced by the external electronic fetal monitor?

- A. Gender of the fetus
- B. Fetal position
- C. Labor progress
- D. Oxygenation

Correct Answer: D. Oxygenation

Oxygenation of the fetus may be indirectly assessed through fetal monitoring by closely examining the fetal heart rate strip. Accelerations in the fetal heart rate strip indicate good oxygenation, while decelerations in the fetal heart rate sometimes indicate poor fetal oxygenation.

- **Option A:** In the second and third trimesters of pregnancy, ultrasound imaging scans the genital anatomy of the fetus to identify its gender. In the early studies conducted on the use of ultrasound results for identifying the fetal gender, a male fetus was demonstrated by the presence of a scrotum and a penis, and a female fetus by the absence of these organs.
- **Option B:** Ultrasonography is noninvasive and has been found to be more accurate for assessing position of the fetal head, during labor. Recent studies by Sherer et al., Chou et al., Dupuis et al., and Zahalka et al. have shown that ultrasound scanning is a quick and efficient way of increasing the accuracy of the assessment of fetal head position during the second stage of labor.
- **Option C:** Recently, intrapartum transperineal ultrasound for the assessment of fetal head descent has been introduced to assess labor progress in the first stage of labor in a more objective and non-invasive way.

67. Which of the following risk factors for coronary artery disease cannot be corrected?

- A. Cigarette smoking
- B. DM
- C. Heredity
- D. HPN

Correct Answer: C. Heredity

Because “heredity” refers to our genetic makeup, it can’t be changed.

- **Option A:** Cigarette smoking cessation is a lifestyle change that involves behavior modification. Smoking raises the risk of getting CAD and dying early from CAD. Carbon monoxide, nicotine, and other substances in tobacco smoke can promote atherosclerosis and trigger symptoms of coronary artery disease.
- **Option B:** Diabetes mellitus is a risk factor that can be controlled with diet, exercise, and medication. Over time, high blood sugar can damage blood vessels and the nerves that control the heart. People with diabetes are also more likely to have other conditions that raise the risk for heart disease: High blood pressure increases the force of blood through your arteries and can damage artery walls.

- **Option D:** Altering one's diet, exercise, and medication can correct hypertension. British Hypertension Society (BHS) guidelines state that advice should be provided for prevention as well as treatment of hypertension and should be given to pre-hypertensives and those with a strong family history. They point out that effective lifestyle modification can lower blood pressure by at least as much as a single antihypertensive drug.

68. When developing a teaching plan for a group of high school students about teenage pregnancy, the nurse would keep in mind which of the following?

- A. The incidence of teenage pregnancies is increasing.
- B. Most teenage pregnancies are planned.
- C. Denial of the pregnancy is common early on.
- D. The risk for complications during pregnancy is rare.

Correct Answer: C. Denial of the pregnancy is common early on.

The adolescent who becomes pregnant typically denies the pregnancy early on. Early recognition by a parent or health care provider may be crucial to timely initiation of prenatal care.

- **Option A:** The incidence of adolescent pregnancy has declined since 1991, yet morbidity remains high.
- **Option B:** Most teenage pregnancies are unplanned and occur out of wedlock.
- **Option D:** The pregnant adolescent is at high risk for physical complications including premature labor and low-birth-weight infants, high neonatal mortality, iron deficiency anemia, prolonged labor, and fetopelvic disproportion as well as numerous psychological crises.

69. A client with pancreatitis has requested pain medication. Which pain medication is indicated for the client with pancreatitis?

- A. Demerol (meperidine)
- B. Toradol (ketorolac)
- C. Morphine (morphine sulfate)
- D. Codeine (codeine)

Correct Answer: A. Demerol (meperidine)

- **Option A:** To prevent spasms of the sphincter of Oddi, the client with pancreatitis should receive non-opiate analgesics for pain such as Demerol.
- **Option B:** The client with pancreatitis might be prone to bleed; therefore, Toradol is not a drug of choice for pain control.
- **Options C and D:** Morphine and codeine, opiate analgesics, are contraindicated for the client with pancreatitis.

70. A patient is admitted to the emergency department with an overdose of a benzodiazepine. The nurse immediately prepares to administer which of the following antidotes from the emergency drug cart?

- A. naloxone (Narcan)
- B. naltrexone (ReVia)
- C. nalmefene (Revox)
- D. flumazenil (Romazicon)

Correct Answer: D. flumazenil (Romazicon)

Flumazenil is the antidote for benzodiazepine overdoses. Flumazenil injection is indicated for a complete or partial reversal of the sedative effects of benzodiazepines in conscious sedation and general anesthesia in the adult and pediatric populations. Flumazenil speeds the recovery from sedation following minor surgical procedures and shortened the postoperative monitoring period for minor surgery, resulting in earlier patient discharge.

- **Option A:** Naloxone is indicated for the treatment of opioid toxicity, specifically to reverse respiratory depression from opioid use. It is useful in accidental or intentional overdose and acute or chronic toxicity.
- **Option B:** Naltrexone is an opioid antagonist used to treat alcohol use disorder and opioid dependence. It is FDA-approved for alcohol misuse and opioid dependence treatment. Another clinical use for naltrexone is for opiate toxicity/addiction. Exogenous opioids include the commonly prescribed pain relievers such as hydrocodone, oxycodone, among others, and drugs of abuse such as heroin.
- **Option C:** Nalmefene is another opioid antagonist. Its affinity for mu and kappa receptors is similar to naltrexone though its affinity for the delta receptor is greater than that of naltrexone. In the United States, it is approved for the reversal of Mu receptor agonist effects by parenteral routes.

