

# Kevin's Review - 35 NCLEX Practice Questions

## 1. Vasopressin is which of the following pituitary hormones?

- A. Antidiuretic hormone
- B. Desmopressin acetate
- C. Oxytocin
- D. ACTH

**Correct Answer: A. Antidiuretic hormone**

Vasopressin is an antidiuretic hormone. Vasopressin or antidiuretic hormone (ADH) or arginine vasopressin (AVP) is a nonapeptide synthesized in the hypothalamus. Science has known it to play essential roles in the control of the body's osmotic balance, blood pressure regulation, sodium homeostasis, and kidney functioning. ADH primarily affects the ability of the kidney to reabsorb water; when present, ADH induces expression of water transport proteins in the late distal tubule and collecting duct to increase water reabsorption.

- **Option B:** Desmopressin (1-deamino-8-D-arginine vasopressin) is a synthetic analog of vasopressin aka antidiuretic hormone created in 1977 used in the treatment in a wide variety of medical conditions to include nocturnal polyuria, hemophilia A, diabetes insipidus, on Willebrand disease, uremic bleeding, as well as many off label uses such as an adjunct with hypertonic saline to prevent rapid sodium correction, intracranial hemorrhage associated with varying antiplatelet agents, and trauma resuscitation with active hemorrhage.
- **Option C:** Oxytocin is indicated and approved by the FDA for two specific time frames in the obstetric world: antepartum and postpartum. In the antepartum period, exogenous oxytocin is FDA-approved for strengthening uterine contractions with the aim of successful vaginal delivery of the fetus. In regards to the postpartum period, oxytocin is FDA-approved when it is time to deliver the placenta during the third stage of labor and also to control postpartum hemorrhage.
- **Option D:** Adrenocorticotrophic hormone (ACTH) is a tropic hormone produced by the anterior pituitary. The hypothalamic-pituitary axis controls it. ACTH regulates cortisol and androgen production. Diseases associated with ACTH include Addison disease, Cushing syndrome, and Cushing disease.

## 2. The client with chronic renal failure returns to the nursing unit following a hemodialysis treatment. On assessment the nurse notes that the client's temperature is 100.2. Which of the following is the most appropriate nursing action?

- A. Encourage fluids.
- B. Notify the physician.
- C. Monitor the site of the shunt for infection.
- D. Continue to monitor vital signs.

**Correct Answer: D. Continue to monitor vital signs.**

The client may have an elevated temperature following dialysis because the dialysis machine warms the blood slightly. If the temperature is elevated excessively and remains elevated, sepsis would be suspected, and a blood sample would be obtained as prescribed for culture and sensitivity purposes.

- **Option A:** Avoid contamination of the access site. Use aseptic technique and masks when giving shunt care, applying or changing dressings, and when starting or completing the dialysis process. Prevents the introduction of organisms that can cause infection.
- **Option B:** Notify physician and/or initiate declotting procedure if there is evidence of loss of shunt patency. Rapid intervention may save access; however, declotting must be done by experienced personnel.
- **Option C:** Assess skin around vascular access, noting redness, swelling, local warmth, exudate, tenderness. Signs of local infection, which can progress to sepsis if untreated. Monitor temperature. Note presence of fever, chills, hypotension. Signs of infection or sepsis requiring prompt medical intervention.

**3. Baby Melody is a neonate who has a very-low-birth-weight. Nurse Josie carefully monitors inspiratory pressure and oxygen (O<sub>2</sub>) concentration to prevent which of the following?**

- A. Meconium aspiration syndrome
- B. Bronchopulmonary dysplasia (BPD)
- C. Respiratory syncytial virus (RSV)
- D. Respiratory distress syndrome (RDS)

**Correct Answer: B. Bronchopulmonary dysplasia (BPD)**

Close monitoring of inspiratory pressure and O<sub>2</sub> concentration is necessary to prevent BPD, which is related to the use of high inspiratory pressures and O<sub>2</sub> concentrations especially in very-low-birth-weight and extremely low-birth-weight neonates with lung disorders. Injury from mechanical ventilation and reactive oxygen species to premature lungs in the presence of antenatal factors predisposing the lungs to BPD form the basis of pathogenesis of BPD in preterm neonates.

