Kevin's Review - 100 NCLEX Practice Questions

1. During the acute phase, the nurse applied gentamicin sulfate (topical antibiotic) to the burn before dressing the wound. The client has all the following manifestations. Which manifestation indicates that the client is having an adverse reaction to this topical agent?

A. Increased wound pain 30 to 40 minutes after drug application

B. Presence of small, pale pink bumps in the wound beds

C. Decreased white blood cell count

D. Increased serum creatinine level

Correct Answer: D. Increased serum creatinine level

Gentamicin is nephrotoxic and sufficient amounts can be absorbed through burn wounds to affect kidney function. Any client receiving gentamicin by any route should have kidney function monitored. Characteristically, gentamicin reaches high concentrations in the renal cortex and the inner ear.

- **Option A:** Gentamicin does not stimulate pain in the wound. The gentamicin is prone to accumulate in the renal proximal tubular cells and can cause damage. Hence, mild proteinuria and reduction of the glomerular filtration rate are potential consequences of gentamicin use, achieving 14% of gentamicin users in a review.
- **Option B:** The small, pale pink bumps in the wound bed are areas of re-epithelialization and not an adverse reaction. Renal function should be evaluated twice-weekly in patients without previous renal disease through serum creatinine and blood urea nitrogen. Periodic microscopic urinalysis is also vital to detect proteinuria and casts, which may indicate kidney injury.
- **Option C:** The possible hypersensitivity manifestations of gentamicin are urticaria, eosinophilia, delayed-type hypersensitivity reaction (Stevens-Johnson syndrome and toxic epidermal necrolysis), angioedema, and anaphylactic shock. The clinical manifestations should guide the treatment strategy.

2. The nurse is caring for a client with a history of diverticulitis. The client complains of abdominal pain, fever, and diarrhea. Which food was responsible for the client's symptoms?

A. Eggs

B. Yogurt

C. Whole-grain cereal

D. Baked fish

Correct Answer: C. Whole-grain cereal

- Option C: Diverticulitis is a condition that causes inflamed pouches in the intestine. Symptoms associated with diverticulitis are usually reported after eating popcorn, celery, raw vegetables, whole grains, and nuts since these foods put pressure into the colon.
- Options A, B, and D: These low fiber foods are allowed in the diet of the client with diverticulitis.

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

A. Demerol (meperidine)

B. Toradol (ketorolac)

C. Morphine (morphine sulfate)

D. Codeine (codeine)

Correct Answer: A. Demerol (meperidine)

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

4. Your 60 y.o. patient with pyelonephritis and possible septicemia has had five UTIs over the past two years. She is fatigued from lack of sleep, has lost weight, and urinates frequently even in the night. Her labs show: sodium, 154 mEq/L; osmolarity 340 mOsm/L; glucose, 127 mg/dl; and potassium, 3.9 mEq/L. Which nursing diagnosis is a priority?

A. Fluid volume deficit related to osmotic diuresis induced by hyponatremia

B. Fluid volume deficit related to inability to conserve water

C. Altered nutrition: Less than body requirements related to hypermetabolic state

D. Altered nutrition: Less than body requirements related to catabolic effects of insulin deficiency

Correct Answer: B. Fluid volume deficit related to inability to conserve water

Monitor and document vital signs especially BP and HR. Decrease in circulating blood volume can cause hypotension and tachycardia. Alteration in HR is a compensatory mechanism to maintain cardiac output. Usually, the pulse is weak and may be irregular if electrolyte imbalance also occurs. Hypotension is evident in hypovolemia.

- **Option A:** The serum sodium result is normal. Assess skin turgor and oral mucous membranes for signs of dehydration. Signs of dehydration are also detected through the skin. Skin of elderly patients loses elasticity, hence skin turgor should be assessed over the sternum or on the inner thighs. Longitudinal furrows may be noted along the tongue.
- **Option C:** Identify the possible cause of the fluid disturbance or imbalance. Establishing a database of history aids accurate and individualized care for each patient. Weigh daily with the same scale, and preferably at the same time of day. Weight is the best assessment data for possible fluid volume imbalance. An increase of 2 lbs a week is considered normal.
- **Option D:** Monitor serum electrolytes and urine osmolality, and report abnormal values. Elevated blood urea nitrogen suggests fluid deficit. Urine specific gravity is likewise increased. Note the presence of nausea, vomiting, and fever. These factors influence intake, fluid needs, and route of replacement.

5. Pediculicides are used to treat which of the following disorders?

A. Scabies

B. Fungal infections

C. Viral infections

D. Head lice

Correct Answer: D. Head lice

Pediculicides are an effective treatment for head lice. An anti-parasite medication used to treat head lice, onchocerciasis, strongyloidiasis, ascariasis, trichuriasis, and enterobiasis.

- **Option A:** Scabicides are used to treat scabies. Products used to treat scabies are called scabicides because they kill scabies mites; some also kill mite eggs. Scabicides used to treat human scabies are available only with a doctor's prescription. No "over-the-counter" (non-prescription) products have been tested and approved to treat scabies.
- **Option B:** Antifungals are used to treat fungal infections. An antifungal medication, also known as an antimycotic medication, is a pharmaceutical fungicide or fungistatic used to treat and prevent mycosis such as athlete's foot, ringworm, candidiasis (thrush), serious systemic infections such as cryptococcal meningitis, and others.
- **Option C:** Antivirals are used to treat viral infections. Antivirals are medications that reduce the ability of flu viruses to multiply. The CDC considers antiviral drugs as a "second line of defense against the flu." The first line of defense is getting an annual flu vaccine. When taken at the onset of flu, these drugs help decrease the severity and duration of flu symptoms.

6. A 54-year-old woman is admitted to the hospital with severe swelling and pain on the right side of her face, just anterior to her ear. She reports a recent history of a sour taste in her mouth and difficulty with chewing. Preliminary investigations suggest a blockage in one of her salivary ducts, leading to sialadenitis, an inflammation of the salivary gland. This clinical case offers a prime opportunity for the nurse to underscore the role and locations of different salivary glands. To ascertain the student's understanding, the nurse formulates a question about the salivary glands. Considering the patient's clinical presentation and the need to determine which salivary gland might be affected, which of the following options should the nurse inquire about as NOT representing a pair of salivary glands?

A. Parotid

B. Submandibular

C. Submucosal

D. Sublingual

Correct Answer: C. Submucosal
Submucosal is not a pair of salivary glands because it refers to a layer of tissue found beneath the mucosal lining in various parts of the digestive tract, including the mouth.

- **Option A:** The largest of the salivary glands, the parotid glands, are serous glands located just anterior to each ear. Parotid ducts enter the oral cavity adjacent to the second upper molars.

- **Option B:** The submandibular glands produce more serous than mucous secretions. Each gland can be felt as a soft lump along the inferior border of the mandible. The submandibular ducts open into the oral cavity on each side of the frenulum of the tongue.
- **Option D:** The sublingual glands, the smallest of the three paired salivary glands, produce primarily mucous secretions. They lie immediately below the mucous membrane on the floor of the oral cavity.

7. In which of the following diseases would bone marrow transplantation not be indicated in a newly diagnosed client?

A. Severe aplastic anemia

B. Severe combined immunodeficiency

C. Acute lymphocytic leukemia

D. Chronic myeloid leukemia

Correct Answer: C. Acute lymphocytic leukemia

- **Option C:** For the first episode of acute lymphocytic leukemia, conventional therapy is superior to bone marrow transplantation. Treatment is usually long-term chemotherapy and is composed of 3 phases (induction, consolidation, and maintenance).
- **Options A and B:** In severe combined immunodeficiency and in severe aplastic anemia, bone marrow transplantation has been employed to replace abnormal stem cells with healthy cells from the donor's marrow.
- **Option D:** In myeloid leukemia, bone marrow transplantation is done after chemotherapy to infuse healthy marrow and to replace marrow stem cells ablated during chemotherapy.

8. Nurse Lei, caring for a client with a pneumothorax and who has had a chest tube inserted, continues gentle bubbling in the suction control chamber. What action is appropriate?

A. Do nothing, because this is an expected finding.

B. Immediately clamp the chest tube and notify the physician.

C. Check for an air leak because the bubbling should be intermittent.

D. Increase the suction pressure so that the bubbling becomes vigorous.

Correct Answer: A. Do nothing, because this is an expected finding.

Continuous gentle bubbling should be noted in the suction control chamber. Bubbling during expiration reflects venting of pneumothorax (desired action). Bubbling usually decreases as the lung expands or may occur only during expiration or coughing as the pleural space diminishes.

- **Option B:** Chest tubes should only be clamped to check for an air leak or when changing drainage devices (according to agency policy). Clamp tubing in stepwise fashion downward toward the drainage unit if air leak continues. Isolates location of a system-centered air leak.Note: Information indicates that clamping for a suspected leak may be the only time that the chest tube should be clamped.

- **Option C:** Bubbling should be continuous and not intermittent. Seal drainage tubing connection sites securely with lengthwise tape or bands according to established policy.Prevents and corrects air leaks at connector sites.
- **Option D:** Bubbling should be gentle. Increasing the suction pressure only increases the rate of evaporation of water in the drainage system. Position drainage system tubing for an optimal function like shorten tubing or coil extra tubing on the bed, making sure tubing is not kinked or hanging below the entrance to the drainage container. Drain accumulated fluid as necessary.

9. During a home visit, a client with AIDS tells the nurse that he has been exposed to measles. Which action by the nurse is most appropriate?

A. Administer an antibiotic

B. Contact the physician for an order for immune globulin

C. Administer an antiviral

D. Tell the client that he should remain in isolation for 2 weeks

Correct Answer: B. Contact the physician for an order for immune globulin

The client who is immunosuppressed and is exposed to measles should be treated with medications to boost his immunity to the virus. If the patient knows that he has been exposed to measles and his CD4 count is less than 200, he should talk to his doctor about whether post-exposure prophylaxis (PEP) with immunoglobulin may be an option. PEP may provide some protection or lessen the severity of infection if it occurs. If the CD4 count is 200 or greater, PEP can also include getting the MMR vaccine. Ideally, PEP should be administered within 72 hours of exposure to measles.

- **Option A:** Antibiotics may not be an effective treatment. One important characteristic of measles infection is that it produces more serious illness and increased mortality among immunocompromised individuals, primarily those with defects in T-cell immunity. Because >90% of the human immunodeficiency virus (HIV)–infected children live in regions where measles is still endemic, achieving high rates of measles vaccine coverage is especially important among these populations to suppress excess measles-associated morbidity and mortality.
- **Option C:** Antivirals would not be as effective as immunoglobulins for the client with AIDS. Early identification and antiretroviral treatment of HIV-infected infants and children are critical to maximizing measles vaccine immunogenicity and providing protection against other HIV-related complications.
- **Option D:** The patient should remain in isolation, but the administration of immunoglobulin is a priority. The impact of HIV-related immunocompromise and subsequent effects of antiretroviral therapy (ART) on immune reconstitution and, ultimately, on vaccine immunogenicity is unclear.

10. While caring for a client with cervical cancer, the nurse notes that the radioactive implant is lying in the bed. The nurse should:

A. Use tongs to pick up the implant and return it to a lead-lined container

B. Place the implant in a biohazard bag and return it to the lab

C. Give the client a pair of gloves and ask her to reinsert the implant

D. Discard the implant in the commode and double-flush

Correct Answer: A. Use tongs to pick up the implant and return it to a lead-lined container

- Option A: The radioactive implant should be picked up with tongs and returned to the lead-lined container to avoid radiation exposure.
- Option B: Radioactive materials are placed in lead-lined containers, not plastic ones, and are returned to the radiation department, not the lab.
- Option C: The client should not touch the implant or try to reinsert it.
- Option D: The implant should not be placed in the commode for disposal.

11. A female client who received general anesthesia returns from surgery. Postoperatively, which nursing diagnosis takes highest priority for this client?

A. Acute pain related to surgery.

B. Deficient fluid volume related to blood and fluid loss from surgery.

C. Impaired physical mobility related to surgery.

D. Risk for aspiration related to anesthesia.

Correct Answer: D. Risk for aspiration related to anesthesia.

Risk for aspiration related to anesthesia takes priority for this client because general anesthesia may impair the gag and swallowing reflexes, possibly leading to aspiration. The gag reflex, also known as the pharyngeal reflex, is a reflex contraction of the muscles of the posterior pharynx after stimulation of the posterior pharyngeal wall, tonsillar area, or base of the tongue. The gag reflex is believed to be an evolutionary reflex that developed as a method to prevent the aspiration of solid food particles. It is an essential component of evaluating the medullary brainstem and plays a role in the declaration of brain death.The other options, although important, are secondary.

- **Option A:** Postoperative pain can additionally characterize as somatic or visceral. The somatic division of pain is composed of a rich input of nociceptive myelinated, rapidly conducting A-beta-fibers found in cutaneous and deep tissue, which contribute to a more localized, sharp quality. The visceral division of pain is composed of a network of unmyelinated C-fibers and thinly myelinated A-delta-fibers that span across multiple viscera and converge together before entering the spinal cord. Also, visceral afferent fibers run close to autonomic ganglia before their entrance into the dorsal root of the spinal cord. These characteristic features of visceral nociceptive fibers are what contribute to a more diffuse, poorly localized pattern of pain that may be accompanied by autonomic reactions such as a change in heart rate or blood pressure.
- **Option B:** The acid-base and electrolyte changes observed in the perioperative period could be secondary to the underlying illness or surgical procedure, for example, hyponatremia occurring with transurethral resection of the prostate where glycine or other hypotonic fluid is used for irrigation. Serum sodium concentration <120 mmol/L will cause confusion and irritability, whereas <110 mmol/L may cause seizures and coma.
- **Option C:** Complete physiologic recovery takes place by 40 min in 40% of the patients. The functional quality of recovery in all domains occurs in only 11% of the patients by day 3. Thus, the concept of awakening is involved with far greater dimensions than judging the anesthetic effect as terminated and assessing a patient as being “recovered” or “awakened.” Patients cannot be considered fully recovered until they have returned to their preoperative physiological state.

12. Before administering ephedrine, Nurse Tony assesses the patient's history. Because of ephedrine's central nervous system (CNS) effects, it is not recommended for:

A. Patients with an acute asthma attack.

B. Patients with narcolepsy.

C. Patients under age

D. Elderly patients.

Correct Answer: D. Elderly patients

Ephedrine is not recommended for elderly patients, who are particularly susceptible to CNS reactions (such as confusion and anxiety) and to cardiovascular reactions (such as increased systolic blood pressure, coldness in the extremities, and anginal pain). Ephedrine is also arrhythmogenic, and caution should be used during administration to patients who are predisposed to arrhythmias or taking other arrhythmogenic medications, particularly digitalis.

- **Option A:** Ephedrine is used for its bronchodilator effects with acute and chronic asthma. Oral formulations of ephedrine have been used historically to treat asthma via pulmonary vasoconstriction and reduction in airway edema along with beta-induced bronchodilation, but it is rarely used for this purpose in modern medicine due to unwanted cardiac effects and availability of more selective beta-agonists such as albuterol.
- **Option B:** Ephedrine is used occasionally for its CNS stimulant actions for narcolepsy. Ephedrine acts as both a direct and indirect sympathomimetic. It binds directly to both alpha and beta receptors; however, its primary mode of action is achieved indirectly, by inhibiting neuronal norepinephrine reuptake and by displacing more norepinephrine from storage vesicles. This action allows norepinephrine to be present in the synapse longer to bind postsynaptic alpha and beta receptors.
- **Option C:** It can be administered to children age 2 and older. The FDA has not formally established safety and effectiveness in pediatric populations. Additionally, ephedrine is distributed by the manufacturer in 50mg/mL vials and requires dilution before intravenous use.

13. Which neonatal behavior is most commonly associated with fetal alcohol syndrome (FAS)?

A. Hypoactivity

B. High birth weight

C. Poor wake and sleep patterns

D. High threshold of stimulation

Correct Answer: C. Poor wake and sleep patterns.

- **Option C:** Altered sleep patterns are caused by disturbances in the CNS from alcohol exposure in utero.
- **Option A:** Hyperactivity is a characteristic generally noted.
- **Option B:** Low birth weight is a physical defect seen in neonates with FAS.
- **Option D:** Neonates with FAS generally have a low threshold for stimulation.

14. Which of the following is evidence that the controlling process is effective?

A. The things that were planned are done.

B. Physicians do not complain.

C. Employees are contented.

D. There is an increase in customer satisfaction rate.

Correct Answer: A. The things that were planned are done

Controlling is defined as seeing to it that what is planned is done. Controlling involves ensuring that performance does not deviate from standards. Controlling consists of five steps: (1) set standards, (2) measure performance, (3) compare performance to standards, (4) determine the reasons for deviations and then (5) take corrective action as needed.

- **Option B:** Outcome standards measure the effectiveness of the service. They are set according to the type of service provided and the data are collected through systematic use of specific measurement tools such as questionnaires or comparison between pre-test and post-test performance.
- **Option C:** Process standards include care plans, the nursing procedures to be done to address the needs of the patients. Process standards focus on the practitioner and the activities carried out in delivering care. The development of standards and related criterion measures are then guided by the basic principles.
- **Option D:** Outcome standards focus on the end result of the nursing services and activities carried out and the changes which occurred. This approach is based on the belief that structure, process, and outcome are interdependent.

15. The nurse would instruct the client to eat which of the following foods to obtain the best supply of vitamin B12?

A. Whole grains

B. Green leafy vegetables

C. Meats and dairy products

D. Broccoli and Brussels sprouts

Correct Answer: C. Meats and dairy products

Good sources of vitamin B12 include meats and dairy products. Dairy is a great source of vitamin B12. One cup of whole or full-fat yogurt provides up to 23% of the RDI, and one slice (28 grams) of Swiss cheese contains 16%. If looking for higher concentrations of vitamin B12, it’s recommended to choose from low-fat cuts of meat. It’s also better to grill or roast it instead of frying. This helps preserve the vitamin B12 content

- **Option A:** Whole grains are a good source of thiamine. When bread or pasta is labeled “100% whole grain,” that means the product was made with the entire wheat kernel. As opposed to those made with processed flour, these products contain far more nutrients, including vitamin B1.
- **Option B:** Green leafy vegetables are good sources of niacin, folate, and carotenoids (precursors of vitamin A). Dark green leafy vegetables are an excellent source of fiber, folate, and carotenoids.

