

# Kevin's Review - 35 NCLEX Practice Questions

## 1. Which medication can control the extrapyramidal effects associated with antipsychotic agents?

- A. Clorazepate (Tranxene)
- B. Amantadine (Symmetrel)
- C. Doxepin (Sinequan)
- D. Perphenazine (Trilafon)

### Correct Answer: B. Amantadine (Symmetrel)

Amantadine is an anticholinergic drug used to relieve drug-induced extrapyramidal adverse effects such as muscle weakness, involuntary muscle movements, pseudoparkinsonism, and tardive dyskinesia. Amantadine is used to treat the symptoms of Parkinson's disease (PD; a disorder of the nervous system that causes difficulties with movement, muscle control, and balance) and other similar conditions. It is also used to control movement problems that are a side effect of certain medications used to treat Parkinson's disease. It also is used to prevent symptoms of influenza A virus infection and for treatment of respiratory infections caused by influenza A virus. Amantadine is in a class of medications called adamantanes. It is thought to work to control movement problems by increasing the amount of dopamine in certain parts of the body. It works against influenza A virus by stopping the spread of the virus in the body.

- **Option A:** Clorazepate is used to relieve anxiety. Clorazepate is also used along with other medications to treat certain types of seizures. It is also used to relieve unpleasant symptoms that may be experienced by people who have stopped drinking alcohol after drinking large amounts for a long time. Clorazepate is in a class of medications called benzodiazepines. It works by decreasing abnormal electrical activity in the brain.
- **Option C:** Doxepin is used to treat depression and anxiety. Doxepin is in a class of medications called tricyclic antidepressants. It works by increasing the amounts of certain natural substances in the brain that are needed for mental balance. Doxepin is also available as a tablet to treat insomnia.
- **Option D:** Perphenazine 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). Perphenazine is also used to control severe nausea and vomiting in adults. Perphenazine is in a class of medications called conventional antipsychotics. It works by decreasing abnormal excitement in the brain.

## 2. Which of the following best reflects the frequency of reported postpartum "blues"?

- A. Between 10% and 40% of all new mothers report some form of postpartum blues.
- B. Between 30% and 50% of all new mothers report some form of postpartum blues.
- C. Between 50% and 80% of all new mothers report some form of postpartum blues.
- D. Between 25% and 70% of all new mothers report some form of postpartum blues.

### Correct Answer: C. According to statistical reports, between 50% and 80% of all new mothers report some form of postpartum blues.

The ranges of 10% to 40%, 30% to 50%, and 25% to 70% are incorrect. Postpartum blues, also known as "baby blues," affect approximately 50% to 80% of new mothers.

- **Option A:** Symptoms may include mood swings with times of feeling anxious, irritable, or tearful interspersed with times of feeling well. Sleeping difficulties may also occur. The symptoms usually begin 3-4 days after delivery, worsen by days 5-7, and tend to resolve by day 12.
- **Option B:** For symptoms that last longer than 2 weeks, it is important for the individual to seek medical attention since approximately 1 in 5 women with postpartum blues develops postpartum major depression.
- **Option D:** In developed countries, PPD occurs in about 12% to 13% of postpartum women. More recently, the rates in the United States have been reported as 10% to 20%. Transculturally, the rates are estimated at 10% to 15%, with a higher rate in adolescent mothers.

**3. With which of the following disorders is jugular vein distention most prominent?**

- A. Abdominal aortic aneurysm
- B. Heart failure
- C. Myocardial infarction
- D. Pneumothorax

**Correct Answer: B. Heart failure**

Elevated venous pressure, exhibited as jugular vein distention, indicates a failure of the heart to pump.

- **Option A:** Jugular vein distention isn't a symptom of an abdominal aortic aneurysm. The jugular vein is considered a central vein in the body. Central veins are thin-walled, distensible reservoirs and act as a conduit of blood in continuity with the right atrium. The jugular vein divides into external and internal.
- **Option C:** An MI, if severe enough, can progress to heart failure; however, in and of itself, an MI doesn't cause jugular vein distention. In patients with acute inferior-wall MI with right ventricular involvement, distention of neck veins is commonly described as a sign of failure of the right ventricle.
- **Option D:** Pneumothorax does not cause jugular vein distention. A tension pneumothorax can cause severe hypotension (obstructive shock) and even death. An increase in central venous pressure can result in distended neck veins, hypotension.

**4. IV heparin therapy is ordered for a client. While implementing this order, a nurse ensures that which of the following medications is available in the nursing unit?**

- A. Vitamin K
- B. Aminocaproic acid
- C. Potassium chloride
- D. Protamine sulfate

**Correct Answer: D. Protamine sulfate**

The antidote to heparin is protamine sulfate and should be readily available for use if excessive bleeding or hemorrhage should occur. Protamine is a medication used to reverse and neutralize the

anticoagulant effects of heparin. Protamine is the specific antagonist that neutralizes heparin-induced anticoagulation. Protamine is a strongly alkaline (nearly two-thirds of the amino acid composition is arginine) polycationic low-molecular-weight protein found in salmon sperm that is also currently available in a recombinant form.

- **Option A:** Vitamin K is an antidote for warfarin. Vitamin K is a medication used in the management and treatment of bleeding due to the coagulation disorder caused by warfarin and vitamin K deficiency. It is in the fat-soluble vitamin class of drugs.
- **Option B:** Aminocaproic acid, an antifibrinolytic agent, is a medication used to manage and treat acute bleeding disorders. Aminocaproic acid has received approval from the Food and Drug Administration (FDA) for the therapeutic management of acute hemorrhages caused by elevated fibrinolytic activity leading to surgical complications after cardiac surgery, hematological disorders, hepatic cirrhosis, and neoplastic disease.
- **Option C:** Potassium chloride is a medication used in the management and treatment of hypokalemia. It is in the electrolyte supplement class of medications. Regardless of the administration route, KCl is used to increase the potassium content of the body. Approximately 98% of all potassium in the body exists within cells, particularly skeletal muscle cells.

