

Kevin's Review - 100 NCLEX Practice Questions

1. A client is admitted to the hospital with benign prostatic hyperplasia, the nurse most relevant assessment would be:

- A. Flank pain radiating in the groin
- B. Distention of the lower abdomen
- C. Perineal edema
- D. Urethral discharge

Correct Answer: B. Distention of the lower abdomen

This indicates that the bladder is distended with urine, therefore palpable. In the elective setting, the examination should include abdominal examination (looking for a palpable bladder/loin pain) and examination of external genitalia (meatal stenosis or phimosis). Benign prostatic hyperplasia (BPH) refers to the nonmalignant growth or hyperplasia of prostate tissue and is a common cause of lower urinary tract symptoms in men.

- **Option A:** Flank pain is a vague symptom associated with urinary system infections. Lower urinary tract symptoms can be divided into storage (frequency, nocturia, urgency) and voiding symptoms (stream, straining, hesitancy, prolonged micturition) and can help establish other causes of urinary symptoms such as urinary tract infections/overactive bladder, in addition to determining the site affected (bladder vs. prostate).
- **Option C:** BPH only occurs in older men. Disease prevalence has been shown to increase with advancing age. Indeed the histological prevalence of BPH at autopsy is as high as 50% to 60% for males in their 60's, increasing to 80% to 90% of those over 70 years of age.
- **Option D:** Urethral discharge is not a manifestation of BPH. Men with BPH are likely to report predominant symptoms of nocturia, poor stream, hesitancy, or prolonged micturition. The examination should then conclude with a digital rectal examination making a note in particular of the size, shape (how many lobes), and consistency (smooth/hard/nodular) of the prostate (BPH is characterized by a smooth enlarged prostate).

2. A nurse wants to study the effectiveness of meditation on people with anxiety disorder. Which variable would be most relevant to explore in the literature on this topic?

- A. Use of meditation during childbirth.
- B. Meditation techniques found to be effective.
- C. Pain management for people with anxiety disorders.
- D. Outcomes of meditation when used by elderly populations.

Correct Answer: B. Meditation techniques found to be effective.

Framing a study using variables is a common approach to organizing the elements of a social sciences research study in order to discover relevant and meaningful results. A variable in research simply refers to a person, place, thing, or phenomenon that the researcher is trying to measure in some way. The best way to understand the difference between a dependent and independent variable is that the meaning of each is implied by what the words tell us about the variable being used.

- **Option A:** Dependent variable is the variable that depends on other factors that are measured. These variables are expected to change as a result of an experimental manipulation of the

independent variable or variables. It is the presumed effect.

- **Option C:** Independent variable the variable that is stable and unaffected by the other variables you are trying to measure. It refers to the condition of an experiment that is systematically manipulated by the investigator. It is the presumed cause.
- **Option D:** Designation of the dependent and independent variable involves unpacking the research problem in a way that identifies a general cause and effect and classifying these variables as either independent or dependent.

3. A 25-year-old medical student, who recently got engaged, is attending a lecture on reproductive physiology. As future plans and discussions about starting a family are on the horizon, she is keenly interested in the hormonal regulation of fertility. Intrigued by the interconnected roles of hormones in both males and females, she takes meticulous notes. When the professor mentions a hormone that holds significance in sperm production for men and influences the maturation of the ovarian follicle in women, she perks up. The professor then quizzes the class: “Can anyone name this hormone that showcases its critical roles across both genders?”

- A. Luteinizing hormone
- B. Somatostatin
- C. Follicle-stimulating hormone
- D. Thymosin

Correct Answer: C. Follicle-stimulating hormone

In males, FSH is essential for spermatogenesis, stimulating the Sertoli cells in the testes to support sperm production. In females, FSH promotes the development and growth of the ovarian follicles during the follicular phase of the menstrual cycle.

- **Option A:** While LH is essential in reproductive physiology for both genders – triggering ovulation and the formation of the corpus luteum in females and stimulating testosterone production in males – it does not directly stimulate sperm production or follicular development.
- **Option B:** Somatostatin is a hormone that inhibits the release of growth hormone and thyroid-stimulating hormone from the anterior pituitary. It does not play a direct role in the reproductive functions of either gender.
- **Option D:** Thymosin is a hormone produced in the thymus, playing a pivotal role in the development and differentiation of T cells in the immune system. It does not have a direct function in reproductive physiology.

4. What is the peak age range for acquiring acute lymphocytic leukemia (ALL)?

- A. 4 to 12 years.
- B. 20 to 30 years
- C. 40 to 50 years
- D. 60 to 70 years

Correct Answer: A. 4 to 12 years.

The peak incidence of Acute Lymphocytic Leukemia (ALL) is 4 years of age. It is uncommon after 15 years of age. It is diagnosed in about 4000 people in the United States each year with the majority being under the age of 18. It is the most common malignancy of childhood. The peak age of diagnosis is between two and ten years of age.

- **Option B:** There are rare incidences of ALL between the ages of 20 to 30 years. Acute Lymphocytic Leukemia is more common in children with Trisomy 21 (Down syndrome), neurofibromatosis type 1, Bloom syndrome, and ataxia telangiectasia. All are common in children between two and three years of age.
- **Option C:** Adults between 40 to 50 years old very rarely have cases of ALL. Acute Lymphocytic Leukemia is a disease with low incidence overall in population studies. The incidence of Acute Lymphocytic Leukemia is about 3.3 cases per 100,000 children. Survival rates for ALL have improved dramatically since the 1980s, with a current five-year overall survival rate estimated at greater than 85 percent.
- **Option D:** Prognosis among older adults above 60 years old is poor. Prognosis is diminished in children when diagnosed in infants less than one year of age and in adults. It is more favorable for children. Association of the MLL gene in children at 11q23 chromosome is associated with poor prognosis.

5. When two drugs given together have an effect equal to the sum of their respective effects, the interaction is known as:

- A. Potentiated
- B. Antagonized
- C. Agonist
- D. Additive

Correct Answer: D. Additive

An additive effect occurs when two drugs are given together and their effects are equal to the sum of their respective effects. When two drugs are used together, their effects can be additive (the result is what you expect when you add together the effect of each drug taken independently).

- **Option A:** Potentiation occurs when the action of one drug is increased by the action of another. Think of two words potentiate and potential together. The potential of one drug is higher when a second drug is added to it.
- **Option B:** An interaction between two or more drugs that have opposite effects on the body. Drug antagonism may block or reduce the effectiveness of one or more of the drugs.
- **Option C:** An agonist is a drug that activates certain receptors in the brain. An agonist is a medication that mimics the action of the signal ligand by binding to and activating a receptor.

6. A patient arrives at the emergency department with severe lower leg pain after a fall in a touch football game. Following routine triage, which of the following is the appropriate next step in assessment and treatment?

- A. Apply heat to the painful area.

- B. Apply an elastic bandage to the leg.
- C. X-ray the leg.
- D. Give pain medication.

Correct Answer: C. X-ray the leg.

Following triage, an x-ray should be performed to rule out fracture. Review follow-up and serial X-rays. Provides visual evidence of proper alignment or beginning callus formation and healing process to determine the level of activity and need for changes in or additional therapy.

- **Option A:** Ice, not heat, should be applied to a recent sports injury. Apply cold or ice pack first 24–72 hr and as necessary. Reduces edema and hematoma formation, decreases pain sensation. Note: Length of application depends on degree of patient comfort and as long as the skin is carefully protected.
- **Option B:** An elastic bandage may be applied. Maintain immobilization of affected part by means of bed rest, cast, splint, traction. Relieves pain and prevents bone displacement and extension of tissue injury. Elevate and support injured extremity. Promotes venous return, decreases edema, and may reduce pain.
- **Option D:** Pain medication can be given once fracture has been excluded. Medicate before care activities. Let the patient know it is important to request medication before pain becomes severe. Promotes muscle relaxation and enhances participation.

7. An 18-year-old male client admitted with heat stroke begins to show signs of disseminated intravascular coagulation (DIC). Which of the following laboratory findings is most consistent with DIC?

- A. Low platelet count
- B. Elevated fibrinogen levels
- C. Low levels of fibrin degradation products
- D. Reduced prothrombin time

Correct Answer: A. Low platelet count

In DIC, platelets and clotting factors are consumed, resulting in microthrombi and excessive bleeding. As clots form, fibrinogen levels decrease and the prothrombin time increases.

- **Option B:** Severe, rapidly evolving DIC is diagnosed by demonstrating thrombocytopenia, an elevated partial thromboplastin time and prothrombin time, increased levels of plasma D-dimers, and a decreasing plasma fibrinogen level.
- **Option C:** Fibrin degradation products increase as fibrinolysis takes place.
- **Option D:** Both PT and aPTT seem prolonged in about 50% of DIC cases which is attributed to the consumption of coagulation factors but can also be prolonged in impaired synthesis of coagulation factors and in massive bleeding.

8. In which step of the nursing process would the nurse ask a patient if the medication she administered relieved his pain?

- A. Assessment

- B. Analysis
- C. Planning
- D. Evaluation

Correct Answer: D. Evaluation

In the evaluation step of the nursing process, the nurse must decide whether the patient has achieved the expected outcome that was identified in the planning phase. This final step of the nursing process is vital to a positive patient outcome. Whenever a healthcare provider intervenes or implements care, they must reassess or evaluate to ensure the desired outcome has been met. Reassessment may frequently be needed depending upon the overall patient's condition. The plan of care may be adapted based on new assessment data.

- **Option A:** Assessment is the first step and involves critical thinking skills and data collection; subjective and objective. Subjective data involves verbal statements from the patient or caregiver. Objective data is measurable, tangible data such as vital signs, intake and output, and height and weight.
- **Option B:** Analysis can be a part of diagnosing. The formulation of a nursing diagnosis by employing clinical judgment assists in the planning and implementation of patient care. The North American Nursing Diagnosis Association (NANDA) provides nurses with an up to date list of nursing diagnoses. A nursing diagnosis, according to NANDA, is defined as a clinical judgment about responses to actual or potential health problems on the part of the patient, family, or community.
- **Option C:** The planning stage is where goals and outcomes are formulated that directly impact patient care based on EDP guidelines. These patient-specific goals and the attainment of such assist in ensuring a positive outcome. Nursing care plans are essential in this phase of goal setting. Care plans provide a course of direction for personalized care tailored to an individual's unique needs. Overall condition and comorbid conditions play a role in the construction of a care plan. Care plans enhance communication, documentation, reimbursement, and continuity of care across the healthcare continuum.

9. Situation: Knowledge and skills in the care of violent clients is vital in the psychiatric unit. A nurse observes that a client with a potential for violence is agitated, pacing up and down the hallway and making aggressive remarks. Which of the following statements is most appropriate to make to this patient?

- A. What is causing you to become agitated?
- B. You need to stop that behavior now.
- C. You will need to be restrained if you do not change your behavior.
- D. You will need to be placed in seclusion.

Correct Answer: A. What is causing you to become agitated?

In a non-violent aggressive behavior, help the client identify the stressor or the true object of hostility. This helps reveal unresolved issues so that they may be confronted. Frequently assess client's behavior for signs of increased agitation and hyperactivity. Early detection and intervention of escalating mania will prevent the possibility of harm to self or others, and decrease the need for seclusions.

- **Option B:** Pacing is a tension-relieving measure for an agitated client. Remain neutral as possible; Do not argue with the client. The client can use inconsistencies and value judgments as justification for arguing and escalating mania.
- **Option C:** This is a threatening statement that can heighten the client's tension. Use short, simple, and brief explanations or statements. A short attention span limits understanding of small pieces of information.
- **Option D:** Seclusion is used when less restrictive measures have failed. If nursing interventions (quiet environment and firm limit setting) and chemical restraints (tranquilizers—e.g., haloperidol [Haldol]) have not helped dampen escalating manic behaviors, then seclusion might be warranted.

10. Marty is pacing and complains of racing thoughts. Nurse Lally asks the client if something upsetting happened, and Marty's response is vague and not focused on the question. Nurse Lally assess Marty's level of anxiety as:

- A. Mild
- B. Moderate
- C. Severe
- D. Panic

Correct Answer: C. Severe

When the client has difficulty focusing and exhibits excessive motor activity, the level of anxiety is severe. Severe anxiety is intensely debilitating, and symptoms of severe anxiety meet key diagnostic criteria for clinically-significant anxiety disorder. People with severe anxiety typically score higher on scales of distress and lower on functioning. Severe anxiety symptoms also frequently co-occur with major depression, which can contribute to greater disability.

- **Option A:** Mild anxiety is characterized by increased alertness and problem-solving ability. Although often described as sub-clinical or clinically non-significant, mild anxiety can impact emotional, social, and professional functioning. Mild anxiety symptoms may present as social anxiety or shyness and can be experienced in early childhood through to adulthood. If left unaddressed, mild anxiety can lead to maladaptive coping strategies or more severe mental conditions.
- **Option B:** Moderate anxiety is characterized by the ability to focus on central concerns but the inability to problem-solve without assistance. People with moderate levels of anxiety have more frequent or persistent symptoms than those with mild anxiety, but still have better daily functioning than someone with severe anxiety or panic disorder. For example, people with moderate anxiety may report experiencing symptoms such as feeling on edge, being unable to control their worrying or being unable to relax several days or the majority of days in a week, but not every day. Although moderate anxiety symptoms are disruptive, people with moderate anxiety may have success in managing their anxiety with the help of a doctor or self-help strategies.
- **Option D:** Panic level of anxiety is characterized by complete inability to focus and reduced perceptions. Panic level anxiety, or panic disorder, is characterized by frequent, recurring and unexpected panic attacks. Panic attacks usually last around 10 minutes. The triggers for panic attacks vary from person to person, and the cause of an attack may be familiar to a person or unknown.

11. It is a serious condition in which the bone marrow does not produce enough new blood cells. It may be passed down from the parents or develop sometime during childhood:

- A. Iron deficiency anemia
- B. Sickle cell disease
- C. Aplastic anemia
- D. Thalassemia
- E. Hemophilia
- F. Idiopathic thrombocytopenic purpura

Correct Answer: C. Aplastic anemia

Aplastic anemia is characterized by pancytopenia (anemia, granulocytopenia, and thrombocytopenia) and bone marrow hypoplasia. Aplastic anemia refers to the syndrome of chronic primary hematopoietic failure from injury leading to diminished or absent hematopoietic precursors in the bone marrow and attendant pancytopenia.

- **Option A:** Iron deficiency anemia is caused by an inadequate supply of iron for normal red blood cell (RBC) formation. Iron deficiency anemia is the most common cause of anemia worldwide, which results in microcytic and hypochromic red cells on the peripheral smear.
- **Option B:** Sickle cell disease is a group of chronic, severe, genetic, hemolytic diseases associated with hemoglobin (Hb) S, which transform red blood cells (RBCs) into a sickle (crescent) shape when blood oxygenation is decreased. Sickle cell disease (SCD) refers to a group of hemoglobinopathies that include mutations in the gene encoding the beta subunit of hemoglobin.
- **Option D:** Thalassemia is a group of inherited blood disorders characterized by deficient synthesis of specific globulin chains of hemoglobin molecules. Thalassemia is a heterogeneous group of blood disorders affecting the hemoglobin genes and resulting in ineffective erythropoiesis. The decreased production of hemoglobin results in anemia at an early age and frequent blood transfusions are required to keep up the hemoglobin levels.
- **Option E:** Hemophilia is a group of hereditary bleeding disorders characterized by a deficiency in a blood-clotting factor. Hemophilia A and B are the most common severe hereditary hemorrhagic disorders. Hemophilia A and B result from factor VIII and factor IX protein deficiency.
- **Option F:** Idiopathic thrombocytopenic purpura (ITP) is an acquired hemorrhagic disorder in which the number of circulating platelets is reduced. Immune thrombocytopenic purpura (ITP) is an autoimmune pathology characterized by a low platelet count, purpura, and hemorrhagic episodes caused by antiplatelet autoantibodies.

12. A male client with a history of cocaine addiction is admitted to the coronary care unit for evaluation of substernal chest pain. The electrocardiogram (ECG) shows a 1-mm ST-segment elevation of the anteroseptal leads and T-wave inversion in leads V3 to V5. Considering the client's history of drug abuse, nurse Greg expects the physician to prescribe:

- A. Lidocaine (Xylocaine).
- B. Procainamide (Pronestyl).

- C. Nitroglycerin (Nitro-Bid IV).
- D. Epinephrine.

Correct Answer: C. Nitroglycerin (Nitro-Bid IV).

The elevated ST segments in this client's ECG indicate myocardial ischemia. To reverse this problem, the physician is most likely to prescribe an infusion of nitroglycerin to dilate the coronary arteries. Nitroglycerin is a vasodilatory drug used primarily to provide relief from anginal chest pain. Although nitroglycerin has a vasodilatory effect in both arteries and veins, the profound desired effects caused by nitroglycerin are primarily due to venodilation. Venodilation causes pooling of blood within the venous system, reducing preload to the heart, which causes a decrease in cardiac work, reducing anginal symptoms secondary to demand ischemia.

- **Option A:** Lidocaine, formerly also referred to as lignocaine, is an amide local anesthetic agent. 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).
- **Option B:** Procainamide is a cardiac drug that may be indicated for this client at some point but isn't used for coronary artery dilation. Procainamide is a medication used in the management and treatment of ventricular arrhythmias, supraventricular arrhythmias, atrial flutter, atrial fibrillation, AV nodal reentrant tachycardia, and Wolf-Parkinson-White syndrome. It is a Class 1A antiarrhythmic agent.
- **Option D:** If a cocaine user experiences ventricular fibrillation or asystole, the physician may prescribe epinephrine. However, this drug must be used with caution because cocaine may potentiate its adrenergic effects. Epinephrine is one of the most commonly used agents in a variety of settings as it functions as medication and hormone. It is currently FDA-approved for various situations, including emergency treatment of type 1 hypersensitivity reactions including anaphylaxis, induction, and maintenance of mydriasis during intraocular surgeries, and hypotension due to septic shock.