These vegetables also contain vitamins C and K and the minerals iron and calcium. In addition, dark green leafy vegetables act as antioxidants in the body.

- **Option D:** Broccoli and Brussels sprouts are good sources of ascorbic acid (vitamin C). Like broccoli, Brussels sprouts are a member of the cruciferous family of vegetables and contain the same health-promoting plant compounds. Brussels sprouts also contain kaempferol, an antioxidant that may be particularly effective in preventing damage to cells. A cup (91 grams) of raw broccoli provides 116% of your daily vitamin K needs, 135% of the daily vitamin C requirement, and a good amount of folate, manganese, and potassium.

16. Twelve hours after the client was initially burned, bowel sounds are absent in all four abdominal quadrants. Which is the nurse's best action?

A. Administers a laxative

B. Documents the finding

C. Increases the IV flow rate

D. Repositions the client onto the right side

Correct Answer: B. Documents the finding

Decreased or absent peristalsis is an expected response during the emergent phase of burn injury as a result of neural and hormonal compensation to the stress of injury. No currently accepted intervention changes this response. It is not the highest priority of care at this time.

- **Option A:** Do not give the patient laxative. The emergent phase starts with the onset of burn injury and lasts until the completion of fluid resuscitation or a period of about the first 24 hours. During the emergent phase, the priority of patient care involves maintaining an adequate airway and treating the patient for burn shock.
- **Option C:** Increased capillary permeability, protein shifts, inflammatory process, and evaporative losses greatly affect circulating volume and urinary output, especially during the initial 24–72 hr after burn injury. Fluid replacement formulas partly depend on admission weight and subsequent changes.
- **Option D:** Maintain proper body alignment with supports or splints, especially for burns over joints. This promotes functional positioning of extremities and prevents contractures, which are more likely over joints.

17. 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.

18. Mrs. Jane Gately has been dealing with uterine cancer for several months. Pain management is the primary focus of her current admission to your oncology unit. Her vital signs on admission are BP 110/64, pulse 78, respirations 18, and temperature 99.2 F. Morphine sulfate 6mg IV, q 4 hours, prn has been ordered. During your assessment after lunch, your findings are BP 92/60, pulse 66, respirations 10, and temperature 98.8. Mrs. Gately is crying and tells you she is still experiencing severe pain. Your action should be to

A. Give her the next ordered dose of MS.

B. Give her a back rub, put on some light music, and dim the lights in the room.

C. Report your findings to the MD, requesting an alternate medication order to be obtained from the physician.

D. Call her daughter to come and sit with her.

Correct Answer: C. Report your findings to the MD, requesting an alternate medication order.

Morphine sulfate depresses the respiratory center. When the rate is less than 10, the MD should be notified. FDA-approved usage of morphine sulfate includes moderate to severe pain that may be acute or chronic. Most commonly used in pain management, morphine provides significant relief to patients afflicted with pain.

- **Option A:** Respiratory depression is among the more serious adverse reactions with opiate use that is especially important to monitor in the postoperative patient population. The efficacy and therapeutic index of morphine are assessable with a combination of subjective and objective findings. Controlling pain, which is usually the first symptom evaluated in patients, is the ultimate goal of morphine use.
- **Option B:** Extreme caution must be used with severe cases of respiratory depression and asthma exacerbation since morphine can further decrease the respiratory drive. Other essential parameters requiring monitoring include mental status, blood pressure, respiratory drive, and misuse/overuse. Although it may seem intuitive, it is also important to monitor what other medications a patient is taking. This list includes but is not limited to prescription medications.

- **Option D:** Morphine can potentially be a lethal medication when not used properly. It causes a host of symptoms related to depression of the CNS. Severe respiratory depression is the most feared complication of morphine in cases of overdose. Immediate injection of naloxone is required to reverse the effects of morphine. All patients taking morphine should understand the need to avoid any other substances that could lead to respiratory depression. These medications include but are not limited to alcohol, additional opioids, benzodiazepines, and barbiturates. Patients can become apneic at lower doses if combining morphine with any of these substances.

19. You are mentoring a student nurse in the intensive care unit (ICU) while caring for a patient with meningococcal meningitis. Which action by the student requires that you intervene immediately?

A. The student enters the room without putting on a mask and gown.

B. The student instructs the family that visits are restricted to 10 minutes.

C. The student gives the patient a warm blanket when he says he feels cold.

D. The student checks the patient's pupil response to light every 30 minutes.

Correct Answer: A. The student enters the room without putting on a mask and gown.

Meningococcal meningitis is spread through contact with respiratory secretions so use of a mask and gown is required to prevent the spread of the infection to staff members or other patients. The other actions may not be appropriate but they do not require intervention as rapidly.

- **Option B:** The presence of a family member at the bedside may decrease patient confusion and agitation.
- **Option C:** Patients with hyperthermia frequently complain of feeling chilled, but warming the patient is not an appropriate intervention.
- **Option D:** Checking the pupil response to light is appropriate, but it is not needed every 30 minutes and is uncomfortable for a patient with photophobia. Focus: Prioritization

20. A nurse is providing health teachings regarding antiplatelet medications. Which of the following is not true regarding the use of this medication?

A. Antiplatelet medication inhibits the aggregation of platelets in the clotting process, thereby prolonging bleeding time.

B. Antiplatelet medications cannot be used with anticoagulants.

C. Take the medication with food to prevent gastrointestinal upset.

D. A routine bleeding time is monitored during the therapy.

Correct Answer: B. Antiplatelet medications cannot be used with anticoagulants.

Antiplatelet and anticoagulant therapies are effective in keeping a clot from forming or stopping the growth of one.

- **Option A:** Antiplatelet medication inhibits the aggregation of platelets in the clotting process, thereby prolonging bleeding time.
- **Option C:** These medications are taken with food to prevent gastrointestinal side effects such as stomach pain, nausea, and diarrhea.

- **Option D:** Bleeding time is monitored to determine the effectiveness of the medication.

21. During an internal medicine clerkship, medical students are assigned to the care of a 55-year-old patient with a recent organ transplant who is now showing signs of transplant rejection. The clinical team explains the underlying immunologic mechanism of transplant rejection, emphasizing the role of cell-mediated immunity. The students are engaged in a discussion on how certain immune cells are pivotal in recognizing and attacking the transplanted tissue, leading to graft rejection. Later during an immunology lecture recap, the professor delves deeper into cell-mediated immunity and the immune cells central to this process. Given the clinical scenario of transplant rejection and the theoretical discussion, which of the following cells are primarily responsible for cell-mediated immunity?

A. B cells

B. Memory B cells

C. Cytotoxic T cells

D. Helper T cell

Correct Answer: C. Cytotoxic T cells
Cytotoxic T cells (also known as CD8+ T cells) are the primary effector cells in cell-mediated immunity. They have the capability to directly recognize and kill cells that are infected with viruses or are otherwise damaged or dysfunctional, as in the case of transplant rejection.

- **Option A:** B cells are central to humoral immunity rather than cell-mediated immunity. They function by producing antibodies that neutralize pathogens, which is distinct from the direct cell-to-cell combat characteristic of cell-mediated immunity.
- **Option B:** Memory B cells, like B cells, are associated with humoral immunity by holding the immunological memory of previously encountered antigens. They do not play a primary role in cell-mediated immunity.
- **Option D:** Helper T cells (CD4+ T cells) assist in the activation of other immune cells, including cytotoxic T cells and B cells, by releasing cytokines. While they play a supporting role in cell-mediated immunity, the primary executors of cell-mediated immune responses are the cytotoxic T cells.

22. Within a few hours of alcohol withdrawal, nurse John should assess the male client for the presence of:

A. Disorientation, paranoia, tachycardia

B. Tremors, fever, profuse diaphoresis

C. Irritability, heightened alertness, jerky movements

D. Yawning, anxiety, convulsions

Correct Answer: C. Irritability, heightened alertness, jerky movements

Alcohol is a central nervous system depressant. These symptoms are the body's neurological adaptation to the withdrawal of alcohol. Alcohol withdrawal symptoms occur when patients stop drinking or significantly decrease their alcohol intake after long-term dependence. Withdrawal has a broad range of symptoms from mild tremors to a condition called delirium tremens, which results in seizures and could progress to death if not recognized and treated promptly.

- **Option A:** Alcohol withdrawal can range from very mild symptoms to severe form, which is named delirium tremens. The hallmark is autonomic dysfunction resulting from the excitation of the central nervous system. Mild signs/symptoms can arise within six hours of alcohol cessation. If symptoms do not progress to more severe symptoms within 24 to 48 hours, the patient will likely recover.
- **Option B:** Mild symptoms can be insomnia, tremulousness, hyperreflexia, anxiety, gastrointestinal upset, headache, palpitations. Moderate symptoms include alcohol withdrawal seizures (rum fits) that can occur 12 to 24 hours after cessation of alcohol and are typically generalized in nature. There is a 3% incidence of status epilepticus in these patients. About 50% of patients who have had a withdrawal seizure will progress to delirium tremens.
- **Option D:** Delirium tremens is the most severe form of alcohol withdrawal, and its hallmark is that of an altered sensorium with significant autonomic dysfunction and vital sign abnormalities. It includes visual hallucinations, tachycardia, hypertension, hyperthermia, agitation, and diaphoresis. Symptoms of delirium tremens can last up to seven days after alcohol cessation and may last even longer.

23. The nurse is assessing a male client 24 hours following a cholecystectomy. The nurse noted that the T-tube has drained 750 mL of green-brown drainage since the surgery. Which nursing intervention is appropriate?

A. Clamp the T-tube

B. Irrigate the T-tube

C. Notify the physician

D. Document the findings

Correct Answer: D. Document the findings.

Following cholecystectomy, drainage from the T-tube is initially bloody and then turns to a greenish-brown color. The drainage is measured as output. The amount of expected drainage will range from 500 to 1000 mL/day. The nurse would document the output. The fluid may appear bloody for the first day or 2. The color will eventually be golden yellow or greenish, depending on exactly where the catheter is inside the body.

- **Option A:** The doctor may order the t-tube to be clamped at times so bile can drain to the duodenum so fats can be digested during meal times. If choledocholithiasis persists, the T-tube can be clamped to promote stone passage. If signs or symptoms of cholangitis occur, the tube can be unclamped and repeat imaging is obtained.
- **Option B:** The client will need to flush the catheter with normal saline twice a day. If the doctor instructed to flush with less than 10 mL, squirt the extra saline out before connecting the syringe. Push the plunger of the syringe to push 1/3 of the normal saline into the catheter, and then pause. Push in another 1/3 of the normal saline, and pause again. Push in the rest of the normal saline into the catheter. Never pull back on the plunger.
- **Option C:** Notify the physician if the drainage is more than 500 mL/day. Watch for extremely thick, bad-smelling drainage with a fever or extremely bloody like bright red blood that looks fresh.

Assess how well the patient tolerated the t-tube being clamped. If the patient develops abdominal pain, nausea, vomiting, etc. unclamp it and notify the physician.

24. The nurse in charge measures a patient's temperature at 102 degrees F. what is the equivalent Centigrade temperature?

A. 39 degrees C

B. 47 degrees C

C. 38.9 degrees C

D. 40.1 degrees C

Correct Answer: C. 38.9 degrees C

To convert Fahrenheit degrees to centigrade, use this formula:
C degrees = (F degrees – 32) x 5/9
C degrees = (102 – 32) 5/9
+ 70 x 5/9
38.9 degrees C

- **Option A:** Fahrenheit and Celsius both use different temperatures for the freezing and boiling points of water, and also use differently sized degrees. Water freezes at 0 degrees Celsius, and boils at 100 degrees C, while in Fahrenheit, water freezes at 32 degrees F and boils at 212 degrees F.
- **Option B:** Use the relationship in degree size to convert between Celsius and Fahrenheit. Because Celsius degrees are larger than those in Fahrenheit, to convert from Celsius to Fahrenheit, multiply the Celsius temperature by 1.8, then add 32.
- **Option D:** The Fahrenheit and Celsius scales are the two most common temperature scales. However, the two scales use different measurements for the freezing and boiling points of water, and also use different sized degrees.

25. Nurse Trisha teaches a client with heart failure to take oral furosemide in the morning. The reason for this is to help…

A. Retard rapid drug absorption

B. Excrete excessive fluids accumulated at night

C. Prevents sleep disturbances during night

D. Prevention of electrolyte imbalance

Correct Answer: C. Prevents sleep disturbances during night

When diuretics are taken in the morning, the client will void frequently during daytime and will not need to void frequently at night. Normally, when an individual receives furosemide either orally or intravenously, it increases sodium excretion in urine. In a patient with extracellular volume expansion who has never had exposure to furosemide, the first dose of the drug causes significant sodium excretion and diuresis within the first 3 to 6 hours.

- **Option A:** Furosemide inhibits tubular reabsorption of sodium and chloride in the proximal and distal tubules, as well as in the thick ascending loop of Henle by inhibiting sodium-chloride cotransport system resulting in excessive excretion of water along with sodium, chloride,

magnesium, and calcium.

- **Option B:** Excreting excessive fluids at night could cause sleep disturbances for the client. The onset of action of furosemide is usually within the first hour of oral furosemide intake, and it takes first 1 to 2 hours to achieve a peak effect. The mean bioavailability of oral furosemide is 51% compared with the bioavailability of intravenously administered furosemide.
- **Option D:** Administration of furosemide results in excessive excretion of water along with sodium, chloride, magnesium, and calcium. Although more furosemide gets excreted in the urine after IV administration, there is no difference in the amount of unchanged furosemide excretion in urine between the two formulations. Furosemide achieves an early and high serum peak concentration and a higher peak excretion rate after intravenous administration.

26. Which of the following pathophysiological mechanisms that occur in the lung parenchyma allow pneumonia to develop?

A. Atelectasis

B. Bronchiectasis

C. Effusion

D. Inflammation

Correct Answer: D. Inflammation

The common feature of all types of pneumonia is an inflammatory pulmonary response to the offending organism or agent. The resident macrophages serve to protect the lung from foreign pathogens. Ironically, the inflammatory reaction triggered by these very macrophages is what is responsible for the histopathological and clinical findings seen in pneumonia.

- **Option A:** Atelectasis and bronchiectasis indicate a collapse of a portion of the airway that doesn't occur in pneumonia. It is caused by the partial or complete, reversible collapse of the small airways resulting in an impaired exchange of CO2 and O2 – i.e., intrapulmonary shunt. The incidence of atelectasis in patients undergoing general anesthesia is 90%.
- **Option B:** Bronchiectasis is a chronic lung disease characterized by persistent and lifelong widening of the bronchial airways and weakening of the function mucociliary transport mechanism owing to repeated infection contributing to bacterial invasion and mucus pooling throughout the bronchial tree.
- **Option C:** An effusion is an accumulation of excess pleural fluid in the pleural space, which may be a secondary response to pneumonia. Accumulation of excess fluid can occur if there is excessive production or decreased absorption or both overwhelming the normal homeostatic mechanism. If pleural effusion is mainly due to mechanisms that lead to pleural effusion mainly due to increased hydrostatic pressure are usually transudative, and leading to pleural effusion have altered the balance between hydrostatic and oncotic pressures (usually transudates), increased mesothelial and capillary permeability (usually exudates) or impaired lymphatic drainage.

27. When planning the discharge of a client with chronic anxiety, Nurse Chris evaluates achievement of the discharge maintenance goals. Which goal would be A. The client eliminates all anxiety from daily situations. appropriately having been included in the plan of care requiring evaluation?

A. The client eliminates all anxiety from daily situations.

B. The client ignores feelings of anxiety.

C. The client identifies anxiety-producing situations.

D. The client maintains contact with a crisis counselor.

Correct Answer: C. The client identifies anxiety-producing situations

Recognizing situations that produce anxiety allows the client to prepare to cope with anxiety or avoid specific stimulus. Observe for increasing anxiety. Assume a calm manner, decrease environmental stimulation, and provide temporary isolation as indicated. Early detection and intervention facilitate modifying a client's behavior by changing the environment and the client's interaction with it, to minimize the spread of anxiety.

- **Option A:** Establish and maintain a trusting relationship by listening to the client; displaying warmth, answering questions directly, offering unconditional acceptance; being available, and respecting the client's use of personal space. Therapeutic skills need to be directed toward putting the client at ease, because the nurse who is a stranger may pose a threat to the highly anxious client.
- **Option B:** Encourage the client to talk about traumatic experiences under non-threatening conditions. Help the client work through feelings of guilt related to the traumatic event. Help the client understand that this was an event to which most people would have responded in like manner. Support the client during flashbacks of the experience.
- **Option D:** Teach signs and symptoms of escalating anxiety, and ways to interrupt its progression (e.g., relaxation techniques, deep- breathing exercises, physical exercises, brisk walks, jogging, meditation). So the client can start using relaxation techniques; gives the client confidence in having control over his anxiety.

28. Nurse Aldrin is preparing to perform endotracheal suctioning for a client. Which of the following are appropriate guidelines for the nurse to follow? Select all that apply.

A. Apply suction while withdrawing the catheter.

B. Perform suctioning on a routine basis, every 2 to 3 hours.

C. Maintain medical asepsis during suctioning.

D. Use a new catheter for each suctioning attempt.

E. Limit suctioning to 2 to 3 attempts.

Correct Answer: A, D, & E

Within intensive care units (ICUs), one such common procedure is the suctioning of respiratory secretions in patients who have been intubated or who have undergone tracheostomy. The traditional goal of suctioning is to aid in maintaining airway patency and prevent complications related to the retention of secretions

- **Option A:** The nurse should apply suction pressure only while withdrawing the catheter, not while inserting it. One interesting thing to note about ETS is that negative pressure is created inside of the lungs only while air flows out of the suction catheter. As soon as secretions are aspirated into the catheter, the intrapulmonary pressure returns to that of the atmospheric level, and lung volume loss stops.