**5. A 30-year-old mother, Mrs. Clarke, presents to the pediatric clinic with her 7-month-old son, Jeremiah. Jeremiah has been following the recommended vaccination schedule and is currently up to date. Mrs. Clarke expresses concerns about the risk of chickenpox, having experienced a severe case during her childhood. She recalls painful rashes and a prolonged recovery period. Eager to prevent her son from undergoing the same ordeal, Mrs. Clarke inquires about the optimal time for Jeremiah to receive the varicella zoster vaccine. The nurse is asked to recommend the most appropriate age from the given choices. Which of the following ages would be most suitable for the nurse to advise Mrs. Clarke to have Jeremiah receive the varicella zoster vaccine?**

- A. At birth
- B. 2 months
- C. 6 months
- D. 12 months
- E. 15 months
- F. 18 months

**Correct Answer: D. 12 months**

The first dose of the varicella zoster vaccine is typically administered at 12 months of age, followed by a second dose at 4-6 years of age. Consequently, based on the recommended vaccination schedule, the nurse should advise Mrs. Clarke that Jeremiah should receive the varicella zoster vaccine at 12 months of age.

- **Option A:** The varicella zoster vaccine is not administered at birth. Newborns may have passive immunity from their mothers if the mothers are immune to chickenpox.
- **Option B:** The varicella zoster vaccine is not given at 2 months. Infants at this age receive other vaccines such as the DTaP and Hib, but not the chickenpox vaccine.

- **Option C:** While Jeremiah is currently 7 months old, the vaccine is not recommended at this age. The immune response might not be as robust as when given later.
- **Option E:** While other vaccines are given around this age (like the MMR vaccine), the varicella vaccine's primary dose is recommended at 12 months.
- **Option F:** The primary dose should have been administered by this time. Waiting this long would only extend the child's vulnerability to the disease.

**6. A client arrived at the emergency department after suffering multiple physical injuries including a fractured pelvis from a vehicular accident. Upon assessment, the client is incoherent, pale, and diaphoretic. With vital signs as follows: temperature of 97°F (36.11° C), blood pressure of 60/40 mm Hg, heart rate of 143 beats/minute, and a respiratory rate of 30 breaths/minute. The client is mostly suffering from which of the following shock?**

- A. Distributive
- B. Hypovolemic
- C. Obstructive
- D. Cardiogenic

**Correct Answer: B. Hypovolemic**

Hypovolemic shock occurs when the volume of the circulatory system is too depleted to allow adequate circulation to the tissues of the body. A fractured pelvis will lose about one liter of blood hence symptoms such as hypotension, tachycardia, and tachypnea will occur. If left untreated, these patients can develop ischemic injury of vital organs, leading to multi-system organ failure.

- **Option A:** Distributive shock results from a relative inadequate intravascular volume caused by arterial or venous vasodilation. In distributive shock, systemic vasodilation leads to decreased blood flow to the brain, heart, and kidneys damaging vital organs. Additionally, fluid leaks from the capillaries into the surrounding tissues, further complicating the clinical picture.
- **Option C:** An obstructive shock is a form of shock associated with physical obstruction of the major vessels of the heart itself. Obstructive shock is a less common, but important cause of shock in critically ill infants and children. It is caused by mechanical obstruction of blood flow to and/or from the heart and causes can include tension pneumothorax, cardiac tamponade, pulmonary embolism, or cardiac defects resulting in left-sided outflow tract obstruction.
- **Option D:** Causes of cardiogenic include massive myocardial infarction or other causes of primary cardiac (pump) failure. Cardiogenic shock is a primary cardiac disorder characterized by a low cardiac output state of circulatory failure that results in end-organ hypoperfusion and tissue hypoxia. Clinical criteria include a systolic blood pressure of less than or equal to 90 mm Hg for greater than or equal to 30 minutes or support to maintain systolic blood pressure less than or equal to 90 mm Hg and urine output less than or equal to 30 mL/hr or cool extremities.

**7. Clay-colored stools indicate:**

- A. Upper GI bleeding
- B. Impending constipation

- C. An effect of medication
- D. Bile obstruction

**Correct Answer: D. Bile obstruction**

Bile colors the stool brown. Any inflammation or obstruction that impairs bile flow will affect the stool pigment, yielding light, clay-colored stool. The liver releases bile salts into the stool, giving it a normal brown color. One may have clay-colored stools if they have a liver infection that reduces bile production, or if the flow of bile out of the liver is blocked. Yellow skin (jaundice) often occurs with clay-colored stools.

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

**8. Nurse Spencer is caring for an anorexic client who is having a total parenteral nutrition solution for the first time. Which of the following assessments requires the most immediate attention?**

- A. Dry sticky mouth.
- B. Temperature of 100° Fahrenheit.
- C. Blood glucose of 210 mg/dl.
- D. Fasting blood sugar of 98 mg/dl.

**Correct Answer: C. Blood glucose of 210 mg/dl.**

Total parenteral nutrition formula containing dextrose ranges from 5% to 70%. A blood glucose level of 210mg/dl is considered high. After starvation, glucose intake suppresses gluconeogenesis by leading to the release of insulin and the suppression of glycogen. Excessive glucose may lead to hyperglycemia, with osmotic diuresis, dehydration, metabolic acidosis, and ketoacidosis. Excess glucose also leads to lipogenesis (again caused by insulin stimulation). This may cause fatty liver, increased CO<sub>2</sub> production, hypercapnia, and respiratory failure.

- **Option A:** Refeeding syndrome is caused by rapid refeeding after a period of malnutrition, which leads to metabolic and hormonal changes characterized by electrolyte shifts (decreased phosphate, magnesium, and potassium in serum levels) that may lead to widespread cellular dysfunction. Phosphorus, potassium, magnesium, glucose, vitamin, sodium, nitrogen, and fluid imbalances can be life-threatening. High-risk patients include the chronically undernourished and

those with little intake for more than 10 days. Patients with dysphagia are at higher risk. The syndrome usually occurs 24 to 48 hours after refeeding has started. The shift of water, glucose, potassium, phosphate, and magnesium back into the cells may lead to muscle weakness, respiratory failure, paralysis, coma, cranial nerve palsies, and rebound hypoglycemia.

- **Option B:** CR-BSI, which starts at the hub connection, is the spread of bacteria through the bloodstream. There's an increased risk of CR-BSI with TPN, due to the high dextrose concentration of TPN. Symptoms include tachycardia, hypotension, elevated or decreased temperature, increased breathing, decreased urine output, and disorientation.
- **Option D:** Monitor blood sugar frequently QID (four times per day), then less frequently when blood sugars are stable. Follow agency policy for glucose monitoring with TPN. Be alert to changes in dextrose levels in amino acids and the addition/removal of insulin to TPN solution.