13. A nonimmunized child appears at the clinic with a visible rash. Which of the following observations indicates the child may have rubeola (measles)?

- A. Small blue-white spots are visible on the oral mucosa.
- B. The rash begins on the trunk and spreads outward.
- C. There is low-grade fever.
- D. The lesions have a "teardrop-on-a-rose-petal" appearance.

Correct Answer: A. Small blue-white spots are visible on the oral mucosa.

Koplik's spots are small blue-white spots visible on the oral mucosa and are characteristic of measles infection. Near the end of the prodrome, Koplik spots (ie, bluish-gray specks or "grains of sand" on a red base) appear on the buccal mucosa opposite the second molars. The Koplik spots generally are first seen 1-2 days before the appearance of the rash and last until 2 days after the rash appears. This enanthem begins to slough as the rash appears. Although this is the pathognomonic enanthem of measles, its absence does not exclude the diagnosis.

- **Option B:** The body rash typically begins on the face and travels downward. Blanching, erythematous macules and papules begin on the face at the hairline, on the sides of the neck, and behind the ears (see the images below). Within 48 hours, they coalesce into patches and plaques that spread cephalocaudally to the trunk and extremities, including the palms and soles, while

beginning to regress cephalocaudally, starting from the head and neck. Lesion density is greatest above the shoulders, where macular lesions may coalesce. The eruption may also be petechial or ecchymotic in nature.

- **Option C:** High fever (may spike to more than 104°F) is often present. The first sign of measles is usually a high fever (often >104° F [40° C]) that typically lasts 4-7 days. This prodromal phase is marked by malaise, fever, anorexia, and the classic triad of conjunctivitis (see the image below), cough, and coryza (the “3 Cs”).
- **Option D:** “Teardrop on a rose petal” refers to the lesions found in varicella (chickenpox). The characteristic chickenpox vesicle, surrounded by an erythematous halo, is described as a dewdrop on a rose petal

14. Which of the following classes of medications protects the ischemic myocardium by blocking catecholamines and sympathetic nerve stimulation?

- A. Beta-adrenergic blockers
- B. Calcium channel blockers
- C. Narcotics
- D. Nitrates

Correct Answer: A. Beta-adrenergic blockers

Beta-adrenergic blockers work by blocking beta receptors in the myocardium, reducing the response to catecholamines and sympathetic nerve stimulation. They protect the myocardium, helping to reduce the risk of another infarction by decreasing the workload of the heart and decreasing myocardial oxygen demand.

- **Option B:** Calcium channel blockers reduce the workload of the heart by decreasing the heart rate.
- **Option C:** Narcotics reduce myocardial oxygen demand, promote vasodilation, and decrease anxiety.
- **Option D:** Nitrates reduce myocardial oxygen consumption by decreasing left ventricular end-diastolic pressure (preload) and systemic vascular resistance (afterload).

15. After taking an overdose of phenobarbital (Barbita), Mario is admitted to the emergency department. Dr. Trinidad prescribes activated charcoal (Charcocaps) to be administered by mouth immediately. Before administering the dose, the nurse verifies the dosage ordered. What is the usual minimum dose of activated charcoal?

- A. 5 g mixed in 250 ml of water
- B. 15 g mixed in 500 ml of water
- C. 30 g mixed in 250 ml of water
- D. 60 g mixed in 500 ml of water

Correct Answer: C. 30 g mixed in 250 ml of water

The usual adult dosage of activated charcoal is 5 to 10 times the estimated weight of the drug or chemical ingested, or a minimum dose of 30 g, mixed in 250 ml of water. Doses less than this will be

ineffective; doses greater than this can increase the risk of adverse reactions, although toxicity doesn't occur with activated charcoal, even at the maximum dose. Activated charcoal is widely used in Emergency Departments to treat many types of toxic ingestions. Its use significantly prevents the absorption of many toxic drugs and other poisons if given early post-ingestion.

- **Option A:** An oral suspension of activated charcoal (AC) should merit consideration in poisonings when there is an indication for gastrointestinal decontamination of an ingested toxin, and the clinician can administer activated charcoal within 1 hour of ingestion. When the dose of the ingested toxin is known, experts recommend activated charcoal at a 10 to 1 ratio of activated charcoal to the ingested toxin. This ratio may be impractical to achieve when the patient has ingested large doses of a toxin.
- **Option B:** When the amount of toxin ingested is unknown, or it is impractical to achieve a 10 to 1 ratio in large dose toxic ingestions, SDAC should be administered at a dose of 1g/kg of body weight or using a simplified age-based dosing scheme. Formulations have been attempted to increase the palatability of activated charcoal, which is black and has a gritty texture. Ready-to-use aqueous suspensions of activated charcoal are available in 15 g, 25 g, and 50 g doses as well as formulations premixed with sorbitol.
- **Option D:** Pulmonary aspiration and a resulting aspiration pneumonitis are the most concerning risks of administration of activated charcoal. Aspiration from emesis and misplaced nasogastric tubes for activated charcoal administration can lead to severe respiratory compromise and even death. Therefore, an adequate airway assessment must take place before the administration of activated charcoal.

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

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

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

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

- **Option A:** In a respectful, neutral manner, explain expected client behaviors, limits, and responsibilities during sessions with nurse clinician. Clearly state the rules and regulations of the institution, and the consequences when these rules are not adhered to. From the beginning, clients need to have explicit guidelines and boundaries for expected behaviors on their part, as well as what the client can expect from the nurse. Clients need to be fully aware that they will be held responsible for their behaviors.
- **Option B:** Assess the need for and encourage skills training workshops. Skills training workshops offer the client wants to increase social skills through role-play and interactions with others who are learning similar skills. This often acts as a motivating factor where positive feedback and helpful suggestions are readily available.
- **Option D:** Intervene in manipulative behavior. All limits should be adhered to by all staff involved. Behaviors should be documented objectively (give times, dates, circumstances). Provide clear boundaries and consequences. The client will test limits, and, once they understand that the limits

are solid, this understanding can motivate them to work on other ways to get their needs met. Hopefully, this will be done with the nurse clinician throughout problem-solving alternative behaviors and learning new effective communication skills.

17. In the context of an ongoing tuberculosis (TB) outbreak, the nurse working in a community health clinic is triaging clients for potential TB exposure and infection. Considering the risk factors and symptoms, which of these clients should the nurse prioritize for TB screening?

- A. The 16-year-old female presenting with a mild cough and fatigue.
- B. The 33-year-old daycare worker with a persistent cough and recent travel history.
- C. The 43-year-old man with a history of homelessness and alcohol use disorder, coughing up blood.
- D. The 54-year-old businessman with a cough and recent unexplained weight loss.
- E. The 27-year-old gym instructor who has night sweats and a history of working in a correctional facility.
- F. The 50-year-old woman with a chronic cough who has been receiving immunosuppressive therapy.

Correct Answer: C. The 43-year-old man with a history of homelessness and alcohol use disorder, coughing up blood.

Tuberculosis (TB) is more prevalent in populations with certain risk factors that include homelessness, substance abuse, and compromised immune systems, among others. A homeless individual with a history of alcoholism would likely have a higher risk of exposure and possibly a weakened immune system, making it more difficult to fight infections.

18. A female client requires hemodialysis. Which of the following drugs should be withheld before this procedure?

- A. Phosphate binders
- B. Insulin
- C. Antibiotics
- D. Cardiac glycosides

Correct Answer: D. Cardiac glycosides

Cardiac glycosides such as digoxin should be withheld before hemodialysis. Hypokalemia is one of the electrolyte shifts that occur during dialysis, and a hypokalemic client is at risk for arrhythmias secondary to digitalis toxicity. Hyperkalemia can be a marker of severe toxicity in acute poisoning. The role of potassium is less clear in chronic toxicity, although it has been linked to higher mortality despite traditional teaching that hypokalemia worsens the dysfunction at the Na-K transporter.

- **Option A:** Phosphate binders can be administered because they aren't removed from the blood by dialysis. Kidneys excrete ninety percent of the daily phosphate load while the gastrointestinal tract excretes the remainder. As phosphorus is not significantly bound to albumin, most of it gets filtered at the glomerulus. Therefore, the number of functional nephrons plays a significant role in phosphorus homeostasis.

- **Option B:** For hemodialysis patients with diabetes who refuse to take insulin at home, delivering insulin during dialysis is a good way to improve glycemic control, researchers reported at a meeting sponsored by the National Kidney Foundation.
- **Option C:** Some antibiotics are removed by dialysis and should be administered after the procedure to ensure their therapeutic effects. The nurse should check a formulary to determine whether a particular antibiotic should be administered before or after dialysis. Patients with diabetes make up roughly half of the end-stage renal disease (ESRD) population in the United States, and good glycemic control is essential to slow the progression of both microvascular and macrovascular disease.

19. Mrs. Eleanor, a 68-year-old former ballet dancer, is admitted to the rheumatology clinic for management of her gout. She has had recurrent episodes of painful joint inflammation, particularly in her feet. In light of her medical history and current presentation, her rheumatologist prescribes allopurinol to help manage her condition. Given Mrs. Eleanor's new medication regimen, what intervention should the nurse prioritize to ensure effective and safe management of her gout?

- A. Assessing liver function regularly
- B. Encouraging the patient to limit fluid intake
- C. Administering colchicine before meals
- D. Instructing the patient to avoid sunlight exposure

Correct Answer: A. Assessing liver function regularly.

Allopurinol is metabolized in the liver, and while rare, it can have hepatotoxic effects. Regularly monitoring liver function is important to ensure that the patient is not developing any adverse liver reactions to the medication.

- **Option B:** Patients on allopurinol should actually be encouraged to maintain adequate fluid intake to prevent kidney stone formation and assist in uric acid excretion. Reducing fluid intake would be contraindicated.
- **Option C:** While colchicine is another medication used in gout management, the question focuses on allopurinol. Furthermore, the timing of colchicine administration relative to meals is not critical to its absorption.
- **Option D:** While some medications can cause photosensitivity, allopurinol is not commonly associated with this side effect. Thus, this instruction would not be a priority for a patient on allopurinol.

20. Which ability should Nurse Rebecca expect from a client in the mild stage of dementia of the Alzheimer's type?

- A. Remembering the daily schedule.
- B. Recalling past events.
- C. Coping the anxiety.
- D. Solving problems of daily living.

Correct Answer: B. Recalling past events

Recent memory loss is the characteristic sign of cognitive difficulty in early Alzheimer's disease. The ability to recall past events is usually retained until the later stages of this disorder. Symptoms of Alzheimer's disease depend on the stage of the disease. Alzheimer's disease is classified into preclinical or presymptomatic, mild, and dementia-stage depending on the degree of cognitive impairment. These stages are different from the DSM-5 classification of Alzheimer's disease. The initial and most common presenting symptom is episodic short-term memory loss with relative sparing of long-term memory and can be elicited in most patients even when not the presenting symptom.

- **Option A:** Dementia is a general term that refers to a decline in cognitive ability severe enough to interfere with activities of daily living. Alzheimer's disease (AD) is the most common type of dementia, accounting for at least two-thirds of cases of dementia in people aged 65 and older. Alzheimer's disease is a neurodegenerative disease with insidious onset and progressive impairment of behavioral and cognitive functions including memory, comprehension, language, attention, reasoning, and judgment.
- **Option C:** Neuropsychiatric symptoms like apathy, social withdrawal, disinhibition, agitation, psychosis, and wandering are also common in the mid to late stages. Difficulty performing learned motor tasks (dyspraxia), olfactory dysfunction, sleep disturbances, extrapyramidal motor signs like dystonia, akathisia, and parkinsonian symptoms occur late in the disease. This is followed by primitive reflexes, incontinence, and total dependence on caregivers.
- **Option D:** Short-term memory impairment is followed by impairment in problem-solving, judgment, executive functioning, lack of motivation, and disorganization, leading to problems with multitasking and abstract thinking. In the early stages, impairment in executive functioning ranges from subtle to significant. This is followed by language disorder and impairment of visuospatial skills.

21. During a prenatal visit at 4 months gestation, a pregnant client asks whether tests can be done to identify fetal abnormalities. Between 18 and 40 weeks gestation, which procedure is used to detect fetal anomalies?

- A. Amniocentesis
- B. Chorionic villi sampling
- C. Fetoscopy
- D. Ultrasound

Correct Answer: D. Ultrasound

Ultrasound is used between 18 and 40 weeks' gestation to identify normal fetal growth and detect fetal anomalies and other problems.

- **Option A:** Amniocentesis is done during the third trimester to determine fetal lung maturity.
- **Option B:** Chorionic villi sampling is performed at 8 to 12 weeks' gestation to detect genetic disease.
- **Option C:** Fetoscopy is done at approximately 18 weeks' gestation to observe the fetus directly and obtain a skin or blood sample.

22. A 22-year-old client with quadriplegia is apprehensive and flushed, with a blood pressure of 210/100 and a heart rate of 50 bpm. Which of the following nursing interventions should be done first?

- A. Place the client flat in bed.
- B. Assess patency of the indwelling urinary catheter.
- C. Give one SL nitroglycerin tablet.
- D. Raise the head of the bed immediately to 90 degrees.

Correct Answer: D. Raise the head of the bed immediately to 90 degrees.

Anxiety, flushing above the level of the lesion, piloerection, hypertension, and bradycardia are symptoms of autonomic dysreflexia, typically caused by such noxious stimuli such as a full bladder, fecal impaction, or decubitus ulcer. Elevate head of bed to 45-degree angle or place patient in sitting position. Lowers BP to prevent intracranial hemorrhage, seizures, or even death. Note: Placing tetraplegic in sitting position automatically lowers BP.

- **Option A:** Putting the client flat will cause the blood pressure to increase even more. Identify and monitor precipitating risk factors (bladder and bowel distension or manipulation; bladder spasms, stones, infection; skin/tissue pressure areas, prolonged sitting position; temperature extremes or drafts). Visceral distention is the most common cause of autonomic dysreflexia, which is considered an emergency. Treatment of acute episodes must be carried out immediately (removing stimulus, treating unresolved symptoms), then interventions must be geared toward prevention.
- **Option B:** The indwelling urinary catheter should be assessed immediately after the HOB is raised. Eliminate causative stimulus as able such as bladder, bowel, skin pressure (including loosening tight leg bands or clothing, removing abdominal binder or elastic stockings); temperature extremes. Removing noxious stimulus usually terminates the episode and may prevent more serious autonomic dysreflexia (in the presence of sunburn, topical anesthetic should be applied).
- **Option C:** Nitroglycerin is given to reduce chest pain and reduce preload; it isn't used for hypertension or dysreflexia. Monitor BP frequently (every 3–5 min) during acute autonomic dysreflexia and take action to eliminate stimulus. Continue to monitor BP at intervals after symptoms subside. Aggressive therapy and removal of stimulus may drop BP rapidly, resulting in a hypotensive crisis, especially in those patients who routinely have low BP.

23. Nurse Judith obtains a specimen of clear nasal drainage from a client with a head injury. Which of the following tests differentiates mucus from cerebrospinal fluid (CSF)?

- A. Protein
- B. Specific gravity
- C. Glucose
- D. Microorganism

Correct Answer: C. Glucose

The constituents of CSF are similar to those of blood plasma. An examination for glucose content is done to determine whether a body fluid is a mucus or a CSF. A CSF normally contains glucose. A true normal range cannot be given for CSF glucose. As a general rule, CSF glucose is about two thirds of the serum glucose measured during the preceding two to four hours in a normal adult. This ratio decreases with increasing serum glucose levels. CSF glucose levels generally do not go above 300 mg per dL (16.7 mmol per L) regardless of serum levels.

- **Option A:** Testing for protein would not differentiate mucus from CSF because CSF does not contain protein. CSF protein concentration is one of the most sensitive indicators of pathology within the CNS. Newborn patients have up to 150 mg per dL (1.5 g per L) of protein. The adult range of 18 to 58 mg per dL (0.18 to 0.58 g per L) is reached between six and 12 months of age.
- **Option B:** The specific gravity of CSF at normal body temperature remains between 1.004 and 1.003. Cerebrospinal fluid is alleged to have markedly varied readings: extravagant differences are quoted-1.004 to 1.012, and even greater diversities. If such estimates were arrived at by some form of small hydrometer, or there was delay in testing, or no account was taken of the temperature of the fluid at the moment, then such computed answers were inevitable.
- **Option D:** If microorganisms are found in CSF, this might suggest an infection. Normal CSF may contain up to 5 WBCs per mm³ in adults and 20 WBCs per mm³ in newborns. Eighty-seven percent of patients with bacterial meningitis will have a WBC count higher than 1,000 per mm³, while 99 percent will have more than 100 per mm³. Having less than 100 WBCs per mm³ is more common in patients with viral meningitis.

24. The nurse is teaching basic infant care to a group of first-time parents. The nurse should explain that a sponge bath is recommended for the first 2 weeks of life because:

- A. New parents need time to learn how to hold the baby.
- B. The umbilical cord needs time to separate.
- C. Newborn skin is easily traumatized by washing.
- D. The chance of chilling the baby outweighs the benefits of bathing.

Correct Answer: B. The umbilical cord needs time to separate.

The umbilical cord needs time to dry and fall off before putting the infant in the tub. The first bath will be a sponge bath. Pick a warm room with a flat surface, like a bathroom or kitchen counter, a changing table, or a bed. Cover the surface with a thick towel. Make sure the room temperature is at least 75 degrees Fahrenheit, because babies chill easily.