- **Option B:** The nurse should not suction routinely because suctioning is not without risk. It can cause mucosal damage, bleeding, and bronchospasm. Although there has been a very limited number of studies regarding a scheduled frequency of performing ETS every 1, 3, 4, 6, 8, or even 12 hours, the overall recommendation is to suction only as indicated (as needed).
- **Option C:** Endotracheal suctioning requires surgical asepsis. The second method of suctioning is the shallow (premeasured) technique, which is also considered minimally invasive.1-3 With shallow ETS, the catheter is inserted only to the tip of the ETT, thereby avoiding injury to the airway.
- **Option D:** The nurse should not reuse the suction catheter unless an in-line suctioning system is in place. If a suction catheter is too large for the ETT, and/or there is too much vacuum pressure, massive atelectasis may occur. Therefore, the general recommendation is to use a suction catheter that has an external diameter less than 50% of the size of the ETT inner diameter.
- **Option E:** To prevent hypoxemia, the nurse should limit each section in session to 2 to 3 attempts and allow at least one minute between passes for ventilation and oxygenation. The reason for this is because there is considerable risk with using “routine” suctioning. It has been suggested by Pedersen et al3 that ETS should be performed at least every 8 hours to slow the formation of the secretion biofilm within the lumen of the endotracheal tube (ETT). Clifton-Koeppel1 made a good general recommendation that ETS should be performed as infrequently as possible—yet as much as needed.

29. Which technique would be best in caring for a client following receiving a diagnosis of a stage IV tumor in the brain?

A. Offering the client pamphlets on support groups for brain cancer.

B. Asking the client if there is anything he or his family needs.

C. Reminding the client that advances in technology are occurring every day.

D. Providing accurate information about the disease and treatment options.

Correct Answer: D. Providing accurate information about the disease and treatment options.

Providing information for the client is the best technique for a new diagnosis. Every clinician at one time or another faces these important questions. In the treatment of terminally ill patients, the health professional needs many skills: the ability to deliver bad news, the knowledge to provide appropriate optimal end-of-life care, and the compassion to allow a person to retain his or her dignity.

- **Option A:** Cassem, in the Massachusetts General Hospital Handbook of General Hospital Psychiatry, recommends relaying negative information to patients through a brief, rehearsed initial statement that succinctly communicates the news and clearly indicates that the treatment team is committed to the ongoing care and support of the patient.
- **Option B:** In considering the emotional state of a person with terminal illness, it is often helpful to consider the effects of the family members on the patient and vice versa. By observing the interactions of a patient with family, the consultant can become aware of long-standing grudges or new difficulties in communication that can make the process of coming to closure at the end of a life more difficult.
- **Option C:** In most cases, patients who are told their diagnosis in an up-front, clear manner have better emotional adjustments to their situation than those who are not told about their condition. By providing direct, clear information in a compassionate manner, and by making clear to the patient that everything possible will be done to provide medical and emotional support, physicians can elicit trust and reduce anxiety.

30. You are preparing a child for IV conscious sedation before the repair of a facial laceration. What information should you report immediately to the physician?

A. The child suddenly pulls out the IV

B. The parent is not sure regarding the child's tetanus immunization status

C. The parent wants information about the IV conscious sedation

D. The parent's refusal of the administration of the IV sedation

Correct Answer: D. The parent's refusal of the administration of the IV sedation.

The refusal of the parents is an absolute contraindication; therefore the physician must be notified. But the autonomy of parents is very obviously different from the autonomy of patients to make decisions for themselves. While adult patients are generally thought to have an absolute right to refuse medical treatment for themselves, we don't usually think that parents can refuse all medical treatment for their children.

- **Option A:** The RN can reestablish the IV access. Parents' views might, at least in some circumstances, influence whether or not treatment would be in a child's best interests. Nurses and doctors are able to administer fluid directly into the veins using IV therapy. IV therapy is a relatively simple process that can be performed by nurses, but there are serious complications associated with it.
- **Option B:** Tetanus status can be addressed later. Tetanus immunization is part of the DTaP (diphtheria, tetanus, and acellular pertussis) vaccinations. Kids usually get: a series of four doses of DTaP vaccine before 2 years of age. another dose at 4–6 years of age.
- **Option C:** The RN can provide information about conscious sedation. Identifying teachable moments in clinical practice is an effective way to increase workplace learning with all nurses playing a role, not just nurse educators.

31. 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.

32. Mrs. Kennedy had a CVA (cerebrovascular accident) and has a severe right-sided weakness. She has been taught to walk with a cane. The nurse is evaluating her use of the cane prior to discharge. Which of the following reflects the correct use of the cane?

A. Holding the cane in her left hand, Mrs. Kennedy moves the cane forward first, then her right leg, and finally her left leg.

her left leg. B. Holding the cane in her right hand, Mrs. Kennedy moves the cane forward first, then her left leg, and finally her right leg.

C. Holding the cane in her right hand, Mrs. Kennedy moves the cane and her right leg forward then moves her left leg forward.

D. Holding the cane in her left hand, Mrs. Kennedy moves the cane and her left leg forward, then moves her right leg forward.

Correct Answer: A. Holding the cane in her left hand, Mrs. Kennedy moves the cane forward first, then her right leg, and finally her left leg

When a person with weakness on one side uses a cane, there should always be two points of contact with the floor. When Mrs. Kennedy. moves the cane forward, she has both feet on the floor, providing stability. As she moves the weak leg, the cane and the strong leg provide support. Finally, the cane, which is even with the weak leg, provides stability while she moves the strong leg.

- **Option B:** She should not hold the cane with her weak arm. The use of the cane requires arm strength to ensure that the cane provides adequate stability when standing on the weak leg. To go upstairs, use the handrail and step up with the unaffected leg first and follow with the cane and the affected foot together.
- **Option C:** The cane should be held in the left hand, the hand opposite the affected leg. Hold the cane in the hand of the unaffected side. Move the cane and the affected leg forward at the same time, so that the cane helps take the weight of the weak leg. Then step with the unaffected leg.
- **Option D:** If Mrs. Kennedy. moved the cane and her strong foot at the same time, she would be left standing on her weak leg at one point. This would be unstable at best; at worst, impossible. To go downstairs, use the handrail and step down with the affected foot and cane together first and follow with the unaffected foot.

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

A. Bronchoscopy

B. Sputum culture

C. Chest x-ray

D. Tuberculin skin test

Correct Answer: B. Sputum culture

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

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

34. The nurse is aware that the side effect of electroconvulsive therapy that a client may experience:

A. Loss of appetite

B. Postural hypotension

C. Confusion for a time after treatment

D. Complete loss of memory for a time

Correct Answer: C. Confusion for a time after treatment

The electrical energy passing through the cerebral cortex during ECT results in a temporary state of confusion after treatment. Cerebral blood flow and intracranial pressure both increase with ECT therapy. Clinically, patients may exhibit confusion, delirium, disorientation, and memory loss. ECT is classified as a low-risk procedure by the AHA-ACC guidelines because it is well-tolerated, and demonstrates only transient hemodynamic lability and low mortality rate.

- **Option A:** Bilateral or bitemporal ECT causes more cognitive impairment than unilateral ECT, although this effect is transient. A meta-analysis of 1415 depressed patients treated with ECT revealed that global cognition, verbal memory, and autobiographical memory were worse with bilateral treatment three days after treatment.
- **Option B:** The clonic phase of the seizure correlates with a catecholamine surge that causes tachycardia and hypertension, which lasts temporally with seizure duration. Hypertension and

tachycardia resolve within 10 to 20 minutes of the seizure, although some patients exhibit persistent hypertension that requires medical intervention.

- **Option D:** According to the American Psychiatric Association, patients receiving ECT are at higher risk if they show evidence of unstable or severe cardiovascular disease, a space-occupying intracranial lesion with evidence of elevated intracranial pressure, history of an acute cerebral hemorrhage or stroke, an unstable vascular aneurysm, severe pulmonary disease, or qualify as American Society of Anesthesiologists (ASA) Class 4 or 5.

35. A client with tonic-clonic seizure is receiving phenobarbital (Luminal) and valproic acid (Depakene). The nurse tells the client that:

A. Valproic acid decreases phenobarbital metabolism.

B. Valproic acid increases phenobarbital metabolism.

C. There is no interaction between the two.

D. Increase the dosage of the two medications.

Correct Answer: A. Valproic acid decreases phenobarbital metabolism.

Valproic acid appears to decrease phenobarbital metabolism, thus there is increased levels of phenobarbital in the body. Therefore, phenobarbital blood levels should be monitored and appropriate dosage adjustments made as indicated.

36. Clients with sickle cell anemia are taught to avoid activities that cause hypoxia and hypoxemia. Which of the following activities would the nurse recommend?

A. A family vacation in the Rocky Mountains

B. Chaperoning the local boys club on a snow-skiing trip

C. Traveling by airplane for business trips

D. A bus trip to the Museum of Natural History

Correct Answer: D. A bus trip to the Museum of Natural History

Taking a trip to the museum is the only answer that does not pose a threat.

- **Options A, B, and C:** A family vacation in the Rocky Mountains at high altitudes, cold temperatures, and airplane travel can cause sickling episodes and should be avoided.

37. Fistulas are most common with which of the following bowel disorders?

A. Crohn’s disease

B. Diverticulitis

C. Diverticulosis

D. Ulcerative colitis

Correct Answer: A. Crohn’s disease

The lesions of Crohn's disease are transmural; that is, they involve all thickness of the bowel. These lesions may perforate the bowel wall, forming fistulas with adjacent structures. Crohn's disease can progress from an initially mild to moderate inflammatory condition to severe penetrating (fistulization) and/or stricturing disease. The initial lesion starts out as an infiltrate around an intestinal crypt. This goes on to develop ulceration first in the superficial mucosa and involves deeper layers.

- **Option B:** Fistulas don't develop in diverticulitis. Diverticulitis is the result of microscopic and macroscopic perforations of the diverticular wall. Previously, practitioners thought that obstruction of colonic diverticulum with fecaliths led to increased pressure within the diverticulum and subsequent perforation. They now theorized that increased luminal pressure is due to food particles that lead to erosion of the diverticular wall.
- **Option C:** Diverticula occurs in weaker portions of the colonic wall where the vasa recta infiltrates the circular muscular layer. The vast majority of colonic diverticula are typically "false" diverticula, which are mucosa and submucosa herniating through a defect or weakness in the muscularis layer, covered externally only by serosa.
- **Option D:** The ulcers that occur in the submucosal and mucosal layers of the intestine in ulcerative colitis usually don't progress to fistula formation as in Crohn's disease. Colonoscopy or proctosigmoidoscopy might reveal loss of typical vascular pattern, granularity, friability, and ulceration which involve the distal rectum and proceed proximally in a symmetric, continuous, and circumferential pattern.

38. In an acute pediatric pulmonology unit, a dedicated nurse is faced with the critical care management of a 16-year-old patient diagnosed with cystic fibrosis (CF), who is now admitted with exacerbated respiratory symptoms and a suspected case of pneumonia. Considering the complexity of CF and the heightened vulnerability of the patient's respiratory status, which nursing intervention should be prioritized to effectively address the patient's immediate needs and improve respiratory function?

A. Perform postural drainage and chest physiotherapy every 4 hours.

B. Allow the patient to decide whether she needs aerosolized medications.

C. Place the patient in a private room to decrease the risk of further infection.

D. Plan activities to allow at least 8 hours of uninterrupted sleep.

E. Administer intravenous antibiotics as per the physician's orders.

F. Monitor oxygen saturation continuously and provide supplemental oxygen as needed.

Correct Answer: A. Perform postural drainage and chest physiotherapy every 4 hours.
In patients with CF, especially during an acute exacerbation or infection like pneumonia, the clearance of thick, tenacious pulmonary secretions is paramount. Postural drainage and chest physiotherapy are crucial interventions to facilitate mucus clearance, improve ventilation, and prevent further respiratory compromise. Implementing these interventions every 4 hours aligns with the acute nature of the patient's condition.

- **Option B:** While patient autonomy is important, the decision to administer aerosolized medications such as bronchodilators or mucolytics should not be left solely to the patient, especially during an acute exacerbation. These medications are an essential part of managing CF and should be administered as prescribed to optimize respiratory function.

- **Option C:** Placing the patient in a private room is an important infection control measure, particularly for a patient with CF who is at increased risk for infections. However, this is not the most immediate intervention needed to address the patient's respiratory distress.
- **Option D:** Rest and sleep are essential for healing and recovery, but ensuring the patient gets 8 hours of uninterrupted sleep is not the most crucial intervention when compared to the immediate need for respiratory support and management.
- **Option E:** Administering intravenous antibiotics is a vital component of treating pneumonia, especially in CF patients who are prone to bacterial infections. While this is a critical intervention, the immediate need for airway clearance takes precedence.
- **Option F:** Continuous monitoring of oxygen saturation and providing supplemental oxygen as needed are important for ensuring adequate oxygenation, particularly in the context of pneumonia. However, the fundamental issue in CF is the difficulty clearing thick mucus from the airways, which is best addressed through postural drainage and chest physiotherapy.

39. On the third day after a partial thyroidectomy, Proserfina exhibits muscle twitching and hyperirritability of the nervous system. When questioned, the client reports numbness and tingling of the mouth and fingertips. Suspecting a life-threatening electrolyte disturbance, the nurse notifies the surgeon immediately. Which electrolyte disturbance most commonly follows thyroid surgery?

A. Hypocalcemia

B. Hyponatremia

C. Hyperkalemia

D. Hypermagnesemia

Correct Answer: A. Hypocalcemia

Hypocalcemia may follow thyroid surgery if the parathyroid glands were removed accidentally. Signs and symptoms of hypocalcemia may be delayed for up to 7 days after surgery. Thyroid surgery doesn't directly cause serum sodium, potassium, or magnesium abnormalities.

- **Option B:** Hyponatremia may occur if the client inadvertently received too much fluid; however, this can happen to any surgical client receiving I.V. fluid therapy, not just one recovering from thyroid surgery.
- **Option C:** Hyperkalemia is not associated with thyroid surgery. It is usually found in patients with reduced renal excretion of potassium and magnesium.
- **Option D:** Hypermagnesemia usually is associated with reduced renal excretion of potassium and magnesium, not thyroid surgery.

40. Mr. Salcedo has the following arterial blood gas (ABG) values: pH of 7.34, partial pressure of arterial oxygen of 80 mm Hg, partial pressure of arterial carbon dioxide of 49 mm Hg, and a bicarbonate level of 24 mEq/L. Based on these results, which intervention should the nurse implement?

A. Instructing the client to breathe slowly into a paper bag.

B. Administering low-flow oxygen.

C. Encouraging the client to cough and deep breathe.

D. Nothing, because these ABG values are within normal limits.

Correct Answer: C. Encouraging the client to cough and deep breathe.

The ABG results indicate respiratory acidosis requiring improved ventilation and increased oxygen to the lungs. Coughing and deep breathing can accomplish this. Encourage and assist with deep-breathing exercises, turning, and coughing. Suction as necessary. Provide airway adjunct as indicated. Place in semi-Fowler's position. These measures improve lung ventilation and reduce or prevent airway obstruction associated with the accumulation of mucus.

- **Option A:** Breathing into a paper bag is appropriate for a client hyperventilating and experiencing respiratory alkalosis. Provide appropriate chest physiotherapy, including postural drainage and breathing exercises. Aids in clearing secretions, which improves ventilation, allowing excess CO2 to be eliminated.
- **Option B:** The nurse would administer high oxygen levels because the client does not have chronic obstructive pulmonary disease. Administer oxygen as indicated. Increase respiratory rate or tidal volume of the ventilator, if used. Prevents and corrects hypoxemia and respiratory failure.
- **Option D:** Some action is necessary because the ABG results are not within normal limits. Monitor and graph serial ABGs, pulse oximetry readings; Hb, serum electrolyte levels. Evaluates therapy need and effectiveness. Note: Bedside pulse oximetry monitoring is used to show early changes in oxygenation before other signs or symptoms are observed.

41. Drugs that lower intraocular pressure work by increasing:

A. The flow of aqueous humor through the anterior chamber.

B. Fluid volume in the eye's anterior chamber.

C. Pressure in the eye chambers.

D. Diameter of the eye chambers.

Correct Answer: A. The flow of aqueous humor through the anterior chamber.

Drugs that lower intraocular pressure increases the flow of aqueous humor through the eye's anterior chamber. The goal of glaucoma treatment is to improve quality of life through the reduction of IOP to preserve visual function. In the process of IOP reduction, an ideal medication should have a schedule that is simple to follow, be least interrupting with a patient's life, highly tolerable, and affordable.

- **Option B:** The primary mechanism of action of prostaglandins is believed to reduce IOP by increasing uveoscleral outflow. This is in contrast to other classes of antiglaucoma medications, which act by increasing aqueous humor outflow via the trabecular meshwork or by inhibiting aqueous production.
- **Option C:** There is some evidence suggesting that long-term therapy with bimatoprost increases both pressure-dependent trabecular outflow and pressure-independent uveoscleral outflow via remodeling of extracellular matrix in the trabecular meshwork and ciliary muscle, respectively.
- **Option D:** Systemic adverse events reported after treatment with bimatoprost 0.03% have included colds and upper respiratory tract infections occurring in approximately 10% of patients, and headaches, abnormal liver function tests, asthenia, and hirsutism. Bimatoprost 0.03% did not have any clinically significant effect on heart rate or blood pressure in patients with glaucoma or ocular

hypertension in clinical trials.

42. The nurse is assessing for the presence of cyanosis in a male dark-skinned client. The nurse understands which body area would provide the best assessment?