- **Option A:** Meconium aspiration syndrome is a respiratory disorder created by the aspiration of meconium in the perinatal period. Meconium aspiration syndrome (MAS) is the neonatal respiratory distress that occurs in a newborn in the context of MAS when respiratory symptoms cannot be attributed to another etiology.
- **Option C:** RSV is a group of viruses that cause respiratory tract infections, such as bronchiolitis and pneumonia. The most common clinical scenario encountered in RSV infection is an upper respiratory infection, but RSV commonly presents in young children as bronchiolitis, a lower respiratory tract illness with small airway obstruction, and can rarely progress to pneumonia, respiratory failure, apnea, and death.
- **Option D:** RDS, a disorder caused by lack of surfactant, usually is found in premature neonates. RDS primarily affects preterm neonates, and infrequently, term infants. The incidence of RDS is inversely proportional to the gestational age of the infant, with more severe disease in the smaller and more premature neonates.

**5. A 50-year-old male client with a history of colorectal cancer has recently undergone a colon resection. Postoperatively, while assisting the client to turn in bed for routine care, the nurse notices the surgical wound site has suddenly dehisced, and there is evisceration of abdominal contents. In prioritizing the immediate actions to take, which step should the nurse perform first to address**

***this acute complication?***

- A. Promptly notify the surgeon to report the critical incident and seek further orders.
- B. Immediately cover the eviscerated tissue with a dressing moistened with sterile normal saline.
- C. Check the client's vital signs to assess for shock or other immediate life-threatening conditions.
- D. Attempt to gently approximate the wound edges without applying pressure to the eviscerated organs.
- E. Prepare the client for emergency surgery while ensuring the preservation of the exposed tissues.
- F. Administer prescribed analgesia to manage the client's pain due to the dehiscence.

**Correct Answer: B. Immediately cover the eviscerated tissue with a dressing moistened with sterile normal saline.**

This action is critical to maintain the viability of the exposed organs and prevent further contamination and infection. It is the most immediate and appropriate first step in the event of evisceration. Once this is done, the nurse should then perform other actions, such as notifying the surgeon (A), assessing vital signs (C), and preparing the client for emergency intervention (E). Attempting to close the wound (D) or administering pain medication (F) should only be done under the direct instruction of a physician, as they are not initial emergency measures.

***6. A primigravida with diabetes is admitted to the labor and delivery unit at 34 weeks gestation. Which doctor's order should the nurse question?***

- A. Magnesium sulfate 4gm (25%) IV
- B. Brethine 10 mcg IV
- C. Stadol 1 mg IV push every 4 hours as needed prn for pain
- D. Ancef 2gm IVPB every 6 hours

**Correct Answer: B. Brethine 10 mcg IV**

Brethine is used cautiously because it raises the blood glucose levels. Terbutaline can cause a temporary increase in the baby's heart rate and blood sugar levels. These side effects usually aren't serious and are easy to treat after delivery if they occur. There are concerns about long term use of this drug because the incidence of danger to the baby increases.

- **Option A:** Magnesium sulfate is indicated to prevent seizures associated with pre-eclampsia, and for control of seizures with eclampsia. Magnesium levels must be monitored frequently by checking serum levels every 6 to 8 hours or clinically by following patellar reflexes or urinary output. If serum concentration levels are low, a proper dose of magnesium sulfate can be given parenterally to replete low serum concentrations with recommended follow up laboratory testing.
- **Option C:** Stadol is indicated for labor pain in full-term (37 weeks gestation or more) women without fetal distress in early labor. This medication is used to treat moderate to severe pain, including pain from surgery, muscle pain, and migraine headaches. Butorphanol is an opioid pain reliever similar to morphine. It acts on certain centers in the brain to give pain relief.
- **Option D:** Ancef is generally acceptable for pregnant women. Controlled studies in pregnant women show no evidence of fetal risk. Cefazolin is an antibiotic used to treat a wide variety of bacterial infections. It may also be used before and during certain surgeries to help prevent infection. This medication is known as a cephalosporin antibiotic. It works by stopping the growth of

bacteria.

**7. A client with AIDS is taking Zovirax (acyclovir). Which nursing intervention is most critical during the administration of acyclovir?**

- A. Limit the client's activity
- B. Encourage a high-carbohydrate diet
- C. Utilize an incentive spirometer to improve respiratory function
- D. Encourage fluids

**Correct Answer: D. Encourage fluids**

Clients taking Acyclovir should be encouraged to drink plenty of fluids because renal impairment can occur. Acute kidney injury (AKI) is the most significant side effect of parenteral acyclovir administration. The incidence of AKI is comparable to other nephrotoxic medications such as aminoglycosides. Patients with CKD are at higher risk. Dose adjustment of acyclovir for ideal body weight and baseline renal function is imperative.