**9. After reviewing the client's maternal history of magnesium sulfate during labor, which condition would the nurse anticipate as a potential problem in the neonate?**

- A. Hypoglycemia
- B. Jitteriness
- C. Respiratory depression
- D. Tachycardia

**Correct Answer: C. Respiratory depression.**

- **Option C:** Magnesium sulfate crosses the placenta and adverse neonatal effects are respiratory depression, hypotonia, and Bradycardia.

**10. Your goal is to minimize David's risk of complications after a herniorrhaphy. You instruct the patient to:**

- A. Avoid the use of pain medication.
- B. Cough and deep breath Q2H.
- C. Splint the incision if he can't avoid sneezing or coughing.
- D. Apply heat to scrotal swelling.

**Correct Answer: C. Splint the incision if he can't avoid sneezing or coughing.**

Teach the patient to avoid activities that increase intra-abdominal pressure such as coughing, sneezing, or straining with a bowel movement. Patients should be advised to avoid strenuous activities for a few weeks. Typically, light work can be resumed after 1 week, heavier jobs after 6 weeks.

- **Option A:** Postoperative chronic pain is more frequent than was previously understood and has become one of the most important primary endpoints in hernia surgery. In published reports, the incidence of post herniorrhaphy pain has ranged from 0% to more than 30%. Chronic inguinodynia is defined as pain persisting more than 3 months post herniorrhaphy, after the process of wound healing is complete.
- **Option B:** Recurrence in Lichtenstein hernioplasty may be due to inaccurate execution of the technique (inadequate size or improper fixation of the mesh) or to an overlooked hernia at the

primary operation. To avoid the latter, the patient should be asked to cough, and the region should be carefully examined for an indirect hernia, a direct hernia, a femoral hernia, or a combined hernia.

- **Option D:** After the procedure, the patient is asked to rest for a few hours. He or she may be discharged later the same day on a day-care basis. Early mobilization is the key to rapid convalescence. Patients can safely ambulate on the evening of the operation. If general or regional anesthesia is used, the patient may be hospitalized for a few days.

**11. The client has orders for a nasogastric (NG) tube insertion. During the procedure, instructions that will assist in the insertion would be:**

- A. Instruct the client to tilt his head back for insertion in the nostril, then flex his neck for the final insertion.
- B. After insertion into the nostril, instruct the client to extend his neck.
- C. Introduce the tube with the client's head tilted back, then instruct him to keep his head upright for final insertion.
- D. Instruct the client to hold his chin down, then back for insertion of the tube.

**Correct Answer: A. Instruct the client to tilt his head back for insertion in the nostril, then flex his neck for the final insertion.**

NG insertion technique is to have the client first tilt his head back for insertion into the nostril, then to flex his neck forward and swallow. A common error when placing the tube is to direct the tube in an upward direction as it enters the nares; this will cause the tube to push against the top of the sinus cavity and cause increased discomfort. The tip should instead be directed parallel to the floor, directly toward the back of the patient's throat.

- **Option B:** Extension of the neck will impede NG tube insertion. The patient can be given a cup of water with a straw in it to sip from to help ease the passage of the tube. The tube should be advanced with firm, constant pressure while the patient is sipping. If there is a great deal of difficulty in passing the tube, a helpful maneuver is to withdraw the tube and attempt again after a short break in the contralateral nares as the tube may have become coiled in the oropharynx or nasal sinus.
- **Option C:** In intubated patients, the use of reverse Sellick's maneuver (pulling the thyroid cartilage up rather than pushing it down during intubation) and freezing the NG tube may help facilitate placement of the tube. Once the tube has been inserted an appropriate length, typically around 55 cm as previously noted, it should be secured to the patient's nose with tape.
- **Option D:** Nasogastric tubes are, as one might surmise from their name, tubes that are inserted through the nares to pass through the posterior oropharynx, down the esophagus, and into the stomach. The most common complications related to the placement of nasogastric tubes are discomfort, sinusitis, or epistaxis, all of which typically resolve spontaneously with the removal of the nasogastric tube.

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

- A. Remain afebrile and have negative cultures.
- B. Resume normal fluid intake within 2 to 3 days.

- C. Resume the patient's normal job within 2 to 3 weeks.
- D. Try to discontinue cyclosporine (Neoral) as quickly as possible.

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

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

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

**13. A client admitted with angina complains of severe chest pain and suddenly becomes unresponsive. After establishing unresponsiveness, which of the following actions should the nurse take first?**

- A. Activate the resuscitation team.
- B. Open the client's airway.
- C. Check for breathing.
- D. Check for signs of circulation.

**Correct Answer: A. Activate the resuscitation team.**

Immediately after establishing unresponsiveness, the nurse should activate the resuscitation team. The next step is to open the airway using the head-tilt, chin-lift maneuver and check for breathing (looking, listening, and feeling for no more than 10-seconds). If the client isn't breathing, give two slow breaths using a bag mask or pocket mask. Next, check for signs of circulation by palpating the carotid pulse.

- **Option B:** The initial step in the evaluation of an unconscious patient is to evaluate for the basic signs of life. The American Heart Association recommends examining for a pulse, followed by assessing for airway patency and breathing pattern. If the patient does not have a pulse or does not have a regular breathing pattern, basic life support/advanced cardiovascular life support is indicated.
- **Option C:** For patients with a pulse, who are breathing adequately, the evaluation shifts to a detailed neurological examination. The neurologic examination would serve to determine the location and nature of the neurological lesion and to determine prognosis.
- **Option D:** The initial step is to evaluate for reactivity, using objective measures. Address the patient verbally, and then progress to light shaking, then progress to more intense mechanical



stimulation. Sufficient stimulus to the supraorbital ridge, nail beds, or temporomandibular joint can be painful without risk of tissue injury.

**14. A nurse is caring for a client with diabetic ketoacidosis and documents that the client is experiencing Kussmaul's respirations. Based on this documentation, which of the following did the nurse observe?**

- A. Respirations that are abnormally deep, regular, and increased in rate.
- B. Respirations that are regular but abnormally slow.
- C. Respirations that are labored and increased in depth and rate.
- D. Respirations that cease for several seconds.