A. Lips

B. Sacrum

C. Earlobes

D. Back of the hands

Correct Answer: A. Lips

In a dark-skinned client, the nurse examines the lips, tongue, nail beds, conjunctivae, and palms of the hands and soles of the feet at regular intervals for subtle color changes. In a client with cyanosis, the lips and tongue are gray; the palms, soles, conjunctivae, and nail beds have a bluish tinge. When the oxygen level has dropped only a small amount, cyanosis may be hard to detect. In dark-skinned people, cyanosis may be easier to see in the mucous membranes (lips, gums, around the eyes) and nails.

- **Option B:** Skin color is particularly important in detecting cyanosis and staging pressure ulcers. Cyanosis occurs when a person has 5 g/dL of unoxygenated hemoglobin in the arterial blood. Central cyanosis (cyanosis of the lips, mucous membranes, and tongue) occurs when arterial oxygen saturation falls below 85% in patients with normal hemoglobin levels.
- **Option C:** But in dark-skinned patients, cyanosis may present as gray or whitish (not bluish) skin around the mouth, and the conjunctivae may appear gray or bluish. In patients with yellowish skin, cyanosis may cause a grayish-greenish skin tone.
- **Option D:** When checking for pressure ulcers in dark-skinned patients, remember that dark skin rarely shows the blanch response. Instead, after applying light pressure, look for an area that's darker than the surrounding skin or that's taut, shiny, or indurated (hardened).

43. ACEs participate in the renin-angiotensin-aldosterone system to have which of the following physiologic effects?

A. Inhibit conversion of angiotensin II to angiotensin I.

B. Vasoconstriction and sodium depletion.

C. Promote sodium and water retention.

D. Stimulate vasodilation and inhibit sodium depletion.

Correct Answer: C. Promote sodium and water retention.

Angiotensin is a potent vasoconstrictor that stimulates the release of aldosterone. Aldosterone release promotes sodium and water retention. The renin–angiotensin–aldosterone system (RAAS) is a critical regulator of blood volume and systemic vascular resistance. While the baroreceptor reflex responds in a short-term manner to decreased arterial pressure, the RAAS is responsible for more chronic alterations. It is composed of three major compounds: renin, angiotensin II, and aldosterone.

- **Option A:** The conversion of angiotensin I to II is not inhibited. The conversion of angiotensin I to angiotensin II is catalyzed by an enzyme called angiotensin-converting enzyme (ACE). ACE is found primarily in the vascular endothelium of the lungs and kidneys. After angiotensin I is converted to angiotensin II, it has effects on the kidney, adrenal cortex, arterioles, and brain by binding to angiotensin II type I (AT) and type II (AT) receptors.
- **Option B:** Aldosterone promotes sodium retention, not depletion. Aldosterone is a steroid hormone that causes an increase in sodium reabsorption and potassium excretion at the distal tubule and collecting duct of the nephron. Aldosterone works by stimulating the insertion of luminal Na channels and basolateral Na-K ATPase proteins. The net effect is an increased level of sodium reabsorption.
- **Option D:** The effect of angiotensin II on vasoconstriction takes place in systemic arterioles. Here, angiotensin II binds to G protein-coupled receptors, leading to a secondary messenger cascade that results in potent arteriolar vasoconstriction. This acts to increase total peripheral resistance, causing an increase in blood pressure.

44. Thrombolytic therapy is frequently used in the treatment of suspected stroke. Which of the following is a significant complication associated with thrombolytic therapy?

A. Air embolus.

B. Cerebral hemorrhage.

C. Expansion of the clot.

D. Resolution of the clot.

Correct Answer: B. Cerebral hemorrhage.

Cerebral hemorrhage is a significant risk when treating a stroke victim with thrombolytic therapy intended to dissolve a suspected clot. The success of the treatment demands that it be instituted as soon as possible, often before the cause of stroke has been determined.

- **Option A:** Air embolism is not a concern. Thrombosis is an important part of the normal hemostatic response that limits hemorrhage caused by microscopic or macroscopic vascular injury. Physiologic thrombosis is counterbalanced by intrinsic antithrombotic properties and fibrinolysis. Under normal conditions, a thrombus is confined to the immediate area of injury and does not obstruct flow to critical areas, unless the blood vessel lumen is already diminished, as it is in atherosclerosis.
- **Option C:** Both hemostasis and thrombosis depend on the coagulation cascade, vascular wall integrity, and platelet response. Several cellular factors are responsible for thrombus formation. When a vascular insult occurs, an immediate local cellular response takes place. Platelets migrate to the area of injury, where they secrete several cellular factors and mediators. These mediators promote clot formation.
- **Option D:** Thrombolytic therapy does not lead to the expansion of the clot, but to resolution, which is the intended effect.

45. A client who is HIV+ has had a PPD skin test. The nurse notes a 7-mm area of induration at the site of the skin test. The nurse interprets the results as:

A. Positive

B. Negative

C. Inconclusive

D. The need for repeat testing.

Correct Answer: A. Positive

The client with HIV+ status is considered to have positive results on PPD skin test with an area greater than 5-mm of induration. The client with HIV is immunosuppressed, making a smaller area of induration positive for this type of client. If the PPD is reddened and raised 10mm or more, it's considered positive according to the CDC. If the infection risk is very high, the PPD test need not be repeated. The positive PPD test is usually followed by TB symptom assessment, physical exam, and chest radiograph.

- **Option B:** If the patient is at a high risk of developing an active infection, a repeat test is recommended after an initial negative test to rule out the possibility of missing a case. However, a decision is made based on the risk factors.
- **Option C:** Inconclusive isn't a term used to describe results of a PPD test. It is a time-sensitive test. Tests that are read late are not accurate as they tend to under-estimate the size of the skin reaction. Therefore, the reliability of the test is compromised, and the results are doubtful.
- **Option D:** To avoid this, repeat testing is recommended if the reaction is not read on time. The second test can be administered as soon as possible. However, if repeated, the test should preferably be performed within 7 days of the initial test to avoid boosting effect.

46. The nursing assistant tells nurse Ronald that the client is not in the dining room for lunch. Nurse Ronald would direct the nursing assistant to do which of the following?

A. Tell the client he'll need to wait until supper to eat if he misses lunch.

B. Invite the client to lunch and accompany him to the dining room.

C. Inform the client that he has 10 minutes to get to the dining room for lunch.

D. Take the client a lunch tray and let the client eat in his room.

Correct Answer: B. Invite the client to lunch and accompany him to the dining room.

The nurse instructs the nursing assistant to invite the client to lunch & accompany him to the dining room to decrease manipulation, secondary gain, dependency and reinforcement of negative behavior while maintaining the client's worth. Staff working with manipulative patients are best prepared when they establish firm rules that are rigidly interpreted and consistently enforced among all members of the health care team. Frequent discussions regarding the patient's progress can help reduce staff frustration and isolation and minimize the patient's attempts at staff splitting.

- **Option A:** Discussing realistic expectations of time and resources available with the patient is of paramount importance. This establishes boundaries and forms a solid foundation on which to build future rapport. The patient will learn that you can be trusted because you will practice with integrity. By putting forth realistic expectations, you can mitigate many manipulative behaviors exhibited in the healthcare setting.
- **Option C:** One of the best ways to become accountable for exemplary care is to advocate for the patient's autonomy. Giving the patient choices regarding his or her care restores a sense of control that is imperative to feeling secure. Many times the lack of a routine or schedule prompts a patient to allege that the nurse is neglectful. Formulating a schedule and faithfully notifying the manipulative patient of changes will demonstrate that you believe he or she is worthy of your time

and efforts.

- **Option D:** There are many specific interventions that may be put into place by an interdisciplinary team caring for a patient who exhibits manipulative behavior. For example, designating one caregiver to be the patient's contact will result in more consistent care. Having two staff members present for all patient interactions will ensure that any claims of misconduct can be evaluated for validity by multiple healthcare professionals.

47. A murmur is heard at the second left intercostal space along the left sternal border. Which valve is this?

A. Aortic

B. Mitral

C. Pulmonic

D. Tricuspid

Correct Answer: C. Pulmonic

Abnormalities of the pulmonic valve are auscultated at the second left intercostal space along the left sternal border. The murmur has a crescendo–decrescendo configuration. There is a strong tendency for the murmur to peak later in systole as stenosis becomes more severe. The murmur is best heard over the second intercostal space at the left sternal border and does not radiate.

- **Option A:** Aortic valve abnormalities are heard at the second intercostal space, to the right of the sternum. The murmur is commonly described as harsh, rasping, grunting, or rough. Best heard over the primary and secondary aortic area, the murmur is transmitted widely over the precordium and radiates to the carotid arteries.
- **Option B:** Mitral valve abnormalities are heard at the fifth intercostal space in the midclavicular line. The murmur of acute mitral regurgitation is typically decrescendo and of variable intensity (usually grade 3 or higher). It begins with the first heart sound and decreases in intensity throughout systole, occasionally terminating before the aortic component of the second heart sound.
- **Option D:** Tricuspid valve abnormalities are heard at the 3rd and 4th intercostal spaces along the sternal border. The murmur of acute tricuspid valve regurgitation (due to infective endocarditis or trauma) is similar in character to that previously described, but often possesses a decrescendo configuration (similar to acute mitral regurgitation) and may terminate before the second heart sound.

48. The nurse provides wound care for a client 48 hours after a burn injury. To achieve the desired outcome of the procedure, which nursing action will be carried out first?

A. Applies silver sulfadiazine (Silvadene) ointment

B. Covers the area with an elastic wrap

C. Places a synthetic dressing over the area

D. Removes loose nonviable tissue

Correct Answer: D. Removes loose nonviable tissue

The first step in this process is removing exudates and necrotic tissue. Burn patients are at high risk for infection, especially drug-resistant infection, which often results in significantly longer hospital stays, delayed wound healing, higher costs, and higher mortality

- **Option A:** Since the adoption of topical antibiotics, such as mafenide in the 1960s and silver sulfadiazine in the 1970s, and of early excision and grafting in the 1970s and thereafter, systemic infections and mortality have consistently decreased. However, Gram-positive and Gram-negative bacterial infections still remain one of the most common causes of mortality following burn injury.
- **Option B:** While many factors must be considered in dressing selection, the goals in selecting the most appropriate dressing should include providing protection from contamination (bacterial or otherwise) and from physical damage, allowing gas exchange and moisture retention, and providing comfort to enhance functional recovery.
- **Option C:** The selection of an appropriate dressing depends on several factors, including depth of burn, condition of the wound bed, wound location, desired moisture retention and drainage, required frequency of dressing changes, and cost.

49. Which of the following actions is the first priority care for a client exhibiting signs and symptoms of coronary artery disease?

A. Decrease anxiety

B. Enhance myocardial oxygenation

C. Administer sublingual nitroglycerin

D. Educate the client about his symptoms

Correct Answer: B. Enhance myocardial oxygenation

Enhancing myocardial oxygenation is always the first priority when a client exhibits signs and symptoms of cardiac compromise. Without adequate oxygen, the myocardium suffers damage.

- **Option A:** Decreasing the client's anxiety is also important, but it is not the priority. When someone is anxious, their body reacts in ways that can put an extra strain on their heart. The physical symptoms of anxiety can be especially damaging among individuals with existing cardiac disease.
- **Option C:** Sublingual nitroglycerin is administered to treat acute angina, but its administration isn't the first priority. 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 D:** Although educating the client is important in care delivery, it is not a priority when a client is compromised. Patient education promotes patient-centered care and increases adherence to medication and treatments. An increase in compliance leads to a more efficient and cost-effective healthcare delivery system. Educating patients ensures continuity of care and reduces complications related to the illness.

50. A nurse is providing education in a community setting about general measures to avoid excessive sun exposure. Which of the following recommendations is appropriate?

A. Wear loosely woven clothing for added ventilation

B. Apply sunscreen only after going in the water

C. Apply sunscreen with a sun protection factor (SPF) of 30 or more before sun exposure

D. Avoid peak exposure hours from 9am to 1pm

Correct Answer: C. Apply sunscreen with a sun protection factor (SPF) of 30 or more before sun exposure

- **Option C:** According to The American Academy of Dermatology A sunscreen with a SPF of 30 or higher should be worn on all sun-exposed skin surfaces is recommended as a protection against ultraviolet A (UVA) and ultraviolet B (UVB) rays.
- **Option A:** Tightly woven clothing, protective hats, and sunglasses are recommended to decrease sun exposure. Sun Tanning parlors should be avoided.
- **Option B:** It should be applied 15 to 30 minutes before sun exposure and reapplied after being in the water.
- **Option D:** Peak sun exposure usually occurs between 10 am to 2 pm.

51. The nurse is teaching a client who has been diagnosed with TB how to avoid spreading the disease to family members. Which statement(s) by the client indicate(s) that he has understood the nurse's instructions? Select all that apply.

A. "I will need to dispose of my old clothing when I return home."

B. "I should always cover my mouth and nose when sneezing."

C. "It is important that I isolate myself from family when possible."

D. "I should use paper tissues to cough in and dispose of them properly."

E. "I can use regular plates and utensils whenever I eat."

Correct Answer: B, C, D, E

Review pathology of disease (active and inactive phases; dissemination of infection through bronchi to adjacent tissues or via bloodstream and/or lymphatic system) and potential spread of infection via airborne droplet during coughing, sneezing, spitting, talking, laughing, singing.

- **Option A:** Identify others at risk like household members, close associates, and friends. Those exposed may require a course of drug therapy to prevent spread or development of infection.
- **Option B:** Instruct patient to cough or sneeze and expectorate into tissue and to refrain from spitting. Initial therapy of uncomplicated pulmonary disease usually includes four drugs, e.g., four primary drugs or combination of primary and secondary drugs.
- **Option C:** Review necessity of infection control measures. Put in temporary respiratory isolation if indicated. May help the patient understand the need for protecting others while acknowledging the patient's sense of isolation and social stigma associated with communicable diseases.
- **Option D:** Review proper disposal of tissue and good hand washing techniques. Encourage return demonstration. Compliance with multidrug regimens for prolonged periods is difficult, so directly observed therapy (DOT) should be considered.
- **Option E:** Contagious period may last only 2–3 days after initiation of chemotherapy, but in presence of cavitation or moderately advanced disease, risk of spread of infection may continue up

to 3 months.

52. Macoy and Helen seek emergency crisis intervention because he slapped her repeatedly the night before. The husband indicates that his childhood was marred by an abusive relationship with his father. When intervening with this couple, nurse Gerry knows they are at risk for repeated violence because the husband:

A. Has only moderate impulse control.

B. Denies feelings of jealousy or possessiveness.

C. Has learned violence as an acceptable behavior.

D. Feels secure in his relationship with his wife.

Correct Answer: C. Has learned violence as an acceptable behavior

Family violence usually is a learned behavior, and violence typically leads to further violence, putting this couple at risk. Unfortunately, each form of family violence begets interrelated forms of violence, and the “cycle of abuse” is often continued from exposed children into their adult relationships, and finally to the care of the elderly. Domestic violence is thought to be underreported. Domestic violence affects the victim, families, co-workers, and community. It causes diminished psychological and physical health, decreases the quality of life, and results in decreased productivity.

- **Option A:** Repeated slapping may indicate poor, not moderate, impulse control. According to the CDC, 1 in 4 women and 1 in 7 men will experience physical violence by their intimate partner at some point during their lifetimes. About 1 in 3 women and nearly 1 in 6 men experience some form of sexual violence during their lifetimes. Intimate partner violence, sexual violence, and stalking are high, with intimate partner violence occurring in over 10 million people each year.
- **Option B:** At least 5 million acts of domestic violence occur annually to women aged 18 years and older, with over 3 million involving men. While most events are minor, for example grabbing, shoving, pushing, slapping, and hitting, serious and sometimes fatal injuries do occur. Approximately 1.5 million intimate partner female rapes and physical assaults are perpetrated annually, and approximately 800,000 male assaults occur. About 1 in 5 women have experienced completed or attempted rape at some point in their lives. About 1% to 2% of men have experienced completed or attempted rape.
- **Option D:** Violent people commonly are jealous and possessive and feel insecure in their relationships. While the research is not definitive, a number of characteristics are thought to be present in perpetrators of domestic violence. Abusers tend to be possessive, jealous, suspicious, and paranoid. Approximately one-third of women and one-fifth of men will be victims of abuse. The most common sites of injuries are the head, neck, and face. Clothes may cover injuries to the body, breasts, genitals, rectum, and buttocks. One should be suspicious if the history is not consistent with the injury.

53. A nurse is reviewing the health records of assigned clients. The nurse plans care knowing that which client is at risk for fluid volume deficit? Select all that apply.

A. The client with cirrhosis

B. The client with a colostomy

C. The client with diarrhea

D. The client with third-degree burns

E. The client with decreased kidney function

F. The client with congestive heart failure (CHF)

Correct Answer B, C, & D.

Causes of a fluid volume deficit include vomiting, diarrhea, conditions that cause increased respirations or increased urinary output, insufficient intravenous fluid replacement, draining fistulas, ileostomy, and colostomy. A client with cirrhosis, CHF, or decreased kidney function is at risk for fluid volume excess.

- **Option A:** Ascites is most often caused by liver scarring, otherwise known as cirrhosis. Scarring increases pressure inside the liver's blood vessels. The increased pressure can force fluid into the abdominal cavity, resulting in ascites.
- **Option B:** When the colon (large intestine) is removed, a greater risk for electrolyte imbalance can occur. The effluent characteristics of an ileostomy are between normal ileal and fecal content. There is fluid and electrolyte loss as the small bowel is unable to conserve sodium, chloride, and bicarbonate leading to dehydration, hyponatremia, and metabolic acidosis.
- **Option C:** All the acute effects of watery diarrhea result from the loss of water and electrolytes from the body in liquid stool. Additional amounts of water and electrolytes are lost when there is vomiting, and water losses are also increased by fever.
- **Option D:** Severe fluid loss is the greatest problem faced following major burn injuries. Therefore, effective fluid resuscitation is one of the cornerstones of modern burn treatment.
- **Option E:** Progressive loss of renal function causes reduced-sodium filtration and inappropriate suppression of tubular reabsorption that ultimately lead to volume expansion. Fluid overload frequently manifests in patients with moderate to particularly late stages of CKD and has been associated with hypertension, congestive heart failure (CHF), left ventricular hypertrophy (LVH) as well as edema.
- **Option F:** Heart failure can disturb the normal functioning of the kidney, weakening its ability to excrete sodium from the body and triggering mechanisms that cause water retention resulting in fluid overload.