71. A patient who is hospitalized due to vomiting and a decreased level of consciousness displays slow and deep (Kussmaul breathing), and he is lethargic and irritable in response to stimulation. The doctor diagnosed him of having dehydration. Measurement of arterial blood gas shows pH 7.0, PaO₂ 90 mm Hg, PaCO₂ 22 mm Hg, and HCO₃ 14 mmol/L; other results are Na⁺ 120 mmol/L, K⁺ 2.5 mmol/L, and Cl⁻ 95 mmol/L. As a knowledgeable nurse, you know that the normal value for PaCO₂ is:

- A. 22 mm Hg
- B. 36 mm Hg
- C. 48 mm Hg
- D. 50 mm Hg

Correct Answer: B. 36 mm Hg

The normal range for PaCO₂ is from 35 to 45 mm Hg.

72. A nurse is assigned to a patient who is receiving oxytocin (Pitocin) to induce labor. The nurse terminates the oxytocin infusion if which of the following is noted on the assessment of the client?

- A. Nausea
- B. Fatigue
- C. Early decelerations of the fetal heart rate
- D. Uterine hyperstimulation

Correct Answer: D. Uterine hyperstimulation.

Oxytocin is used to induce labor by stimulating uterine contraction. Oxytocin infusion must be discontinued if any signs of uterine stimulation are present.

- **Options A & B:** These are probably caused by the labor experience itself.
- **Option C:** Early decelerations of the fetal heart rate are a reassuring sign, but it does not indicate fetal distress.

73. An 89-year-old female patient who has been admitted to the medical unit with new-onset angina also has a diagnosis of Alzheimer's disease. The patient's husband reports to you that he rarely gets a good night's sleep because he needs to make sure his wife does not wander during the night. He insists on checking each of the medications you give her to be sure they are the same as the ones she takes at home. Based on this information, which nursing diagnosis is most appropriate for this patient?

- A. Decreased Cardiac Output related to poor myocardial contractility
- B. Caregiver Role Strain related to continuous need for providing care
- C. Ineffective Therapeutic Regimen Management related to poor patient memory
- D. Risk for Falls related to patient wandering behavior during the night

Correct Answer: B. Caregiver Role Strain related to continuous need for providing care

The husband's statement about lack of sleep and anxiety over whether the patient is receiving the correct medications are behaviors that support this diagnosis.

- **Option A:** There is no evidence that the patient's cardiac output is decreased. Alzheimer's disease and HF often occur together and thus increase the cost of care and health resource utilization; this highlights the need to investigate the relationship between these two conditions. Impaired cognition in HF patients leads to significantly more frequent hospital readmissions and increases mortality rates.
- **Option C:** Ineffective Therapeutic Regimen Management is not a priority as based on the statement.
- **Option D:** Risk for falls is not the priority at this time. Falls are a leading cause of broken hips and other serious injuries in the elderly, and those with Alzheimer's are at particularly high risk of falling. Problems with vision, perception, and balance increase as Alzheimer's advances, making the risk of a fall more likely.

74. A nurse is assessing a client diagnosed with a dependent personality disorder. Which of the following characteristics is a major component of this disorder?

- A. Abrasive to others
- B. Indifferent to others
- C. Manipulative of others
- D. Over-reliance on others

Correct Answer: D. Over-reliance on others.

Clients with dependent personality disorder are extremely over-reliant on others; they aren't abrasive or assertive. They're clinging and demanding of others; they don't manipulate. Dependent personality disorder (DPD) is a type of anxious personality disorder. People with DPD often feel helpless, submissive or incapable of taking care of themselves. They may have trouble making simple decisions. But, with help, someone with a dependent personality can learn self-confidence and self-reliance.

- **Option A:** People with DPD have an overwhelming need to have others take care of them. Often, a person with DPD relies on people close to them for their emotional or physical needs. Others may describe them as needy or clingy.
- **Option B:** People with DPD may believe they can't take care of themselves. They may have trouble making everyday decisions, such as what to wear, without others' reassurance.
- **Option C:** In patients with dependent personality disorder, the need to be taken care of results in loss of their autonomy and interests. Because they are intensely anxious about taking care of themselves, they become excessively dependent and submissive.

75. Which of the following aspects of psychosocial development is necessary for the nurse to keep in mind when providing care for the preschool child?

- A. The child can use complex reasoning to think out of situations.
- B. Fear of body mutilation is a common preschool fear.
- C. The child engages in competitive types of play.
- D. Immediate gratification is necessary to develop initiative.

Correct Answer: B. Fear of body mutilation is a common preschool fear

During the preschool period, the child has mastered a sense of autonomy and goes on to master a sense of initiative. During this period, the child commonly experiences more fears than at any other time. One common fear is the fear of body mutilation, especially associated with painful experiences.

- **Option A:** In addition to the social aspects of play with peers already described, the type of play a child prefers reflects cognitive, fine and gross motor, and visual perceptual motor skills. Children will not play for long at activities that frustrate them because of a lack of ability. Fine motor and visual perceptual motor skills are being refined during these years, but there is a broad range of time for normal acquisition.
- **Option C:** By age 4, children usually can play with three others fairly well. Fantasy or pretend play gains prominence at about age 3. Children can play out longer stories as they mature, with each child taking a specific role. By age 5, the child has many social skills expected of adults, such as responding to the good fortune of others spontaneously with positive verbal messages, apologizing for unintentional mistakes, and relating to a group of friends.
- **Option D:** Almost all preschool children are noncompliant, at least some of the time—on the average, they comply with adult requests about 50% of the time. This struggle for autonomy can be viewed as a positive milestone of development, with passivity representing a potential symptom of

depression or intimidation.