- **Option A:** Taking the baby away for a bath too soon can interrupt skin-to-skin care, mother-child bonding, and early breastfeeding success. One study showed a 166% increase in hospital breastfeeding success after implementing a 12-hour delay in the baby's first bath compared to those bathed within the first couple hours.
- **Option C:** Gentle sponge baths are perfect for the first few weeks until the umbilical cord falls off, the circumcision heals, and the navel heals completely. Once the umbilical cord falls off, and the circumcision and the navel are completely healed, it's time to try a tub bath.
- **Option D:** Although these statements might be important, they are not the primary answer to the question. The World Health Organization (WHO) recommends delaying baby's first bath until 24 hours after birth—or waiting at least 6 hours if a full day isn't possible for cultural reasons. Babies who get baths right away may be more likely to become cold and develop hypothermia. The minor stress of an early bath can also make some babies more likely to have a drop in blood sugar (hypoglycemia).

25. The nurse is aware that antipsychotic medications may cause which of the following adverse effects?

- A. Increased production of insulin
- B. Lower seizure threshold
- C. Increased coagulation time
- D. Increased risk of heart failure

Correct Answer: B. Lower seizure threshold

Antipsychotic medications exert an effect on brain neurotransmitters that lowers the seizure threshold and can, therefore, increase the risk of seizure activity. First-generation antipsychotics can also lower the seizure threshold, and chlorpromazine and thioridazine are more epileptogenic than others. First-generation antipsychotics are dopamine receptor antagonists (DRA) and are known as typical antipsychotics. They include phenothiazines (trifluoperazine, perphenazine, prochlorperazine, acetophenazine, triflupromazine, mesoridazine), butyrophenones (haloperidol), thioxanthenes (thiothixene, chlorprothixene), dibenzoxazepines (loxapine), dihydroxyindole (molindone), and diphenylbutylpiperidine (pimozide).

- **Option A:** Antipsychotics don't affect insulin production. First-generation antipsychotics (FGAs) are associated with significant extrapyramidal side effects. Anticholinergic adverse effects like dry mouth, constipation, urinary retention are common with low potency dopamine receptor antagonists like chlorpromazine, thioridazine. The action of H1 histamine blocking by First-generation antipsychotics causes sedation. Chlorpromazine is the most sedating, while fluphenazine, haloperidol, and pimozide are less sedating.
- **Option C:** Antipsychotics don't affect coagulation time. Thioridazine has a FDA boxed warning for sudden cardiac death. Low-potency FGAs, like chlorpromazine or thioridazine commonly cause orthostatic hypotension. This adverse effect caused by alpha-adrenergic block usually occurs when starting treatment, and patients often develop a tolerance. It is important to avoid treating hypotension with epinephrine. Leukopenia, thrombocytopenia, and blood dyscrasia are rare side effects of treatment with FGAs.
- **Option D:** Heart failure isn't an adverse effect of antipsychotic agents. Haloperidol can cause abnormal heart rhythm, ventricular arrhythmia, torsades de pointes, and even sudden death if injected intravenously. Other FGAs can cause prolongation of QTc interval, prolonged atrial and ventricular contraction, and other cardiac conduction abnormalities.

26. Nurse Isabelle enters the room of a client with a cognitive impairment disorder and asks what day of the week it is; what the date, month, and year are; and where the client is. The nurse is attempting to assess:

- A. Confabulation.
- B. Delirium.
- C. Orientation.
- D. Perseveration.

Correct Answer: C. Orientation.

The initial, most basic assessment of a client with cognitive impairment involves determining his level of orientation (awareness of time, place, and person). The tools for reality orientation aim to reinforce the naming of objects and people as well as a timeline of events, past or present. Multiple studies have demonstrated that the use of reality orientation has improved cognitive functioning for people living with dementia when compared to control groups who did not receive it. As a rule, reality orientation must be

mixed with compassion and used appropriately to benefit someone living with the confusion of dementia. Applying it without evaluating if it might cause emotional distress to the individual since there are some times when it would not be appropriate.

- **Option A:** Confabulation is a type of memory error in which gaps in a person's memory are unconsciously filled with fabricated, misinterpreted, or distorted information. When someone confabulates, they are confusing things they have imagined with real memories. A person who is confabulating is not lying. They are not making a conscious or intentional attempt to deceive. Rather, they are confident in the truth of their memories even when confronted with contradictory evidence.
- **Option B:** Delirium is a type of cognitive impairment; however, other symptoms are necessary to establish this diagnosis. Delirium, also known as the acute confusional state, is a clinical syndrome that usually develops in the elderly. It is characterized by an alteration of consciousness and cognition with reduced ability to focus, sustain, or shift attention. It develops over a short period and fluctuates during the day. The clinical presentation can vary, but usually, it flourishes with psychomotor behavioral disturbances such as hyperactivity or hypoactivity with increased sympathetic activity and impairment in sleep duration and architecture.
- **Option D:** The nurse may also assess for perseveration in a client with cognitive impairment but the questions in this situation would not elicit the symptom response. Perseveration according to psychology, psychiatry, and speech-language pathology, is the repetition of a particular response (such as a word, phrase, or gesture) regardless of the absence or cessation of a stimulus. It is usually caused by a brain injury or other organic disorder.

27. A nurse is assessing a newly admitted client. In the family assessment, who should be considered as part of the client's family? Select all that apply.

- A. People related by blood or marriage
- B. People whom the client views as family
- C. People who live in the same house
- D. People whom the nurse thinks are important to the client
- E. People of the same racial background who live in the same house as the client
- F. People who provide for the physical and emotional needs of the client

Correct Answer: B & F.

The term "family" is difficult to define. The mid 20th century concept of family, with heterosexual parents and offspring living under the same roof is now seldom used, and many authors now consciously use a wider definition of family. The dynamics between family members are constantly evolving and there is evidence of many diverse family types in modern western European society.

- **Option A:** Poston et al. define family as "people who think of themselves as part of the family, whether by blood or marriage or not, and who support and care for each other on a regular basis", and this definition is thought to acknowledge the diverse social arrangements that may constitute a family.
- **Option B:** When providing care to a client, the nurse should consider family members to be all the people whom the client views as family. Rather than simply defining family by a dictionary definition, each individual should look to define a family by their own standards.
- **Option C:** The traditional definition of a family has changed and may include people who may not live in the same house as the client. Many people consider friends to be as close or even closer

than extended (or immediate) family. People who have lost close family members or have become removed from them may create a family unit of friends with similar interests and goals to become replacements or enhancements to a lacking family structure.

- **Option D:** Family members are defined by the client, not by the nurse. Who comprises a family is up to the people in the family themselves. People may opt to keep blood relatives in their lives, or let them go if they are toxic to their well-being. Many folks add caring and supportive people to their extended clan when they choose, deciding who belongs in their specific definition of family.
- **Option E:** In addition to a universal family definition, plenty of people consider a group of friends to be family, and many consider pets as defining members of the family unit.
- **Option F:** Family members may also include those people who provide for the physical and emotional needs of the client. The traditional definition of a family has changed and may include people not related by blood or marriage, those of a different racial background, and those who may not live in the same house as the client.

28. The parents of Suzanne, a child with attention deficit hyperactivity disorder, tell the nurse they have tried everything to calm their child and nothing has worked. Which action by the nurse is most appropriate initially?

- A. Actively listen to the parents' concern before planning interventions
- B. Encourage the parents to discuss these issues with the mental health team
- C. Provide literature regarding the disorder and its management
- D. Tell the parents they are overreacting to the problem

Correct Answer: A. Actively listens to the parents' concerns before planning interventions.

The nurse would encourage parents to fully discuss and describe their perception of the problem in order to assess the family system before determining appropriate interventions. The nurse must listen to parents' feelings; including parents in providing and planning care for the child with ADHD is important.

- **Option B:** The nurse has not explored the problem and is deciding before adequately assessing the situation that the mental team should be consulted. Give positive feedback for meeting expectations; manage the environment (e.g. provide a quiet place free of distractions for task completion).
- **Option C:** Providing literature regarding the disorder and its management may be useful intervention; however, the initial action needs to involve a more thorough exploration of the parents' concerns. Ensuring the child's safety and that of others; stop unsafe behavior; provide close supervision, and give clear directions about acceptable and unacceptable behavior.
- **Option D:** Telling the parents they are overreacting to the problem is inappropriate because it dismisses the parents' legitimate concerns and belittles their feelings.

29. A first-day postoperative client on a PCA pump reports that the pain control is inadequate. What is the first action you should take?

- A. Deliver the bolus dose per standing order.
- B. Contact the physician to increase the dose.

- C. Try non-pharmacological comfort measures.
- D. Assess the pain for location, quality, and intensity.

Correct Answer: D. Assess the pain for location, quality, and intensity.

Assess the pain for changes in location, quality, and intensity, as well as changes in response to medication. This assessment will guide the next steps. Patient-controlled analgesia is used to treat acute, chronic, postoperative, and labor pain. A variety of medications can be used for patient-controlled analgesia and are administered intravenously (IV), through an epidural or peripheral nerve catheter, and transdermally.

- **Option A:** The goal of PCA is to efficiently deliver pain relief at a patient's preferred dose and schedule by allowing them to administer a predetermined bolus dose of medication on-demand at the press of a button. Each bolus can be administered alone or coupled with a background infusion of medication.
- **Option B:** The initial loading dose can be titrated by a nurse to reach the minimum effective concentration (MEC) of the desired medication. The bolus or demand dose is the dose of medication delivered each time the patient presses the button. A lockout interval is the time after a demand dose in which a dose of medication will not get administered even if the patient presses the button; this is done to prevent overdosing.
- **Option C:** The use of PCA has been proven to be more effective at pain control than non-patient-controlled opioid injections and results in higher patient satisfaction. PCA has also been found to be preferred by nurses because it allows for a reduction in their workload. PCA will enable patients to be in more control over their pain and helps them shift toward a more internal locus of control over their care.

30. When uterine rupture occurs, which of the following would be the priority?

- A. Limiting hypovolemic shock.
- B. Obtaining blood specimens.
- C. Instituting complete bed rest.
- D. Inserting a urinary catheter.

Correct Answer: A. Limiting hypovolemic shock

With uterine rupture, the client is at risk for hypovolemic shock. Therefore, the priority is to prevent and limit hypovolemic shock. Immediate steps should include giving oxygen, replacing lost fluids, providing drug therapy as needed, evaluating fetal responses, and preparing for surgery.

- **Option B:** Obtaining blood specimens can be done once the client is already in a stable condition.
- **Option C:** Complete bed rest is applicable for the patient who has uterine rupture. A pregnant uterus after laparoscopic adenomyomectomy might rupture easily by rather weak and short uterine contractions. Furthermore, uterine contractions followed by uterine bleeding might be useful for the diagnosis of uterine rupture. When uterine contractions are followed by uterine bleeding in pregnant women that have had a prior adenomyomectomy, this must be considered a potential sign of uterine rupture.
- **Option D:** Inserting a urinary catheter is necessary for preparation for surgery to remedy the rupture.

31. 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.

32. Claire, a 33 y.o. is on your floor with a possible bowel obstruction. Which intervention is a priority for her?

- A. Obtain daily weights.
- B. Measure abdominal girth.
- C. Keep strict intake and output.
- D. Encourage her to increase fluids.

Correct Answer: B. Measure abdominal girth.

Measuring abdominal girth provides quantitative information about increases or decreases in the amount of distention. Abdominal girths should be measured daily. Use the same measuring tape each time. Place the patient in the same position each time. Ensure that the tape measure is placed in the same position each time. This can be done by drawing small tick marks on the patient's abdomen to indicate the position of the tape. Measure the patient at the same time each day.

- **Option A:** Weigh daily; provides information about dietary needs and effectiveness of therapy. Avoid or limit foods that might cause or exacerbate abdominal cramping, flatulence (milk products, foods high in fiber or fat, alcohol, caffeinated beverages, chocolate, peppermint, tomatoes, orange juice).

- **Option C:** Monitor I&O; closely. Fluid and electrolyte losses must be replaced. Record intake and changes in symptomatology. Useful in identifying specific deficiencies and determining GI response to foods. Monitor I&O.; Note number, character, and amount of stools; estimate insensible fluid losses (diaphoresis). Measure urine specific gravity; observe for oliguria.
- **Option D:** Administer parenteral fluids, blood transfusions as indicated. Maintenance of bowel rest requires alternative fluid replacement to correct losses and anemia. Fluids containing sodium may be restricted in presence of regional enteritis.

33. According to the family systems theory, which of the following best describes the process of differentiation?

- A. Cooperative action among members of the family.
- B. Development of autonomy within the family.
- C. Incongruent messages wherein the recipient is a victim.
- D. Maintenance of system continuity or equilibrium.

Correct Answer: B. Development of autonomy within the family

Differentiation is the process of becoming an individual developing autonomy while staying in contact with the family system. "The ability to be in emotional contact with others yet still autonomous in one's own emotional functioning is the essence of the concept of differentiation." (Kerr & Bowen. 1988)
 "Differentiation is a product of a way of thinking that translates into a way of being....Such changes are reflected in the ability to be in emotional contact with a difficult, emotionally charged problem and not feel compelled to preach about what others "should" do, not rush in to "fix" the problem and not pretend to be detached by emotionally insulating oneself." (Kerr & Bowen 1988).

- **Option A:** Cooperative action among family members does not refer to differentiation, although individuals who have a high level of differentiation would be able to accomplish cooperative action. Bowen's concept of 'differentiation of self' forms the basis of a systems understanding of maturity. The concept of differentiation can be confusing but, put simply, it refers to the ability to think as an individual while staying meaningfully connected to others. It describes the varying capacity each person has to balance their emotions and their intellect, and to balance their need to be attached with their need to be a separate self. Bowen proposed that the best way to grow a more solid self was in the relationships that make up our original families; running away from difficult family members would only add to the challenges in managing relationship upsets.
- **Option C:** Incongruent messages in which the recipient is a victim describe double-bind communication. In communication, sometimes people say things that are contradictory to their non-verbal communication cues. When a person's words don't match what he or she is feeling or thinking, the communication is said to be incongruent.
- **Option D:** Maintenance of system continuity or equilibrium is homeostasis. It's not an easy theory to grasp, as it focuses on the big-picture patterns of a system rather than the narrower view of what causes difficulties for one individual. These ideas invite us to see the world through the lens of each family member rather than just from our own subjective experience; they don't allow room for simply seeing victims and villains in our relationship networks. Seeing the system takes people beyond blame to seeing the relationship forces that set people on their different paths. This way of seeing our life challenges avoids fault-finding and provides a unique path to maturing throughout our adult lives.

34. When doing perineal care in preparation for delivery, the nurse should observe the following, except?

- A. Use up-down technique with one stroke.
- B. Clean from the mons veneris to the anus.
- C. Use mild soap and warm water.
- D. Paint the inner thighs going towards the perineal area.

Correct Answer: D. Paint the inner thighs going towards the perineal area

Painting of the perineal area in preparation for delivery of the baby must always be done but the stroke should be from the perineum going outwards to the thighs. The perineal area is the one being prepared for the delivery and must be kept clean

- **Option A:** Wipe the perineum in one stroke to prevent the transfer of infectious microorganisms from the anal area to the perineum.
- **Option B:** Always wash from front to back to prevent spreading fecal matter from the anal area to the vagina or urethra.
- **Option C:** Use mild soap and warm water. Mild soap would avoid killing the normal flora that lives in and around the perineum.

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

- A. Repression
- B. Loneliness
- C. Anger
- D. Paranoia

Correct Answer: B. Loneliness

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

- **Option A:** Repression is a type of psychological defense mechanism that involves keeping certain thoughts, feelings, or urges out of conscious awareness. The goal of this form of defense is to keep unacceptable desires or thoughts out of the conscious mind in order to prevent or minimize feelings of anxiety. This process involves pushing painful or disturbing thoughts into the unconscious in order to remain unaware of them. The concept was first identified and described by Sigmund Freud, who was most famous for the development of psychoanalysis.
- **Option C:** Anger is an emotion characterized by antagonism toward someone or something you feel has deliberately done you wrong. Anger can be a good thing. It can give you a way to express negative feelings, for example, or motivate you to find solutions to problems. But excessive anger can cause problems. Increased blood pressure and other physical changes associated with anger make it difficult to think straight and harm your physical and mental health.

- **Option D:** Paranoia involves intense anxious or fearful feelings and thoughts often related to persecution, threat, or conspiracy. Paranoia occurs in many mental disorders, but is most often present in psychotic disorders. Paranoia can become delusions, when irrational thoughts and beliefs become so fixed that nothing (including contrary evidence) can convince a person that what they think or feel is not true. When a person has paranoia or delusions, but no other symptoms (like hearing or seeing things that aren't there), they might have what is called a delusional disorder. Because only thoughts are impacted, a person with delusional disorder can usually work and function in everyday life, however, their lives may be limited and isolated.

36. Which of the following fundal heights indicates less than 12 weeks' gestation when the date of the LMP is unknown?

- A. Uterus in the pelvis
- B. Uterus at the xiphoid
- C. Uterus in the abdomen
- D. Uterus at the umbilicus

Correct Answer: A. Uterus in the pelvis

When the LMP is unknown, the gestational age of the fetus is estimated by uterine size or position (fundal height). The presence of the uterus in the pelvis indicates less than 12 weeks' gestation. At approximately 12 to 14 weeks, the fundus is out of the pelvis above the symphysis pubis.

- **Option B:** When the fundal height is at the level of the xiphoid, the woman is already at 40 weeks gestation.
- **Option C:** When the physician measures how high the top of the uterus has reached in the mother's abdomen, he or she is measuring the fundal height. This is a much more accurate way of estimating fetal growth than weighing the mother.
- **Option D:** When the fundal height is at the level of the umbilicus, the woman is approximately 20 weeks gestation.

37. The nurse is conducting an admission assessment of a client with vitamin B12 deficiency. Which of the following would the nurse include in the physical assessment?

- A. Palpate the spleen
- B. Take the blood pressure
- C. Examine the feet for petechiae
- D. Examine the tongue

Correct Answer: D. Examine the tongue

The tongue is smooth and beefy red in the client with vitamin B12 deficiency, so examining the tongue should be included in the physical assessment.

- **Options A, B, and C:** Bleeding, splenomegaly, and blood pressure changes do not occur.