54. A client is admitted with a diagnosis of Sturge-Weber syndrome. Which of the following information would you expect to find in this client?

A. It is a dysfunction of the trigeminal nerve causing a severe sharp pain in the nose, lips, gums, or across the cheeks.

B. It is a non-progressive neurological disorder of the seventh cranial nerve causing paralysis of one of the sides of the face.

C. It is a rare degenerative brain disorder characterized by sudden development of progressive neurological and neuromuscular symptoms.

D. It is a neurocutaneous disorder with angiomas causing abnormalities in the skin, brain, and eyes from birth.

Correct Answer: D. It is a neurocutaneous disorder with angiomas causing abnormalities in the skin, brain, and eyes from birth.

Sturge-Weber syndrome, also known as encephalofacial or encephalotrigeminal angiomatosis, is a neurocutaneous syndrome that is associated with a port-wine birthmark (facial port-wine stains in the trigeminal nerve distribution), vascular lesions in the ipsilateral brain and meninges, and eye problems such as glaucoma.

- **Option A:** It is a description of a client with Trigeminal neuralgia.
- **Option B:** It is a description of a client with a Bell's Palsy.
- **Option C:** It is a description of a client with Creutzfeldt-Jakob disease (CJD).

55. The best explanation of what Title VI of the Civil Rights Act mandates is the freedom to:

A. Pick any physician and insurance company despite one's income.

B. Receive free medical benefits as needed within the county of residence.

C. Have equal access to all health care regardless of race and religion.

D. Have basic care with a sliding scale payment plan from all healthcare facilities.

Correct Answer: C. Have equal access to all health care regardless of race and religion.

Title VI of the Civil Rights Act of 1964 states that "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

- **Option A:** The Affordable Care Act puts consumers back in charge of their health care. Under the law, a new "Patient's Bill of Rights" gives the American people the stability and flexibility they need to make informed choices about their health. Through this bill, the client may choose the primary care physician he wants from his plan's network.
- **Option B:** Since the Patient's Bill of Rights was enacted, the Affordable Care Act has provided additional rights and protections. The health care law covers preventive care at no cost. Clients may be eligible for recommended preventive health services without a copayment.
- **Option D:** Under the Patient's Bill of Rights, a client's premium dollars are ensured to be spent on primary healthcare, not on administrative costs. Also, the bill removes insurance company barriers to emergency services that are outside of their health plan's network.

56. Joko has recently been diagnosed with type 1 Diabetes Mellitus and asks nurse Jessica for help formulating a nutrition plan. Which of the following recommendations would the nurse make to help the client increase calorie consumption to offset absorption problems?

A. Eat small meals with two or three snacks throughout the day to keep blood glucose levels steady

B. Increase the consumption of simple carbohydrates

C. Eating small meals with two or three snacks may be more helpful in maintaining blood glucose levels than three large meals.

D. Skip meals to help lose weight

Correct Answer: C. Eating small meals with two or three snacks may be more helpful in maintaining blood glucose levels than three large meals.

Eating small meals with two or three snacks may be more helpful in maintaining blood glucose levels than three large meals. Complex carbohydrates (apples, broccoli, peas, dried beans, carrots, peas, oats) decrease glucose levels/insulin needs, reduce serum cholesterol levels, and promote satiation. Food intake is scheduled according to specific insulin characteristics and individual patient responses.

- **Option A:** A snack at bedtime of complex carbohydrates is significant (if insulin is given in divided doses) to prevent hypoglycemia during sleep and potential Somogyi response. A consistent amount of food and time interval between meals helps prevent hypoglycemic reactions and maintain overall blood glucose control.
- **Option B:** It is recommended that 60% of calories should be derived from carbohydrates. Carbohydrate foods have the greatest effect on the levels of blood glucose because they are digested more quickly as compared to other food sources. All carbohydrates should be taken in moderation to avoid postprandial blood glucose levels.
- **Option D:** If the patient's food preferences can be incorporated into the meal plan, cooperation with dietary requirements may be facilitated after discharge. A diet low in fat and high in fiber helps to control cholesterol and triglycerides. Three daily meals and an evening snack are recommended. Refined and simple sugars should be reduced, and complex carbohydrates, such as cereals, rice should be increased.

57. In a complex pediatric oncology unit, a seasoned nurse is faced with the challenge of assessing and managing pain in a non-verbal 3-year-old child undergoing treatment for acute lymphoblastic leukemia. The child's limited communicative ability due to developmental age and the distressing nature of the current clinical situation necessitate a highly nuanced approach to pain assessment. Given these parameters, which pain assessment tool would be most useful for the nurse to accurately gauge the young patient's pain levels?

A. McGill-Melzack Pain Questionnaire

B. Simple Description Pain Intensity Scale

C. 0-10 Numeric Pain Scale

D. Faces Pain-Rating Scale

E. FLACC (Face, Legs, Activity, Cry, Consolability) Behavioral Pain Assessment Scale

F. Oucher Pain Scale

Correct Answer: E. FLACC (Face, Legs, Activity, Cry, Consolability) Behavioral Pain Assessment Scale
The FLACC Behavioral Pain Assessment Scale is a tool specifically designed for assessing pain in infants and young children who are unable to communicate their pain verbally. It evaluates five categories: Face, Legs, Activity, Cry, and Consolability, each scored from 0 to 2, providing a comprehensive and objective measure of pain based on observable behaviors. This tool is particularly suited for the clinical scenario described.

- **Option A:** The McGill-Melzack Pain Questionnaire is a comprehensive tool that requires verbal communication and abstract thinking abilities to describe pain in various dimensions. It is unsuitable for a young, non-verbal child.
- **Option B:** The Simple Description Pain Intensity Scale, while less complex than the McGill questionnaire, still relies on the child's ability to verbally describe pain, which is not feasible in this clinical scenario.

- **Option C:** The 0-10 Numeric Pain Scale requires the child to understand and quantify their pain on a scale, a task that is developmentally inappropriate for a 3-year-old child.
- **Option D:** The Faces Pain-Rating Scale uses facial expressions to depict varying levels of pain intensity. Although more child-friendly, it still necessitates a degree of abstract reasoning and the ability to match one's own pain with facial expressions, which might be challenging for a non-verbal 3-year-old.
- **Option F:** The Oucher Pain Scale uses photographs of children's faces showing different levels of distress and pain, combined with a numerical scale. While this is more suitable for children who can point to indicate their pain level, it might still be challenging for a non-verbal 3-year-old to use effectively compared to the FLACC Scale.

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

A. Hearing loss

B. Visual disturbance

C. Headache

D. Orthopnea

E. Gout

F. Weight loss

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

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

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

59. Because cervical effacement and dilation are not progressing in a patient in labor, the doctor orders I.V. administration of oxytocin (Pitocin). Why should the nurse monitor the patient's fluid intake and output closely during oxytocin administration?

A. Oxytocin causes water intoxication.

B. Oxytocin causes excessive thirst.

C. Oxytocin is toxic to the kidneys.

D. Oxytocin has a diuretic effect.

Correct Answer: A. Oxytocin causes water intoxication.

The nurse should monitor fluid intake and output because prolonged oxytocin infusion may cause severe water intoxication, leading to seizures, coma, and death. In addition, oxytocin may cause water intoxication via an antidiuretic hormone-like activity when administered in excessive doses with electrolyte-free solution.

- **Option B:** Excessive thirst results from the work of labor and limited oral fluid intake—not oxytocin.
- **Option C:** Oxytocin, when given in rapid bolus, produces marked but short-lived hypotension and tachycardia. Sometimes, this abrupt and severe hemodynamic depression may need to be distinguished from placental abruption, myocardial infarction, or a pulmonary embolism in patients undergoing delivery.
- **Option D:** Oxytocin is known to possess antidiuretic properties. It can function physiologically as an antidiuretic hormone, mimicking the short-term action of vasopressin on water permeability, albeit with somewhat lower potency.

60. A nurse in a PP unit is instructing a mother regarding lochia and the amount of expected lochia drainage. The nurse instructs the mother that the normal amount of lochia may vary but should never exceed the need for:

A. One peripad per day.

B. Two peripads per day.

C. Three peripads per day.

D. Eight peripads per day.

Correct Answer: D. Eight peripads per day.

The normal amount of lochia may vary with the individual but should never exceed 4 to 8 peripads per day. The average number of peripads is 6 per day. Postpartum hemorrhage is defined as excessive blood loss during or after the third stage of labor. The average blood loss is 500 mL at vaginal delivery and 1000 mL at cesarean delivery.

- **Option A:** Objectively, postpartum hemorrhage is defined as a 10% change in hematocrit level between admission and the postpartum period or the need for transfusion after delivery secondary to blood loss.
- **Option B:** Early postpartum hemorrhage may result from uterine atony, retained products of conception, uterine rupture, uterine inversion, placenta accreta, lower genital tract lacerations, coagulopathy, and hematoma. In the United States, postpartum hemorrhage is responsible for 5%

of maternal deaths. Other morbidities associated with hemorrhage include the need for blood transfusions and/or subsequent surgical interventions that may lead to future infertility.

- **Option C:** Causes of late postpartum hemorrhage most commonly include retained products of conception, infection, subinvolution of placental site, and coagulopathy. Vaginal delivery is associated with a 3.9% incidence of postpartum hemorrhage. Cesarean delivery is associated with a 6.4% incidence of postpartum hemorrhage. Delayed postpartum hemorrhage occurs in 1-2% of patients.

61. The uterine fundus right after delivery of placenta is palpable at

A. Level of Xiphoid process

B. Level of umbilicus

C. Level of symphysis pubis

D. Midway between umbilicus and symphysis pubis

Correct Answer: B. Level of umbilicus

Immediately after the delivery of the placenta, the fundus of the uterus is expected to be at the level of the umbilicus because the contents of the pregnancy have already been expelled. The fundus is expected to recede by 1 fingerbreadth (1cm) every day until it becomes no longer palpable above the symphysis pubis.

- **Option A:** The fundus continues to descend into the pelvis at the rate of approximately one centimeter (finger-breadth) per day and should be nonpalpable by two weeks postpartum.
- **Option C:** 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 approximate
- **Option D:** Immediately after delivery, the upper portion of the uterus, known as the fundus, is midline and palpable halfway between the symphysis pubis and the umbilicus.

62. The nurse observes a client pacing in the hall. Which statement by the nurse may help the client recognize his anxiety?

A. “I guess you’re worried about something, aren’t you?

B. “Can I get you some medication to help calm you?”

C. “Have you been pacing for a long time?”

D. “I notice that you’re pacing. How are you feeling?”

Correct Answer: D. “I notice that you’re pacing. How are you feeling?”

By acknowledging the observed behavior and asking the client to express his feelings the nurse can best assist the client to become aware of his anxiety. Recognition acknowledges a patient’s behavior and highlights it without giving an overt compliment. A compliment can sometimes be taken as condescending, especially when it concerns a routine task like making the bed. However, saying something like “I noticed you took all of your medications” draws attention to the action and encourages it without requiring a compliment.

- **Option A:** The nurse is offering an interpretation that may or may not be accurate; the nurse is also asking a question that may be answered by a “yes” or “no” response, which is not therapeutic.

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:** The nurse is intervening before accurately assessing the problem. By using nonverbal and verbal cues such as nodding and saying “I see,” nurses can encourage patients to continue talking. Active listening involves showing interest in what patients have to say, acknowledging that you’re listening and understanding, and engaging with them throughout the conversation. Nurses can offer general leads such as “What happened next?” to guide the conversation or propel it forward.
- **Option C:** This statement encourages a “yes” or “no” response, avoids focusing on the client’s anxiety, which is the reason for his pacing. Observations about the appearance, demeanor, or behavior of patients can help draw attention to areas that might pose a problem for them. Observing that they look tired may prompt patients to explain why they haven’t been getting much sleep lately; making an observation that they haven’t been eating much may lead to the discovery of a new symptom.

63. A patient admitted voluntarily for the treatment of an anxiety disorder demands to be released from the hospital. Which action should the nurse take initially?

A. Contact the patient's health care provider (HCP).

B. Call the patient's family to arrange for transportations.

C. Attempt to persuade the patient to stay for only a few more days.

D. Tell the patient that leaving would likely result in an involuntary commitment.

Correct Answer: A. Contact the patient’s health care provider (HCP).

In general, patients seek voluntary admission. Voluntary patients have the right to demand and obtain release. The nurse needs to be familiar with the state and facility policies and procedures. The best nursing action is to contact the HCP, who has the authority to discuss discharge with the patient.

- **Option B:** While arranging for safe transportation is appropriate it is premature in this situation and should be done only with the patient’s permission. If the patient later requests discharge, the hospital can hold the patient on the unit for up to 72 hours until a mental health professional can evaluate the patient for safety concerns. The patient will be discharged if the evaluating mental health professional determines that the patient is safe for discharge.
- **Option C:** While it is appropriate to discuss why the patient feels the need to leave and the possible outcomes of leaving against medical advice, attempting to get the patient to agree to stay “a few more days” has little value and will not likely be successful.
- **Option D:** Many states require that the patient submits a written release notice to the facility staff members, who reevaluate the patient’s condition for possible conversion to involuntary status if necessary, according to criteria established by law. While this is a possibility, it should not be used as a threat to the patient.

64. A nursing instructor is conducting a lecture and is reviewing the functions of the female reproductive system. She asks the student nurse to describe the follicle-stimulating hormone (FSH) and the luteinizing hormone (LH). The

student nurse accurately responds by stating that:

A. FSH and LH are released from the anterior pituitary gland.

B. FSH and LH are secreted by the corpus luteum of the ovary

C. FSH and LH are secreted by the adrenal glands

D. FSH and LH stimulate the formation of milk during pregnancy.

Correct Answer: A. FSH and LH are released from the anterior pituitary gland.

FSH and LH, when stimulated by the gonadotropin-releasing hormone from the hypothalamus, are released from the anterior pituitary gland to stimulate follicular growth and development, the growth of the Graafian follicle, and production of progesterone.

- **Option B:** The primary hormone produced from the corpus luteum is progesterone, but it also produces inhibin A and estradiol. In the absence of fertilization, the corpus luteum will regress over time.
- **Option C:** Development of the ovarian follicle is largely under FSH control, and the secretion of estrogen from this follicle is dependent on FSH and LH. The granulosa cells of the ovary secrete inhibin, which plays a role in cellular differentiation.
- **Option D:** In women, LH stimulates estrogen and progesterone production from the ovary. A surge of LH in the mid menstrual cycle is responsible for ovulation, and continued LH secretion subsequently stimulates the corpus luteum to produce progesterone.

65. A male client who reportedly consumes one (1) qt of vodka daily is admitted for alcohol detoxification. To try to prevent alcohol withdrawal symptoms, Dr. Smith is most likely to prescribe which drug?

A. Clozapine (Clozaril)

B. Thiothixene (Navane)

C. Lorazepam (Ativan)

D. Lithium carbonate (Eskalith)

Correct Answer: C. Lorazepam (Ativan)

The best choice for preventing or treating alcohol withdrawal symptoms is lorazepam, a benzodiazepine. Lorazepam is a benzodiazepine medication developed by DJ Richards. It went on the market in the United States in 1977. Lorazepam has common use as the sedative and anxiolytic of choice in the inpatient setting owing to its fast (1 to 3 minute) onset of action when administered intravenously. Lorazepam is also one of the few sedative-hypnotics with a relatively clean side effect profile. ff-label (non-FDA-approved) uses for Lorazepam include rapid tranquilization of the agitated patient, alcohol withdrawal delirium, alcohol withdrawal syndrome, insomnia, panic disorder, delirium, chemotherapy-associated anticipatory nausea and vomiting (adjunct or breakthrough), as well as psychogenic catatonia.

- **Option A:** Clozapine is an FDA-approved atypical antipsychotic drug for treatment-resistant schizophrenia.[1] The definition of treatment-resistant schizophrenia is persistent or moderate delusions or hallucinations after failing two trials of antipsychotic medicines. Clozapine is part of a group of drugs known as second-generation antipsychotics or atypical antipsychotics.[1] Antipsychotic drugs are vital in treating the core symptoms of schizophrenia: hallucinations and

delusions.

- **Option B:** Thiothixene is used to treat the symptoms of schizophrenia (a mental illness that causes disturbed or unusual thinking, loss of interest in life, and strong or inappropriate emotions). Thiothixene is in a group of medications called conventional antipsychotics. It works by decreasing abnormal excitement in the brain.
- **Option D:** Lithium was the first mood stabilizer and is still the first-line treatment option, but is underutilized because it is an older drug. Lithium is a commonly prescribed drug for a manic episode in bipolar disorder as well as maintenance therapy of bipolar disorder in a patient with a history of a manic episode. The primary target symptoms of lithium are mania and unstable mood. Lithium is also prescribed for major depressive disorder as an adjunct therapy, bipolar disorder without a history of mania, treatment of vascular headaches, and neutropenia. These are off-label uses, meaning they are not FDA-approved. Patients with rapid cycling and mixed state types of bipolar disorder generally do less well on lithium.

66. The definition of nihilistic delusions is:

A. A false belief about the functioning of the body.

B. Belief that the body is deformed or defective in a specific way.

C. False ideas about the self, others, or the world

D. The inability to carry out motor activities.

Correct Answer: C. False ideas about the self, others, or the world.