76. Gold salt toxicity can be reversed using which medication?

- A. Acetaminophen
- B. Dimercaprol
- C. Calcium salts
- D. Hydroxocobalamin

Correct Answer: B. Dimercaprol

Dimercaprol, a chelator, is used to treat arsenic, gold, or mercury poisoning.

- **Option A:** Acetaminophen is an analgesic/antipyretic.
- **Option C:** Calcium salt is the antidote for fluoride ingestion.
- **Option D:** Hydroxocobalamin is the antidote for cyanide poisoning.

77. What type of milk is present in the breasts 7 to 10 days PP?

- A. Colostrum
- B. Transitional milk
- C. Mature milk
- D. Hind milk

Correct Answer: B. Transitional milk

Transitional milk comes after colostrum and usually lasts until 2 weeks PP. When breastfeeding mothers talk about their milk coming in, they are referring to the onset of production of transitional milk, the creamy milk that immediately follows colostrum. Transitional milk is produced anywhere from about two to five days after birth until ten to fourteen days after birth.

- **Option A:** Alveolar cells of the breast begin to secrete colostrum in the twelfth to sixteenth week of pregnancy. This is called lactogenesis I. Colostrum is a thick, yellowish-white fluid which can be expressed from the breast by the third trimester. Milk secretion is suppressed during pregnancy by estrogen and progesterone. Colostrum has more protein and fewer carbohydrates and fat than mature breast milk. Colostrum is rich in secretory immunoglobulin A (IgA), which helps to protect the infant from infection. Colostrum also helps to establish a normal gut microbiome in the infant. The bowel is considered sterile at birth.
- **Option C:** The breast milk starts becoming mature after around two weeks, but it won't be fully mature milk until the baby's about four weeks old. From now on its composition will be broadly stable – it certainly won't go through dramatic changes like in the first month. Soon after it reaches maturity, the milk starts to contain higher quantities of some components that protect the baby against bacterial and viral infections. It's probably no coincidence that this stage of breast milk production coincides with the time she starts grabbing objects and putting them in her mouth.
- **Option D:** Hindmilk is the high-fat, high-calorie breast milk that the baby gets toward the end of a feeding. It's richer, thicker, and creamier than foremilk, the breast milk that the baby gets when they first start to breastfeed. The color of hindmilk is creamy white. Hindmilk satisfies the baby's hunger and makes the baby feel full and sleepy. It also helps the baby feel fuller longer.

78. A nurse is working with a client who has schizophrenia, paranoid type. Which of the following outcomes related to the client's delusional perceptions would the nurse establish?

- A. The client will demonstrate realistic interpretation of daily events in the unit.
- B. The client will perform daily hygiene and grooming without assistance.
- C. The client will take prescribed medications without difficulty.
- D. The client will participate in unit activities.

Correct Answer: A. The client will demonstrate realistic interpretation of daily events in the unit.

A client with schizophrenia, paranoid type, has distorted perceptions and views people, institutions, and aspects of the environment as plotting against him. The desired outcome for someone with delusional perceptions would be to have a realistic interpretation of daily events. Unlike DSM-5, ICD-10 further subcategories schizophrenia based on the key presenting symptoms as either paranoid schizophrenia, hebephrenic schizophrenia, catatonic schizophrenia, undifferentiated schizophrenia, post-schizophrenic depression, residual schizophrenia, and simple schizophrenia.

- **Option B:** The client with a distorted perception of the environment would not necessarily have impairments affecting hygiene and grooming skills. A thorough risk assessment must also be undertaken to determine the risk of harm to self and others. 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.
- **Option C:** For the initial treatment of acute psychosis, it is recommended to commence an oral second-generation antipsychotic (SGA) such as aripiprazole, olanzapine, risperidone, quetiapine, asenapine, lurasidone, sertindole, ziprasidone, brexpiprazole, molindone, iloperidone, etc. Sometimes, if clinically needed, alongside a benzodiazepine such as diazepam, clonazepam or lorazepam to control behavioral disturbances and non-acute anxiety. First generation antipsychotic (FGA) like trifluoperazine, Fluphenazine, haloperidol, pimozide, sulpiride, flupentixol, chlorpromazine, etc. are not commonly used as the first line but can be used.
- **Option D:** Although taking medications and participating in unit activities may be appropriate outcomes for nursing intervention; these responses are not related to client perceptions. Cognitive-behavioral therapy (CBT) and the use of art and drama therapies help counteract the negative symptoms of the disease, improve insight, and assist relapse prevention.

79. A client diagnosed with dependent personality disorder states, "Do you think I should move from my parent's house and get a job?" Which nursing response is most appropriate?

- A. "It would be best to do that in order to increase independence."
- B. "Why would you want to leave a secure home?"
- C. "Let's discuss and explore all of your options."
- D. "I'm afraid you would feel very guilty leaving your parents."

Correct Answer: C. "Let's discuss and explore all of your options."

The most appropriate response by the nurse is, "Let's discuss and explore all of your options." In this example, the nurse is encouraging the client to formulate ideas and decide independently the appropriate course of action. Any problem or concern can be better understood if explored in depth.

- **Option A:** Advising refers to telling the client what to do; giving an opinion or making decisions for the client is inappropriate. It implies that the client cannot handle life decisions and only the nurse knows what is best for the client.
- **Option B:** Requesting an explanation or asking the client to provide reasons for thoughts, feelings, behaviors or events is nontherapeutic. There is a difference between asking the client to describe what is occurring or has taken place and asking him to explain why. Usually, a "why" question is intimidating.
- **Option D:** Interpreting or making conscious what is unconscious to the client is nontherapeutic. The client's thoughts and feelings are his own, not to be interpreted by the nurse or for hidden meaning. Only the client can identify or confirm the presence of feelings.