**Correct Answer: A. Respirations that are abnormally deep, regular, and increased in rate.**

Kussmaul's respirations are abnormally deep, regular, and increased in rate. Kussmaul respiratory pattern occurs due to increased tidal volume with or without an increased respiratory rate. It is a form of hyperventilation. It results from stimulation of the respiratory center in the brain stem by low serum pH. The effect is the lowering of the partial pressure of carbon dioxide in the alveoli, thereby compensating for metabolic acidosis.

- **Option B:** Bradypnea is an abnormally slow breathing rate. The normal breathing rate for an adult is typically between 12 and 20 breaths per minute. A respiration rate below 12 or over 25 breaths per minute while resting may signal an underlying health problem.
- **Option C:** Tachypnea is a respiratory rate that is greater than the normal for age. Tachypnea is a condition that refers to rapid breathing. The normal breathing rate for an average adult is 12 to 20 breaths per minute. In children, the number of breaths per minute can be a higher resting rate than seen in adults. Tachypnea is a term used to define rapid and shallow breathing, which should not be confused with hyperventilation, which is when a patient's breathing is rapid but deep.
- **Option D:** Cheyne-Stokes is a pattern of crescendo-decrescendo respirations followed by a period of apnea. This pattern of breathing was first described by John Cheyne, a British Physician and William Stokes, an Irish Physician. It is well described in patients with heart failure. Usually observed while asleep and is the result of disordered central control of breathing. Its presence has implications for outcome in that cardiac resynchronization therapy improves outcomes in patients with Cheyne-Stokes Respirations.

**15. Ryan underwent an open reduction and internal fixation of the left hip. One day after the operation, the client is complaining of pain. Which data would cause the nurse to refrain from administering the pain medication and to notify the health care provider instead?**

- A. Left hip dressing dry and intact.
- B. Blood pressure of 114/78 mm Hg; pulse rate of 82 beats per minute.
- C. Left leg in functional anatomic position.
- D. Left foot cold to touch; no palpable pedal pulse.

**Correct Answer: D. Left foot cold to touch; no palpable pedal pulse.**

A left foot cold to touch without palpable pedal pulse represents an abnormal finding on neurovascular assessment of the left leg. The client is most likely experiencing some complication from surgery, which requires immediate medical intervention. The nurse should notify the health care provider of these findings.

- **Option A:** A dry and intact hip dressing is a normal assessment of findings that do not require medical intervention. A dressing is considered INTACT if portions of the white dressing border have lifted from the skin as long as the clear viewing window maintains full contact with the skin. The skin under the viewing window does not appear visibly soiled with exudate or blood. The skin under the viewing window does not appear dampened or moist with sweat, exudate, fluid, or blood.
- **Option B:** A blood pressure of 114/78 mm Hg and pulse rate of 82 beats per minute are normal assessment findings that do not require medical intervention. The normal range used in an adult is between 60 to 100 beats /minute with rates above 100 beats/minute and rates and below 60 beats per minute, referred to as tachycardia and bradycardia, respectively. The respiratory rate is the number of breaths per minute. The normal breathing rate is about 12 to 20 beats per minute in an average adult.
- **Option C:** A left foot in functional anatomic position are all normal assessment findings that do not require medical intervention. It functions as a rigid structure for weight-bearing and it can also function as a flexible structure to conform to uneven terrain.

**16. Mr. Bates is admitted to the surgical ICU following left adrenalectomy. He is sleepy but easily aroused. An IV containing hydrocortisone is running. The nurse planning care for Mr. Bates knows it is essential to include which of the following nursing interventions at this time?**

- A. Monitor blood glucose levels every shift to detect the development of hypo- or hyperglycemia.
- B. Keep flat on back with minimal movement to reduce the risk of hemorrhage following surgery.
- C. Administer hydrocortisone until vital signs stabilize, then discontinue the IV.
- D. Teach Mr. Bates how to care for his wound since he is at high risk for developing postoperative infection.

**Correct Answer: A. Monitor blood glucose levels every shift to detect development of hypo- or hyperglycemia.**

Hydrocortisone promotes gluconeogenesis and elevates blood glucose levels. Following adrenalectomy, the normal supply of hydrocortisone is interrupted and must be replaced to maintain the blood glucose at normal levels. Care for the client following adrenalectomy is similar to that for any abdominal operation.

- **Option B:** The client is encouraged to change position, cough, and deep breathe to prevent postoperative complications such as pneumonia or thrombophlebitis. Most patients will be able to eat, drink, and walk around normally the day after surgery. If the client has open adrenalectomy, they might have to wait longer to resume eating, drinking, and moving around normally. To prevent blood clots from forming, they'll be encouraged to walk around as soon as it is safe to do so.
- **Option C:** Maintenance doses of hydrocortisone will be administered IV until the client is able to take it by mouth and will be necessary for six months to two years or until the remaining gland recovers. The patients who have undergone unilateral adrenalectomy become steroid-dependent. Therefore, sufficient replacement of glucocorticoid is needed during the postoperative period.

- **Option D:** The client undergoing adrenalectomy is at increased risk for infection and delayed wound healing and will need to learn about wound care, but not at this time while he is in the ICU. A clinical practice guideline stated that glucocorticoid replacement after surgery is required until the HPA axis recovers and the mean period of replacement is eighteen months after unilateral adrenalectomy.

**17. A 48-year-old male client is brought to the psychiatric emergency room after attempting to jump off a bridge. The client's wife states that he lost his job several months ago and has been unable to find another job. The primary nursing intervention at this time would be to assess for:**

- A. A past history of depression.
- B. Current plans to commit suicide.
- C. The presence of marital difficulties.
- D. Feelings of excessive failure.

**Correct Answer: B. Current plans to commit suicide**

Whether there is a suicide plan is a criterion when assessing the client's determination to make another attempt. Keep accurate and thorough records of client's behaviors (verbal and physical) and all nursing/physician actions. 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 level of suicide potential. Protection and preservation of the client's life at all costs during crisis is part of medical and nursing staff's responsibility. Follow unit protocol.

- **Option A:** Keep accurate and timely records, document client's activity, usually every 15 minutes (what client is doing, with whom, and so on). Follow unit protocol. Accurate documentation is vital. The chart is a legal document as to the client's "ongoing status," intervention taken, and by whom.
- **Option C:** Encourage the client to talk about their feelings and problem solving alternatives. Talking about feelings and looking at alternatives can minimize suicidal acting out. Encourage the client to talk freely about feelings and help plan alternative ways of handling disappointment, anger, and frustration. Gives the client other ways of dealing with strong emotions and gaining a sense of control over their lives.
- **Option D:** Encourage the client to avoid decisions during the time of crisis until alternatives can be considered. During crisis situations, people are unable to think clearly or evaluate their options readily. 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 client 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").