- **Option A:** Limiting activity is not necessary. Patients should be monitored for adverse effects such as malaise, inflammation or phlebitis at infusion site, nausea, vomiting, rash (including Steven-Johnson syndrome), transaminitis, nausea, vomiting, diarrhea, headache, abdominal pain, aggression/confusion, agitation, alopecia, anaphylaxis, anemia, angioedema, anorexia, ataxia, coma, disseminated intravascular coagulation (DIC), dizziness and fatigue.
- **Option B:** Eating a high-carbohydrate diet is unnecessary. When taken orally, acyclovir may be taken with or without food 2 to 5 times a day for 5 to 10 days as well as up to 12 months to prevent outbreaks of genital herpes. For limited mucocutaneous lesions, acyclovir administration can be via the oral route. In cases in which there is disseminated, visceral, or CNS involvement, the acyclovir administration should be intravenous.
- **Option C:** Use of an incentive spirometer is not specific to clients taking Acyclovir. A study regarding the pharmacokinetics of acyclovir demonstrated that a patient's glomerular filtration and tubular secretion contribute to its renal excretion. Appropriate cautions are necessary when administering intravenous acyclovir to such higher-risk patients.

**8. Mr. Sharma, a 65-year-old software engineer, has been struggling with severe osteoarthritis in his right hip for the past ten years. Given the progressive nature of his pain and functional decline, and after exploring various conservative treatment options, it has been decided that he undergoes a right hip joint arthroplasty. As the surgery date approaches, Mr. Sharma expresses apprehension about the surgical procedure and postoperative period, especially in relation to mobility and pain management. Taking into consideration his specific concerns and the standard preoperative protocol for joint arthroplasty, which interventions should the nurse prioritize in the immediate preoperative period? Select all that apply.**

- A. Teaching deep breathing and coughing exercises
- B. Administering prophylactic antibiotics as prescribed

- C. Educating the patient on postoperative pain management strategies
- D. Assisting with preoperative skin preparation
- E. Instructing the patient on the use of continuous passive motion (CPM) machine

**Correct Answers: A, B, C, and D.**

Prophylactic antibiotics are given preoperatively to prevent infection. Educating the patient on postoperative pain management helps them prepare for pain control after surgery. Preoperative skin preparation reduces the risk of surgical site infection.

- **Option A:** These exercises are essential to prevent atelectasis (collapse of air sacs in the lungs) and pneumonia, common postoperative complications, especially in patients who are immobilized after surgery. By expanding the lungs and clearing secretions, the risk of these complications is reduced.
- **Option B:** Prophylactic antibiotics, usually given within an hour before surgical incision, can significantly reduce the risk of postoperative joint infections. These infections can be devastating and may require removal of the prosthetic joint if they occur.
- **Option C:** Effective pain management is crucial for early mobilization and rehabilitation after joint arthroplasty. By understanding his pain management options, Mr. Sharma can communicate his needs and concerns more effectively, leading to better pain control.
- **Option D:** Proper skin preparation, including cleaning and potentially shaving the surgical site, reduces the risk of introducing skin flora into the surgical wound, which can lead to infections.
- **Option E:** While CPM machines can be beneficial postoperatively for some joint surgeries, especially knee replacements, to promote joint mobility and decrease stiffness, it's not a standard preoperative intervention. Typically, instruction on the use of a CPM machine would be done postoperatively. Furthermore, CPM machines are not routinely used for hip arthroplasty patients.

**9. During the admission assessment of a 35 year old client with advanced ovarian cancer, the nurse recognizes which symptom as typical of the disease?**

- A. Abdominal distention
- B. Abdominal bleeding
- C. Diarrhea
- D. Hypermenorrhea

**Correct Answer: A. Abdominal distention**

- **Option A:** Clinical manifestations of ovarian cancer include abdominal distention, urinary frequency and urgency, pleural effusion, malnutrition, pain from pressure caused by the growing tumor and the effects of urinary or bowel obstruction, constipation, ascites with dyspnea, and ultimately general severe pain.
- **Options B and D:** Abnormal bleeding, often resulting in hypermenorrhea, is associated with uterine and endometrial cancer.
- **Option C:** Diarrhea is often related to colon cancer, lymphoma, carcinoid syndrome, and pancreatic cancer.