80. During the first 24 hours after thrombolytic therapy for ischemic stroke, the primary goal is to control the client's:

- A. Pulse
- B. Respirations
- C. Blood pressure
- D. Temperature

Correct Answer: C. Blood pressure

Controlling the blood pressure is critical because an intracerebral hemorrhage is the major adverse effect of thrombolytic therapy. Blood pressure should be maintained according to the physician and is specific to the client's ischemic tissue needs and risks of bleeding from treatment. Other vital signs are monitored, but the priority is blood pressure.

- **Option A:** Patients receiving thrombolytic therapy must undergo a constant neurologic and cardiovascular evaluation with blood pressure monitoring every 15 minutes during and after tPA infusion at least for 2 hours, then half-hourly for 6 hours and hourly for the next 16 hours after injection.
- **Option B:** Strict BP monitoring is essential to prevent complications. Thrombolytic therapy should be stopped urgently with any signs of neurologic deterioration, and the patient should receive an emergency computed tomography (CT).
- **Option D:** Fibrinolytic agents or any anticoagulants must be stopped immediately with any evidence of bleeding complications in a patient with ongoing fibrinolytic therapy. In the next step, supportive measures should be instituted, including volume correction and blood factor transfusion.

81. Jason, a 22 y.o. accident victim, requires an NG tube for feeding. What should you immediately do after inserting an NG tube for liquid enteral feedings?

- A. Aspirate for gastric secretions with a syringe.
- B. Begin feeding slowly to prevent cramping.

- C. Get an X-ray of the tip of the tube within 24 hours.
- D. Clamp off the tube until the feedings begin.

Correct Answer: A. Aspirate for gastric secretions with a syringe.

Aspirating the stomach contents confirms correct placement. If feeding is planned through the tube, then it is imperative to confirm its location as placing feeds into the lungs can cause potentially fatal complications. The ideal location for an NG tube placed for suction is within the stomach because placement past the pylorus can cause damage to the duodenum. The ideal location for an NG feeding tube is postpyloric to decrease the risk of aspiration.

- **Option B:** If the tube is being placed for the administration of medications or nutrition, intragastric placement must be confirmed. Introducing medication or tube feeds to the lungs can cause major complications, including death. Even in intubated patients, the NG tube can still be accidentally placed into the airway.
- **Option C:** If an X-ray is ordered, it should be done immediately, not in 24 hours. Taking an abdominal x-ray is the best way to confirm the location of the tube, even if there is the aspiration of gastric contents as the tube may be placed past the pylorus where it will aspirate not just gastric secretions but also hepatobiliary secretions leading to persistently high output even when the patient's acute issue has resolved.
- **Option D:** Once the tube has been advanced to the estimated necessary length, correct location is often made obvious by aspirating out a large amount of gastric contents. Pushing 50 cc of air through the tube using a large syringe while auscultating the stomach with a stethoscope is a commonly described maneuver to determine the location of the tube, but it is of questionable efficacy.

82. Timothy's arterial blood gas (ABG) results are as follows; pH 7.16; Paco2 80 mm Hg; Pao2 46 mm Hg; HCO3- 24 mEq/L; Sao2 81%. This ABG result represents which of the following conditions?

- A. Metabolic acidosis
- B. Metabolic alkalosis
- C. Respiratory acidosis
- D. Respiratory alkalosis

Correct Answer: C. Respiratory acidosis

Because Paco2 is high at 80 mm Hg and the metabolic measure, HCO3- is normal, the client has respiratory acidosis.

- **Option A:** If the HCO3- was below 22 mEq/L the client would have metabolic acidosis.
- **Option B:** The result of the ABG is less than 7.35, which makes metabolic alkalosis incorrect.
- **Option D:** The pH is less than 7.35, academic, which eliminates respiratory alkalosis as a possibility.

83. A community nurse conducts a primary prevention, home-visit assessment for a newborn and mother. Mrs. Smith has three other children, the oldest of whom is age 12. She tells the nurse that her 12-year-old daughter is expected to

prepare family meals, to look after the young children, and to clean the house once a week. Which of the following is the most appropriate nursing diagnosis for this family situation?

- A. Delayed growth and development, related to performance expectations of the child.
- B. Anxiety (moderate), related to difficulty managing the home situation.
- C. Impaired parenting, related to the role reversal of mother and child.
- D. Social isolation, related to lack of extended family assistance.

Correct Answer: C. Impaired parenting, related to role reversal of mother and child.

The role of a 12-year-old child in a family should not be that of a parent. In this situation, the child and mother have reversed roles. Assess parents for the achievement of developmental tasks of self and understanding of child's growth and development; how they are bonded and attached to the child; how they interpret and respond to the child; how they accept and support the child; how they meet the child's social, psychological and physical needs. Provides information about parent-child relationship and parenting styles that may lead to child abuse; identifies parents at risk for violence or other abusive behavior.

- **Option A:** Teach parents developmental tasks for child and parents, difference in developmental level between child and parents, and appropriate tasks for age levels. Provides information that assists parents in responding realistically and appropriately to child's needs at different age levels.
- **Option B:** Assess the level of anxiety and fear in the child and how it is manifested; Determine the source of anxiety and note reactions to staff and parents at each contact. Provides information about the source and level of anxiety and what might relieve it and basis to judge improvement.
- **Option D:** There is no evidence that the child has delayed growth or development, the mother in this situation is not demonstrating signs of anxiety, and there is no evidence in this situation that the family is socially isolated. Discuss with parents methods to reduce conflict, to be consistent in approach to child's behavior and needs, to avoid siding with the child or other parents. Promotes a more positive child-parent relationship.