**18. A mother is so worried that her son took an unknown amount of children's chewable vitamins at an unknown time. While in the ED, the child is alert and asymptomatic. What information should be directly stated to the physician?**

- A. The child was nauseated and vomited before arriving in the ED.
- B. The child has been managed multiple times for unexpected injuries.

- C. The child has been treated many times for the ingestion of toxic substances.
- D. The ingested children's chewable vitamins contain iron.

**Correct Answer: D. The ingested children's chewable vitamins contain iron.**

Iron is a toxic substance that can lead to severe bleeding, shock, hepatic failure, and coma. The antidote that can be used for severe cases of iron poisoning is deferoxamine. Iron poisoning is one of the most common toxic ingestion and one of the most deadly among children. Failure to diagnose and treat iron poisoning can have serious consequences including multi-organ failure and death.

- **Option A:** During the first stage (0.5 to 6 hours), the patient mainly exhibits gastrointestinal (GI) symptoms including abdominal pain, vomiting, diarrhea, hematemesis, and hematochezia. The second stage (6 to 24 hours) represents an apparent recovery phase, as the patient's GI symptoms may resolve despite toxic amounts of iron absorption.
- **Option B:** This information needs further investigation but will not change the immediate diagnostic testing or treatment plan. Patients who have GI symptoms that resolve after a short period of time and have normal vital signs require supportive care and an observation period, as it may represent the second stage of iron toxicity.
- **Option C:** Patients who are symptomatic or demonstrate signs of hemodynamic instability require aggressive management and admission to an intensive care unit. Deferoxamine, a chelating agent that can remove iron from tissues and free iron from plasma, is indicated in patients with systemic toxicity, metabolic acidosis, worsening symptoms, or a serum iron level predictive of moderate or severe toxicity.

**19. Nurse Gretchen is discussing the use of cocaine as a local anesthetic with a nursing student. Which statement by the student indicates understanding of this agent?**

- A. "Anesthetic effects develop slowly and persist for several hours."
- B. "Cocaine is a local anesthetic administered by injection."
- C. "Vasoconstrictors should not be used as adjunct agents with this drug."
- D. "When abused, cocaine causes physical dependence."

**Correct Answer: C. "Vasoconstrictors should not be used as adjunct agents with this drug."**

Cocaine should not be combined with epinephrine or other vasoconstrictors, because it causes vasoconstriction itself, and the combination could precipitate severe hypertension. The principal action of cocaine on the mucosa is anesthesia and vasoconstriction, however significant systemic absorption may occur; this may adversely affect the cardiovascular system, after which alpha- and beta 1-adrenoceptor stimulation results in increased heart rate, systemic arterial pressure, and myocardial contractility, which are major determinants of myocardial oxygen demand.

- **Option A:** Cocaine has a rapid onset of effects, which last about 1 hour. Cocaine and its metabolites may cause arterial vasoconstriction hours after use. Epicardial coronary arteries are especially vulnerable to these effects, leading to a decreased myocardial oxygen supply.
- **Option B:** It is used only topically for anesthesia. Topical cocaine has an anesthetic effect similar to local anesthetics (such as lidocaine) from sodium channel blockade and interference with action potential propagation. This Vaughn-Williams class IC effect also increases the risk of conduction disturbance and tachyarrhythmias.

- **Option D:** Although subject to widespread abuse with profound psychological dependence, it does not cause substantial physical dependence. The fatal dose of cocaine has been estimated to be 1.2 g, but there are reports of severe adverse effects from doses as low as 20 mg. The single-use vial contains four mL of a 40 mg/mL solution, thus 160 mg in total. There is also a multi-use vial containing 10 mL of 4% cocaine. As mucosal absorption is variable, the possibility of receiving the entire amount of cocaine is low, especially when delivered by cotton pledgets or gauze.

**20. A nurse caring for a patient receiving oxytocin therapy suddenly is experiencing hypertonic contractions. Which of the following priority nursing actions should the nurse do? Select all that apply.**

- A. The nurse leaves the client to ask for help.
- B. Administer oxygen at 8 to 10 liters per minute.
- C. Stop the oxytocin infusion.
- D. Place the client in the supine position.
- E. Increase the flow rate of the intravenous additive solution.

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

The presence of hypertonic contractions indicates the need to initiate emergency measures. The oxytocin infusion must be stopped to reduce uterine stimulation, administering oxygen will promote increased fetal and maternal oxygenation.

- **Option A:** The nurse should stay with the client.
- **Option D:** Placing the client in a supine position will not promote an increase in placental oxygenation.

**21. Karina, a client with myasthenia gravis, is to receive immunosuppressive therapy. The nurse understands that this therapy is effective because it:**

- A. Promotes the removal of antibodies that impair the transmission of impulses
- B. Stimulates the production of acetylcholine at the neuromuscular junction.
- C. Decreases the production of autoantibodies that attack the acetylcholine receptors.
- D. Inhibits the breakdown of acetylcholine at the neuromuscular junction.

**Correct Answer: C. Decreases the production of autoantibodies that attack the acetylcholine receptors.**

Steroids decrease the body's immune response thus decreasing the production of antibodies that attack the acetylcholine receptors at the neuromuscular junction. Immunotherapy is used to upregulate or downregulate the immune system to achieve a therapeutic effect in immunological mediated disorders including immunodeficiencies, hypersensitivity reactions, autoimmune diseases, tissue and organ transplantations, malignancies, inflammatory disorders, infectious diseases, and any other disease, where immunotherapy can improve the quality and life expectancy.

- **Option A:** Immunosuppressive therapies do not remove the antibodies, they reduce the production of these antibodies that attack the acetylcholine receptors at the neuromuscular junction. Steroids inhibit cytokine synthesis, affect cell migration, and inhibit the production of leukocytes.

Cyclophosphamide acts by covalent alkylation, together with chlorambucil, exert an immunomodulatory effect. They inhibit strand separation of DNA during replication.