**10. What is a characteristic of an independent variable?**

- A. It is the variable that is predicted to change.
- B. It varies with a change in the dependent variable.
- C. It is manipulated by the researcher.
- D. It can be identified only by changes in the dependent variable.

**Correct Answer: C. It is manipulated by the researcher.**

The independent variable is manipulated by the researcher and has a presumed effect on the dependent variable. They are either manipulated by the researcher or are observed by the researcher so that their values can be related to that of the dependent variable. For example, in a research study on the relationship between mosquitoes and mosquito bites, the number of mosquitoes per acre of ground would be an independent variable” (Jaeger, 1990, p. 373).

- **Option A:** It is the dependent variable that is predicted to change. The dependent variable is the outcome. In an experiment, it may be what was caused or what changed as a result of the study. In a comparison of groups, it is what they differ on.
- **Option B:** The independent variable is presumed to change the dependent variable. In a research study, independent variables are antecedent conditions that are presumed to affect a dependent variable.
- **Option D:** The independent variable is manipulated by the researcher and is identified at the beginning of the study. While the independent variable is often manipulated by the researcher, it can also be a classification where subjects are assigned to groups. In a study where one variable causes the other, the independent variable is the cause. In a study where groups are being compared, the independent variable is the group classification.

**11. One leadership theory states that “leaders are born and not made,” which refers to which of the following theories?**

- A. Trait
- B. Charismatic
- C. Great Man
- D. Situational

**Correct Answer: C. Great Man**

Leaders become leaders because of their birthright. This is also called Genetic theory or the Aristotelian theory. This quote sums up the basic tenet of the Great Man theory of leadership, which suggests that the capacity for leadership is innate. According to this theory, you’re either a natural-born leader or you’re not. The term “Great Man” was used because, at the time, leadership was thought of primarily as a male quality, especially in terms of military leadership.

- **Option A:** According to trait leadership theory, effective leaders have in common a pattern of personal characteristics that support their ability to mobilize others toward a shared vision. These traits include dimensions of personality and motives, sets of skills and capabilities, and behavior in social relationships.
- **Option B:** Charismatic leadership is a trait-based leadership theory where the leaders act as visionary driven by their convictions and motivate their followers to work towards a common vision using their charm and persuasiveness. Leaders are able to cultivate a profound sense of trust with the group of followers.

- **Option D:** The situational theory of leadership refers to those leaders who adopt different leadership styles according to the situation and the development level of their team members. It is an effective way of leadership because it adapts to the team's needs and sets a beneficial balance for the whole organization.

**12. The breathing technique that the mother should be instructed to use as the fetus' head is crowning is:**

- A. Blowing
- B. Slow chest
- C. Shallow
- D. Accelerated-decelerated

**Correct Answer: A. Blowing.**

Blowing forcefully through the mouth controls the strong urge to push and allows for a more controlled birth of the head.

- **Option B:** Slow breathing may be started when contractions are intense enough that the woman can no longer walk or talk through them without pausing. Use slow breathing for as long as it is helpful. Switch to another pattern if the woman becomes tense and can no longer relax during contractions.
- **Option C:** Most women feel the need to switch to light breathing at some time during the active phase of labor. Let the intensity of the contractions guide in deciding if and when to use light breathing. Breathe in and out rapidly through the mouth at about one breath per second. Keep breathing shallow and light. Inhalations should be quiet, but exhalation should be clearly audible.
- **Option D:** This is a variation of light breathing. It is sometimes referred to as "pant-pant-blow" or "hee-hee-hoo" breathing. Variable breathing combines light shallow breathing with a periodic longer or more pronounced exhalation. Variable breathing is used in the first stage if the woman feels overwhelmed, unable to relax, in despair, or exhausted.

**13. The physician has ordered chloramphenicol ear drops for a 2-year-old with otitis media. To administer the ear drops, the nurse should:**

- A. Pull the ear down and back
- B. Pull the ear straight out
- C. Pull the ear up and back
- D. Leave the ear undisturbed

**Correct Answer: A. Pull the ear down and back**

- Option A: When administering ear drops to a child under 3 years of age, the nurse should pull the ear down and back to straighten the ear canal.
- Options B and D: These are incorrect positions for administering ear drops.
- Option C: Pulling the ear up and back is a technique for administering ear drops to an adult client.