84. A 65-year-old woman with a known history of osteoporosis is admitted to the hospital for a routine check-up. During her stay, the nurse conducts a thorough assessment to monitor the progression of her condition. While most findings are consistent with her diagnosis, one particular observation raises immediate concern. Which of the following findings should the nurse report to the healthcare provider without delay?

- A. Back pain worsened by movement
- B. Mild tenderness on palpation of long bones
- C. Height loss of 1 inch over the past year
- D. Mild fatigue and lethargy

- **Option B:** Mild tenderness on palpation of long bones is a common finding in patients with osteoporosis but does not require immediate intervention.
- **Option C:** Height loss is expected in patients with osteoporosis due to vertebral compression fractures.

- **Option D:** Mild fatigue and lethargy may not be directly related to osteoporosis and can be further assessed but do not require immediate attention.

85. A 28-year-old professional football player presents to the physical therapy clinic after a severe tackle led to a significant strain in his lower extremity muscles during a match. As the therapist examines the patient's leg, he formulates a targeted exercise regimen to accelerate the healing process. This regimen involves utilizing certain muscles that work in tandem with the primary muscles in producing a specific movement. To keep the patient informed, the therapist poses a question regarding these auxiliary muscles. "For your rehabilitation, we'll be focusing on specific muscles that work together with the main muscles to produce the desired movement. Can you identify the name of this type of muscle from the following options?"

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

Correct Answer: B. Synergists

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

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

86. The physician refers the client with unstable angina for a cardiac catheterization. The nurse explains to the client that this procedure is being used in this specific case to:

- A. Open and dilate the blocked coronary arteries.
- B. Assess the extent of arterial blockage.
- C. Bypass obstructed vessels.
- D. Assess the functional adequacy of the valves and heart muscle.

Correct Answer: B. Assess the extent of arterial blockage

Cardiac catheterization is done in clients with angina primarily to assess the extent and severity of the coronary artery blockage. A decision about medical management, angioplasty, or coronary artery bypass surgery will be based on the catheterization results. Cardiac catheterization is performed for both diagnostic and therapeutic purposes. Despite significant advancement in non-invasive cardiac imaging, it remains the standard for the measurement of cardiac hemodynamics.

- **Option A:** Angioplasty with or without stenting is a nonsurgical procedure used to open clogged or narrow coronary arteries due to underlying atherosclerosis. The procedure involves introducing an inflatable balloon-tipped catheter through the skin in extremities and inflating the balloon once it traverses the stenosed arterial site. It pushes the atherosclerotic intraluminal plaque against the arterial wall and restores the luminal diameter.
- **Option C:** Coronary artery bypass grafting (CABG) is a major surgical operation where atheromatous blockages in a patient's coronary arteries are bypassed with harvested venous or arterial conduits. The bypass restores blood flow to the ischemic myocardium which, in turn, restores function, viability, and relieves anginal symptoms.
- **Option D:** An echocardiogram (echo) is a test that uses high-frequency sound waves (ultrasound) to make pictures of the heart. The test is also called echocardiography. An echocardiogram looks at the heart's structure and checks how well the heart functions.

87. The nurse is working with the parents of a seriously ill newborn. Surgery has been proposed for the infant, but the chances of success are unclear. In helping the parents resolve this ethical conflict, the nurse knows that the first step is:

- A. Exploring reasonable courses of action.
- B. Collecting all available information about the situation.
- C. Clarifying values related to the cause of the dilemma.
- D. Identifying people who can solve the difficulty.

Correct Answer: B. Collecting all available information about the situation.

Autonomy allows healthcare teams to respect and support a patient's decision to accept or refuse life-sustaining treatments. As patient advocates, it's our duty to ensure that our patients receive all of the necessary information, such as potential risks, benefits, and complications, to make well-informed decisions. The healthcare team can then formulate care in compliance with the patient's wishes.

- **Option A:** Nurses use nonmaleficence by selecting interventions that will cause the least amount of harm to achieve a beneficial outcome. For example, if a patient verbalizes homicidal ideations with a plan, we may be torn between wanting to ensure patient privacy and our duty to escalate the patient's care to safeguard the public. The principle of nonmaleficence points us to place the safety of the patient and community first in all care delivery.
- **Option C:** Family members should refrain from making decisions for the patient or inflicting undue pressure to alter his or her decisions unless the patient is incapacitated or found to be legally incompetent. Many factors may influence a patient's acceptance or refusal of medical treatment, such as culture, age, general health, social support system, and previous exposure to individuals who received a similar treatment modality with negative clinical outcomes.
- **Option D:** Paternalism provides the power for healthcare professionals to make decisions to reveal or conceal a diagnosis, potential treatment modalities, or expected prognosis. An example of paternalism is when we admit an adolescent with multiple complete cervical spine fractures whose

family is stating that the teen needs to participate in a state basketball championship in 3 months. The benefit of sharing the anticipated prognosis of quadriplegia at this time is far outweighed by the potential emotional trauma it may cause the family.

88. Which statement would best explain the role of the nurse when planning care for a culturally diverse population? The nurse will plan care to:

- A. Include care that is culturally congruent with the staff from predetermined criteria.
- B. Focus only on the needs of the client, ignoring the nurse's beliefs and practices.
- C. Blend the values of the nurse that are for the good of the client and minimize the client's individual values and beliefs during care.
- D. Provide care while aware of one's own bias, focusing on the client's individual needs rather than the staff's practices.