38. A female client who was found unconscious at home is brought to the hospital by a rescue squad. In the intensive care unit, the nurse checks the client's oculocephalic (doll's eye) response by:

- A. Introducing ice water into the external auditory canal.
- B. Touching the cornea with a wisp of cotton.
- C. Turning the client's head suddenly while holding the eyelids open.
- D. Shining a bright light into the pupil.

Correct Answer: C. Turning the client's head suddenly while holding the eyelids open.

To elicit the oculocephalic response, which detects cranial nerve compression, the nurse turns the client's head suddenly while holding the eyelids open. Normally, the eyes move from side to side when the head is turned; in an abnormal response, the eyes remain fixed. The oculocephalic reflex (doll's eyes reflex) is an application of the vestibular-ocular reflex (VOR) used for neurologic examination of cranial nerves 3, 6, and 8, the reflex arc including brainstem nuclei, and overall gross brainstem function.

- **Option A:** The nurse introduces ice water into the external auditory canal when testing the oculovestibular response; normally, the client's eyes deviate to the side of ice water introduction. Vestibulo-ocular reflex is an involuntary reflex that stabilizes the visual field and retinal image during head motion by producing eye movements in a counter direction.
- **Option B:** The nurse touches the client's cornea with a wisp of cotton to elicit the corneal reflex response, which reveals brain stem function; blinking is the normal response. The corneal blink reflex is caused by a loop between the trigeminal sensory nerves and the facial motor (VII) nerve innervation of the orbicularis oculi muscles. The reflex activates when sensory stimulus contacts either free nerve endings or mechanoreceptors within the epithelium of the cornea.
- **Option D:** Shining a bright light into the client's pupil helps evaluate brain stem and cranial nerve III functions; normally, the pupil responds by constricting. The oculomotor nerve helps to adjust and coordinate eye position during movement. Several movements assist with this process: saccades, smooth pursuit, fixation, accommodation, vestibulo-ocular reflex, and optokinetic reflex.

39. A client arrives at the emergency room with a foreign body in the left ear that has been determined to be an insect. Which intervention would the nurse anticipate to be prescribed initially?

- A. Irrigation of the ear.
- B. Instillation of diluted alcohol.
- C. Instillation of antibiotic ear drops.
- D. Instillation of corticosteroids ear drops.

Correct Answer: B. Instillation of diluted alcohol.

Insects are killed before removal unless they can be coaxed out by a flashlight or a humming noise. Mineral oil or diluted alcohol is instilled into the ear to suffocate the insect, which then is removed by using forceps. For patients with significant discomfort (typically from a live insect), apply a topical anesthetic or give local anesthesia as a regional auricular block.

- **Option A:** When the foreign object is vegetable matter, irrigation is not used because this material expands with hydration and the impaction becomes worse. Irrigation should not be attempted if the object is soft or a seed or other vegetable matter that may swell when water is added.
- **Option C:** If there is any injury to the canal or tympanic membrane, have the patient keep the ear dry until they are reassessed (ear precautions are needed for 1 week in the case of a perforated tympanic membrane); consider prescribing ciprofloxacin/corticosteroid suspension drops for 3 to 5 days.
- **Option D:** After the foreign body is removed, inspect the external canal. For most foreign bodies, no medications are needed. However, if infection or abrasion is evident, fill the ear canal 5 times/day for 5-7 days with a combination antibiotic and steroid otic suspension.

40. Which of the following classes of medications protects the ischemic myocardium by blocking catecholamines and sympathetic nerve stimulation?

- A. Beta-adrenergic blockers
- B. Calcium channel blockers
- C. Narcotics
- D. Nitrates

Correct Answer: A. Beta-adrenergic blockers

Beta-adrenergic blockers work by blocking beta receptors in the myocardium, reducing the response to catecholamines and sympathetic nerve stimulation. They protect the myocardium, helping to reduce the risk of another infarction by decreasing myocardial oxygen demand. Beta-blockers also decrease blood pressure via several mechanisms, including decreased renin and reduced cardiac output. The negative chronotropic and inotropic effects lead to a decreased oxygen demand; that is how angina improves after beta-blocker usage.

- **Option B:** Calcium channel blockers reduce the workload of the heart by decreasing the heart rate. The non-dihydropyridines have inhibitory effects on the sinoatrial (SA), and atrioventricular (AV) nodes are resulting in a slowing of cardiac conduction and contractility. This allows for the treatment of hypertension, reduces oxygen demand, and helps to control the rate in tachydysrhythmias.
- **Option C:** Narcotics reduce myocardial oxygen demand, promote vasodilation, and decrease anxiety. There are three opioid receptors: mu, kappa, and delta. Mu receptors mediate most of the clinical and adverse effects of opioids: analgesia, sedation, euphoria, constipation, and respiratory distress. Activation of kappa receptors also leads to analgesia, dyspnea, and sedation.
- **Option D:** Nitrates reduce myocardial oxygen consumption by decreasing left ventricular end-diastolic pressure (preload) and systemic vascular resistance (afterload). The venodilation increases the venous capacitance and lowers the preload; this subsequently lowers the left ventricular end-diastolic pressure, resulting in a reduction in myocardium workload, which decreases the oxygen demand of the heart.

41. The nurse is discussing electroconvulsive therapy (ECT) with a client who asks how long it will be before she feels better. The nurse explains that the beneficial effects of ECT usually occur within:

- A. One week

- B. Three weeks
- C. Four weeks
- D. Six weeks

Correct Answer: A. One (1) week

Beneficial effects of ECT usually are evident after the first several treatments. Since treatments are administered at intervals of 48 hours, these effects are apparent after one week of therapy. Beneficial effects of ECT therapy are usually seen before three weeks. It takes three to four weeks for tricyclic antidepressants to take effect. ECT is indicated in patients with treatment-resistant depression or severe major depression that impairs activities of daily living. The definition of treatment-resistant depression is depression that is unresponsive to multiple antidepressant medication trials.

- **Option B:** ECT is a relatively safe and low-risk procedure that is helpful in the treatment of depression, suicidality, severe psychosis, food refusal secondary to depression, and catatonia. It requires interprofessional care coordination among anesthesiologists, psychiatrists, and nurses. Most patients require several sessions to see a durable effect.
- **Option C:** ECT is indicated in patients with treatment-resistant depression or severe major depression that impairs activities of daily living. The definition of treatment-resistant depression is depression that is unresponsive to multiple antidepressant medication trials. There are also suggestions for ECT as a treatment for suicidality, severe psychosis, food refusal secondary to depression, and catatonia. Bipolar depressive and manic patients can also receive treatment with ECT. ECT may have a safer profile than antidepressants or antipsychotics in debilitated, elderly, pregnant and breastfeeding patients.
- **Option D:** Today ECT is now frequently used to treat a variety of mental health disorders besides depression. The procedure is relatively safe, and does work. However, the delivery of ECT requires an interprofessional team that includes a nurse, anesthesiologist, psychiatrist and neurologist. The benefits of ECT are seen after several sessions and the results are durable. The key is to educate the patient and family about ECT because the procedure has been associated with many false and illogical beliefs.

42. A patient is admitted to the same-day surgery unit for a liver biopsy. Which of the following laboratory tests assesses coagulation? Select all that apply.

- A. Partial thromboplastin time
- B. Prothrombin time
- C. Platelet count
- D. Hemoglobin

Correct Answer: A, B, & C

Prothrombin time, partial thromboplastin time, and platelet count are all included in coagulation studies.

- **Option A:** The partial thromboplastin time (PTT; also known as activated partial thromboplastin time (aPTT)) is a screening test that helps evaluate a person's ability to appropriately form blood clots. It measures the number of seconds it takes for a clot to form in a sample of blood after substances (reagents) are added.
- **Option B:** Prothrombin time (PT) is a blood test that measures how long it takes blood to clot. A prothrombin time test can be used to check for bleeding problems. PT is also used to check whether medicine to prevent blood clots is working.

- **Option C:** Platelets, also called thrombocytes, are tiny fragments of cells that are essential for normal blood clotting. They are formed from very large cells called megakaryocytes in the bone marrow and are released into the blood to circulate. The platelet count is a test that determines the number of platelets in a sample of blood.
- **Option D:** The hemoglobin level, though important information prior to an invasive procedure such as liver biopsy, does not assess coagulation.

43. The nurse is assessing a client's activity intolerance by having the client walk on a treadmill for 5 minutes. Which of the following indicates an abnormal response?

- A. Pulse rate increased by 20 bpm immediately after the activity.
- B. Respiratory rate decreased by 5 breaths/minute.
- C. Diastolic blood pressure increased by 7 mm Hg.
- D. Pulse rate within 6 bpm of resting phase after 3 minutes of rest.

Correct Answer: B. Respiratory rate decreased by 5 breaths/minute.

The normal physiologic response to activity is an increased metabolic rate over the resting basal rate. The decrease in respiratory rate indicates that the client is not strong enough to complete the mechanical cycle of respiration needed for gas exchange. The respiratory system works in conjunction with the cardiovascular system. The pulmonary circuit receives almost all of the cardiac output. In response to the increased cardiac output, perfusion increases in the apex of each lung, increasing the available surface area for gas exchange (decreased alveolar dead space).

- **Option A:** The post-activity pulse is expected to increase immediately after activity but by no more than 50 bpm if it is a strenuous activity. To accommodate the increased metabolic activity in skeletal muscle, the circulatory system must properly control the transport of oxygen and carbon dioxide, as well as help to buffer the pH level of active tissues. This action is accomplished by increasing cardiac output (increased heart rate and stroke volume) and modulating microvascular circulation.
- **Option C:** The diastolic blood pressure is expected to rise but by no more than 15 mm Hg. There is a linear increase in systolic blood pressure to peak values of 200 to 249 mmHg in normotensive individuals, and the diastolic pressure value remains near rest level. Hypertensive individuals reach higher systolic blood pressures at a given rate of work, and they can also reach higher diastolic values.
- **Option D:** The pulse returns to within 6 bpm of the resting pulse after 3 minutes of rest. To accommodate the increased metabolic activity in skeletal muscle, the circulatory system must properly control the transport of oxygen and carbon dioxide, as well as help to buffer the pH level of active tissues. To accommodate the increased metabolic activity in skeletal muscle, the circulatory system must properly control the transport of oxygen and carbon dioxide, as well as help to buffer the pH level of active tissues.

44. The client with Alzheimer's disease is being assisted with activities of daily living when the nurse notes that the client uses her toothbrush to brush her hair. The nurse is aware that the client is exhibiting:

- A. Agnosia

- B. Apraxia
- C. Anomia
- D. Aphasia

Correct Answer: A. Agnosia

Agnosia is the term used to describe the loss of the ability to recognize what objects are and what they are used for. For an instance, a person with agnosia might try to use a fork instead of a spoon, a shoe instead of a cup or a knife instead of a pencil etc. With regard to people, this might involve failing to recognize who people are, not due to memory loss but rather as a result of the brain not working out the identity of a person on the basis of the information supplied by the eyes.

- **Option B:** Apraxia is the term used to describe the failure to carry out voluntary and purposeful movements notwithstanding the fact that muscular power, sensibility, and coordination are intact. In everyday terms, this might involve the inability to tie shoelaces, turn a tap on, fasten buttons or switch on a radio.
- **Option C:** Aphasia is the term used to describe a difficulty or loss of the ability to speak or understand spoken, written or sign language as a result of damage to the corresponding nervous center. This can become apparent in a number of ways. It might involve exchanging a word which is linked by meaning (e.g. time instead of clock), using the wrong word but one which sounds alike (e.g. boat instead of coat) or using a totally different word with no apparent connection. When accompanied by echolalia (the involuntary repetition of words or phrases spoken by another person) and the constant repetition of a word or phrase, the result can be a form of speech which is difficult for others to understand or a kind of jargon.
- **Option D:** Anomia is a form of aphasia in which the patient is unable to recall the names of everyday objects. Anomic aphasia is a language disorder that leads to trouble naming objects when speaking and writing. Brain damage caused by stroke, traumatic injury, or tumors can lead to anomic aphasia.

45. A nurse is assigned to the pediatric rheumatology clinic and is assessing a child who has just been diagnosed with juvenile idiopathic arthritis. Which of the following statements about the disease is most accurate?

- A. The child has a poor chance of recovery without joint deformity.
- B. Most children progress to adult rheumatoid arthritis.
- C. Nonsteroidal anti-inflammatory drugs are the first choice in treatment.
- D. Physical activity should be minimized.

Correct Answer: C. Nonsteroidal anti-inflammatory drugs are the first choice in treatment.

Nonsteroidal anti-inflammatory drugs are important first-line treatment for juvenile idiopathic arthritis (formerly known as juvenile rheumatoid arthritis). NSAIDs require 3-4 weeks for the therapeutic anti-inflammatory effects to be realized. Nonsteroidal anti-inflammatory drugs (NSAIDs) are the mainstay of initial symptomatic treatment for all subtypes. The NSAID use in JIA has decreased over time with modern aggressive treatment, including methotrexate and biologics.

- **Option A:** Half of the children with the disorder recover without joint deformity. The prognosis of JIA has changed dramatically in recent years thanks to the availability of novel drugs, which can inhibit the biological mechanisms responsible for persistent inflammation selectively. Prompt and accurate diagnosis and treatment are essential to prevent permanent joint damage and preserve

joint functionality.

- **Option B:** About a third will continue with symptoms into adulthood. A recent study on 168 patients showed the remission of medication in 48.8% of cases, the remission on medication (or minimal disease activity) in 49.9% of cases, and only 1.3% of subjects were no-responders. No association was found between the state and duration of remission and age of patients, clinical features, disease course, or laboratory findings.
- **Option D:** Physical activity is an integral part of therapy. Assist parents and child to develop plans and goals for daily ADL and include interventions formed by a physical and occupational therapist. Promotes independence and compliance in self-care.

46. A nurse in a labor room is assisting with the vaginal delivery of a newborn infant. The nurse would monitor the client closely for the risk of uterine rupture if which of the following occurred?

- A. Hypotonic contractions
- B. Forceps delivery
- C. Schultz delivery
- D. Weak bearing down efforts

Correct Answer: B. Forceps delivery.

Excessive fundal pressure, forceps delivery, violent bearing down efforts, tumultuous labor, and shoulder dystocia can place a woman at risk for traumatic uterine rupture. Hypotonic contractions and weak bearing down efforts do not alone add to the risk of rupture because they do not add to the stress on the uterine wall.

- **Option A:** Phelan et al found that abnormal patterns of uterine activity, such as tetany and hyperstimulation, are often not associated with uterine rupture. In their study, in which monitoring of uterine activity was limited to external tocodynamometry, tetany was defined as a contraction lasting longer than 90 seconds, and hyperstimulation was defined as more than 5 contractions in 10 minutes.
- **Option C:** The separation of the placenta from the uterine wall during labor; it begins at the placental center and leads to an expulsion of the placenta after delivery of the baby.
- **Option D:** Rodriguez et al found that the usefulness of intrauterine pressure catheters (IUPCs) for diagnosing uterine rupture was not supported. In 76 cases of uterine rupture, the classic description of decreased uterine tone and diminished uterine activity was not observed in any patients, 39 of whom had IUPCs in place. In addition, rates of fetal and maternal morbidity and mortality associated with uterine rupture did not differ with the use of an IUPC compared with external tocodynamometry.

47. What would be the best approach for a wife who is still living with her abusive husband?

- A. "Here's the number of a crisis center that you can call for help."
- B. "It's best to leave your husband."
- C. "Did you discuss this with your family?"

D. "Why do you allow yourself to be treated this way?"

Correct Answer: A. "Here's the number of a crisis center that you can call for help."

Protection is a priority concern in abuse. Help the victim to develop a plan to ensure safety. The world for many domestic abuse victims can be lonely, isolated, and filled with fear. Sometimes reaching out and letting them know that someone is there for them can provide tremendous relief.

- **Option B:** Do not give advice to leave the abuser. Making decisions for the victim further erodes her esteem. However, discuss options available. If you want to help, it is important that you validate her feelings by letting her know that having these conflicting thoughts is normal. But it is also important that you confirm that violence is not okay, and it isn't normal to live in fear of being physically attacked.
- **Option C:** The victim tends to isolate from friends and family. Help the victim find support and resources. Look up telephone numbers for shelters, social services, attorneys, counselors, or support groups. If available, offer brochures or pamphlets about domestic violence.
- **Option D:** This is judgmental. Avoid in any way implying that she is at fault. If the person does decide to talk, listen to the story without being judgmental, offering advice, or suggesting solutions. Chances are if you actively listen, the person will tell you exactly what they need. Just give the person the full opportunity to talk. You can ask clarifying questions, but mainly just let the person vent their feelings and fears. You may be the first person in which the victim has confided.

48. When taking an obstetrical history on a pregnant client who states, "I had a son born at 38 weeks gestation, a daughter born at 30 weeks gestation and I lost a baby at about 8 weeks," the nurse should record her obstetrical history as which of the following?

- A. G2 T2 P0 A0 L2
- B. G3 T1 P1 A0 L2
- C. G3 T2 P0 A0 L2
- D. G4 T1 P1 A1 L2

Correct Answer: D. G4 T1 P1 A1 L2

The client has been pregnant four times, including current pregnancy (G). Birth at 38 weeks' gestation is considered full term (T), while birth from 20 weeks to 38 weeks is considered preterm (P). A spontaneous abortion occurred at 8 weeks (A). She has two living children (L).

- **Option A:** Gravidity (G) is the number of times a woman has been pregnant, regardless of the outcome. G should be 4 times. T should be 1 since she has carried one full-term birth. P should be 1 since she has one preterm birth. A should be 1 since she has one abortion.
- **Option B:** Parity (P) is the total number of times a woman has given birth to a child with a gestational age of 24 weeks or more, regardless of whether the child was born alive or not (stillbirth). G should be 4 since she has been pregnant 4 times. A should be 1 since she had one abortion.
- **Option C:** G should be 4 times. T should be 1 since she has carried one full-term birth. P should be 1 since she has one preterm birth. A should be 1 since she has one abortion.