**14. A 74-year-old woman with a history of multiple vertebral compression fractures is admitted to the rehabilitation unit. She has been diagnosed with advanced osteoporosis. The interdisciplinary team gathers to discuss her management plan. The nurse, considering the most effective interventions to slow the progression of the patient's osteoporosis and reduce the risk of future fractures, suggests several approaches. Which of the following interventions would be appropriate recommendations for this patient? Select all that apply.**

- A. Advocating for a regimen of regular weight-bearing exercises tailored to her physical capabilities.
- B. Advising a dietary plan that significantly restricts calcium intake.
- C. Strongly recommending confinement to bed to minimize the risk of potential fractures.
- D. Prioritizing the administration of nonsteroidal anti-inflammatory drugs (NSAIDs) as the primary treatment.
- E. Ensuring adequate dietary or supplemental calcium and vitamin D intake.
- F. Evaluating the home environment for fall risks and making necessary modifications.
- G. Recommending the use of bisphosphonates after consulting with her physician.

- **Option A:** Weight-bearing exercises are beneficial for patients with osteoporosis as they help in maintaining or even increasing bone density, thereby reducing the risk of fractures.
- **Option E:** Adequate dietary or supplemental calcium and vitamin D intake is crucial for bone health. Vitamin D aids in the absorption of calcium, and both are vital for maintaining and building bone density.
- **Option F:** Evaluating the home environment for fall risks is essential. By making necessary modifications, such as adding grab bars or removing tripping hazards, the risk of falls and subsequent fractures can be reduced.
- **Option G:** Bisphosphonates are a class of drugs that can help slow bone loss and are commonly prescribed for osteoporosis.
- **Option B:** Promoting a low-calcium diet is not recommended, as calcium is essential for bone health.
- **Option C:** Confinement to bed is not recommended for osteoporosis patients as it can lead to further bone loss and muscle weakness, increasing the risk of fractures. Limiting physical activity may further weaken bones and increase the risk of fractures.
- **Option D:** NSAIDs are not a primary treatment for osteoporosis. While they can help manage pain associated with fractures or other conditions, they do not directly address bone density issues and can have gastrointestinal side effects.

**15. Following a tonsillectomy, a female client returns to the medical-surgical unit. The client is lethargic and reports having a sore throat. Which position would be most therapeutic for this client?**

- A. Semi-Fowler's
- B. Supine
- C. High-Fowler's



#### D. Side-lying

**Correct Answer: D. Side-lying**

Because of lethargy, the post-tonsillectomy client is at risk for aspirating blood from the surgical wound. Therefore, placing the client in the side-lying position until he awake is best. The semi-Fowler's, supine, and high-Fowler's position don't allow for adequate oral drainage in a lethargic post-tonsillectomy client and increase the risk of blood aspiration.

- **Option A:** Semi-Fowler's would not be able to facilitate effective drainage. Bleeding is one of the most common and feared complications following tonsillectomy with or without adenoidectomy. A study from 2009 to 2013 involving over one hundred thousand children showed that 2.8% of children had unplanned revisits for bleeding following tonsillectomy, 1.6% percent of patients came through the emergency department, and 0.8% required a procedure.
- **Option B:** Supine position predisposes the patient to aspiration. Frequency is higher at night with 50% of bleeding occurring between 10pm-1am and 6am-9am; this is thought to be from changes in circadian rhythm, vibratory effects of snoring on the oropharynx, or drying of the oropharyngeal mucosa from mouth breathing. Risk of bleeding in patients with known coagulopathies may be significantly higher.
- **Option C:** Tonsillectomy can be either extracapsular or intracapsular. The "hot" extracapsular technique with monopolar cautery is the most popular technique in the United States.

#### **16. Which of the following statements about shivering is correct?**

- A. Shivering is a response controlled by the brainstem.
- B. Shivering can occur in the absence of hypothermia.
- C. Shivering is effectively treated with small doses of naloxone.
- D. Shivering is an uncomfortable, though harmless, effect of anesthesia.

**Correct Answer: B. Shivering can occur in the absence of hypothermia.**

Shivering can also appear after surgery. This is known as postanesthetic shivering. Postoperative shivering is a common complication of anesthesia. Shivering is believed to increase oxygen consumption, increase the risk of hypoxemia, induce lactic acidosis, and catecholamine release. Therefore, it might increase postoperative complications, especially in high-risk patients. Moreover, shivering is one of the leading causes of discomfort for postsurgical patients.