Correct Answer: D. Provide care while aware of one's own bias, focusing on the client's individual needs rather than the staff's practices

Without understanding one's own beliefs and values, a bias or preconceived belief by the nurse could create an unexpected conflict or an area of neglect in the plan of care for a client (who might be expecting something totally different from the care). During assessment values, beliefs, practices should be identified by the nurse and used as a guide to identify the choices by the nurse to meet specific needs/outcomes of that client. Therefore identification of values, beliefs, and practices allows for planning meaningful and beneficial care specific for this client.

- **Option A:** As nurses strive to learn more about becoming culturally sensitive nurses, they should also let others know what they are doing and why. Encourage co-workers to provide more culturally competent care. Approach sharing awareness with openness and positivity, rather than from a critical point of view.
- **Option B:** Cultural competency in the health care sector supports positive patient outcomes and improves medical research accuracy. Cultural competence is learning about how cultural differences may impact healthcare decisions and being able to modify care to align with that patient's culture.
- **Option C:** Active listening in the healthcare community is imperative, especially when individuals of different racial or cultural backgrounds are involved. It's important that patients feel heard and validated, particularly when they are in a vulnerable position.

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

- A. digoxin (Lanoxin)
- B. furosemide (Lasix)
- C. metoprolol (Lopressor)
- D. enalapril (Vasotec)

Correct Answer: A. digoxin (Lanoxin)

One of the most common signs of digoxin toxicity is the visual disturbance known as the "green-yellow halo sign." Digoxin's therapeutic half-life is between 30 to 40 hours, but this may change in overdose.

Digoxin excretion is primarily renal, and for this reason, patients with poor or worsening renal function, such as patients who are elderly or have CKD, are more likely to develop toxicity. The other medications aren't associated with such an effect.

- **Option B:** Toxicity with furosemide manifests as extensions of its diuretic activity. Signs and symptoms of overdose or toxicity include dehydration, reduced blood volume, and electrolyte imbalances. Risk of hypokalemia increases with the use of a high dose of furosemide, decreased oral intake of potassium, in patients with hyperaldosteronism states (liver abnormalities or licorice ingestion) or concomitant use of corticosteroid, ACTH, and laxatives.
- **Option C:** The primary adverse effects of metoprolol include heart failure exacerbation, fatigue, depression, bradycardia or heart block, hypotension, bronchospasm, cold extremities, dizziness, decreased libido, diarrhea, tinnitus, decreased exercise tolerance, glucose intolerance, and may mask hypoglycemia.
- **Option D:** The side effect most commonly encountered with the use of ACE inhibitors is cough. The cough is characteristically non-productive and stops with the discontinuation of the drug. Other adverse effects of enalapril are hypotension, hyperkalemia, angioedema, cholestatic jaundice, and hypersensitivity reaction. Vasodilation caused by enalapril to reduce the afterload of heart and decrease the total peripheral resistance is also responsible for hypotension.

90. A cromolyn sodium (Intal) inhaler is prescribed to a client with asthma. A nurse provides instructions regarding the side effects of this medication. The nurse tells the client to immediately report which of the following side effects?

- A. Sore throat
- B. Drowsiness
- C. Wheezing
- D. Hypotension

Correct Answer: C. Wheezing

Cromolyn Sodium (Intal) is used to prevent asthma attacks in people with bronchial asthma. Serious side effects associated with the use of this inhaler are wheezing, chest tightness, skin rash, hives, itching, swelling of the face, lips, throat, or tongue, and joint pain.

- **Options A & B:** These are expected side effects of Intal.
- **Option D:** Hypotension is not directly related to the medication.

91. Which of the following terms describes the force against which the ventricle must expel blood?

- A. Afterload
- B. Cardiac output
- C. Overload
- D. Preload

Correct Answer: A. Afterload

Afterload refers to the resistance maintained by the aortic and pulmonic valves, the condition and tone of the aorta, and the resistance offered by the systemic and pulmonary arterioles. The afterload of any contracting muscle is defined as the total force that opposes sarcomere shortening minus the stretching force that existed before contraction. Applying this definition to the heart, afterload can be most easily described as the “load” against which the heart ejects blood.

- **Option B:** Cardiac output is the amount of blood expelled by the heart per minute. Cardiac output (CO) is the amount of blood pumped by the heart minute and is the mechanism whereby blood flows around the body, especially providing blood flow to the brain and other vital organs. The body’s demand for oxygen changes, such as during exercise, and the cardiac output is altered by modulating both heart rate (HR) and stroke volume (SV).
- **Option C:** Overload refers to an abundance of circulating volume. Fluid overload is clinically known as edema. Edema occurs most commonly in soft tissues of the extremities; however, it is possible to occur in any tissue. Edema manifests as swelling in the soft tissues of the limbs and face with a subsequent increase in size and tightness of the skin. Peripheral edema is reducible by increasing the pressure in the interstitial space and is measured by pressing a finger into the tissue, creating a dimple in the edematous skin temporarily.
- **Option D:** Preload is the volume of blood in the ventricle at the end of the diastole. Also termed left ventricular end-diastolic pressure (LVEDP), preload is a measure of the degree of the ventricular stretch when the heart is at the end of diastole. Preload, in addition to afterload and contractility, is one of the three main factors that directly influence stroke volume (SV), the amount of blood pumped out of the heart in one cardiac cycle.

92. When caring for a client with total parenteral nutrition (TPN), what is the most important action on the part of the nurse?

- A. Record the number of stools per day.
- B. Maintain strict intake and output records.
- C. Sterile technique for dressing change at IV site.
- D. Monitor for cardiac arrhythmias.