Nihilistic delusions are false ideas about the self, others, or the world. Nihilistic delusions, also known as délires de négation, are specific psychopathological entities characterized by the delusional belief of being dead, decomposed or annihilated, having lost one's own internal organs or even not existing entirely as a human being.

- **Option A:** Somatic delusions involve a false belief about the functioning of the body. Of the delusional symptoms, somatic delusions-those that pertain to the body-are rather rare. Somatic delusions are defined as fixed false beliefs that one's bodily function or appearance is grossly abnormal. They are a poorly understood psychiatric symptom and pose a significant clinical challenge to clinicians.
- **Option B:** Body dysmorphic disorder is characterized by a belief that the body is deformed or defective in a specific way. People who have body dysmorphic disorder (BDD) think about their real or perceived flaws for hours each day. They can't control their negative thoughts and don't believe people who tell them that they look fine. Their thoughts may cause severe emotional distress and interfere with their daily functioning. They may miss work or school, avoid social situations and isolate themselves, even from family and friends, because they fear others will notice their flaws.
- **Option D:** Apraxia is the inability to carry out motor activities. Apraxia is a motor disorder caused by damage to the brain (specifically the posterior parietal cortex or corpus callosum) in which the individual has difficulty with the motor planning to perform tasks or movements when asked, provided that the request or command is understood and the individual is willing to perform the task. The nature of the brain damage determines the severity, and the absence of sensory loss or paralysis helps to explain the level of difficulty.

67. What statement indicates the client needs further education regarding skin grafting (allografting)?

A. "Because the graft is my own skin, there is no chance it won't 'take."

B. "For the first few days after surgery, the donor sites will be painful."

C. "I will have some scarring in the area when the skin is removed for grafting."

D. "I am still at risk for infection after the procedure."

Correct Answer: A. “Because the graft is my own skin, there is no chance it won’t ‘take.’”

Factors other than tissue type, such as circulation and infection, influence whether and how well a graft will work. The client should be prepared for the possibility that not all grafting procedures will be successful. Graft survival depends on the diffusion of nutrients and oxygen from the wound bed known as imbibition. Inosculation then follows when the blood vessels of the graft and from the wound bed grow together to make end-to-end contact. Lastly, neovascularization occurs when new blood vessels grow from the wound bed into the graft.

- **Option B:** The donor sites will be painful after the surgery. Silicone gel sheets, along with pressure dressings, have shown a dramatic decrease in pain, pruritis, and scar thickness six months after burn injury.
- **Option C:** There can be scarring in the area where the skin is removed for grafting. Burn scars are a common occurrence after skin grafting and can cause anxiety, depression, pain, itching, altered pigmentation, temperature intolerance, and decreased range of motion secondary to scar contracture. Scar formation is propagated by deficiencies in the biosynthetic and tissue degradation pathway during wound healing.
- **Option D:** The client is still at risk for infection. Early failure of graft survival is attributable to seroma and hematoma formation, which lifts the graft off the wound bed, preventing imbibition. Other factors that lead to graft failure include shearing forces, edematous tissue, and infected tissue.

68. The infant of a substance-abusing mother is at risk for developing a sense of which of the following?

A. Mistrust

B. Shame

C. Guilt

D. Inferiority

Correct Answer: A. Mistrust

According to Erikson, infants need to have their needs met consistently and effectively to develop a sense of trust. An infant whose needs are consistently unmet or who experiences significant delays in having them met, such as in the case of the infant of a substance-abusing mother, will develop a sense of uncertainty, leading to mistrust of caregivers and the environment.

- **Option B:** Toddlers develop a sense of shame when their autonomy needs are not met consistently. Autonomy versus shame and doubt is the second stage of Erik Erikson’s stages of psychosocial development. This stage occurs between the ages of 18 months to approximately 3 years. According to Erikson, children at this stage are focused on developing a sense of personal control over physical skills and a sense of independence.
- **Option C:** Preschoolers develop a sense of guilt when their sense of initiative is thwarted. Initiative versus guilt is the third stage of Erik Erikson’s theory of psychosocial development. During the

initiative versus guilt stage, children assert themselves more frequently through directing play and other social interactions.

- **Option D:** Schoolagers develop a sense of inferiority when they do not develop a sense of industry. Erikson's fourth psychosocial crisis, involving industry (competence) vs. Inferiority occurs during childhood between the ages of five and twelve.

69. A client with macrocytic anemia has a burn on her foot and states that she had been watching television while lying on a heating pad. What is the nurse's first response?

A. Assess for potential abuse.

B. Check for diminished sensations.

C. Document the findings.

D. Clean and dress the area.

Correct Answer: B. Check for diminished sensations

Macrocytic anemias can result from deficiencies in vitamin B12 or ascorbic acid. Only vitamin B12 deficiency causes diminished sensations of peripheral nerve endings. The nurse should assess for peripheral neuropathy and instruct the client in self-care activities for her diminished sensation to heat and pain. Vitamin B12 deficiency can lead to hematologic and neurological symptoms. Vitamin B12 is stored in excess in the liver, decreasing the likelihood of deficiency.

- **Option A:** The burn could be related to abuse, but this conclusion would require more supporting data. A complete neurologic exam should evaluate for dementia, peripheral neuropathy, ataxia, and a loss of proprioception. A mental status exam may also be useful to evaluate any neuropsychiatric changes.
- **Option C:** The findings should be documented, but the nurse would want to address the client's sensations first. A thorough evaluation of vitamin B12 deficiency should include a complete history and physical with an increased emphasis on gastrointestinal (GI) and neurologic findings. B12 deficiency manifests as macrocytic anemia, and thus, the presenting symptoms often include signs of anemia, such as fatigue and pallor.
- **Option D:** The decision of how to treat the burn should be determined by the physician. Treatment of vitamin B12 deficiency involves repletion with B12. However, depending on the etiology of the deficiency, the duration and route of treatment vary. In patients who are deficient due to a strict vegan diet, an oral supplement of B12 is adequate for repletion.

70. A client has a history of chronic undifferentiated schizophrenia. Because she has a history of noncompliance with antipsychotic therapy, she'll receive fluphenazine decanoate (Prolixin Decanoate) injections every 4 weeks. Before discharge, what should the nurse include in her teaching plan?

A. Asking the physician for droperidol (Inapsine) to control any extrapyramidal symptoms that occur.

B. Sitting up for a few minutes before standing to minimize orthostatic hypotension.

C. Notifying the physician if her thoughts don't normalize within 1 week.

D. Expecting symptoms of tardive dyskinesia to occur and to be transient.

Correct Answer: B. Sitting up for a few minutes before standing to minimize orthostatic hypotension

The nurse should teach the client how to manage common adverse reactions, such as orthostatic hypotension and anticholinergic effects. Fluphenazine has an adverse effect profile similar to other first-generation or typical antipsychotics, which is due to its dopamine receptor antagonism as well as its anticholinergic, antihistaminic, and alpha-adrenergic antagonistic properties. Common side effects include sedation, dry mouth, constipation, dry eyes, blurred vision, constipation, orthostasis, dizziness, hypotension, and urinary retention.

- **Option A:** Droperidol increases the risk of extrapyramidal effects when given in conjunction with phenothiazines such as fluphenazine. The most common behavioral adverse effects of INAPSINE (droperidol) include dysphoria, postoperative drowsiness, restlessness, hyperactivity and anxiety, which can either be the result of an inadequate dosage (lack of adequate treatment effect) or of an adverse drug reaction (part of the symptom complex of akathisia). Care should be taken to search for extrapyramidal signs and symptoms (dystonia, akathisia, oculogyric crisis) to differentiate these different clinical conditions. When extrapyramidal symptoms are the cause, they can usually be controlled with anticholinergic agents.
- **Options C:** Antipsychotic effects of the drug may take several weeks to appear. Oral fluphenazine has a half-life of 14 to 16 hours. Intramuscular (IM) formulation for acute administration is typically a 1.25 mg initial dose with options ranging from 2.5 mg to 10 mg per day. IM, short-acting formulations can be administered every 6 to 8 hours as needed for acute agitation in patients with psychosis. The half-life of the intramuscular formulation of fluphenazine is 6 to 10 days. The long-acting intramuscular or subcutaneous formulation is dosed initially 12.5 mg to 25 mg, and typical dosing is every 28 days.
- **Option D:** Tardive dyskinesia is a possible adverse reaction and should be reported immediately. Tardive dyskinesia is caused due to long-term exposure to first and second-generation neuroleptics, certain antidepressants, lithium, and some antiemetic medications. Typically, the first-generation antipsychotics with increased dopamine D2 receptor affinity are affiliated with a higher risk of causing permanent abnormal involuntary movements.

71. A client presents to the emergency room, reporting that he has been vomiting every 30 to 40 minutes for the past 8 hours. Frequent vomiting puts him at risk for which of the following?

A. Metabolic acidosis with hyperkalemia

B. Metabolic acidosis with hypokalemia

C. Metabolic alkalosis with hyperkalemia

D. Metabolic alkalosis with hypokalemia

Correct Answer: D. Metabolic alkalosis with hypokalemia

Gastric acid contains large amounts of potassium, chloride, and hydrogen ions. Excessive loss of these substances, such as from vomiting, can lead to metabolic alkalosis and hypokalemia. Vomiting or nasogastric (NG) suction generates metabolic alkalosis by the loss of gastric secretions, which are rich in hydrochloric acid (HCl). Whenever a hydrogen ion is excreted, a bicarbonate ion is gained in the extracellular space.

- **Option A:** Hyperkalemia can be the direct cause of metabolic acidosis from its effects on multiple components of renal ammonia metabolism. The first major finding in these studies is that hyperkalemia itself causes reversible metabolic acidosis by inhibiting ammonia excretion.

- **Option B:** The most common cause for hypokalemia and metabolic acidosis is GI loss (eg, diarrhea, laxative use). Other less common etiologies include renal loss of potassium secondary to RTA or salt-wasting nephropathy. The urine pH, the urine AG, and the urinary K+ concentration can distinguish these conditions.
- **Option C:** The first clue to metabolic alkalosis is often an elevated bicarbonate concentration that is observed when serum electrolyte measurements are obtained. Remember that an elevated serum bicarbonate concentration may also be observed as a compensatory response to primary respiratory acidosis. However, a bicarbonate concentration greater than 35 mEq/L is almost always caused by metabolic alkalosis.

72. The patient with multiple sclerosis tells the nursing assistant that after physical therapy she is too tired to take a bath. What is your priority nursing diagnosis at this time?

A. Fatigue related to disease state

B. Activity Intolerance due to generalized weakness

C. Impaired Physical Mobility related to neuromuscular impairment

D. Self-care Deficit related to fatigue and neuromuscular weakness

Correct Answer: D. Self-care Deficit related to fatigue and neuromuscular weakness

At this time, based on the patient's statement, the priority is Self-Care Deficit related to fatigue after physical therapy. Fatigue is described as an overwhelming feeling of lassitude or lack of physical or mental energy that interferes with activities.

- **Option A:** The patient might be experiencing fatigue, but it might be due to the activities at physical therapy. Fatigue is one of the most common symptoms of MS, reported by at least 75% of patients with the disease.
- **Option B:** Activity intolerance in a patient with MS is appropriate, but not related to the statement. An estimated 50–60% of persons with MS describe fatigue as one of their most bothersome symptoms, and it is a major reason for unemployment among MS patients.
- **Option C:** Impaired physical mobility is appropriate to a patient with MS, but it is not related to the patient's statement. Spasticity in MS is characterized by increased muscle tone and resistance to movement; it occurs most frequently in muscles that function to maintain an upright posture. The muscle stiffness greatly increases the energy expended to perform activities of daily living (ADLs), which in turn contributes to fatigue.

73. The rationale for inserting a French catheter every hour for the client with epidural anesthesia is:

A. The bladder fills more rapidly because of the medication used for the epidural.

B. Her level of consciousness is such that she is in a trancelike state.

C. The sensation of the bladder filling is diminished or lost.

D. She is embarrassed to ask for the bedpan that frequently.

Correct Answer: C. The sensation of the bladder filling is diminished or lost.

Epidural anesthesia decreases the urge to void and sensation of a full bladder. A full bladder will decrease the progression of labor. Under the influence of epidural analgesia, patients may not feel the urge to urinate, which can result in urinary retention and bladder overdistension. Overfilling of the bladder can stretch and damage the detrusor muscle. For example, the use of lumbar epidural analgesia for labor and delivery has frequently been implicated as a causative factor for postpartum urinary retention. This is supported by the fact that these patients demonstrate a difficulty voiding.

- **Option A:** The medication used for the epidural does not have a diuretic effect. Spinal and epidural opioid administration influence the function of the lower urinary tract by direct spinal action on the sacral nociceptive neurons and autonomic fibres. Long-acting local anesthetics administered intrathecally rapidly block the micturition reflex. Detrusor contraction is restored approximately 7-8 hours after spinal injection of bupivacaine. For this reason, bladder catheterization is a common practice in patients with spinal or epidural anesthesia.
- **Option B:** An epidural does not create a trancelike state for the client. Acute urinary retention is one of the most common complications after surgery and anesthesia. It can occur in patients of both sexes and all age groups and after all types of surgical procedures. It is linked to several factors including increased intravenous fluids, postoperative pain, and type of anesthesia. Micturition depends on coordinated actions between the detrusor muscle and the external urethral sphincter.
- **Option D:** Embarrassed or not, the client would still need to have a French catheter inserted to manage her voiding. The risk of infection with a single catheterization is 1-2% and can rise by 3 to 7 % for every additional day with an indwelling catheter. Traumatic or prolonged catheterization may lead to urethritis and to urethral strictures. There has yet been no consensus for appropriate catheterization strategy during regional anesthesia.

74. The burned client newly arrived from an accident scene is prescribed to receive 4 mg of morphine sulfate by IV push. What is the most important reason to administer the opioid analgesic to this client by the intravenous route?

A. The medication will be effective more quickly than if given intramuscularly.

B. It is less likely to interfere with the client's breathing and oxygenation.

C. The danger of an overdose during fluid remobilization is reduced

D. The client delayed gastric emptying.

Correct Answer: C. The danger of an overdose during fluid remobilization is reduced.

The most important reason is to prevent an overdose from accumulation of drug in the interstitial space during the fluid shift of the emergent phase. When edema is present, cumulative doses are rapidly absorbed when the fluid shift is resolving. This delayed absorption can result in lethal blood levels of analgesics.

- **Option A:** Providing some pain relief has a high priority and giving the drug by the IV route instead of IM, SC, or orally does increase the rate of effect. Pain that is more severe and not well controlled may be manageable with single or continuous doses of IV, epidural, and intrathecal formulations. Infusion dosing can vary significantly between patients and largely depends on how naive or tolerant they are to opiates.
- **Option B:** Respiratory depression is among the more serious adverse reactions with opiate use that is especially important to monitor in the postoperative patient population. Extreme caution is necessary with severe respiratory depression and asthma exacerbation cases since morphine can further decrease the respiratory drive.

- **Option D:** Delayed gastric emptying is not a side effect of morphine. Among the more common unwanted effects of morphine use is constipation. This effect occurs via stimulation of mu-opioid receptors on the myenteric plexus, which in turn inhibits gastric emptying and reduces peristalsis.

75. When planning care for a 8-year-old boy with Down syndrome, the nurse should:

A. Plan interventions according to the developmental level of a 7-year-old child because that's the child's age

B. Plan interventions according to the developmental levels of a 5-year-old because the child will have developmental delays

C. Assess the child's current developmental level and plan care accordingly

D. Direct all teaching to the parents because the child can't understand

Correct Answer: C. Assess the child's current developmental level and plan care accordingly

Nursing care plans should be planned according to the developmental age of a child with Down syndrome, not the chronological age. Because children with Down syndrome can vary from mildly to severely mentally challenged, each child should be individually assessed. A child with Down syndrome is capable of learning, especially a child with mild limitations.

- **Option A:** Current practices in providing care to those with Down syndrome include the primary emphasis on the treatment of disease with increased attention allocated to health promotion and protection. Children with Down syndrome have several expected developmental and physical challenges. These include poor physical growth and delayed development with achieving milestones such as gross and fine motor skills, speech, and secondary sex characteristics.
- **Option B:** With appropriate therapy, the developmental delay may be minimized, and the child's social quotient may be improved. Such training can provide a foundation for mainstreaming the child with Down syndrome in schools and the community
- **Option D:** Early intervention programs can improve the academic prognosis for children with Down syndrome. Cognitive function varies tremendously and cannot be predicted at birth. No relationship has been shown between the number of Down syndrome features present in a newborn and later cognitive function.

76. A client with chronic schizophrenia receives 20 mg of fluphenazine decanoate (Prolixin Decanoate) by I.M. injection. Three days later, the client has muscle contractions that contort the neck. This client is exhibiting which extrapyramidal reaction?

A. Dystonia

B. Akinesia

C. Akathisia

D. Tardive dyskinesia

Correct Answer: A. Dystonia

Dystonia, a common extrapyramidal reaction to fluphenazine decanoate, manifests as muscle spasms in the tongue, face, neck, back, and sometimes the legs. Dystonia is a dynamic disorder that changes

in severity based on the activity and posture. Dystonia may assume a pattern of overextension or over-flexion of the hand, inversion of the foot, lateral flexion or retroflection of the head, torsion of the spine with arching and twisting of the back, forceful closure of the eyes, or a fixed grimace. It may come to an end when the body is in action and during sleep.

- **Option B:** Akinesia refers to decreased or absent movement. The term akinesia refers to the inability to perform a clinically perceivable movement. It can present as a delayed response, freezing mid-action, or even total abolition of movement. Akinesia occurs when movement is not perceived either because the amplitude of the movement is small or because the time taken to initiate the reaction is significantly increased.
- **Option C:** Akathisia, to restlessness or inability to sit still. Akathisia is a movement disorder that may be associated with the use of antipsychotic medications. The primary movement disorders from antipsychotic agents are akathisia, acute dystonia, pseudoparkinsonism, and tardive dyskinesia. Akathisia may also rarely occur with antidepressant agents.
- **Option D:** Tardive dyskinesia, to abnormal muscle movements, particularly around the mouth. Tardive dyskinesia (TD) is a syndrome which includes a group of iatrogenic movement disorders caused due to a blockade of dopamine receptors. The movement disorders include akathisia, dystonia, buccolingual stereotypy, myoclonus, chorea, tics, and other abnormal involuntary movements which are commonly caused by the long-term use of typical antipsychotics.