- **Option A:** Shivering is usually triggered by hypothermia. However, it occurs even in normothermic patients during the perioperative period. The etiology of shivering is not understood sufficiently. Shivering is elicited when the preoptic region of the hypothalamus is cooled. Efferent signals mediating shivering descend in the medial forebrain bundle. Spinal alpha motor neurons and their axons are the final common path for both coordinated movement and shivering
- **Option C:** Many drugs have been shown to be effective on the prevention and treatment of PS, such as opioids,  $\beta$ -agonists, anticholinergics, central nervous system stimulants, corticosteroids. Highly effective anti shivering medication classes were centrally acting analgesics (tramadol), opioid receptor agonists (meperidine, fentanyl), cholinesterase inhibitors (physostigmine), and N-methyl-D-aspartate receptor antagonists (ketamine, magnesium sulfate).
- **Option D:** Patients report that shivering is remarkably uncomfortable, and some even find the accompanying cold sensation worse than surgical pain. In addition, shivering might stretch surgical incisions and, as a consequence, it may intensify post-surgical pain. Besides the obvious

discomfort in the recovery period, PS increases oxygen consumption, induce lactic acidosis, carbon dioxide production, and catecholamine release, resulting in increased cardiac output, heart rate, and arterial pressure.

**17. After taking glipizide (Glucotrol) for 9 months, a male client experiences secondary failure. Which of the following would the nurse expect the physician to do?**

- A. Initiate insulin therapy.
- B. Switch the client to a different oral antidiabetic agent.
- C. Prescribe an additional oral antidiabetic agent.
- D. Restrict carbohydrate intake to less than 30% of the total caloric intake.

**Correct Answer: B. Switch the client to a different oral antidiabetic agent.**

Many clients (25% to 60%) with secondary failure respond to a different oral antidiabetic agent. Therefore, it wouldn't be appropriate to initiate insulin therapy at this time. However, if a new oral antidiabetic agent is unsuccessful in keeping glucose levels at an acceptable level, insulin may be used in addition to the antidiabetic agent.

- **Option A:** Glipizide can be used concomitantly with insulin, but the dose of glipizide will typically need to be at the lower end of the dose range to prevent hypoglycemia. If discontinuation of insulin becomes necessary, then the patient's urine and blood sugars should be monitored at least three times a day.
- **Option C:** Second-generation sulfonylureas are considered to be more potent by weight when compared to the first-generation agents. Sulfonylureas were discovered in 1942 and have enjoyed extensive use in type 2 diabetes mellitus treatment since the 1960s.
- **Option D:** Other drug classes used in the treatment of diabetes mellitus type 2 include alpha-glucosidase inhibitors, biguanides, dipeptidyl peptidase-4 (DPP-4) inhibitors, glucagon-like peptide-1 (GLP-1) receptor agonists, glinides, and thiazolidinediones.

**18. A nurse has a four-patient assignment in the medical step-down unit. When planning care for the clients, which client would have the following treatment goals: fluid replacement, vasopressin replacement, and correction of underlying intracranial pathology?**

- A. The client with diabetes mellitus.
- B. The client with diabetes insipidus.
- C. The client with diabetic ketoacidosis.
- D. The client with syndrome of inappropriate antidiuretic hormone (SIADH) secretion.

**Correct Answer: B. The client with diabetes insipidus.**

Maintaining adequate fluid, replacing vasopressin, and correcting underlying intracranial problems (typically lesions, tumors, or trauma affecting the hypothalamus or pituitary gland) are the main objectives in treating diabetes insipidus. Diabetes insipidus (DI) is a disease process that results in either decreased release of or response to antidiuretic hormone (ADH, also known as vasopressin or AVP), which can cause electrolyte imbalances.

- **Option A:** Diabetes mellitus does not involve vasopressin deficiencies or an intracranial disorder, but rather a disturbance in the production or use of insulin. The physiology and treatment of diabetes are complex and require a multitude of interventions for successful disease management. Diabetic education and patient engagement are critical in management.
- **Option C:** Diabetic ketoacidosis results from severe insulin insufficiency. Fluid resuscitation and maintenance, insulin therapy, electrolyte replacement, and supportive care are the mainstays of management in diabetic ketoacidosis.
- **Option D:** An excess of vasopressin leads to SIADH, causing the client to retain fluid. The patients with SIADH have a combination of ADH-induced water retention and secondary solute loss. The overall solute loss is more prominent than water retention in patients with chronic SIADH. SIADH treatment involves correction and maintenance of corrected sodium levels and correction of underlying abnormalities such as hypothyroidism or pulmonary or CNS infection.