Correct Answer: C. Sterile technique for dressing change at IV site.

Clients receiving TPN are very susceptible to infection. The concentrated glucose solutions are a good medium for bacterial growth. Strict sterile technique is crucial in preventing infection at IV infusion sites. Catheter-related sepsis rates have decreased since the introduction of guidelines that emphasize sterile techniques for catheter insertion and skin care around the insertion site. The increasing use of dedicated teams of physicians and nurses who specialize in various procedures including catheter insertion also has accounted for a decrease in catheter-related infection rates.

- **Option A:** Progress of patients with a TPN line should be followed on a flowchart. An interdisciplinary nutrition team, if available, should monitor patients. Weight, complete blood count, electrolytes, and blood urea nitrogen should be monitored often (eg, daily for inpatients). Plasma glucose should be monitored every 6 hours until patients and glucose levels become stable. Fluid intake and output should be monitored continuously. When patients become stable, blood tests can be done much less often.
- **Option B:** Volume overload (suggested by > 1 kg/day weight gain) may occur when patients have high daily energy requirements and thus require large fluid volumes.
- **Option D:** Forty-one percent of procedures resulted in atrial arrhythmias and 25% produced some degree of ventricular ectopy, 30% of these were ventricular couplets or greater. Ventricular ectopy

was significantly more common in shorter patients and when the catheter was inserted from the right subclavian position (43% ventricular ectopy vs 10% at the other sites). Other variables such as age, cardiac history, serum potassium, type of procedure, and catheter brand were not significant.

93. When a client is diagnosed with aplastic anemia, the nurse monitors for changes in which of the following physiological functions?

- A. Bleeding tendencies
- B. Intake and output
- C. Peripheral sensation
- D. Bowel function

Correct Answer: A. Bleeding tendencies

Aplastic anemia decreases the bone marrow production of RBCs, WBCs, and platelets. The client is at risk for bruising and bleeding tendencies. A low platelet count or thrombocytopenia is caused by a bone marrow malfunction resulting from nutritional deficiencies, drugs, certain viral causes, or aplastic anemia. The risk for bleeding is increased as platelet count is decreased.

- **Option B:** A change in the intake and output is important, but assessment for the potential for bleeding takes priority. Monitor stool (guaiac) and urine (Hemastix) for occult blood. These tests help identify the site of bleeding.
- **Option C:** Change in the peripheral nervous system is a priority problem specific to clients with vitamin B12 deficiency. Vitamin B12 injections used to treat low levels (deficiency) of this vitamin. They are given monthly for the remainder of the client's life. It elevates levels of vitamin B12, a deficiency caused by a lack of intrinsic factor that impairs the vitamin absorption.
- **Option D:** Change in bowel function is not associated with aplastic anemia. Instruct the client on dietary modifications to reduce constipation. Eating a diet high in fiber and drinking a lot of fluids to avoid constipation or using a stool softener and other laxatives as prescribed if having difficulty passing stool.

94. A client is receiving a first-time blood transfusion of packed RBC. How long should the nurse stay and monitor the client to ensure a transfusion reaction will not happen?

- A. 15 minutes
- B. 30 minutes
- C. 45 minutes
- D. 60 minutes

Correct Answer: A. 15 minutes

Usually, a transfusion reaction occurs within 15 minutes of a transfusion. For each unit of blood transfused, monitor the patient before starting the transfusion (baseline observation); 15 minutes after starting the transfusion; at least every hour during transfusion; and carry out a final set of observations 15 minutes after each unit has been transfused.

- **Option B:** Staying with the patient for 30 minutes might be too long. Acute reactions may occur in 1% to 2% of transfused patients. Rapid recognition and management of the reaction may save the patient's life. Once immediate action has been taken, careful and repeated clinical assessment is essential to identify and treat the patient's problems.
- **Option C:** 45 minutes of staying and monitoring the patient for transfusion reactions is too long. All suspected acute transfusion reactions should be reported immediately to the blood transfusion center and to the doctor responsible for the patient. With the exception of urticarial allergic reactions and febrile non-hemolytic reactions, all are potentially fatal and require urgent treatment.
- **Option D:** Most transfusion reactions occur during the first 15 minutes of transfusion. 60 minutes is too long. However, transfusion-transmitted infections are the serious delayed complications of transfusion. Since a delayed transfusion reaction may occur days, weeks, or months after the transfusion, the association with the transfusion may not be recognized.

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

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

Correct Answer: B, C, & E

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

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

bag, seal and then discard into the trash.

- **Option F:** Surgical face mask filters only large particles and will not provide protection from herpes zoster. Airborne and contact precautions until disseminated infection is ruled out. Airborne and contact precautions until lesions are dry and crusted.

96. An elderly client has been ill with the flu, experiencing headache, fever, and chills. After 3 days, she developed a cough productive of yellow sputum. The nurse auscultates her lungs and hears diffuse crackles. How would the nurse best interpret these assessment findings?

- A. It is likely that the client is developing a secondary bacterial pneumonia.
- B. The assessment findings are consistent with influenza and are to be expected.
- C. The client is getting dehydrated and needs to increase her fluid intake to decrease secretions
- D. The client has not been taking her decongestants and bronchodilators as prescribed.

Correct Answer: A. It is likely that the client is developing a secondary bacterial pneumonia.

Pneumonia is the most common complication of influenza, especially in the elderly. The development of a purulent cough and crackles may be indicative of a bacterial infection that is not consistent with a diagnosis of influenza.