- **Option B:** The production of acetylcholine is unaffected during immunosuppressive therapy. Methotrexate is an analog of folic acid and blocks pathways essential for DNA synthesis. Azathioprine is a drug that can convert to 6-mercaptopurine, and its effect is incorporation into DNA as a fraudulent base.
- **Option D:** Pyridostigmine is an anticholinesterase inhibitor that works at the neuromuscular junction and prevents the breakdown of acetylcholine. The use of cytokines to successfully treat certain malignancies is a reality, for example, the use of IL-2 in combination with interferon-gamma for renal carcinoma; use of interferon-alpha and beta for hairy leukemia; and TNF-alpha used in various tumors caused a notable reduction of the mass. These cytokines upregulated the immune system through stimulation of T cell and NK cell activation and increased MHC class I expression.

**22. A client with depression is taking phenelzine (Nardil). The nurse advises the client to avoid consuming which foods while taking the medication**

- A. Crackers
- B. Vegetable salad
- C. Oatmeal
- D. Yogurt

**Correct Answer: D. Yogurt**

Phenelzine (Nardil) is a monoamine oxidase (MAO) inhibitor used in the treatment of major depressive disorder. The client should avoid eating tyramine-rich foods such as chocolate, alcoholic beverages, aged cheese, yogurt, processed meats, and fruits such as raisins, avocados, bananas, or figs to avoid hypertensive crisis.

- **Options A, B, and C:** Crackers, vegetable salad, and oatmeal can be eaten by a client taking phenelzine.

**23. Which of the following clients is at greatest risk for digitalis toxicity?**

- A. A 25-year-old client with congenital heart disease.
- B. A 50-year-old client with CHF.
- C. A 60-year-old client after myocardial infarction.
- D. An 80-year-old client with CHF.

**Correct Answer: D. An 80-year-old client with CHF.**

Extremely old clients are at greater risk for digitalis toxicity. Remember when it comes to adversity, the very old and very young are always at the highest risk. There are no evidence-based guidelines for the management of mild to moderate toxicity so there is a wide variation in treatment. Severe toxicity requires hospital admission and consideration of the need for digoxin-specific antibody fragments. Although digoxin-specific antibody fragments are safe and effective, randomized trials have not been performed.

- **Option A:** Digoxin toxicity can emerge during long-term therapy as well as after an overdose. It can occur even when the serum digoxin concentration is within the therapeutic range.

- **Option B:** The clinical features of toxicity are often non-specific. They commonly include lethargy, confusion, and gastrointestinal symptoms (anorexia, nausea, vomiting, diarrhea, and abdominal pain). Visual effects (blurred vision, color disturbances, halos, and scotomas) are rarer in contemporary practice. Cardiac arrhythmias account for most deaths.
- **Option C:** Digoxin increases intracellular calcium in myocardial cells indirectly, by inhibiting the sodium-potassium pump in the cell membrane. Increased intracellular calcium increases cardiac contractility, but also the risk of tachyarrhythmias. Inhibition of this pump causes hyperkalemia commonly seen in toxicity. Digoxin also causes an increase in vagal activity, reducing activity in the sinus node and prolonging conduction in the atrioventricular node.

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

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

**Correct Answer: C. Use diaphragmatic breathing.**

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

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

**25. The nurse is caring for a client with ascites. Which is the best method to use for determining early ascites?**

- A. Inspection of the abdomen for enlargement
- B. Bimanual palpation for hepatomegaly
- C. Daily measurement of abdominal girth
- D. Assessment for a fluid wave

**Correct Answer: C. Daily measurement of abdominal girth**

Measuring with a paper tape measure and marking the area that is measured is the most objective method of estimating ascites. Ascites is the pathologic accumulation of fluid within the peritoneal cavity. It is the most common complication of cirrhosis and occurs in about 50% of the patient with decompensated cirrhosis in 10 years. The development of ascites denotes the transition from compensated to decompensated cirrhosis.

- **Option A:** The initial tests that should be performed on the ascitic fluid include a blood cell count, with both a total nucleated cell count and polymorphonuclear neutrophils (PMN) count, and a bacterial culture by bedside inoculation of blood culture bottles. Ascitic fluid protein and albumin are measured simultaneously with the serum albumin level to calculate the serum-ascites albumin gradient (SAAG).
- **Option B:** Palpation of the liver will not determine the amount of ascites. The first abnormality that develops is portal hypertension in the case of cirrhosis. Portal pressure increases above a critical threshold and circulating nitric oxide levels increase, leading to vasodilation. As the state of vasodilatation becomes worse, the plasma levels of vasoconstrictor sodium-retentive hormones elevate, renal function declines, and ascitic fluid forms, resulting in hepatic decompensation.
- **Option D:** Inspecting and checking for fluid waves are more subjective. Patients typically report progressive abdominal distension that may be painless or associated with abdominal discomfort, weight gain, early satiety, shortness of breath, and dyspnea resulting from fluid accumulation and increased abdominal pressure. Symptoms such as fever, abdominal tenderness, and confusion can be seen in spontaneous bacterial peritonitis.

**26. The client, who is 2 weeks postburn with a 40% deep partial-thickness injury, still has open wounds. On taking the morning vital signs, the client is found to have a below-normal temperature, is hypotensive, and has diarrhea. What is the nurse's best action?**

- A. Nothing, because the findings are normal for clients during the acute phase of recovery.
- B. Increase the temperature in the room and increase the IV infusion rate.
- C. Assess the client's airway and oxygen saturation.
- D. Notify the burn emergency team.

**Correct Answer: D. Notify the burn emergency team.**

These findings are associated with systemic gram-negative infection and sepsis. This is a medical emergency and requires prompt attention. Invasive infection of burn wounds is a surgical emergency because of the high concentrations of bacteria (>10<sup>5</sup> CFU) in the wound and surrounding area, together with new areas of necrosis in unburned tissues.

- **Option A:** Invasive infection is now the chief reason for death and morbidity after burn injury, with it being responsible for 51% of the deaths. The importance of prevention, surveillance, and sampling for infections in this immunocompromised group has been well established; however, there is a dearth of standard-of-care guidelines and novel approaches.
- **Option B:** Urgent resuscitation measures are required, along with broad-spectrum antimicrobial agents, antifungals, and surgical debridement of the affected area. Specimens of this tissue must undergo histopathologic and microbiologic analysis to assist in the identification of the causative organism(s).



- **Option C:** Assessment of the airway and oxygen saturation would not help in diagnosing a burn infection. Burn wound colonization may be diagnosed when bacteria are present at low concentrations (<105 colony-forming units [CFU]) on the wound's surface. This situation often is accompanied by signs of sepsis and changes in the burn wound such as black, blue, or brown discoloration of the eschar.