49. Which nursing statement is a good example of the therapeutic communication technique of focusing?

- A. "Describe one of the best things that happened to you this week."
- B. "I'm having a difficult time understanding what you mean."
- C. "Your counseling session is in 30 minutes. I'll stay with you until then."
- D. "You mentioned your relationship with your father. Let's discuss that further."

Correct Answer: D. "You mentioned your relationship with your father. Let's discuss that further."

This is an example of the therapeutic communication technique of focusing. Focusing takes notice of a single idea or even a single word and works especially well with a client who is moving rapidly from one thought to another. Sometimes during a conversation, patients mention something particularly important. When this happens, nurses can focus on their statement, prompting patients to discuss it further. Patients don't always have an objective perspective on what is relevant to their case; as impartial observers, nurses can more easily pick out the topics to focus on.

- **Option A:** Therapeutic communication is often most effective when patients direct the flow of conversation and decide what to talk about. To that end, giving patients a broad opening such as "What's on your mind today?" or "What would you like to talk about?" can be a good way to allow patients an opportunity to discuss what's on their mind.
- **Option B:** Similar to active listening, asking patients for clarification when they say something confusing or ambiguous is important. Saying something like "I'm not sure I understand. Can you explain it to me?" helps nurses ensure they understand what's actually being said and can help patients process their ideas more thoroughly.
- **Option C:** Hospital stays can be lonely, stressful times; when nurses offer their time, it shows they value patients and that someone is willing to give them time and attention. Offering to stay for lunch, watch a TV show, or simply sit with patients for a while can help boost their mood.

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

- A. Allow the newborn infant to signal a need
- B. Anticipate all of the needs of the newborn infant
- C. Avoid the newborn infant during the first 10 minutes of crying
- D. Allow the infant to cry, once lessen, then attend to the infant

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

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

- **Option B:** According to Erikson, the caregiver should not try to anticipate the newborn infant's needs at all times but must allow the newborn infant to signal needs. Crying is one of the most common strategies babies use to communicate with their caregivers, and it carries different

meanings.

- **Option C:** It is important for caregivers to provide comfort to an infant by holding them closely and securely. This provides both warmth and physical contact. Feeding, bathing, and comforting your child helps them learn to trust that their needs will be met.
- **Option D:** Erikson believed that a delayed or prolonged response to a newborn's signal would inhibit the development of trust and lead to mistrust of others. By responding quickly and appropriately to the infant's cries, the caregiver is building a foundation of trust.

51. Which of the following is TRUE in Rh incompatibility?

- A. The condition can occur if the mother is Rh(+) and the fetus is Rh(-).
- B. Every pregnancy of an Rh(-) mother will result in erythroblastosis fetalis.
- C. On the first pregnancy of the Rh(-) mother, the fetus will not be affected.
- D. RhoGam is given only during the first pregnancy to prevent incompatibility.

Correct Answer: C. On the first pregnancy of the Rh(-) mother, the fetus will not be affected

On the first pregnancy, the mother still has no contact with Rh(+) blood thus it has not antibodies against Rh(+). After the first pregnancy, even if terminated into an abortion, there is already the possibility of mixing of maternal and fetal blood so this can trigger the maternal blood to produce antibodies against Rh(+) blood. The fetus takes its blood type usually from the father.

- **Option A:** The most common cause of Rh incompatibility is exposure from an Rh-negative mother by Rh-positive fetal blood during pregnancy or delivery. As a consequence, blood from the fetal circulation may leak into the maternal circulation, and, after a significant exposure, sensitization occurs leading to maternal antibody production against the foreign Rh antigen.
- **Option B:** In women who are prone to Rh incompatibility, the second pregnancy with an Rh-positive fetus often produces a mildly anemic infant, whereas succeeding pregnancies produce more seriously affected infants who ultimately may die in utero from massive antibody-induced hemolytic anemia.
- **Option D:** The exact mechanism by which passive administration of Rh IgG prevents Rh immunization is unknown. The most likely hypothesis is that the Rh immune globulin coats the surface of fetal RBCs containing Rh antigens. These exogenous antibody-antigen complexes cross the placenta before they can stimulate the maternal endogenous immune system B cells to produce IgG antibodies.

52. Well formulated, client-centered goals should:

- A. Meet immediate client needs.
- B. Include preventative health care.
- C. Include rehabilitation needs.
- D. All of the above.

Correct Answer: D. All of the above.

The process of client-centered goal planning encourages members of the multi-professional team to work in partnership with the client, his or her family, and each other, united by the aim of helping the

client to achieve his or her desired outcome. Goals enable clients, their carers or partners, and the multidisciplinary team to focus on strengths rather than problems. They also enable the team to gauge where the client and family are in their 'thinking' (Davis and O'Connor, 1999).

- **Option A:** Once set, goals provide a central focus for all therapeutic activity, enabling clients to move away from a period of dependency to a level of achievement and/or adjustment to their situation.
- **Option B:** Goal planning is part of the overall care plan in which the client's own values, beliefs, and aspirations are recognized and valued, and form the central focus of the rehabilitation process.
- **Option C:** Goals for rehabilitation can be divided into two groups: short-term and long-term. Short-term goals can act as stepping stones to achieving longer-term targets. A short-term goal for this client might be to be able to clean her teeth.

53. Which of the following adverse effects is specific to the biguanide diabetic drug metformin (Glucophage) therapy?

- A. Hypoglycemia
- B. Lactic acidosis
- C. GI distress
- D. Somnolence

Correct Answer: B . Lactic acidosis

Lactic acidosis is the most dangerous adverse effect of metformin administration with death resulting in approximately 50 percent of individuals who develop lactic acidosis while on this drug. Metformin has a black box warning for lactic acidosis. This side effect is rare but serious and has an incident rate of 1/30,000 patients. Lactate builds up in the body and cannot be eliminated easily, which leads to metabolic acidosis. This lowering of pH in the blood can cause nonspecific signs and symptoms, which include malaise, respiratory distress, elevated lactate levels, and anion gap acidosis.

- **Option A:** Metformin does not induce insulin production; thus, the administration does not result in hypoglycemic events. Metformin is a biguanide drug that reduces blood glucose levels by decreasing the production of glucose in the liver, decreasing intestinal absorption, and increasing insulin sensitivity. Metformin decreases both basal and postprandial blood glucose.
- **Option C:** Some nausea, vomiting, and diarrhea may develop but is usually not severe. Gastrointestinal side effects, including diarrhea, nausea, and vomiting, are very common and typically occur in up to 30% of patients taking metformin.
- **Option D:** Metformin does not induce sleepiness. Occurring less frequently, some patients experience chest discomfort, headache, diaphoresis, hypoglycemia, weakness, and rhinitis. Decreased vitamin B12 levels are associated with long-term metformin and should be monitored, particularly in anemic or peripheral neuropathy patients. Supplementation of vitamin B12 may be necessary.

54. You're doing preoperative teaching with Gertrude who has ulcerative colitis who needs surgery to create an ileoanal reservoir. Which information do you include?

- A. A reservoir is created that exits through the abdominal wall.

- B. A second surgery is required 12 months after the first surgery.
- C. A permanent ileostomy is created.
- D. The surgery occurs in two stages.

Correct Answer: D. The surgery occurs in two stages.

An ileoanal reservoir is created in two stages. The two surgeries are about 2 to 3 months apart. First, diseased intestines are removed and a temporary loop ileostomy is created. Second, the loop ileostomy is closed and stool goes to the reservoir and out through the anus. The ileoanal reservoir procedure is a surgical treatment option for chronic ulcerative colitis, colon cancer, and familial polyposis patients who need to have their large intestine (colon) removed. An ileoanal reservoir (or pouch) is an internal pouch formed of the small intestine.

- **Option A:** The first surgery removes the entire large bowel and the lining of the rectum, but leaves the rectal muscle intact. A reservoir or “pouch” is made out of the small intestine and then is connected to the anus. In the initial weeks after surgery, waste material coming through the ileostomy is liquid but then begins to thicken. A good diet with increased fluid intake is needed to keep well hydrated and nourished.
- **Option B:** Each patient considering this surgery is carefully evaluated to determine if this procedure is appropriate for them. This procedure is performed in one, two or three stages, but is most often done in two stages, usually 2-3 months apart.
- **Option C:** Next, a temporary ileostomy is made. An ileostomy is a surgically created opening between the small bowel and the skin of the abdomen through which stool and gas are passed. This temporary ileostomy diverts the stool; protecting the reservoir (pouch) while it heals.

55. Which of the following is the most important nursing order in a client with major head trauma who is about to receive bolus enteral feeding?

- A. Measure intake and output
- B. Check albumin level
- C. Monitor glucose levels
- D. Increase enteral feeding

Correct Answer: A. Measure intake and output

It is important to measure intake and output, which should be equal. Water given before feeding will present a hyperosmotic diuresis. I and O measures assess fluid balance. A urinary catheter is inserted to assess the adequacy of renal perfusion. The kidney requires 20% to 25% of cardiac output; commonly, it's the first organ to show the effects of impaired perfusion or intravascular volume.

- **Option B:** Osmotherapy aims to increase the osmolality of the intravascular space, which in turn helps mobilize excess fluid from brain tissue. If ICP increases, mannitol (an osmotic diuretic) may be given to decrease cerebral edema, transiently increase intravascular volume, and improve cerebral blood flow.
- **Option C:** Low peripheral oxygen saturation values or low arterial blood oxygen values (as shown by arterial blood gas testing) should be avoided. Maintaining adequate brain tissue oxygenation seems to improve patient outcomes.
- **Option D:** Enteral feedings are hyperosmotic agents pulling fluid from cells into the vascular bed. Initially, a nasogastric or orogastric tube is inserted to decompress the stomach and reduce the

aspiration risk. (Typically, the nasal route is avoided as it can obstruct sinus drainage, leading to sinusitis or VAP).

56. Which play activity is best suited to the gross motor skills of the toddler?

- A. Ball
- B. Coloring book and crayons
- C. Building cubes
- D. Swing set

Correct Answer: A. Ball

- Option A: The toddler has gross motor skills suited to playing with a ball, which can be kicked forward or thrown overhand.
- Options B and C: Coloring and building cubes require fine motor skills.
- Option D: Toddler lacks gross motor skills for play on the swing set.

57. The client has experienced an electrical injury, with the entrance site on the left hand and the exit site on the left foot. What are the priority assessment data to obtain from this client on admission?

- A. Airway patency
- B. Heart rate and rhythm
- C. Orientation to time, place, and person
- D. Current range of motion in all extremities

Correct Answer: B. Heart rate and rhythm

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

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

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

- A. Verifying the proper client and route.

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

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

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

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

59. Nurse Sue teaches a patient about pursed lip breathing. The nurse identifies that the teaching is affected when the patient says its purpose is to:

- A. Precipitate coughing
- B. Help maintain open airways
- C. Decrease intrathoracic pressure
- D. Facilitate expectoration of mucus

Correct Answer: B. Help maintain open airways

Pursed-lip breathing involves deep inspiration and prolonged expiration against slightly closed lips. The pursed lips create a resistance to the air flowing out of the lungs, which prolongs exhalation and maintains positive airway pressure, thereby maintaining an open airway and preventing airway collapse. Pursed lip breathing is beneficial for people with chronic lung disease. It can help strengthen the lungs and make them more efficient.

- **Option A:** Deep breathing and huff coughing, not pursed-lip breathing, stimulate effective coughing. Deep breathing prevents air from getting trapped in the lungs, which can cause the client to feel short of breath. As a result, the client can breathe in a more fresh air.
- **Option C:** Pursed lip breathing increases, not decreased intrathoracic pressure. Pursed lip breathing is a simple technique for slowing down a person's breathing and getting more air into their lungs. With regular practice, it can help strengthen the lungs and make them work more efficiently. The technique involves breathing in through the nose and breathing out slowly through the mouth.
- **Option D:** The huff coughing stimulates the natural cough reflex and is effective for clearing the central airways of sputum. Saying the word huff with short forceful exhalations keeps the glottis

open, mobilizes sputum, and stimulates a cough. When one has COPD, mucus can build up more easily in the lungs. The huff cough is a breathing exercise designed to help one cough up mucus effectively without making one feel too tired. A huff cough should be less tiring than a traditional cough, and it can keep one from feeling worn out when coughing up mucus.

60. Nurse Tamara is caring for a client diagnosed with bulimia. The most appropriate initial goal for a client diagnosed with bulimia is to:

- A. Avoid shopping for large amounts of food.
- B. Control eating impulses.
- C. Identify anxiety-causing situations.
- D. Eat only three meals per day.

Correct Answer: C. Identify anxiety-causing situations

Bulimic behavior is generally a maladaptive coping response to stress and underlying issues. The client must identify anxiety-causing situations that stimulate the bulimic behavior and then learn new ways of coping with the anxiety. Bulimia nervosa is a condition that occurs most commonly in adolescent females, characterized by indulgence in binge-eating, and inappropriate compensatory behaviors to prevent weight gain.

- **Option A:** Controlling shopping for large amounts of food isn't a goal early in treatment. It is important to educate patients who abuse laxatives that these medications work in the gastrointestinal tract after the areas where caloric absorption has occurred primarily. It is crucial to inform patients that a period of edema and weight gain may follow up to several weeks after discontinuation of purging behavior.
- **Option B:** Managing eating impulses and replacing them with adaptive coping mechanisms can be integrated into the plan of care after initially addressing stress and underlying issues. The primary objective of treatment is a cessation of the bingeing and purging behavior. Selective serotonin reuptake inhibitors such as fluoxetine, citalopram, and sertraline have shown to reduce symptoms of bulimia nervosa. Fluoxetine is the only FDA approved medication for bulimia nervosa. It appears that a higher dose (60 mg) is significantly better than a placebo in decreasing the frequency of binge and vomiting episodes.
- **Option D:** Eating three meals per day isn't a realistic goal early in treatment. Patients with bulimia nervosa who purge by vomiting often brush their teeth immediately after purging, which can accelerate dental erosion. The clinician should instruct the patients who persist in vomiting to rinse their mouths with water or fluoride rather than brushing their teeth within 30 minutes of each episode. Consider consulting a dentist to address dental issues associated with vomiting.

61. Chemotherapeutic agents often produce a certain degree of myelosuppression including leukopenia. Leukopenia does not present immediately but is delayed several days to weeks because:

- A. The patient's hemoglobin and hematocrit are normal.
- B. Red blood cells are affected first.
- C. Folic acid levels are normal.
- D. The current white cell count is not affected by chemotherapy.

Correct Answer: D. The current white cell count is not affected by chemotherapy.

The time required to clear circulating cells before the effect that chemotherapeutic drugs have on precursor cell maturation in the bone marrow becomes evident. Leukopenia is an abnormally low white blood cell count. Answers A-C pertain to red blood cells. Neutropenia, with decreased production with marrow hypoplasia, can be primary and due to chronic benign neutropenia, cyclical neutropenia, and other congenital and familial neutropenias. It can be secondary to cytotoxic drugs, aplastic anemia, leukemia, drug reactions, and infections. Neutropenia, with increased destruction with marrow hyperplasia, is due to hypersplenism and immune neutropenia.

- **Option A:** Low levels of neutrophils may be due to hypoplastic bone marrow, an infection, radiation exposure, tumor infiltration of the bone marrow, myelofibrosis, prolonged exposure to a drug, or a hereditary disorder. Congenital neutropenia or Kostmann syndrome is acquired in an autosomal recessive fashion.
- **Option B:** In primary neutropenia disorders such as chronic granulomatous disease presents with recurrent infections affecting many organs since childhood. It is caused by a failure to produce toxic reactive oxygen species so that the neutrophils can ingest the microorganisms, but they are unable to kill them, as a significant consequence granuloma can obstruct organs such as the stomach, esophagus, or bladder.
- **Option C:** Neutropenia can differentiate from antibody deficiency disorders, where a class or different classes of immunoglobulins are below the normal range or absence. These disorders may present clinically by recurrent infections with bacteria and fungi; some of them are opportunistic pathogens, so the use of antimicrobials to treat infectious diseases is a norm.

62. A nurse is reinforcing instructions to a client following a total laryngectomy about caring for the stoma. Choose the instructions that the nurse provides to the client. Select all that apply.

- A. Protect the stoma from water.
- B. Soaps should be avoided near the stoma.
- C. Wash the stoma daily using a washcloth.
- D. Use diluted alcohol on the stoma to clean it.
- E. Apply a thin layer of petroleum jelly to the skin surrounding the stoma.
- F. Use soft tissues to clean any secretions that accumulate around the stoma.

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

An ostomy is a surgically created opening from the urinary tract or intestines, where effluent (fecal matter, urine, or mucous) is rerouted to the outside of the body using an artificially created opening called a stoma. A stoma typically protrudes above the skin, is pink to red in color, moist, and round, with no nerve sensations.

- **Option A:** The client is instructed to protect the stoma from water. Clean the skin around the stoma with water. Dry the skin completely before putting on the skin barrier or pouch.
- **Option B:** Soap will not irritate it, but soap may interfere with the skin barrier sticking to the skin. It's best to only use water while cleaning the skin around the stoma.
- **Option C:** The client with a stoma should be instructed to wash the stoma daily with a washcloth. Normal exposure to air or contact with soap and water won't harm the stoma. Water will not flow into the stoma.

- **Option D:** The client should be instructed to avoid applying alcohol to a stoma because it is both drying and irritating. Do not use alcohol or any other harsh chemicals to clean the skin or stoma. They may irritate the skin. Do not use baby wipes or towelettes that contain lanolin or other oils, as these can interfere with the skin barrier adhesive and may irritate the skin.
- **Option E:** A thin layer of petroleum jelly applied to the skin around the stoma helps prevent cracking. Large areas of skin that are red, sore, and weeping (always wet) will keep from getting a good seal around the stoma. It's important to treat minor irritations right away.
- **Option F:** Cotton swabs or tissues should be avoided because their particles may enter and obstruct the airway.