77. Which of the following incidents requires the nurse to complete an occurrence report?

A. Medication given 30 minutes after scheduled dose time.

B. Patient's dentures lost after transfer.

C. Worn electrical cord discovered on an IV infusion pump.

D. Prescription without the route of administration.

Correct Answer: B. Patient’s dentures lost after transfer

You would need to complete an occurrence report if you suspect your patient’s personal items to be lost or stolen. An incident report also provides vital information the facility needs to decide whether restitution should be made—if personal belongings were lost or damaged, for example. Without proper documentation of the incident, there’s no way to make these important decisions effectively.

- **Option A:** A medication can be administered within a half-hour of the administration time without an error in administration; therefore, an occurrence report is not necessary. An incident report invariably makes its way to risk managers and other administrators, who review it rapidly and act quickly to change any policy or procedure that appears to be a key contributing factor to the incident.
- **Option C:** The worn electrical cord should be taken out of use and reported to the biomedical department. An incident report should be filed whenever an unexpected event occurs. The rule of thumb is that any time a patient makes a complaint, a medication error occurs, a medical device malfunctions, or anyone—patient, staff member, or visitor—is injured or involved in a situation with the potential for injury, an incident report is required.
- **Option D:** The nurse should seek clarification if the provider’s order is missing information; an occurrence report is not necessary. The medical record is patient-focused, and facts pertinent to an unexpected incident will likely be left out. So if a claim were filed and the case proceeded to court, which sometimes occurs years after the event, you or anyone else involved might be hard-pressed to recreate the scene—especially if you consider it to be “minor” at the time. You may not be able to

rely on memory alone, but you can count on the incident report to refresh your memory.

78. Nurse Ian is handling a client with gastroesophageal reflux disease. Which of the following positions will best help the client in this case?

A. Right Lateral Recumbent.

B. Supine position.

C. Reverse Trendelenburg position.

D. Sims position.

Correct Answer: C. Reverse Trendelenburg position.

Reverse Trendelenburg position is advised to a client to promote gastric emptying and prevent gastroesophageal reflux. Studies that monitored esophageal acid exposure after elevation of the head of the bed showed a decrease in reflux activity in adults. Placing blocks under the head of the bed or placing a foam wedge under the patient's mattress can accomplish this.

- **Option A:** In the right lateral recumbent position, the individual is lying on their right side. This position makes it easier to access a patient's left side. The word "lateral" means "to the side," while "recumbent" means "lying down."
- **Option B:** Avoid placing the patient in 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 D:** The Sims position is a standard position in which the patient lies on their left side, with right hip and knees bent. The lower arm is behind the back, the thighs flexed. The left knee is slightly tilted. The right arm is positioned comfortably in front of the body, the right arm is rested behind the body. This is also known as "lateral" position. This position is often used for rectal or vaginal examination, and treatments.

79. A nurse is preparing a list of self-care instructions for a PP client who was diagnosed with mastitis. Which of the following instructions would be included on the list. Select all that apply.

A. Take the prescribed antibiotics until the soreness subsides.

B. Wear a supportive bra.

C. Avoid decompression of the breasts by breastfeeding or breast pump.

D. Rest during the acute phase.

E. Continue to breastfeed if the breasts are not too sore.

Correct Answer: B, D, and E.

Mastitis is an infection of the lactating breast. Client instructions include resting during the acute phase, maintaining a fluid intake of at least 3 L a day, and taking analgesics to relieve discomfort. Additional supportive measures include the use of moist heat or ice packs and wearing a supportive bra. Non-steroidal anti-inflammatory drugs (NSAIDs) can be used for pain control. Heat applied to the breast just before emptying can help increase milk letdown and facilitate with emptying. Cold packs applied to the breast after emptying can help reduce edema and pain. Providers should ensure the

patient that breastfeeding with mastitis is safe and that they should continue to do so if desired. If the patient does not wish to continue to breastfeed, they should be counseled on the importance of continuing to empty the breasts and taught alternative methods such as the use of a breast pump or manual expression.

- **Option A:** Antibiotics may be prescribed and are taken until the complete prescribed course is finished. They are not stopped when the soreness subsides. If the symptoms of lactational mastitis persist beyond 12 to 24 hours, antibiotics should be administered. Because S. aureus is the most common cause, antibiotic therapy should be tailored accordingly. In the setting of mild infection without MRSA risk factors, outpatient treatment can be initiated with dicloxacillin or cephalexin.
- **Option C:** Continued decompression of the breast by breastfeeding or pumping is important to empty the breast and prevent formation of an abscess. The initial management of lactational mastitis is symptomatic treatment. Continuing to fully empty the breasts has shown to decrease the duration of symptoms in patients treated both with and without antibiotics. Patients should be encouraged to continue to breastfeed, pump, or hand express. If the patient stops draining the milk, further stasis occurs, and the infection will progress.

80. A client has a mid pelvic contracture from a previous pelvic injury due to a motor vehicle accident as a teenager. The nurse is aware that this could prevent a fetus from passing through or around which structure during childbirth?

A. Symphysis pubis

B. Sacral promontory

C. Ischial spines

D. Pubic arch

Correct Answer: C. Ischial spines

The ischial spines are located in the mid-pelvic region and could be narrowed due to the previous pelvic injury.

- **Option A:** The pubic symphysis is a secondary cartilaginous joint (a joint made of hyaline cartilage and fibrocartilage) located between the left and right pubic bones near the midline of the body. More specifically, it is located above any external genitalia and in front of the bladder.
- **Option B:** Superiorly, there is an anterior projection of bone, known as the sacral promontory. It forms the posterior margin of the pelvic inlet and as a result, it is serially continuous with the margin of the ala of the sacrum, arcuate line of the ilium, and the pectin pubis and pubic crest of the pubic bone.
- **Option D:** The pubic arch, also referred to as the ischiopubic arch, is part of the pelvis. It is formed by the convergence of the inferior rami of the ischium and pubis on either side, below the pubic symphysis. The angle at which they converge is known as the subpubic angle.

81. While providing home care to a client with congestive heart failure, the nurse is asked how long diuretics must be taken. The best response to this client should be:

A. “As you urinate more, you will need less medication to control fluid.”

B. “You will have to take this medication for about a year.”

C. “The medication must be continued so the fluid problem is controlled.”

D. “Please talk to your physician about medications and treatments.”

Correct Answer: C. “The medication must be continued so the fluid problem is controlled.”

This is the most therapeutic response and gives the client accurate information. Diuretics are used to achieve and maintain euvolemia (the patient’s ‘dry weight’) with the lowest possible dose. This means that the dose must be adjusted, particularly after the restoration of the dry body weight, to avoid the risk of dehydration, which leads to hypotension and renal dysfunction.

- **Option A:** In general, due to their greater effectiveness, loop diuretics, such as furosemide, are the mainstay of diuretic therapy in HF. Indeed loop diuretics produce more intense and shorter diuresis than thiazides, which results in more gentle and prolonged diuresis.
- **Option B:** Diuretic efficacy may be limited by adverse neurohormonal activation and by ‘congestion-like’ symptoms. Diuretics are an extremely useful and varied class of agents for the management of hypovolemic states.
- **Option D:** Furosemide is by far the most common oral loop diuretic, but patients with resistance to oral furosemide therapy may benefit from trials with second-generation oral loop diuretics (bumetanide and torasemide). These may be more efficacious, due to their increased oral bioavailability and potency.

82. Which of the following nursing diagnoses would be appropriate for a client with heart failure? Select all that apply.

A. Ineffective tissue perfusion related to decreased peripheral blood flow secondary to decreased cardiac output.

B. Activity intolerance related to increased cardiac output.

C. Decreased cardiac output related to structural and functional changes.

D. Impaired gas exchange related to decreased sympathetic nervous system activity.

E. Acute pain related to inability to meet the oxygen demands.

Correct Answer: A, C & E.

HF is a result of structural and functional abnormalities of the heart tissue muscle. The heart muscle becomes weak and does not adequately pump the blood out of the chambers. As a result, blood pools in the left ventricle and backs up into the left atrium, and eventually into the lungs. Therefore, greater amounts of blood remain in the ventricle after contraction thereby decreasing cardiac output. In addition, this pooling leads to thrombus formation and ineffective tissue perfusion because of the decrease in blood flow to the other organs and tissues of the body. Typically, these clients have an ejection fraction of less than 50% and poorly tolerate activity.

- **Option A:** Due to decreased cardiac output, there is decreased preload and stroke volume thus there is decreased blood pumped out from the blood. Decrease in stroke volume decreases perfusion throughout the body.
- **Option B:** Activity intolerance is related to a decrease, not increase, in cardiac output. As heart failure becomes more severe, the heart is unable to pump the amount of blood required to meet all of the body’s needs. To compensate, blood is diverted away from less-crucial areas, including the arms and legs, to supply the heart and brain. As a result, people with heart failure often feel weak (especially in their arms and legs), tired and have difficulty performing ordinary activities such as walking, climbing stairs or carrying groceries

- **Option C:** The heart fails to pump enough blood to meet the metabolic needs of the body. The blood flow that supplies the heart is also decreased therefore decrease in cardiac output occurs, blood then is insufficient and making it difficult to circulate the blood to all parts of the body thus may cause altered heart rate and rhythm, weakness, and paleness.
- **Option D:** Gas exchange is impaired. However, the decrease in cardiac output triggers compensatory mechanisms, such as an increase in sympathetic nervous system activity. The exchange in oxygenation and carbon dioxide gases is impeded due to the obstruction caused by the accumulation of bronchial secretions in the alveoli. Oxygen cannot diffuse easily.
- **Option E:** When a coronary artery is blocked, blood flow to the area of the heart supplied by that artery is reduced. If the remaining blood flow is inadequate to meet the oxygen demands of the heart, the area may become ischemic and injured and myocardial infarction may result. Neural pain receptors are stimulated by local mechanical stress resulting from abnormal myocardial contraction.

83. Which of the following procedures or assessments must the nurse perform when preparing a client for eye surgery?

A. Clipping the client's eyelashes.

B. Verifying the affected eye has been patched 24 hours before surgery.

C. Verifying the client has been NPO since midnight, or at least 8 hours before surgery.

D. Obtaining informed consent with the client's signature and placing the forms on the chart.

Correct Answer: C. Verifying the client has been NPO since midnight, or at least 8 hours before surgery.

Maintaining NPO status for at least 8 hours before surgical procedures prevents vomiting and aspiration. Historically, general anesthesia and retrobulbar blocks were used for intracapsular cataract surgery. However, with the advent of phacoemulsification and small incision surgeries, clinicians have since moved to local and topical anesthesia.

- **Option A:** There is no need to clip the eyelashes unless specifically ordered by the physician. The ophthalmologic evaluation includes a thorough ophthalmic history, with a focus on visual acuity as well as comorbidities, and slit-lamp examination. Several measurements of the eye are then taken, including the anterior chamber depth, to determine intraocular lens refraction.
- **Option B:** There is no need to patch an eye before most surgeries unless specifically ordered by the physician. While thorough medical history should be taken before surgery, routine systemic preoperative tests do not need to be ordered. Some institutions may require clearance from the primary care physician when patients have underlying systemic diseases.
- **Option D:** The physician is responsible for obtaining informed consent; the nurse validates that the consent is obtained. With newer and well-developed techniques, cataract surgery is one of the most successful clinical managements in medicine with direct improvements in visual acuity as well as large improvements in activities of daily living and decreased mortality.

84. The nurse plans care for a client in the post-anesthesia care unit. Which of the following should the nurse assess first?

A. Respiratory status

B. Level of consciousness

C. Level of pain

D. Reflexes and movement of extremities

Correct Answer: A. Respiratory status

Assessing respiratory status is the first priority. Remember ABC. General anesthesia and mechanical ventilation impair pulmonary function, even in normal individuals, and result in decreased oxygenation in the postanesthesia period. They also cause a reduction in functional residual capacity of up to 50% of the preanesthesia value.

- **Option B:** A level of consciousness assessment is also helpful, such as the AVPU scale or the Glasgow Coma Scale. The AVPU scale assesses if the patient is alert and oriented, responds to voice, responds to pain, or is unresponsive. The Glasgow Coma Scale is an objective way to record the conscious state of a patient, examining eye, verbal, and motor responses.
- **Option C:** Pain is a common occurrence after most all types of surgical procedures and is probably the most significant postoperative problem in the eyes of the patient. Prompt and adequate pain relief is a critical nursing intervention.
- **Option D:** Neurologic functions can be assessed by the patient's response to verbal stimuli, pupils' responsiveness to light and accommodation, ability to move all extremities, and strength and equality of a hand grip.

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

A. Exploring reasonable courses of action.

B. Collecting all available information about the situation.

C. Clarifying values related to the cause of the dilemma.

D. Identifying people who can solve the difficulty.

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

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

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

- **Option D:** Paternalism provides the power for healthcare professionals to make decisions to reveal or conceal a diagnosis, potential treatment modalities, or expected prognosis. An example of paternalism is when we admit an adolescent with multiple complete cervical spine fractures whose family is stating that the teen needs to participate in a state basketball championship in 3 months. The benefit of sharing the anticipated prognosis of quadriplegia at this time is far outweighed by the potential emotional trauma it may cause the family.

86. John suddenly experiences a seizure, and Nurse Gina notices that John exhibits uncontrollable jerking movements. Nurse Gina documents that John experienced which type of seizure?

A. Tonic seizure

B. Absence seizure

C. Myoclonic seizure

D. Clonic seizure

Correct Answer: C. Myoclonic seizure

Myoclonic seizure is characterized by sudden uncontrollable jerking movements of a single or multiple muscle group. Myoclonus is defined as rapid, brief, jerky, or shock-like movements involving muscle or group of muscles. Among all hyperkinetic movement disorders, Myoclonus is considered to be the most rapid and brief. When caused by sudden muscle contraction, it is known as “positive myoclonus,” while a brief loss of muscular tone results in “negative myoclonus” as in asterixis.

- **Option A:** A tonic seizure causes a sudden stiffness or tension in the muscles of the arms, legs, or trunk. The stiffness lasts about 20 seconds and is most likely to happen during sleep. After the seizure, the client may feel tired or confused.
- **Option B:** An absence seizure causes the client to blank out or stare into space for a few seconds. They are also called petit mal seizures. Absence seizures are most common in children and typically don’t cause any long-term problems.
- **Option D:** Clonic seizures are characterized by repeated jerking movements of the arms and legs on one or both sides of the body, sometimes with numbness or tingling. If it is a focal (partial) seizure, the client may be aware of what’s happening. During a generalized seizure, the client may be unconscious.

87. Nurse Davis is preparing an anatomy and physiology lecture for a group of first-year nursing students. As part of the skeletal system discussion, she presents a contrast between the bones of the limbs and other bones in the body. She poses the following question: “While most bones of the upper and lower limbs are categorized as long bones, how would you categorize the sacrum and facial bones?”

A. Irregular bones

B. Flat bones

C. Short bones

D. Sesamoid bones

Correct Answer: A. Irregular bones
Irregular bones vary in shape and structure and therefore do not fit into any other category (flat, short, long, or sesamoid). Examples are the irregular bones of the vertebral column, bones of the pelvis (pubis, ilium, and ischium) and facial bones.

- **Option B:** Flat bones have relatively thin, flattened shape. Examples are the ribs, scapulae, and the sternum.
- **Option C:** Short bones are approximately as broad as they are long, such as the bones of the wrist and ankles.
- **Option D:** Sesamoid bones are bones embedded in tendons. These small, round bones are commonly found in the tendons of the hands, knees, and feet.

88. The nurse is handling a client with a chest tube. Suddenly, the chest drainage system is accidentally disconnected. What is the most appropriate action for the nurse to take?

A. Secure the chest tube using tape.

B. Clamp the chest tube immediately.

C. Place the end of the chest tube in a container of normal sterile saline.

D. Apply an occlusive dressing and notify the physician.

Correct Answer: C. Place the end of the chest tube in a container of normal sterile saline.

If a chest drainage system is disconnected, the nurse can place the end of the chest tube in a container of normal sterile saline to prevent air from entering the chest tube, thereby preventing negative respiratory pressure. A chest tube drainage system disconnecting from the chest tube inside the patient is an emergency. Immediately place the end of the chest tube in sterile water or NS. The two ends will need to be swabbed with alcohol and reconnected. Bleeding may occur after insertion of the chest tube.

- **Option A:** The nurse should tape the chest tube securely to prevent it from being disconnected, rather than taping it after it has been disconnected. Keep the system closed and below chest level. Make sure all connections are taped and the chest tube is secured to the chest wall.
- **Option B:** The nurse should not clamp the chest tube because doing so increases the risk of tension pneumothorax. Never clamp a chest tube without a doctor's order or valid reason. The tube must remain unobscured and unclamped to drain air or fluid from the pleural space. There are a few exceptions where a chest tube may be clamped.
- **Option D:** The nurse should apply an occlusive dressing if the chest tube is pulled out and not if the system is disconnected. Dress the site with a dry occlusive dressing and discard the chest tube and drainage device in the hazardous waste bag. Obtain a post-removal chest X-ray if the physician has ordered it or facility protocol requires it.

89. A pregnant client is admitted to the labor room. An assessment is performed, and the nurse notes that the client's hemoglobin and hematocrit levels are low, indicating anemia. The nurse determines that the client is at risk for which of the following?