- **Option B:** Diagnosis of influenza can be reached clinically, especially during the influenza season. Most of the cases will recover without medical treatment, and they would not need a laboratory test for the diagnosis. Signs and symptoms of influenza in mild cases include a cough, fever, sore throat, myalgia, headache, runny nose, and congested eyes. A frontal or retro-orbital headache is a common presentation with selected ocular symptoms that include photophobia and pain with different qualities.
- **Option C:** These findings are not indicative of dehydration. The clinical presentation of influenza ranges from mild to severe depending on the age, comorbidities, vaccination status, and natural immunity to the virus. Usually, patients who received the seasonal vaccine present with milder symptoms, and they are less likely to develop complications.
- **Option D:** Decongestants and bronchodilators are not typically prescribed for the flu. Influenza infection is self-limited and mild in most healthy individuals who do not have other comorbidities. No antiviral treatment is needed during mild infections in healthy individuals. Antiviral medications can be used to treat or prevent influenza infection, especially during outbreaks in healthcare settings such as hospitals and residential institutions.

97. A cervical radiation implant is placed in the client for treatment of cervical cancer. The nurse initiates what most appropriate activity order for this client?

- A. Out of bed ad lib
- B. Ambulation to the bathroom only
- C. Bed rest
- D. Out of bed in a chair only

Correct Answer: C. Bed rest

- **Option C:** The client with a cervical radiation implant should be maintained on bed rest in the dorsal position to prevent movement of the radiation source. The head of the bed is elevated to a maximum of 10 to 15 degrees for comfort. The nurse avoids turning the client on the side. If turning is absolutely necessary, a pillow is placed between the knees and, with the body in straight alignment, the client is logrolled.

98. Nurse Ron is assessing a client admitted with second and third-degree burns on the face, arms, and chest. Which finding indicates a potential problem?

- A. Partial pressure of arterial oxygen (PaO₂) value of 80 mm Hg.
- B. Urine output of 20 ml/hour.
- C. White pulmonary secretions.
- D. Rectal temperature of 100.6° F (38° C).

Correct Answer: B. Urine output of 20 ml/hour.

A urine output of less than 40 ml/hour in a client with burns indicates a fluid volume deficit.

- **Option A:** This client's PaO₂ value falls within the normal range (80 to 100 mm Hg).
- **Option C:** White pulmonary secretions indicate the presence of large numbers of white blood cells, especially neutrophilic granulocytes.
- **Option D:** The client's rectal temperature isn't significantly elevated and probably results from the fluid volume deficit.

99. Jessie weighed 210 pounds on admission to the hospital. After 2 days of diuretic therapy, Jessie weighs 205.5 pounds. The nurse could estimate the amount of fluid Jessie has lost:

- A. 0.3 L
- B. 1.5 L
- C. 2.0 L
- D. 3.5 L

Correct Answer: C. 2.0 L

One liter of fluid approximately weighs 2.2 pounds. A 4.5-pound weight loss equals to approximately 2L. Diuresis is necessary for a variety of non-edematous and edematous conditions, which require clearing out excess water when the body abnormally sequesters fluid in third space in the form of edema.

- **Option A:** Option A has a very low amount of fluid loss and is incompatible with the weight that the client has lost. Diuretics are drugs that pharmacologically tilt the renal fluid regulation in favor of excretion of water and electrolytes. Thus, diuretics are substances that increase the production and volume of urine. This class of drugs achieves this objective primarily by suppressing receptors that aid in reabsorption of Na⁺, the most abundant extracellular cation, from the renal tubules, thereby increasing the osmolality of the renal tubules and consequently suppressing water reabsorption.

- **Option B:** 1.5 L is not an accurate amount of fluid loss based on the client's weight loss. The most common adverse effect for any diuretic is mild hypovolemia, which can lead to transient dehydration and increased thirst. When there is an over-treatment with a diuretic, this could lead to severe hypovolemia, causing hypotension, dizziness, and syncope.
- **Option D:** 3.5 L is more than the amount of fluid loss based on the client's amount of weight loss. Diuretic treatment calls for careful assessment of extracellular fluid volume, urine output, electrolyte levels in plasma and urine, body weight, acid-base status, serum glucose, and BP regularly with particular emphasis on patients with cardiovascular, hepatic, renal, or metabolic disorders and in elderly individuals.

100. The client returns to the nursing unit following a pyelolithotomy for removal of a kidney stone. A Penrose drain is in place. Which of the following would the nurse include in the client's postoperative care?

- A. Sterile irrigation of the Penrose drain.
- B. Frequent dressing changes around the Penrose drain.
- C. Weighing the dressings.
- D. Maintaining the client's position on the affected side.

Correct Answer: B. Frequent dressing changes around the Penrose drain.

Frequent dressing changes around the Penrose drain is required to protect the skin against breakdown from urinary drainage. If urinary drainage is excessive, an ostomy pouch may be placed over the drain to protect the skin. Change the dressing 2 times every day and anytime it's wet or loose. It's best to change it around the same time every day.

- **Option A:** A Penrose drain is not irrigated. A Penrose drain is a soft, flat, flexible tube made of latex. It lets blood and other fluids move out of the area of the surgery. This keeps fluid from collecting under the incision (surgical cut) and causing infection.
- **Option C:** Weighing the dressings is not necessary. Look at the color and amount of drainage and notice any odor before throwing it away. Write down what you see and smell in the drainage log at the end of this resource.
- **Option D:** Placing the client on the affected side will prevent a free flow of urine through the drain. Part of the Penrose drain will be inside the body. One or both ends of the drain will come out of the incision. Some blood and fluid will flow out of the drain onto a dressing (gauze bandage) around it.