63. Hemoptysis may be present in the client with a pulmonary embolism because of which of the following reasons?

- A. Alveolar damage in the infarcted area.
- B. Involvement of major blood vessels in the occluded area.
- C. Loss of lung parenchyma.
- D. Loss of lung tissue.

Correct Answer: A. Alveolar damage in the infarcted area.

The infarcted area produces alveolar damage that can lead to the production of bloody sputum, sometimes in massive amounts.

- **Option B:** Clot formation usually occurs in the legs. This is called deep vein thrombosis, which occurs in one or more of the deep veins in the legs.
- **Option C:** Loss of lung parenchyma is not found with hemoptysis in pulmonary embolism. The lung parenchyma comprises a large number of thin-walled alveoli, forming an enormous surface area, which serves to maintain proper gas exchange.
- **Option D:** A regional loss of surfactant is one of the consequences in pulmonary embolism.

64. Nurse Monette is aware that extremely depressed clients seem to do best in settings where they have:

- A. Multiple stimuli
- B. Routine Activities
- C. Minimal decision making
- D. Varied Activities

Correct Answer: B. Routine Activities

Depression usually is both emotional & physical. A simple daily routine is the best, least stressful, and least anxiety-producing. Initially, provide activities that require minimal concentration (e.g., drawing, playing simple board games). Depressed people lack concentration and memory. Activities that have no "right or wrong" or "winner or loser" minimizes opportunities for the client to put himself/herself down.

- **Option A:** Involve the client in gross motor activities that call for very little concentration (e.g., walking). Such activities will aid in relieving tensions and might help in elevating the mood. When the client is in the most depressed state, involve the client in a one-to-one activity. Maximizes the

potential for interactions while minimizing anxiety levels.

- **Option C:** Eventually involve the client in group activities (e.g., group discussions, art therapy, dance therapy). Socialization minimizes feelings of isolation. Genuine regard for others can increase feelings of self-worth. Eventually maximize the client's contacts with others (first one other, then two others, etc.). Contact with others distracts the client from self-preoccupation.
- **Option D:** Allow the patient to engage in simple recreational activities, advancing to more complex activities in a group environment. The patient may feel overwhelmed at the start when participating in a group setting. Give positive feedback after a task is achieved. Positive reinforcement has a big part in building self-esteem.

65. Rifabutin (Mycobutin) is prescribed to a client with active *Mycobacterium avium* complex disease and tuberculosis. The nurse determines that the client is experiencing side effects in which of the following, except?

- A. Tingling and numbness of the fingers
- B. Blurred vision
- C. Arthralgia
- D. Flu-like symptoms

Correct Answer: A. Tingling and numbness of the fingers

Tingling and numbness of the fingers (peripheral neuropathy) is associated with the use of isoniazid (INH) due to the ability of the medication to damage nerves.

- **Options B, C, & D:** These are the side effects of Rifabutin.

66. Which of the following nursing interventions would the nurse perform during the third stage of labor?

- A. Obtain a urine specimen and other laboratory tests.
- B. Assess uterine contractions every 30 minutes.
- C. Coach for effective client pushing.
- D. Promote parent-newborn interaction.

Correct Answer: D. Promote parent-newborn interaction.

During the third stage of labor, which begins with the delivery of the newborn, the nurse would promote parent-newborn interaction by placing the newborn on the mother's abdomen and encouraging the parents to touch the newborn.

- **Option A:** Collecting a urine specimen and other laboratory tests is done on admission during the first stage of labor.
- **Option B:** Assessing uterine contractions every 30 minutes is performed during the latent phase of the first stage of labor.
- **Option D:** Coaching the client to push effectively is appropriate during the second stage of labor.

67. Because a client has mitral stenosis and is a prospective valve recipient, the nurse preoperatively assesses the client's past compliance with medical regimens. Lack of compliance with which of the following regimens would pose the greatest health hazard to this client?

- A. Medication therapy
- B. Diet modification
- C. Activity restrictions
- D. Dental care

Correct Answer: A. Medication therapy

Preoperatively, anticoagulants may be prescribed for the client with advanced valvular heart disease to prevent emboli. Post-op, all clients with mechanical valves and some with bioprostheses are maintained indefinitely on anticoagulation therapy. Adhering strictly to a dosage schedule and observing specific precautions are necessary to prevent hemorrhage or thromboembolism. Some clients are maintained on lifelong antibiotic prophylaxis to prevent recurrence from rheumatic fever. Episodic prophylaxis is required to prevent infective endocarditis after dental procedures or upper respiratory, GI, or GU surgery.

- **Option B:** Eat heart-healthy foods such as fruits, vegetables, whole grains, fish, lean meats, and low-fat or nonfat dairy foods. Limit sodium, sugar, and alcohol. Stay at a healthy weight. Lose weight if needed. Be safe with medicines. Take medicines exactly as prescribed. Call a doctor or nurse call line if the clients think he is having a problem with the medicine. You will get more details on the specific medicines the doctor prescribes.
- **Option C:** Be active. Ask the doctor what type and level of exercise is safe. If the stenosis is severe, the client will likely need to restrict the level of activity. Walking may be a good choice. The client may also want to swim, bike, or do other activities.
- **Option D:** Take care of the teeth and gums. Get regular dental checkups. Good dental health is important because bacteria can spread from infected teeth and gums to the heart valves. Avoid colds and flu. Get a pneumococcal vaccine shot. If you have had one before, ask your doctor if you need another dose. Get a flu vaccine every year.

68. Which of the following conditions is the predominant cause of angina?

- A. Increased preload
- B. Decreased afterload
- C. Coronary artery spasm
- D. Inadequate oxygen supply to the myocardium.

Correct Answer: D. Inadequate oxygen supply to the myocardium.

Inadequate oxygen supply to the myocardium is responsible for the pain accompanying angina. The heart is dependent on adequate oxygen supply for energy production to support contractility. At the cellular level, ischemia causes an increase in anaerobic glycolysis. This increases the levels of hydrogen, potassium, and lactate in the venous return of the ischemic or affected area of the myocardium.

- **Option A:** Increased preload would be responsible for right-sided heart failure. Increases in preload, as demonstrated through an elevated PCW, are seen in several conditions such as heart failure, mitral stenosis, and mitral regurgitation. At higher preloads, the heart also has an increased oxygen demand, further debilitating the already diseased heart. In cases of heart failure, eventually, the heart cannot keep up with the increased load, and deleterious ventricular remodeling and loss of function ensue.
- **Option B:** Decreased afterload causes increased cardiac output. Afterload is the force against which the ventricles must act in order to eject blood, and is largely dependent on the arterial blood pressure and vascular tone. Similarly, reducing afterload can increase cardiac output, especially in conditions where contractility is impaired.
- **Option C:** Coronary artery spasm is responsible for variant angina. Coronary artery vasospasm (CAVS) is a constriction of the coronary arteries that can cause complete or near-complete occlusion of the vessel. In 1959, Dr. Myron Prinzmetal described a different entity of angina than the classic Heberden's angina which was originally described in 1772. This vasospastic disease can cause acute ischemia and present anywhere along the spectrum of angina from stable angina to acute coronary syndrome.

69. Nurse Kate is aware that one of the following classes of medication protects the ischemic myocardium by blocking catecholamines and sympathetic nerve stimulation is:

- A. Beta-adrenergic blockers
- B. Calcium channel blocker
- C. Narcotics
- D. Nitrates

Correct Answer: A. Beta-adrenergic blockers

Beta-adrenergic blockers work by blocking beta receptors in the myocardium, reducing the response to catecholamines and sympathetic nerve stimulation. They protect the myocardium, helping to reduce the risk of another infarction by decreasing myocardial oxygen demand.

- **Option B:** Calcium channel blockers reduce the workload of the heart by decreasing the heart rate.
- **Option C:** Narcotics reduce myocardial oxygen demand, promote vasodilation, and decrease anxiety.
- **Option D:** Nitrates reduce myocardial oxygen consumption but decrease left ventricular end-diastolic pressure (preload) and systemic vascular resistance (afterload).

70. A nurse in the labor room is monitoring a client with dysfunctional labor for signs of maternal or fetal compromise. Which of the following assessment findings would alert the nurse to a compromise?

- A. Coordinated uterine contractions
- B. Meconium in the amniotic fluid
- C. Progressive changes in the cervix
- D. Maternal fatigue

Correct Answer: B. Meconium in the amniotic fluid

Signs of maternal or fetal compromise include passage of meconium, decreased movement felt by the mother, nonreassuring fetal heart rate, and fetal metabolic acidosis.

- **Option A:** Technically, effective uterine contractions include three factors: intensity, synchronization, and frequency of contractions. Most studies are based on single-lead recordings that can reflect the severity and frequency of uterine contractions. Therefore, uterine synchronization topography can be used to display labor progress in the labor room.
- **Option C:** A prolonged latent phase may result from oversedation or from entering labor early with a thickened or uneffaced cervix. It may be misdiagnosed in the face of frequent prodromal contractions.
- **Option D:** Maternal fatigue can occur with prolonged labor, but do not indicate maternal or fetal compromise. Fatigue is one of the most common complaints in pregnant women that often continues until delivery. Maternal fatigue prolongs the labor process and increases the rate of cesarean section. Studies on the pattern of uterine contractions have shown that the length of the fall time is longer in prolonged labors than in normal deliveries.

71. Which of the following factors should be the primary focus of nursing management in a patient with acute pancreatitis?

- A. Nutrition management
- B. Fluid and electrolyte balance
- C. Management of hypoglycemia
- D. Pain control

Correct Answer: B. Fluid and electrolyte balance

Acute pancreatitis is commonly associated with fluid isolation and accumulation in the bowel secondary to ileus or peripancreatic edema. Fluid and electrolyte loss from vomiting is a major concern. Therefore, your priority is to manage hypovolemia and restore electrolyte balance.

- **Options A and D:** Pain control and nutrition also are important, but not priority.
- **Option C:** Patients are at risk for hyperglycemia, not hypoglycemia.

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

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

Correct Answer: B. Impaired oral mucous membrane

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

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

73. Mr. Miller has been diagnosed with bone cancer. You know this type of cancer is classified as:

- A. Carcinoma
- B. Lymphoma
- C. Melanoma
- D. Sarcoma

Correct Answer: D. Sarcoma

- **Option D:** Tumors that originate from bone, muscle, and other connective tissue are called sarcomas.
- **Option A:** Carcinoma is a malignancy that starts at the epithelial lining of an organ, glands, or body structures.
- **Option B:** Lymphoma is a cancer that begins in the nodes or glands of the lymphatic system.
- **Option C:** Melanoma is a type of skin cancer that originates in cells known as melanocytes.

74. A client with myocardial infarction has been transferred from a coronary care unit to a general medical unit with cardiac monitoring via telemetry. A nurse plans to allow for which of the following client activities?

- A. Strict bed rest for 24 hours after transfer.
- B. Bathroom privileges and self-care activities.
- C. Unsupervised hallway ambulation with distances under 200 feet.
- D. Ad lib activities because the client is monitored.

Correct Answer: B. Bathroom privileges and self-care activities

On transfer from the CCU, the client is allowed self-care activities and bathroom privileges. Supervised ambulation for brief distances is encouraged, with distances gradually increased (50, 100, 200 feet). A patient on telemetry should be visualized hourly. With every ECG alarm, the patient should be visualized and assessed (refer to Nursing Assessment Clinical Guideline). It is the responsibility of nursing staff to know the whereabouts of their patient at all times – toilet doors should not be locked – however, laminated signs may be used on doors instead

- **Option A:** Patients should be assessed daily for the appropriateness of cardiac telemetry. Acutely unwell patients at risk of life-threatening arrhythmias should be on strict bed rest and continuously

monitored on the bedside monitor and close to emergency equipment. The AUM will be involved in all aspects of care, from patient assessment and daily reviews for appropriateness of telemetry.

- **Option C:** All health professionals involved in the patient's care will know how far the patient is allowed to mobilize while on telemetry. The patient is required to remain within the boundaries of the hospital telemetry signal. If the patient requires a procedure or treatment outside the telemetry boundary, the patient will require a suitable portable cardiac monitoring device.
- **Option D:** The patient will be supervised by a parent or nurse at all times when mobilizing, this is to ensure patient safety. The primary nurse will be aware of the patient's location at all times. The ANUM should be consulted if the patient needs to cease telemetry monitoring for personal hygiene. In this case, the patient should be supervised at all times, and the medical team made aware.

75. A 1-year-and 2-month-old child weighing 26 lb (11.8 kg) is admitted for traction to treat congenital hip dislocation. When preparing the patient's room, the nurse anticipates using which traction system?

- A. Bryant's traction
- B. Buck's extension traction
- C. Overhead suspension traction
- D. 90-90 traction

Correct Answer: A. Bryant's traction

Bryant's traction is used to treat femoral fractures of congenital hip dislocation in children under age 2 who weigh less than 30 lb (13.6 kg). In Bryant's traction, the child's body and the weights are used as tension to keep the end of the femur (the large bone that goes from the knee to the hip) in the hip socket.

- **Option B:** Buck's extension traction is skin traction used for short-term immobilization or to correct bone deformities or contractures. Buck's traction is a type of skin traction that is widely used for femoral, hip, and acetabular fractures, which are fractures in the socket portion of the "ball-and-socket" hip joint.
- **Option C:** Overhead suspension traction is used to treat fractures of the humerus. Overhead traction is maintained for three weeks after which traction is removed, and hip plaster spica is applied with knees in 10-15 degrees flexion and foot in neutral position. The child is allowed to walk after six weeks in cast.
- **Option D:** 90-90 traction is used to treat femoral fracture in children over age 2. This is indicated for unstable hip dislocations, acetabular, proximal femur, and shaft fractures. Traction pin placement is placed at the metaphyseal-diaphyseal junction of the femur.

76. When the nurse is administering a vesicant chemotherapeutic agent intravenously, an important consideration is to

- A. Stop the infusion if swelling is observed at the site
- B. Infuse the medication over a short period
- C. Administer the chemotherapy through a small-bore catheter
- D. Hold the medication unless a central venous line is available

Correct Answer: A. Stop the infusion if swelling is observed at the site

- **Option A:** Swelling at the site may indicate extravasation, and the IV should be stopped immediately.
- **Option B:** The medication should generally be given slowly to avoid irritation of the vein.
- **Option C:** The size of the catheter is not as important as administration of vesicants into a running IV line to allow dilution of the chemotherapy drug.
- **Option D:** These medications can be given through peripheral lines, although central vascular access devices (CVADs) are preferred.

77. Nurse Susan administered intravenous gamma globulin to an 18 month-old child with AIDS. The parent asks why this medication is being given. What is the nurse's best response?

- A. "It will slow down the replication of the virus."
- B. "This medication will improve your child's overall health status."
- C. "This medication is used to prevent bacterial infections."
- D. "It will increase the effectiveness of the other medications your child receives."

Correct Answer: C. "This medication is used to prevent bacterial infections."

Intravenous gamma globulin is given to help prevent as well as to fight bacterial infections in young children with AIDS. Gamma globulin injections seem to lower the number of certain infections among children with AIDS but do not cure the lethal ailment.

- **Option A:** The main immunological abnormality in human immunodeficiency virus (HIV)-infected patients, and particularly those with the acquired immune deficiency syndrome (AIDS), is a deficiency in cellular immunity. However, symptomatic HIV-infected children also have evidence of deficiency of specific antibody synthesis, and intravenous immune globulin (IVIG) preparations in doses of 0.2-0.4 g/kg every 2-4 weeks have been shown to reduce the incidence of respiratory infections.
- **Option B:** IVIG therapy may also reduce the mortality and incidence of bacterial infections in adults but further studies are required. In addition, high-dose IVIG therapy (1-2 g/kg over 2-5 days) produces increased platelet counts in patients with idiopathic thrombocytopenic purpura (ITP) associated with HIV infection. Finally, IVIG therapy may have a role in HIV-infected patients suffering from severe parvovirus B19 or measles infection, or in patients suffering from autoimmune disorders where high-dose IVIG therapy has been shown to be efficacious.
- **Option C:** Doctors said that although the gamma globulin treatment did not cure AIDS it seemed to "enhance the quality" the lives of the children in the study group because it freed them from the constant infections that added to their suffering. Such episodes of sepsis are often a result of bacterial infection. The gamma globulin contains antibodies to many common bacteria, including ones that often kill children whose immune systems have been paralyzed by the AIDS virus.

78. Which of the following constitutes a break in sterile technique while preparing a sterile field for a dressing change?

- A. Using sterile forceps, rather than sterile gloves, to handle a sterile item.

- B. Touching the outside wrapper of sterilized material without sterile gloves.
- C. Placing a sterile object on the edge of the sterile field.
- D. Pouring out a small amount of solution (15 to 30 ml) before pouring the solution into a sterile container.

Correct Answer: C. Placing a sterile object on the edge of the sterile field.

The edges of a sterile field are considered contaminated. When sterile items are allowed to come in contact with the edges of the field, the sterile items also become contaminated. The sterile field should be prepared as close as possible to the time of use.² The sterility of supplies used during a surgical procedure can be affected by the events taking place within the operating room, and the length of time the items have been exposed to the environment.

- **Option A:** Under no circumstances should sterile and nonsterile items/areas be mixed since one contaminates the other.⁴ Sterilization provides the highest level of assurance that all instruments, sutures, fluids, supplies, and drapes are void of microorganisms.² The sterility of a package is determined by events, not by time. To ensure sterility, all sterile items need to be inspected for package integrity and sterilization process indicators, such as indicator tape and internal chemical indicators, prior to introduction onto the sterile field. If a package has been compromised, it should be considered contaminated and not be used.
- **Option B:** When opening wrapped supplies, the nonsterile person should open the top wrapper flap away from them first, then open the flaps to each side. The last wrapper flap is pulled toward the nonsterile person opening the package. This technique of opening a wrapped package ensures that the nonsterile person does not reach over the sterile item inside. All wrapper edges should be secured to prevent flipping the wrapper and contaminating the contents of the sterile package or field.
- **Option D:** Only the top rim of the bottle top and bottle contents are considered sterile once the cap has been removed from the bottle. Therefore, when sterile fluids are dispensed, the entire contents of the bottle must be poured or the fluid remaining in the bottle discarded. When solutions are poured onto the sterile field, they should be poured slowly to prevent contamination and fluid strikethrough from splashing.