A. A loud mouth

B. Low self-esteem

C. Hemorrhage

D. Postpartum infections

Correct Answer: D. Postpartum infections

Anemic women have a greater likelihood of cardiac decompensation during labor, postpartum infection, and poor wound healing. Good nutrition is the best way to prevent anemia if the woman is pregnant or trying to become pregnant. Eating foods high in iron content (such as dark green leafy vegetables, red meat, fortified cereals, eggs, and peanuts) can help ensure that she maintains the supply of iron her body needs to function properly. The obstetrician will also prescribe vitamins to ensure that the woman has enough iron and folic acid. Make sure to get at least 27 mg of iron each day. If the woman does become anemic during pregnancy, it can usually be treated by taking iron supplements.

- **Option A:** The amount of blood in the body increases by about 20-30 percent, which increases the supply of iron and vitamins that the body needs to make hemoglobin. Hemoglobin is the protein in red blood cells that carries oxygen to other cells in the body.
- **Option B:** Mild anemia is normal during pregnancy due to an increase in blood volume. More severe anemia, however, can put the baby at higher risk for anemia later in infancy. In addition, if the mother is significantly anemic during the first two trimesters, she is at greater risk for having a preterm delivery or low-birth-weight baby. Being anemic also burdens the mother by increasing the risk of blood loss during labor and making it more difficult to fight infections.
- **Option C:** Anemia does not specifically present a risk for hemorrhage. Severe anemia may weaken uterine muscular strength or lower resistance to infectious diseases, contributing to postpartum hemorrhage and subsequent maternal mortality. However, the severity of anemia that places a woman at a greater risk of experiencing postpartum hemorrhage or a debilitating and clinically relevant blood loss has not been investigated. Indeed, the impact of anemia on the extent of blood loss at childbirth and postpartum is not well-understood.

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

A. 2-7 mmHg

B. 10-21 mmHg

C. 22-30 mmHg

D. 31-35 mmHg

Correct Answer: B. 10-21 mmHg

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

- **Option A:** 2-7 mmHg is low intraocular pressure. Tonometry is used to measure intraocular pressure in open-angle glaucoma, acute closed-angle glaucoma, in the setting of ocular trauma without globe rupture, and before and after ophthalmic surgical procedures.

- **Option C:** 22-30 mmHg indicates an increased intraocular pressure. Measurement of intraocular pressure is important in the screening and monitoring of glaucoma, a progressive optic neuropathy that can be slowed with intraocular pressure reduction. Intraocular pressure is the only modifiable risk factor for glaucoma progression at this time
- **Option D:** 31-35 mmHg is high intraocular pressure. Tonometry is also used to evaluate for acutely elevated intraocular pressure as seen in acute-angle closure glaucoma and following ocular trauma. Acute angle-closure glaucoma is an ophthalmic emergency requiring immediate intervention to lower IOP and avoid vision loss.

91. A nurse reviews the ABG values and notes a pH of 7.50, a PCO2 of 30 mm Hg, and an HCO3 of 25 mEq/L. The nurse interprets these values as indicating:

A. Respiratory acidosis uncompensated

B. Respiratory alkalosis uncompensated

C. Metabolic acidosis uncompensated

D. Metabolic acidosis partially compensated.

Correct Answer: B. Respiratory alkalosis uncompensated

In respiratory alkalosis, the pH will be higher than normal and the PCO2 will be low. Respiratory alkalosis is by definition a disease state where the body's pH is elevated to greater than 7.45 secondary to some respiratory or pulmonary process. herefore, respiratory alkalosis is a decrease in serum CO2. While it is theoretically possible to have decreased CO2 production, in every scenario this illness is a result of hyperventilation where CO2 is breathed away.

- **Option A:** The primary disturbance is an elevated arterial partial pressure of carbon dioxide (pCO2) and a decreased ratio of arterial bicarbonate to arterial pCO2, which results in a decrease in the pH of the blood. To compensate for the disturbance in the balance between carbon dioxide and bicarbonate (HCO3-), the kidneys begin to excrete more acid in the forms of hydrogen and ammonium and reabsorb more base in the form of bicarbonate. This compensation helps to normalize the pH.
- **Option C:** Acidemia refers to a pH less than the normal range of 7.35 to 7.45. In addition, metabolic acidosis requires a bicarbonate value less than 24 mEq/L. Metabolic acidosis is due to alterations in bicarbonate, so the pCO2 is less than 40 since it is not the cause of the primary acid-base disturbance. In metabolic acidosis, the distinguishing lab value is a decreased bicarbonate (normal range 21 to 28 mEq/L).
- **Option D:** Respiratory compensation is the physiologic mechanism to help normalize metabolic acidosis, however, compensation never completely corrects an acidemia. It is important to determine if there is adequate respiratory compensation or if there is another underlying respiratory acid-base disturbance.

92. Reye's syndrome is a rare and severe illness affecting children and teenagers. Its development has been linked with the use of aspirin and which of the following?

A. Meningitis

B. Encephalitis

C. Strep throat

D. Varicella

Correct Answer: D. Varicella

Reye's syndrome has been linked with the ingestion of aspirin in children with viral infections like varicella. Epidemiologic studies found a link between the use of salicylate and the development of Reye syndrome. While less than 0.1% of children who took aspirin developed Reye syndrome, more than 80% of children diagnosed with Reye syndrome had taken aspirin in the preceding 3 weeks.

- **Option A:** Reye syndrome is most commonly precipitated by viral pathogens such as influenza A and B as well as varicella. Center for Disease Control and Prevention (CDC) surveillance data between 1980 and 1997 found that cases of Reye syndrome were preceded by influenza infection 73%, varicella infection 21%, and gastroenteritis infections 14% of the time.
- **Option B:** Encephalitis is a component of Reye's syndrome. Features such as lack of viral prodrome, family history of IEM, a family history of unexplained encephalopathy, preexisting neurologic symptoms, and patient age less than one year make the diagnosis of Reye syndrome less likely.
- **Option C:** There is no association between bacterial infections such as strep throat and the development of Reye's syndrome. Serum salicylate concentrations were detectable in 82% of cases. Less commonly associated viral associations are seen with coxsackie, parainfluenza, Epstein-Barr (EBV), cytomegalovirus (CMV), adenovirus, and hepatitis. Bacterial pathogens such as Chlamydia, Bordetella pertussis, Mycoplasma, and Shigella have also been associated with the development of Reye syndrome.

93. A client begins clozapine (Clozaril) therapy after several other antipsychotic agents fail to relieve her psychotic symptoms. The nurse instructs her to return for weekly white blood cell (WBC) counts to assess for which adverse reaction?

A. Hepatitis

B. Infection

C. Granulocytopenia

D. Systemic dermatitis

Correct Answer: C. Granulocytopenia

Clozapine can cause life-threatening neutropenia or granulocytopenia. To detect this adverse reaction, a WBC count should be performed weekly. Weekly complete blood count (CBC) to measure ANC levels. ANC levels less than 1500 indicate neutropenia. Levels less than 500 indicate agranulocytosis. A complete blood count should be taken weekly for the first six months, then every other week for the next six months. A national registry is in place to monitor for safe use.

- **Option A:** Hepatitis is not an adverse effect of clozapine. Clozapine is associated with significant weight gain, diabetes type 2, diabetic ketoacidosis, and increased lipid levels-all due to increased insulin resistance. Both clozapine and olanzapine have higher metabolic side effects than the other atypical and typical antipsychotics due to their high affinity for serotonin 5-HT2C receptors.
- **Option B:** Infection does not occur with clozapine. Clozapine-induced myocarditis is a rare complication, affecting less than 3% of patients. This lethal dose-independent side effect appears more frequently during the first four weeks of treatment. In these patients, signs and symptoms of myocarditis may vary from having a flu-like illness to respiratory and cardiovascular symptoms.

- **Option D:** Systemic dermatitis isn't an adverse reaction of clozapine therapy. Clozapine, due to its many lethal adverse reactions, has become a drug that many clinicians are afraid to prescribe due to fear of patient safety. One of the greatest concerns for clozapine is the side effect of agranulocytosis. The FDA has required a registry to be in place to monitor weekly white blood cell count levels for anyone prescribed with clozapine.

94. Which of the following terms refer to the degree to which an instrument measures what it is supposed to be measured?

A. Validity

B. Reliability

C. Meaningfulness

D. Sensitivity

Correct Answer: A. Validity

Validity is ensuring that the instrument contains appropriate questions about the research topic. Validity is the extent to which the results really measure what they are supposed to measure. A valid measurement is generally reliable: if a test produces accurate results, it should be reproducible.

- **Option B:** Reliability is the repeatability of the instrument; it can elicit the same responses even with varied administration of the instrument. In simple terms, research reliability is the degree to which research method produces stable and consistent results. A specific measure is considered to be reliable if its application on the same object of measurement a number of times produces the same results.
- **Option C:** Meaningfulness is taking that statistic and determining its applicability out in the real world. So all too often researchers get caught up in chasing statistical significance. And while that's part of statistics, the focus should tie back to the real world.
- **Option D:** Sensitivity is an attribute of the instrument that allows the respondents to distinguish differences in the options where to choose from. Sensitivity is one of four related statistics used to describe the accuracy of an instrument for making a dichotomous classification (i.e., positive or negative test outcome). Of these four statistics, sensitivity is defined as the probability of correctly identifying some condition or disease state.

95. When a client has peptic ulcer disease, the nurse would expect a priority intervention to be:

A. Assisting in inserting a Miller-Abbott tube.

B. Assisting in inserting an arterial pressure line.

C. Inserting a nasogastric tube.

D. Inserting an I.V.

Correct Answer: C. Inserting a nasogastric tube.

An NG tube insertion is the most appropriate intervention because it will determine the presence of active GI bleeding. Monitor the client's fluid intake and urine output. Assess for the signs of hematemesis or melena. The client with a bleeding ulcer may vomit bright red blood or coffee grounds emesis. Melena occurs when there is bleeding in the upper GI tract.

- **Option A:** A Miller-Abbott tube is a weighted, mercury-filled balloon tube used to resolve bowel obstructions. The modifications of lifestyle behaviors such as alcohol use, coffee, and other caffeinated beverages, and the overuse of aspirin or other nonsteroidal anti-inflammatory drugs is necessary to prevent recurrent ulcer development and prevent complications during the healing phase.
- **Option B:** There is no evidence of shock or fluid overload in the client; therefore, an arterial line is not appropriate at this time. Monitor the client's vital signs, and observe BP and HR for signs of orthostatic changes.
- **Option D:** An IV is optional. Administer IV fluids, volume expanders, and blood products as ordered. Isotonic fluids, volume expanders, and blood products can restore or expand intravascular volume.

96. A woman is considered to be menopause if she has experienced cessation of her menses for a period of

A. 6 months

B. 12 months

C. 18 months

D. 24 months

Correct Answer: B. 12 months

If a woman has not had her menstrual period for 12 consecutive months, she is considered to be in her menopausal stage. Menopause is the time in a woman's life when her period stops. It usually occurs naturally, most often after age 45. Menopause happens because the woman's ovaries stop producing the hormones estrogen and progesterone.

- **Option A:** A woman has reached menopause when she has not had a period for one year. Changes and symptoms can start several years earlier. They include changes in periods; hot flashes and/or night sweats; trouble sleeping; vaginal dryness; mood swings; trouble focusing; and less hair on the head, more on the face.
- **Option C:** Skipping periods during perimenopause is common and expected. Often, menstrual periods will skip a month and return, or skip several months and then start monthly cycles again for a few months. Periods also tend to happen on shorter cycles, so they are closer together. Despite irregular periods, pregnancy is possible.
- **Option D:** Menopause is a natural biological process. But the physical symptoms, such as hot flashes, and emotional symptoms of menopause may disrupt sleep, lower energy or affect emotional health. There are many effective treatments available, from lifestyle adjustments to hormone therapy.

97. The patient who had a stroke needs to be fed. What instruction should you give to the nursing assistant who will feed the patient?

A. Position the patient sitting up in bed before you feed her.

B. Check the patient's gag and swallowing reflexes.

C. Feed the patient quickly because there are three more waiting.

D. Suction the patient's secretions between bites of food.

Correct Answer: A. Position the patient sitting up in bed before you feed her.

Positioning the patient in a sitting position decreases the risk of aspiration.

- **Option B:** The nursing assistant is not trained to assess gag or swallowing reflexes.
- **Option C:** The patient should not be rushed during feeding.
- **Option D:** A patient who needs to be suctioned between bites of food is not handling secretions and is at risk for aspiration. This patient should be assessed further before feeding.

98. In conferring with the treatment team, the nurse should make which of the following recommendations for a client who tells the nurse that everyday thoughts of suicide are present?

A. A no-suicide contract

B. Weekly outpatient therapy

C. A second psychiatric opinion

D. Intensive inpatient treatment

Correct Answer: D. Intensive inpatient treatment

For a client thinking about suicide on a daily basis, inpatient care would be the best intervention. Although a no-suicide contract is an important strategy, this client needs additional care. The client needs a more intensive level of care than weekly outpatient therapy. Put on either suicide precaution (one-on-one monitoring at one arm's length away) or suicide observation (15-minute visual check of mood, behavior, and verbatim statements), depending on the level of suicide potential. Protection and preservation of the client's life at all costs during a crisis is part of medical and nursing staff's responsibility. Follow unit protocol.

- **Option A:** Construct a no-suicide contract between the suicidal client and nurse. Use clear, simple language. When the contract is up, it is renegotiated (If this is accepted procedure at your institution). The no-suicide contract helps clients know what to do when they begin to feel overwhelmed by pain (e.g., "I will speak to my nurse/counselor/support group/family member when I first begin to feel the need to end my life").
- **Option B:** During the crisis period, health care workers will continue to emphasize the following four points: the crisis is temporary; unbearable pain can be survived; help is available, and you are not alone. Because of "tunnel vision", clients do not have a perspective on their lives. These statements give perspective to the client and help offer hope for the future. Keep accurate and thorough records of the client's behaviors (verbal and physical) and all nursing/physician actions.
- **Option C:** Immediate intervention is paramount, not a second psychiatric opinion. Follow unit protocol for suicide regarding creating a safe environment (taking away potential weapons– belts, sharp objects, items, and so on). Providing a safe environment during times the client is actively suicidal and impulsive; self-destructive acts are perceived as ties, the only way out of an intolerable situation.

99. A nurse is assessing the neurovascular status of a client who returned to the surgical nursing unit 4 hours ago after undergoing an aortoiliac bypass graft. The affected leg is warm, and the nurse notes redness and edema. The

pedal pulse is palpable and unchanged from admission. The nurse interprets that the neurovascular status is:

A. Normal because of the increased blood flow through the leg.

B. Slightly deteriorating and should be monitored for another hour.

C. Moderately impaired, and the surgeon should be called.

D. Adequate from the arterial approach, but venous complications are arising.

Correct Answer: A. Normal because of the increased blood flow through the leg.

An expected outcome of surgery is warmth, redness, and edema in the surgical extremity because of increased blood flow. Aortofemoral bypass surgery is a procedure utilized commonly for the treatment of aortoiliac occlusive disease, sometimes referred to as Leriche syndrome. Aortoiliac occlusive disease can contribute to lower extremity ischemic symptoms necessitating intervention.

- **Option B:** A common complication following surgery is renal insufficiency. This condition is typically a result of prolonged ischemia after clamping suprarenal, embolization secondary to clamping, hypoperfusion, hypovolemia or intrinsic renal artery disease.
- **Option C:** Often, this post-operative complication directly relates to the patient's preoperative cardiac and renal function. Knowing your patient's anatomy and having a precise plan preoperatively for clamping help reduce the incidence of renal insufficiency in the perioperative period.
- **Option D:** Eighty percent of aortobifemoral bypass surgeries are successful and open the artery and relieve symptoms for approximately 10 years after the procedure. Pain is usually relieved when the patient is resting and greatly reduced when walking.

100. A client receiving fluphenazine decanoate (Prolixin Decanoate) therapy develops pseudoparkinsonism. The physician is likely to prescribe which drug to control this extrapyramidal effect?

A. diphenhydramine (Benadryl)

B. phenytoin (Dilantin)

C. benztropine (Cogentin)

D. amantadine (Symmetrel)

Correct Answer: D. amantadine (Symmetrel)

An antiparkinsonian agent, such as amantadine, may be used to control pseudoparkinsonism. Amantadine is now used mostly for Parkinson's disease. Clinical trials have shown that amantadine decreases symptoms of bradykinesia, rigidity, and tremor. There is a combined synergistic effect with added levodopa, which is converted to dopamine by striatal enzymes in the CNS. There can be a transient benefit to the drug, so short-term therapy for patients with mild disease is best.

- **Option A:** Diphenhydramine may be used to control other extrapyramidal effects. Diphenhydramine, which is available as an over-the-counter medication, is a first-generation antihistamine that is used in a variety of conditions to treat and prevent dystonias, insomnia, pruritus, urticaria, vertigo, and motion sickness. The H1 receptor is similar to muscarinic receptors. Therefore, diphenhydramine also acts as an antimuscarinic; it is a competitive antagonist of muscarinic acetylcholine receptor, resulting in its use as an antiparkinson medication.

- **Option B:** Phenytoin is used to treat seizure activity. The FDA approved phenytoin in 1939 for the treatment of epilepsy. Despite its narrow therapeutic index, the drug has seen robust use in the treatment of generalized tonic-clonic seizures, complex partial seizures, status epilepticus, trigeminal neuralgia, and behavior disorders. Phenytoin is a hydantoin derivative, a first-generation anticonvulsant drug that is effective in the treatment of generalized tonic-clonic seizures, complex partial seizures, and status epilepticus without significantly impairing neurological function.
- **Option C:** Benztropine belongs to the synthetic class of muscarinic receptor antagonists (anticholinergic drug). It is also useful for drug-induced extrapyramidal symptoms and the prevention of dystonic reactions and acute treatment of dystonic reactions. It also induces less CNS stimulation effect compared to that of trihexyphenidyl, making it a preferable drug of choice for geriatric patients. Moreover, benztropine is FDA approved as adjunctive therapy of all forms of parkinsonism.