**19. A female client admitted to the hospital with a neurological problem asks the nurse whether magnetic resonance imaging may be done. The nurse interprets that the client may be ineligible for this diagnostic procedure based on the client's history of:**

- A. Hypertension
- B. Heart failure
- C. Prosthetic valve replacement
- D. Chronic obstructive pulmonary disorder

**Correct Answer: C. Prosthetic valve replacement**

The client having a magnetic resonance imaging scan has all metallic objects removed because of the magnetic field generated by the device. A careful history is obtained to determine whether any metal objects are inside the client, such as orthopedic hardware, pacemakers, artificial heart valves, aneurysm clips, or intrauterine devices. These may heat up, become dislodged, or malfunction during this procedure. The client may be ineligible if a significant risk exists.

- **Option A:** MRI contrast agents are gadolinium chelates with different stability, viscosity, and osmolality. Gadolinium is a relatively very safe contrast; however, it rarely might cause allergic reactions in patients. Evaluate carefully patients with diabetes mellitus or hypertension who are receiving treatment with medications; calculate these patients' estimated glomerular filtration rate, and if less than 35 mL/min/1.73 m<sup>2</sup>, there is a need to consult a radiologist for further instructions.
- **Option B:** Patients with impaired renal function are at risk of NSF associated with gadolinium chelate. Patients with known or at risk of renal impairment need to require evaluation regarding their renal function before an MRI scan.
- **Option D:** Patients who are unable to be still or obey breathing instructions in the scanner need special attention. Some patients in pain might move during the procedure, which degrades the quality of the images, restrict the interpretation, and decrease the accuracy of the report. Some MRI sequences need to be obtained while patients hold their breath and lie motionless.

**20. A male client suspected of having colorectal cancer will require which diagnostic study to confirm the diagnosis?**

- A. Stool Hematest
- B. Carcinoembryonic antigen (CEA)
- C. Sigmoidoscopy
- D. Abdominal computed tomography (CT) scan

**Correct Answer: C. Sigmoidoscopy**

Used to visualize the lower GI tract, sigmoidoscopy and proctoscopy aid in the detection of two-thirds of all colorectal cancers.

- **Option A:** Stool Hematest detects blood, which is a sign of colorectal cancer; however, the test doesn't confirm the diagnosis.
- **Option B:** CEA may be elevated in colorectal cancer but isn't considered a confirming test. Carcinoembryonic antigen is a protein normally found in very low levels in the blood of adults. It is most commonly used for colorectal cancer.
- **Option D:** An abdominal CT scan is used to stage the presence of colorectal cancer.

**21. A client went to the emergency room with a sudden onset of high fever and diaphoresis. Serum sodium was one of the laboratory tests taken. Which of the following values would you expect to see?**

- A. 130 mEq/L.
- B. 148 mEq/L.
- C. 143 mEq/L.
- D. 139 mEq/L.

**Correct Answer: B. 148 mEq/L.**

The normal sodium level is 135-145 mEq/L. Diaphoresis and a high fever can lead to free water loss through the skin, resulting in increased sodium level (hypernatremia). Hypernatremia is defined as a serum sodium concentration of greater than 145 meq/l. The human body maintains sodium and water homeostasis by concentrating the urine secondary to the action of antidiuretic hormone (ADH) and increased fluid intake by a powerful thirst response.

- **Option A:** The basic mechanisms of hypernatremia are water deficit and excess solute. Total body water loss relative to solute loss is the most common reason for developing hypernatremia. Hypernatremia is usually associated with hypovolemia, which can occur in conditions that cause combined water and solute loss, where water loss is greater than sodium loss, or free water loss.
- **Option C:** Excessive sweating can occur due to exercise, fever, or high heat exposure. Renal losses can be seen in intrinsic renal disease, post-obstructive diuresis, and with the use of osmotic or loop diuretics. Hyperglycemia and mannitol are common causes of osmotic diuresis. Free water loss is seen with central or nephrogenic diabetes insipidus (DI) and also in conditions with increased insensible loss.
- **Option D:** Sodium excretion also involves regulatory mechanisms such as the renin-angiotensin-aldosterone systems. When serum sodium increases, the plasma osmolality increases which triggers the thirst response and ADH secretion, leading to renal water conservation and concentrated urine.