79. Pediatric and geriatric patients often react with more sensitivity to CNS depressants. This type of sensitivity manifests itself in the development of which type of reaction?

- A. Idiopathic
- B. Teratogenic
- C. Paradoxical
- D. Psychogenic

Correct Answer: C. Paradoxical

Benzodiazepines frequently are administered to patients to induce sedation. Paradoxical reactions to benzodiazepines, characterized by increased talkativeness, emotional release, excitement, and excessive movement, are relatively uncommon and occur in less than 1% of patients.

- **Option A:** Idiosyncratic drug reactions are a significant cause of morbidity and mortality for patients; they also markedly increase the uncertainty of drug development. The major targets are skin, liver, and bone marrow. Clinical characteristics suggest that IDRs are immune-mediated, and

there is substantive evidence that most, but not all, IDRs are caused by chemically reactive species.

- **Option B:** A teratogen is an agent that can disturb the development of the embryo or fetus. Teratogens halt the pregnancy or produce a congenital malformation (a birth defect). Classes of teratogens include radiation, maternal infections, chemicals, and drugs.
- **Option D:** Several pharmacological treatments used in internal medicine can induce psychiatric side effects (PSEs) that mimic diagnoses seen in psychiatry. PSEs may occur upon withdrawal or intoxication, and also at usual therapeutic doses.

80. Nurse Cheryl is assessing Fred, a 14-year-old boy who had scoliosis; besides checking neurologic status directly after Harrington rod instrumentation and spinal fusion, she should be regarded with which of the following factors?

- A. Comfort level
- B. Dietary tolerance
- C. Physical therapy needs
- D. Understanding of the procedure

Correct Answer: A. Comfort level

Instrumentation and spinal fusion cause considerable pain. Therefore, the adolescent needs vigorous pain management, which involves assessment, administration of pain medication, and evaluation of the response. In the immediate postoperative period, the child is conscious of sensation and surroundings.

- **Option B:** Typically, shortly after surgery, the adolescent will not be taking anything by mouth. Once discharged, the patient can eat a normal diet. If the stomach is upset, try bland, low-fat foods like plain rice, broiled chicken, toast, and yogurt.
- **Option C:** Physical therapy is not an urgent postoperative goal at this time. However, it may be appropriate later on in the postoperative period. The doctor may advise the client to work with a physiotherapist to improve the strength and flexibility of the back.
- **Option D:** Assessment and understanding of the procedure is a preoperative nursing responsibility. After surgery, the client can expect the back to feel stiff and sore. She may have trouble sitting or standing in one position for very long and may need pain medicine in the weeks after the surgery.

81. Which nursing intervention would be most appropriate if a male client develops orthostatic hypotension while taking amitriptyline (Elavil)?

- A. Consulting with the physician about substituting a different type of antidepressant.
- B. Advising the client to sit up for 1 minute before getting out of bed.
- C. Instructing the client to double the dosage until the problem resolves.
- D. Informing the client that this adverse reaction should disappear within 1 week.

Correct Answer: B. Advising the client to sit up for 1 minute before getting out of bed.

To minimize the effects of amitriptyline-induced orthostatic hypotension, the nurse should advise the client to sit up for 1 minute before getting out of bed. Amitriptyline is FDA approved medication to treat

depression in adults. Secondary to its alpha-adrenergic receptor blockade, it can cause orthostatic hypotension, dizziness, and sedation. It can also cause heart rate variability, slow intracardiac conduction, induce various arrhythmias, and cause QTc (corrected QT) prolongation.

- **Option A:** Orthostatic hypotension commonly occurs with tricyclic antidepressant therapy. Cardiac symptoms include tachycardia, hypotension, conduction abnormalities include QTc prolongation. Amitriptyline is in the tricyclic antidepressant (TCA) drug classification and acts by blocking the reuptake of both serotonin and norepinephrine neurotransmitters. The three-ring central structure, along with a side chain, is the basic structure of tricyclic antidepressants. Amitriptyline is a tertiary amine and has strong binding affinities for alpha-adrenergic, histamine (H1), and muscarinic (M1) receptors. It is more sedating and has increased anticholinergic properties compared to other TCAs.
- **Option C:** In these cases, the dosage may be reduced or the physician may prescribe nortriptyline, another tricyclic antidepressant. Once the patient is stable, amitriptyline should be continued for three months or longer to prevent relapse of depression. In cases of therapy cessation, the clinician should gradually taper to avoid withdrawal. Amitriptyline administration comes in various forms, the most common being oral form. The initial dose recommended for depression is 25 mg/day at bedtime, as it can be sedating.
- **Option D:** Orthostatic hypotension disappears only when the drug is discontinued. The most commonly encountered side effects of amitriptyline include weight gain, gastrointestinal symptoms like constipation, xerostomia, dizziness, headache, and somnolence. Patients on amitriptyline can have anticholinergic, antihistaminic, and alpha-adrenergic blocking effects. It may not be appropriate for patients with cardiac problems.

82. A nurse instructor is preparing to conduct a seminar about Piaget's Theory of Cognitive Development. The current topic is the concrete operational stage. Which of the following milestones during this stage should be included in the discussion, except?

- A. Ability to think logic about objects and events
- B. Ability to understand that an object does not affect its number, length, volume, or mass when it changes appearance or shape
- C. Increased classification skills
- D. Ability to exhibit propositional thought
- E. Ability to perform mathematical problems in both addition and subtraction

Correct Answer: D. Ability to exhibit propositional thought.

This is achieved during the formal operational stage. Propositional thought is the ability of an individual to evaluate the logic of prepositions without referring to real-world circumstances.

- **Option A:** Piaget determined that children in the concrete operational stage were fairly good at the use of inductive logic (inductive reasoning). During this stage, children begin to think logically about concrete events. Their thinking becomes more logical and organized, but still very concrete.
- **Option B:** Another key development at this stage is the understanding that when something changes in shape or appearance it is still the same, a concept known as conservation. They begin to understand the concept of conservation; that the amount of liquid in a short, wide cup is equal to that in a tall, skinny glass, for example.

- **Option C:** Children begin using inductive logic, or reasoning from specific information to a general principle. This growing ability to mentally manipulate information and think about the thoughts of others will play a critical role in the formal operational stage of development when logic and abstract thought become critical.
- **Option E:** All these things are evident during the concrete operational stage. While children are still very concrete and literal in their thinking at this point in development, they become much more adept at using logic.

83. Among the following signs and symptoms, which would most likely be present in a client with mitral regurgitation?

- A. Altered level of consciousness
- B. Exertional Dyspnea
- C. Increase creatine phosphokinase concentration
- D. Chest pain

Correct Answer: B. Exertional Dyspnea

Mitral regurgitation (MR) is defined as an abnormal reversal of blood flow from the left ventricle (LV) to the left atrium (LA). Weight gain due to retention of fluids and worsening heart failure causes exertional dyspnea in clients with mitral regurgitation. The patient will usually complain of significant dyspnea at rest, exacerbated in the supine position, as well as cough with clear or pink, frothy sputum.

- **Option A:** An altered level of consciousness does not occur in clients with mitral regurgitation. Physical examination may reveal altered mental status, tachycardia (or bradycardia if there is ischemic involvement of the conduction system), hypotension, tachypnea, hypoxemia, and cyanosis.
- **Option C:** Creatine phosphokinase (CPK) is an enzyme in the body. It is found mainly in the heart, brain, and skeletal muscle. High levels of CPK may be seen in people who have brain injury, convulsions, heart attack, myocarditis, and myopathy.
- **Option D:** The client feels no chest pain, but may feel palpitations as a result of chronic atrial dilatation. They may also endorse symptoms associated with myocardial ischemia, such as chest pain radiating to the neck, jaw, shoulders, or upper extremities, nausea, and diaphoresis.

84. Before assessing the postpartum client's uterus for firmness and position in relation to the umbilicus and midline, which of the following should the nurse do first?

- A. Assess the vital signs.
- B. Administer analgesia.
- C. Ambulate her in the hall.
- D. Assist her to urinate.

Correct Answer: D. Assist her to urinate

Before the uterine assessment is performed, it is essential that the woman empties her bladder. A full bladder will interfere with the accuracy of the assessment by elevating the uterus and displacing to the

side of the midline.

- **Option A:** Vital sign assessment is not necessary unless an abnormality in uterine assessment is identified. Immediately postpartum, check the mother's vital signs every hour for 4 hours. Once she is stable, monitor every 4 hours.
- **Option B:** Uterine assessment should not cause acute pain that requires administration of analgesia. By approximately one hour post-delivery, the fundus is firm and at the level of the umbilicus. The fundus continues to descend into the pelvis at the rate of approximately 1 cm or finger-breadth per day and should be nonpalpable by 14 days postpartum.
- **Option C:** Ambulating the client is an essential component of postpartum care but is not necessary prior to assessment of the uterus. Since it is not justified anymore to keep healthy women in bed after giving birth to a child, most studies on early ambulation are performed with pregnant women who have to remain in bed for diseases or complications. A small increased risk of venous thrombosis of extended bed rest has been found. However, similar to studies performed in the beginning of the twentieth century, women who are obligatorily bedridden most often have a poorer health status, which results in a higher risk of venous thrombosis, compared to those who are allowed to leave the bed at an early stage.

85. Which of the following are the most commonly assessed findings in cystitis?

- A. Frequency, urgency, dehydration, nausea, chills, and flank pain
- B. Nocturia, frequency, urgency dysuria, hematuria, fever, and suprapubic pain
- C. Dehydration, hypertension, dysuria, suprapubic pain, chills, and fever
- D. High fever, chills, flank pain nausea, vomiting, dysuria, and frequency

Correct Answer: B. Manifestations of cystitis include, frequency, urgency, dysuria, hematuria nocturia, fever, and suprapubic pain.

Dehydration, hypertension, and chills are not typically associated with cystitis. High fever chills, flank pain, nausea, vomiting, dysuria, and frequency are associated with pyelonephritis.

- **Option A:** Cystitis usually develops due to the colonization of the periurethral mucosa by bacteria from the fecal or vaginal flora and ascension of such pathogens to the urinary bladder. Uropathogens may have microbial virulence factors that allow them to escape host defenses and invade host tissues in the urinary tract.
- **Option C:** Acute cystitis often presents with urinary symptoms which include dysuria, urinary frequency urgency, suprapubic pain or tenderness, and occasionally hematuria. Based on a systematic review examining history and examination findings of women with uncomplicated UTI, the combination of dysuria and urinary frequency in the absence of vaginal discharge or irritation is highly predictive of uncomplicated cystitis.
- **Option D:** Cystitis may be differentiated from pyelonephritis by the absence of systemic findings such as fever, chills, or sepsis. Findings such as flank pain, costovertebral angle tenderness, nausea, and vomiting are also more indicative of upper UTI or pyelonephritis.

86. Nurse Wilma is teaching a client about disulfiram (Antabuse), which the client is taking to deter his use of alcohol. She explains that using alcohol when taking this medication can result in:

- A. Abdominal cramps and diarrhea
- B. Drowsiness and decreased respiration
- C. Flushing, vomiting, and dizziness
- D. Increased pulse and blood pressure

Correct Answer: C. Flushing, vomiting, and dizziness

Disulfiram (Antabuse) prevents complete alcohol metabolism in the body. Therefore when alcohol is consumed, the client has a hypersensitivity reaction. Flushing, vomiting, and dizziness are associated with the incomplete breakdown of alcohol metabolites. Disulfiram was the first medication approved by the U.S. Food and Drug Administration (FDA) to treat chronic alcohol dependence. In its pure state, disulfiram is a white to off-white, odorless, almost tasteless powder, which is soluble in water and alcohol. Disulfiram, an alcohol-aversive or alcohol-sensitizing agent, causes an acutely toxic physical reaction when mixed with alcohol.

- **Option A:** The disulfiram-alcohol reaction usually begins about 10 to 30 minutes after alcohol is ingested. Its adverse effects range from moderate to severe. Intensity varies with individual patient characteristics. The reaction is generally proportional to the amounts of disulfiram and alcohol ingested. Mild effects may occur at blood alcohol concentrations of 5 to 10 mg/100 mL. At 50 mg/100 mL, effects usually are fully developed. When the concentration reaches 125 to 150 mg/100 mL, unconsciousness may occur.
- **Option B:** About 80 to 95 percent of ingested disulfiram is absorbed from the gastrointestinal tract and rapidly distributed to tissues and organs. It is then metabolized to various mixed disulfides. The unabsorbed fraction is excreted. Disulfiram is irreversibly bound to ALDH. It can take up to 2 weeks for the body to synthesize sufficient unbound enzymes to metabolize alcohol adequately. This is why alcohol ingestion may produce unpleasant symptoms for up to 2 weeks after a patient has taken the last dose of disulfiram.
- **Option D:** The consensus panel concludes that disulfiram is most effective for patients who have undergone detoxification or are in the initiation stage of abstinence, especially when they are committed to abstinence and receive adequate, ongoing supervision. Disulfiram may not reduce the urge to drink alcohol. However, it may assist in motivating the patient not to drink. As with other medications, general efficacy also increases when disulfiram is administered in conjunction with intensive behavioral interventions.

87. The mother asks the nurse why her child's hemoglobin was normal at birth but now the child has S hemoglobin. Which of the following responses by the nurse is most appropriate?

- A. "The placenta bars passage of the hemoglobin S from the mother to the fetus."
- B. "The red bone marrow does not begin to produce hemoglobin S until several months after birth."
- C. "Antibodies transmitted from you to the fetus provide the newborn with temporary immunity."
- D. "The newborn has a high concentration of fetal hemoglobin in the blood for some time after birth."

Correct Answer: D. "The newborn has a high concentration of fetal hemoglobin in the blood for some time after birth."

Sickle cell disease is an inherited disease that is present at birth. However, 60% to 80% of a newborn's hemoglobin is fetal hemoglobin, which has a structure different from that of hemoglobin S or hemoglobin A. Sickle cell symptoms usually occur about 4 months after birth, when hemoglobin S

begins to replace the fetal hemoglobin.

- **Option A:** The gene for sickle cell disease is transmitted at the time of conception, not passed through the placenta. Sickle cell disease is an autosomal recessive disorder of a gene mutation. On chromosome 11, nucleotide mutation leads to substitution of glutamic acid to valine at position six on the beta-globin subunit. This leads to changes in the physical properties of the globin chain.
- **Option B:** Some hemoglobin S is produced by the fetus near term. The fetus produces all its own hemoglobin from the earliest production in the first trimester. Fetal hemoglobin production is switched off soon after birth although the time of switch over is not known. A replacement of glutamic acid of the beta chain by valine at the 6th position gives rise to a sickle cell disorder. This change, called hemoglobin S (HbS), is an abnormal hemoglobin
- **Option C:** Passive immunity conferred by maternal antibodies is not related to sickle cell disease, but this transmission of antibodies is important to protect the infant from various infections during early infancy. Studies have revealed that HbF usually disappears from red blood of infants after about 6 months. However, the exact time of disappearance of HbF may vary and the signal that determines the switch from fetal to adult hemoglobin is not known.

88. To validate the suspicion that a married male client has sleep apnea the nurse first:

- A. Asks the client if he experiences apnea in the middle of the night.
- B. Questions the spouse if she is awakened by her husband's snoring.
- C. Place the client on a continuous positive airway pressure (CPAP) device.
- D. Schedules the client for a sleep test.

Correct Answer: D. Schedules the client for a sleep test.

Although this is a diagnostic tool, the first thing the nurse would do is question the spouse. This may lead to determining whether more tests are needed. Obstructive sleep apnea syndrome is a condition in which there is a dynamic collapse of upper airway tissues during sleep. This may result in recurrent respiratory-related events and both short-term symptomatic consequences and long-term physiologic consequences.

- **Option A:** Inquiring regarding sleep hygiene and screening for other sleep-related diagnoses is also important. One of the key points is to determine whether the patient is experiencing sleepiness associated with OSA, from fatigue, which indicates alternative medical diagnoses.
- **Option B:** A complete history for a patient presenting with signs or symptoms of OSA must be obtained, including symptoms of daytime sleepiness, associated sleep symptoms, snoring, coughing, or choking during sleep, morning headaches, chest pain, dyspnea, or neuropsychiatric changes.
- **Option C:** For adults, the use of continuous positive airway pressure (CPAP) is the most effective treatment, and diligent adherence to nightly CPAP use can result in near-complete resolution of symptoms. For patients unable or unwilling to use CPAP or those who will be unable to access electricity reliably, custom-fitted and titrated oral appliances can be used to bring the lower jaw forward and relieve airway obstruction.

89. A client with diabetes asks the nurse for advice regarding methods of birth control. Which method of birth control is most suitable for the client with

diabetes?

- A. Intrauterine device
- B. Oral contraceptives
- C. Diaphragm
- D. Contraceptive sponge

Correct Answer: C. Diaphragm

The best method of birth control for the client with diabetes is the diaphragm. The diaphragm is a birth control (contraceptive) device that prevents sperm from entering the uterus. The diaphragm is a small, reusable rubber or silicone cup with a flexible rim that covers the cervix. Before sex, the diaphragm is inserted deep into the vagina so that part of the rim fits snugly behind the pubic bone. The diaphragm is effective at preventing pregnancy only when used with spermicide.