**27. A nurse is teaching a client with left leg weakness to walk with a cane. The nurse should include which nursing points about safe cane use in the client teaching? Select all that apply.**

- A. Place the cane 8" to 10" from the base of the little toe.
- B. Hold the cane on the uninvolved side of the body.
- C. Adjust the cane so that the handle is level with the hip bone.
- D. Walk by moving the involved leg, then the cane, and then the uninvolved leg.
- E. Shorten the stride length on the involved side.
- F. Avoid leaning on the cane to get in and out of a chair.

**Correct Answer: B, C, & F.**

A cane can be helpful if there are minor problems with balance or stability, some weakness in the leg or trunk, an injury, or pain. If elderly, using a single point cane may help to walk more comfortably and safely and, in some cases, may make it easier to continue living independently.

- **Option A:** The cane base should be placed 4" to 6" from the base of the little toe. The elbow should be slightly bent when holding the cane.
- **Option B:** Hold the cane in the hand opposite the side that needs support. For example, if the left leg is injured, hold the cane in the right hand.
- **Option C:** To ambulate safely, a client with leg weakness should hold the cane in the hand opposite the involved leg with the handle level adjacent to the hip bone. When standing up straight, the top of the cane should reach the crease in the wrist.
- **Option D:** When walking, the client should move the cane and involved leg simultaneously, alternating with the uninvolved leg in equal length strides and timing.
- **Option E:** To start, set the cane about one small stride ahead and step off on the injured leg. Finish the step with the good leg.
- **Option F:** The client should not lean on the cane to get in or out of a chair because of the risk of falls.

**28. The nurse is giving dietary instructions to a client who is on a vegan diet. The nurse provides dietary teaching focus on foods high in which vitamin that may be lacking in a vegan diet?**

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

D. Vitamin C

**Correct Answer: B. Vitamin D**

Deficiencies in vegetarian diets include vitamin B12 which is found in animal products and vitamin D (if limited exposure to sunlight). Vegans and other vegetarians who limit their intake of animal products may be at greater risk of vitamin D deficiency than nonvegetarians because foods providing the highest amount of vitamin D per gram naturally are all from animal sources, and fortification with vitamin D currently occurs in few foods.

- **Option A:** Plant sources contain vitamin A in the form of carotenoids which have to be converted during digestion into retinol before the body can use it. Carotenoids are the pigments that give plants their green color and some fruits and vegetables their red or orange color.
- **Option C:** The best way to get the daily requirement of vitamin E is by eating food sources. Vitamin E is found in vegetable oils, nuts, seeds, green leafy vegetables, and fortified breakfast cereals. It is an antioxidant. This means it protects body tissue from damage caused by substances called free radicals. Free radicals can harm cells, tissues, and organs. They are believed to play a role in certain conditions related to aging.
- **Option D:** Vitamin C can be found in fruits and vegetables, which are eaten by a vegetarian. Humans are unable to synthesize vitamin C, so it is strictly obtained through the dietary intake of fruits and vegetables. Citrus fruits, berries, tomatoes, potatoes, and green leafy vegetables are excellent sources of vitamin C.

**29. Phenylephrine hydrochloride (Neo-Synephrine) is prescribed for a client with nasal congestion. The nurse who is providing teachings about the medication should include which of the following? Select all that apply.**

- A. Avoid consuming high amounts of caffeine
- B. Use caution with clients with hypertension
- C. Report for breathing problems such as shortness of breath, and audible wheezing
- D. May take naratriptan once with headache
- E. May extend the use of nasal solution if symptoms do not improve after 3 days

**Correct Answer: A, B, & C**

- **Option A:** Taking large amounts of caffeine can increase restlessness, palpitations, nervousness, or other side effects of phenylephrine.
- **Option B:** The medication stimulates alpha1 receptors, causing an increase in blood pressure.
- **Option C:** The medication can trigger asthma so it is important to notify the health care provider if a client has a history of asthma.
- **Option D:** Some medications used for migraine headaches such as naratriptan may worsen the serious side effects of phenylephrine and therefore should be avoided.
- **Option E:** Extended use of nasal spray may result in tolerance and rebound nasal congestion which is caused by irritation of the nasal mucosa. Therefore, the client should be instructed to notify the doctor if the symptoms do not improve after 3 days of treatment.

**30. A patient with the diagnosis of diverticulosis is advised to eat a diet high in fiber. What should the nurse recommend that the patient eat to best increase the bulk and fecal material?**

- A. Whole wheat bread
- B. White rice
- C. Pasta
- D. Kale

**Correct Answer: D. Kale**

Kale is an excellent source of dietary fiber. A serving of 3 1/2 ounces of kale contains 6.6 g of dietary fiber. Fiber is a very important component of our diet and comes from plant-based food sources (fruits, vegetables, legumes and whole grains). Different food sources contain different types of fiber and resistant starches and the side effects depend on the individual's microbiome (gut bacteria). Instead of avoiding fiber altogether, you may want to identify the certain types of food that cause the distress.

- **Option A:** One slice of whole wheat bread contains only 1.5 g of dietary fiber. Whole wheat bread is made from flour that contains the entire wheat kernel, including the bran and germ. It's here that wheat packs the most nutrients, such as fiber, B vitamins, iron, folate, potassium, and magnesium. Leaving the wheat kernel intact makes for a less processed, more nutritious bread.
- **Option B:** A serving of a 1/2 cup of white rice contains only 0.8 g of dietary fiber. White rice is mostly a source of "empty" calories and carbs with very few essential nutrients. 100 grams (3.5 ounces) of cooked brown rice provide 1.8 grams of fiber, whereas 100 grams of white provide only 0.4 grams of fiber (1, 2). Bottom Line: Brown rice is much higher in nutrients than white rice.
- **Option C:** A serving of 3 1/2 ounces of cooked pasta contains only 1.6 g of dietary fiber. Whole-wheat pasta is usually made from whole-wheat durum semolina, or flour made from the whole grain rather than the striped grain. For about 175 calories, a 1-cup serving of cooked whole-wheat spaghetti delivers 6.3 grams of fiber, or 25 percent of the daily value.