- **Option A:** Permanent intrauterine device can cause a continuing inflammatory response in diabetics that should be avoided. Fibrinolytic activity is due in part to prostaglandin synthetase activation which was thought to be required for the efficacy of the copper IUD. Its absence was thought to be a possible reason why copper IUDs were less effective in diabetics (and in nondiabetics who became pregnant).
- **Option B:** Oral contraceptives tend to elevate blood glucose levels. Choice of contraception should be made on the preference of the woman and individual risk factors identified such as the presence of vascular, nephropathy, neuropathy, or retinal disease. Choosing a safe and reliable method of contraception for a woman with DM needs careful consideration and practitioners need to make reference to the WHO Medical Eligibility Criteria for Contraceptive Use.
- **Option C:** Contraceptive sponges are not good at preventing pregnancy. The contraceptive sponge is a type of birth control (contraceptive) that prevents sperm from entering the uterus. It is soft and disk-shaped, and made of polyurethane foam. The contraceptive sponge contains spermicide, which blocks or kills sperm.

90. Which of the following physical assessment findings would the nurse expect to find in a client with advanced COPD?

- A. Increased anteroposterior chest diameter.
- B. Underdeveloped neck muscles.
- C. Collapsed neck veins.
- D. Increased chest excursions with respiration.

Correct Answer: A. Increased anteroposterior chest diameter.

Increased anteroposterior chest diameter is characteristic of advanced COPD. Air is trapped in the overextended alveoli, and the ribs are fixed in an inspiratory position. The result is the typical barrel-chested appearance. In addition, coarse crackles beginning with inspiration may be heard.

- **Option B:** Overly developed, not underdeveloped, neck muscles are associated with COPD because of their increased use in the work of breathing. Use of accessory respiratory muscles and paradoxical indrawing of lower intercostal spaces is evident (known as the Hoover sign).
- **Option C:** Distended, not collapsed, neck veins are associated with COPD as a symptom of the heart failure that the client may experience secondary to the increased workload on the heart to

pump into pulmonary vasculature. In advanced disease, cyanosis, elevated jugular venous pulse (JVP), and peripheral edema can be observed.

- **Option D:** Diminished, not increased, chest excursion is associated with COPD. The sensitivity of a physical examination in detecting mild to moderate COPD is relatively poor; however, physical signs are quite specific and sensitive for severe disease. Patients with severe disease experience tachypnea and respiratory distress with simple activities.

91. In a busy surgical unit, a nurse is preparing to insert an I.V. catheter for a 33-year-old patient who is scheduled for elective surgery and has a notably hairy forearm where the I.V. is to be placed. The patient is allergic to a variety of adhesives and has sensitive skin that is prone to irritation. Given these considerations, how should the nurse manage excess hair at the intended catheter insertion site?

- A. Leaving the hair intact
- B. Shaving the area
- C. Clipping the hair in the area
- D. Removing the hair with a depilatory
- E. Applying a small amount of water-soluble gel to tame the hair without cutting
- F. Use a sterile surgical scalpel to trim the hair as close to the skin as possible without causing abrasions

Correct Answer: C. Clipping the hair in the area

Clipping is preferred over shaving in this scenario because it reduces the potential for creating microabrasions that can increase infection risk, which is especially important in a patient with sensitive skin. Chemical depilatories (D) are not recommended due to the patient's history of allergies and sensitive skin. Leaving the hair intact (A) could interfere with the securement of the I.V. and increase the risk of infection. Water-soluble gel (E) is not standard practice for managing hair at an I.V. site and does not address the infection control issue. A sterile surgical scalpel (F) is not typically recommended for hair removal in preparation for I.V. insertion due to the risk of cuts and abrasions. Clipping is the safest option that balances the need to reduce infection risk with the patient's sensitivity and allergy concerns.

92. You are performing an abdominal exam on a 9th-month pregnant woman. While lying supine, she felt breathless, had pallor, tachycardia, and cold clammy skin. The correct assessment of the woman's condition is that she is:

- A. Experiencing the beginning of labor.
- B. Having supine hypotension.
- C. Having sudden elevation of BP.
- D. Going into shock.

Correct Answer: B. Having supine hypotension.

Supine hypotension is characterized by breathlessness, pallor, tachycardia, and cold, clammy skin. This is due to the compression of the abdominal aorta by the gravid uterus when the woman is in a supine position.

- **Option A:** The woman may be at the beginning of labor if the fetus drops or moves lower into the pelvis, increase in vaginal discharge that is clear, pink, or slightly bloody, and cervical effacement and dilatation occurs.
- **Option C:** Preeclampsia occurs when hypertension develops after 20 weeks of pregnancy and is associated with signs of damage to other organ systems, including the kidneys, liver, blood, or brain. Untreated preeclampsia can lead to serious — even fatal — complications for mother and baby, including development of seizures (eclampsia).
- **Option D:** Shock is a state of compromised tissue perfusion that causes cellular hypoxia and is defined as a syndrome initiated by acute hypoperfusion, leading to tissue hypoxia and vital organ dysfunction. The treatment of shock in a pregnant woman differs in two important respects from the treatment of shock in other adults. [1] First, normal physiologic changes occur in most organ systems during pregnancy. Second, the mother and the fetus are both vulnerable during pregnancy. Therefore, obstetric critical care involves simultaneous assessment and management of the mother and fetus, who have differing physiological profiles.

93. During the warfarin (Coumadin) administration, the nurse can expect that the initial extension of PT occurs within how many hours after therapy begins?

- A. 1 to 2
- B. 4 to 6
- C. 8 to 12
- D. 12 to 24

Correct Answer: C. 8 to 12.

Initial extension of PT occurs within 8 to 12 hours after warfarin therapy begins. Warfarin is an oral anticoagulant commonly used to treat and prevent blood clots. Warfarin has multiple FDA-approved and off-label clinical uses.

- **Option A:** Warfarin competitively inhibits the vitamin K epoxide reductase complex 1 (VKORC1), which is an essential enzyme for activating the vitamin K available in the body. Through this mechanism, warfarin can deplete functional vitamin K reserves and therefore reduce the synthesis of active clotting factors. The hepatic synthesis of coagulation factors II, VII, IX, and X, as well as coagulation regulatory factors protein C and protein S, require the presence of vitamin K. Vitamin K is an essential cofactor for the synthesis of all of these vitamin K-dependent clotting factors.
- **Option B:** Warfarin is a once-daily oral medication. Warfarin administration can be at any time during the day, but recommendations are for administration in the afternoon or evening. By instructing patients to take warfarin later in the day, healthcare providers can have the opportunity to individualize a patient's warfarin dose the same day based on their most current lab values.
- **Option D:** Patients receiving treatment with warfarin should have close monitoring to ensure the safety and efficacy of the medication. Periodic blood testing is the recommendation to assess the patient's prothrombin time (PT) and the international normalized ratio (INR).

94. The nursery nurse is putting erythromycin ointment in the newborn's eyes to prevent infection. She places it in which of the following area of the eye:

- A. Under the eyelid.
- B. On the cornea.
- C. In the lower conjunctival sac.
- D. By the optic disc.

Correct Answer: C. In the lower conjunctival sac.

The ointment is placed in the lower conjunctival sac so it will not scratch the eye itself and will get well distributed. Ophthalmia neonatorum (ON), also known as neonatal conjunctivitis, is an infection that causes inflammation of the conjunctiva during the first four weeks of life. The conjunctiva is a layer of thin tissue that covers the inner part of the eyelid and the white part of the eye. During the late 1800s, before antibiotics were discovered, 0.3% of infants (3 out of 1,000) were blinded from ON (Schaller & Klauss, 2001).

- **Option A:** Care providers in some countries try to prevent ophthalmia neonatorum by giving all newborns eye ointment (such as erythromycin). The eye ointment is intended to kill or weaken bacteria in the eye—particularly gonorrhea—to protect the infant from getting pink eye, since pink eye from gonorrhea can cause serious eye damage and blindness if left untreated.
- **Option B:** Automatic prophylaxis with erythromycin eye ointment for all newborns within 24 hours of birth is currently recommended by the U.S. Preventive Services Task Force (2019) and their recommendation is promoted by the American Association of Family Physicians. However, the American Academy of Pediatrics recently called for reevaluating state mandates for erythromycin eye ointment (AAP, 2018).
- **Option D:** Instead, they propose a strategy of (1) prenatal screening for and treatment of gonorrhea and chlamydia, (2) testing unscreened people at the time of birth and treating as needed, (3) counseling parents to bring newborns with pink eye to immediate medical attention, and (4) continuing mandatory reporting of all cases of gonorrheal ON. The AAP recommends that routine erythromycin eye ointment is still appropriate in regions with high rates of gonorrhea and where prenatal screening and treatment is not widely accessible. Similarly, the Canadian Pediatric Society recently recommended that routine, required prophylaxis with erythromycin be stopped (Moore and MacDonald, 2015).

95. A male client develops acute renal failure (ARF) after receiving I.V. therapy with a nephrotoxic antibiotic. Because the client's 24-hour urine output totals 240 ml, Nurse Billy suspects that the client is at risk for:

- A. Cardiac arrhythmia.
- B. Paresthesia.
- C. Dehydration.
- D. Pruritus.

Correct Answer: A. Cardiac arrhythmia.

As urine output decreases, the serum potassium level rises; if it rises sufficiently, hyperkalemia may occur, possibly triggering a cardiac arrhythmia. Although the serum K⁺ concentration can usually be controlled by the administration of calcium, glucose and insulin, sodium bicarbonate, diuretics, and/or the use of K⁺ exchange resins, dialysis may be necessary. Hyperkalemia complicating acute or chronic renal failure is an important, common problem requiring the use of peritoneal dialysis or hemodialysis.

- **Option B:** Hyperkalemia doesn't cause paresthesia (sensations of numbness and tingling). Physical exam findings may include hypertension and edema in the setting of renal disease. There may also be signs of hypoperfusion. Muscle tenderness may be present in patients with rhabdomyolysis. Jaundice may be seen in patients with hemolytic conditions. Patients may have muscle weakness, flaccid paralysis, or depressed deep tendon reflexes.
- **Option C:** Dehydration doesn't occur during this oliguric phase of ARF, although typically it does arise during the diuretic phase. Potassium is usually an intracellular cation. The sodium-potassium pump is responsible for maintaining potassium within the cells. Most potassium is excreted in urine through the kidneys with about 10% in sweat and stool. Inside the kidney, the excretion of potassium takes place in the distal convoluted and cortical collecting ducts.
- **Option D:** In a client with ARF, pruritus results from increased phosphates and isn't associated with hyperkalemia. Kidneys remove wastes from the bloodstream. When the kidneys fail, the build-up of waste in the blood can cause severe itching. Patients also accumulate excessive phosphorus which contributes to itching.

96. Which question will critique the credibility of a research project?

- A. Is the strategy used for analysis compatible with the purpose of the study?
- B. Does the researcher document the research process?
- C. Are the researcher's conceptualizations true to the data?
- D. Has adequate time been allowed to fully understand the phenomenon?

Correct Answer: D. Has adequate time been allowed to fully understand the phenomenon?

This question will critique the credibility of a research project. "The necessary elements in a research critique can be compiled in a series of questions for the process of critiquing research" (Boswell & Cannon, 2009, p. 308).

- **Option A:** A research critique is an analysis of a research undertaking that focuses on its strengths and limitations. Critiquing is a systematic process for evaluating research studies and the results reported.
- **Option B:** This question will critique the auditability of a research project. Understand the purpose and problem, while determining if the design and methodology are consistent with the purpose.
- **Option C:** This question will critique the significance of a research project. "The purpose of a research critique is to determine whether the findings are usable for you" (Brink & Wood, 2001, p. 57).

97. The nurse assesses a client's abdomen several days after abdominal surgery. It is firm, distended, and painful to palpate. The client reports feeling "bloated". The nurse consults with the surgeon, who orders an enema. The nurse prepares to give what kind of enema?

- A. Soapsuds
- B. Retention
- C. Return flow
- D. Oil retention

Correct Answer: C. Return flow

This provides relief of postoperative flatus, stimulating bowel motility. Options one, two, and four manage constipation and do not provide flatus relief. A return-flow enema, or Harris flush, is used to remove intestinal gas and stimulate peristalsis. A large volume fluid is used but the fluid is instilled in 100-200 ml increments. Then, the fluid is drawn out by lowering the container below the level of the bowel. This brings the flatus out with the fluid.

- **Option A:** The soapsuds enema uses a mixture of a mild soap and warm water injected into the colon in order to stimulate a bowel movement. Normally given to relieve constipation or for bowel cleansing before a medical examination or procedure.
- **Option B:** An enema that may be used to provide nourishment, medication, or anesthetic. It should be made from fluids that will not stimulate peristalsis. A small amount of solution (e.g., 100 to 250 mL) is typically used in adults.
- **Option D:** If fecal material is hardened, an oil-retention enema may be given to soften the feces. Commercially packaged enemas contain 90-120 ml solution. The patient should retain the solution to at least one hour for the enema to be effective. This enema is usually followed by a cleansing enema.

98. Nurse Elijah has been teaching a client about a high-protein diet. The teaching is successful if the client identifies which meal as high in protein?

- A. Baked beans, hamburger, and milk
- B. Spaghetti with cream sauce, broccoli, and tea
- C. Bouillon, spinach, and soda
- D. Chicken cutlet, spinach, and soda

Correct Answer: A. Baked beans, hamburger, and milk

Baked beans, hamburger, and milk are all excellent sources of protein. Good choices include soy protein, beans, nuts, fish, skinless poultry, lean beef, pork, and low-fat dairy products. Avoid processed meats.

- **Option B:** The spaghetti-broccoli-tea choice is high in carbohydrates. The quality of the carbohydrates (carbs) one eats is important too. Cut processed carbs from the diet, and choose carbs that are high in fiber and nutrient-dense, such as whole grains and vegetables and fruit.
- **Option C:** The bouillon-spinach-soda choice provides liquid and sodium as well as some iron, vitamins, and carbohydrates.
- **Option D:** Chicken provides protein but the chicken-spinach-soda combination provides less protein than the baked beans-hamburger-milk selection.

99. In planning activities for the depressed client, especially during the early stages of hospitalization, which of the following plans is best?

- A. Provide an activity that is quiet and solitary to avoid increased fatigue, such as working on a puzzle or reading a book.
- B. Plan nothing until the client asks to participate in milieu.
- C. Offer the client a menu of daily activities and insist the client participate in all of them

D. Provide a structured daily program of activities and encourage the client to participate.

Correct Answer: D. Provide a structured daily program of activities and encourage the client to participate.

A depressed person experiences a depressed mood and is often withdrawn. The person also experiences difficulty concentrating, loss of interest or pleasure, low energy, fatigue, and feelings of worthlessness, and poor self-esteem. The plan of care needs to provide successful experiences in a stimulating yet structured environment. Involve the client in gross motor activities that call for very little concentration (e.g., walking). Such activities will aid in relieving tensions and might help in elevating the mood.

- **Option A:** Initially, provide activities that require minimal concentration (e.g., drawing, playing simple board games). Depressed people lack concentration and memory. Activities that have no “right or wrong” or “winner or loser” minimizes opportunities for the client to put himself/herself down. When the client is in the most depressed state, involve the client in a one-to-one activity. Maximizes the potential for interactions while minimizing anxiety levels.
- **Option B:** Eventually involve the client in group activities (e.g., group discussions, art therapy, dance therapy). Socialization minimizes feelings of isolation. Genuine regard for others can increase feelings of self-worth. Eventually maximize the client’s contacts with others (first one other, then two others, etc.). Contact with others distracts the client from self-preoccupation.
- **Option C:** This is a forceful and absolute approach. Allow the patient to engage in simple recreational activities, advancing to more complex activities in a group environment. The patient may feel overwhelmed at the start when participating in a group setting. Encourage the client to participate in group therapy where the members share the same situations/feelings that they have.

100. Nurse Julie recommends that the family of a client with substance-related disorder attend a support group, such as Al-Anon and Alateen. The purpose of these groups is to help family members understand the problem and to:

- A. Change the problem behaviors of the abuser.
- B. Learn how to assist the abuser in getting help.
- C. Maintain focus on changing their own behaviors.
- D. Prevent substance problems in vulnerable family members.

Correct Answer: C. Maintain focus on changing their own behaviors.

Family support groups, such as Al-Anon and Alateen, emphasize the importance of changing one’s own behavior rather than trying to change the behavior of the individual with a substance abuse problem. The two disciplines, family therapy and substance abuse treatment, bring different perspectives to treatment implementation. In substance abuse treatment, for instance, the client is the identified patient (IP)—the person in the family with the presenting substance abuse problem. In family therapy, the goal of treatment is to meet the needs of all family members. Family therapy addresses the interdependent nature of family relationships and how these relationships serve the IP and other family members for good or ill.

- **Option A:** The focus of family therapy treatment is to intervene in these complex relational patterns and to alter them in ways that bring about productive change for the entire family. Family therapy rests on the system’s perspective. As such, changes in one part of the system can and do produce changes in other parts of the system, and these changes can contribute to either problems or solutions.

- **Option B:** Trying to change the abuser's behavior or learning ways to find help for the abuser would be viewed as codependent behaviors, and thus would not be advocated by family support groups. It is important to understand the complex role that families can play in substance abuse treatment. They can be a source of help to the treatment process, but they also must manage the consequences of the IP's addictive behavior. Individual family members are concerned about the IP's substance abuse, but they also have their own goals and issues. Providing services to the whole family can improve treatment effectiveness.
- **Option D:** Learning about substance abuse may help a vulnerable family member to avoid this problem; however, that is not the purpose of these groups. Meeting the challenge of working together will call for mutual understanding, flexibility, and adjustments among the substance abuse treatment provider, family therapist, and family. This shift will require a stronger focus on the systemic interactions of families. Many divergent practices must be reconciled if family therapy is to be used in substance abuse treatment. For example, the substance abuse counselor typically facilitates treatment goals with the client; thus the goals are individualized, focused mainly on the client. This reduces the opportunity to include the family's perspective in goal setting, which could facilitate the healing process for the family as a whole.