**31. A nurse is caring for a client receiving a heparin intravenous (IV) infusion. The nurse expects that which of the following laboratory will be prescribed to monitor the therapeutic effect of heparin?**

- A. Prothrombin time (PT)
- B. Activated partial thromboplastin time (aPTT)
- C. Hematocrit (Hgb)
- D. Hemoglobin (Hct)

**Correct Answer: B. Activated partial thromboplastin time (aPTT)**

Activated partial thromboplastin time assesses the therapeutic level of heparin.

- **Option A:** Prothrombin time (PT) assesses the therapeutic level of warfarin sodium (Coumadin).
- **Options C & D:** Hematocrit (Hgb) and Hemoglobin (Hct) measure the aspect of the red blood cells.

**32. Immobility impairs bladder elimination, resulting in such disorders as:**

- A. Increased urine acidity and relaxation of the perineal muscles, causing incontinence
- B. Urine retention, bladder distention, and infection
- C. Diuresis, natriuresis, and decreased urine specific gravity
- D. Decreased calcium and phosphate levels in the urine

**Correct Answer: B. Urine retention, bladder distention, and infection**

The immobilized patient commonly suffers from urine retention caused by decreased muscle tone in the perineum. This leads to bladder distention and urine stagnation, which provide an excellent medium for bacterial growth leading to infection.

- **Option A:** Urea is the main nitrogenous waste product resulting from protein breakdown (catabolism) and is rapidly eliminated in the urine by the kidneys. During bed rest, the concentration of urea in the blood increases, and the kidneys eliminate larger amounts of urea.
- **Option C:** As food intake usually decreases during bed rest, it is speculated that these higher concentrations of urea in blood and urine can only come from the catabolic breakdown of endogenous protein sources, such as muscle and other lean tissues (Bilancio et al, 2014). This correlates with the reduction in lean tissue mass and sarcopenia that are characteristic of prolonged immobility.
- **Option D:** Immobility is independently associated with the development of a series of complications, including pressure ulcer, deep vein thrombosis (DVT), pneumonia, and urinary tract infection (UTI) Immobility also results in more alkaline urine with excessive amounts of calcium, sodium, and phosphate, a gradual decrease in urine production, and increased specific gravity.

**33. In preparing a female client for electroconvulsive therapy (ECT), Nurse Michelle knows that succinylcholine (Anectine) will be administered for which therapeutic effect?**

- A. Short-acting anesthesia
- B. Decreased oral and respiratory secretions
- C. Skeletal muscle paralysis
- D. Analgesia

**Correct Answer: C. Skeletal muscle paralysis**

Anectine is a depolarizing muscle relaxant causing paralysis. It is used to reduce the intensity of muscle contractions during the convulsive stage, thereby reducing the risk of bone fractures or dislocation. A nerve stimulator is utilized to monitor succinylcholine, a depolarizing muscle relaxant used to reduce tonic-clonic contractions during the procedure. As an alternative to EMG, a blood pressure cuff is inflated on the patient's ankle to prevent succinylcholine from entering the foot, allowing a visual monitor of seizure activity with measurement of tonic-clonic contractions.

- **Option A:** ECT utilizes general anesthesia. Anesthetic induction medications used include barbiturates such as thiopental and methohexital and nonbarbiturate agents such as propofol and etomidate. Seizure-induced by ECT should last longer than 30 seconds. Methohexital is the most commonly used induction agent due to its quick onset, effectiveness, low cost, and minimal effect on seizure duration. Propofol and thiopental have been shown to reduce seizure duration. Etomidate has correlations with myoclonus and increased seizure duration.

- **Option B:** Administration of an anticholinergic medication before ECT may prevent arrhythmias such as bradycardia or asystole and excessive oral secretions. To induce cerebral vasoconstriction via hypocarbia, the patient is often hyperventilated via bag valve mask before delivery of the electrical stimulus to increase seizure intensity.
- **Option D:** In a patient with numerous missed seizures, anesthetic induction agents such as etomidate or ketamine may be useful as they exhibit less anticonvulsant effects as compared to methohexital. While caffeine had been previously administered to prolong seizures, it is no longer the recommendation due to its uncertain safety profile for this purpose.

**34. Mannitol (Osmitrol), an osmotic diuretic, is contraindicated to which conditions? Select all that apply.**

- A. Pulmonary edema
- B. Narrow-angle glaucoma
- C. Heart failure
- D. Chemotherapy
- E. Hyponatremia

**Correct Answer: A, C, and E**

Too rapid infusion of large amounts of mannitol injection will cause a shift of intracellular water into the extracellular compartment resulting in cellular dehydration and overexpansion of the intravascular space with hyponatremia, congestive heart failure, and pulmonary edema.

- **Option B:** Mannitol is used to decrease ICP in clients with narrow-angle glaucoma.
- **Option D:** Mannitol is used with chemotherapy to induce diuresis.

**35. When developing a plan of care for a female client with acute stress disorder who lost her sister in a car accident. Which of the following would the nurse expect to initiate?**

- A. Facilitating progressive review of the accident and its consequences.
- B. Postponing discussion of the accident until the client brings it up.
- C. Telling the client to avoid details of the accident.
- D. Helping the client to evaluate her sister's behavior.

**Correct Answer: A. Facilitating progressive review of the accident and its consequences**

The nurse would facilitate progressive review of the accident and its consequence to help the client integrate feelings & memories and to begin the grieving process. Help patients reframe any destructive cognitions (eg, beliefs that they acted terribly and are terrible people or are weak for being so distraught, that life is hopeless or worthless, or that the world is totally unsafe).

- **Option B:** Support self-esteem; help patients understand that their reaction to the trauma is a normal reaction to an abnormal situation, not a sign of weakness or psychopathology. Reassure and help survivors concerning immediate needs, such as rest, food, shelter, social support, or a sense of belonging to a community (some feel cut off and detached).

- **Option C:** Promote coping mechanisms. Avoid prompting discussion of issues that cannot be resolved; avoid abreaction in groups and the resulting contagion effect; respect defenses, and do not force reality on people who cannot handle it yet; keep in mind that debriefing may be harmful. Discuss the experience with patients who want to talk about it, and avoid pressuring those who do not wish to discuss it.
- **Option D:** Check to see if children feel that they somehow caused the death or disaster or if they have other misunderstandings, and take pains to reassure them or correct any misunderstanding; do not assume children are fine just because they are not saying anything. Let them know it is all right to talk about unpleasant feelings (including sadness and anger) and listen to them; sharing personal feelings of sadness with them is all right as well.