**22. Which of the following blood tests will tell the nurse that an adequate amount of drug is present in the blood to prevent arrhythmias?**

- A. Serum chemistries
- B. Complete blood counts
- C. Drug levels
- D. None of the above

**Correct Answer: C. Drug levels**

Knowing drug levels (peak and trough) is the only way to ensure there is enough drug in the body to work. Other choices do not demonstrate drug effect. Screening may have an important role in the epidemiological assessment of poisoning as it is a common finding that more substances are detected in urine than are recorded from history. Specific qualitative tests (e.g. amatoxins, paraquat) may be of clinical assistance in determining evidence of exposure. Clinicians are better served by relying on a careful interpretation of the history and clinical examination in conjunction with readily accessible investigations such as ECG, electrolytes and acid-base analysis.

- **Option A:** The principal methods utilized to measure drug concentrations in clinical toxicology are the same as those used in therapeutic drug monitoring. These include fluorescent immunoassay, enzyme immunoassay, thin-layer chromatography, high performance liquid chromatography, gas chromatography, mass spectroscopy, flame photometry and simple colorimetric methods.
- **Option B:** The use of drug concentrations for research in toxicology is both important and problematic. An understanding of the kinetics of drugs taken in overdose may contribute to the development of more rational treatment and improve clinical outcomes. The problems in assessing such data relate to the variables inherent in the clinical presentation. Such variables include ingested doses, times to presentation, gastrointestinal decontamination, and the likelihood that in most patients there is an opportunity to collect only very few samples.
- **Option D:** To be useful clinically a drug concentration should assist in one or more of the following areas: diagnosis, prognosis, guiding therapy, or assessing the efficacy of current therapy. Even when these criteria are satisfied the drug concentration needs to be interpreted in the context of the individual patient's clinical condition and other factors which may influence the pharmacodynamic response to any blood level (such as coexistent disease or age).

**23. A client is at risk for pulmonary embolism and is on anticoagulant therapy with warfarin (Coumadin). The client's prothrombin time is 20 seconds, with a control of 11 seconds. The nurse assesses that this result is:**

- A. The same as the client's own baseline level.
- B. Lower than the needed therapeutic level.
- C. Within the therapeutic range.
- D. Higher than the therapeutic range.

**Correct Answer: C. Within the therapeutic range.**

The therapeutic range for prothrombin time is 1.5 to 2 times the control for clients at risk for thrombus. Based on the client's control value, the therapeutic range for this individual would be 16.5 to 22 seconds. Therefore the result is within the therapeutic range. PT measures the time, in seconds, for plasma to clot after adding thromboplastin, (a mixture of tissue factor, calcium, and phospholipid) to a

patient's plasma sample.

- **Option A:** Many different preparations of thromboplastin reagents are available which can give different PT results even when using the same plasma. Due to this variability, the World Health Organization (WHO) introduced the international normalized ratio (INR) and has become the standard reporting format for PT results.
- **Option B:** The reference ranges for PT vary by laboratory since different facilities use reagents or instruments. However, in most laboratories, the normal range for PT is 10 to 13 seconds. The normal INR for a healthy individual is 1.1 or below, and the therapeutic range for most patients on VKAs is an INR of 2.0 to 3.0.
- **Option D:** An increased PT/INR for patients on VKAs may suggest a super-therapeutic level and will require medication dose adjustments to prevent bleeding. As the use of VKAs increases, it is vital to educate patients on the importance of routine monitoring of PT/INR. Proper monitoring will allow for medication adjustments and prevention of adverse events.

**24. Which of the following patients is at greater risk for contracting an infection?**

- A. A postoperative patient who has undergone orthopedic surgery.
- B. A patient receiving broad-spectrum antibiotics.
- C. A patient with leukopenia.
- D. A newly diagnosed diabetic patient.

**Correct Answer: C. A patient with leukopenia.**

Leukopenia is a decreased number of leukocytes (white blood cells), which are important in resisting infection. Leukopenia is a condition where a person has a reduced number of white blood cells. This increases their risk of infections. A person's blood is made up of many different types of blood cells. White blood cells, also known as leukocytes, help to fight off infection. Leukocytes are a vital part of the immune system.

- **Option A:** Surgical site infections (SSI) following total hip arthroplasty (THA) have a significantly adverse impact on patient outcomes and pose a great challenge to the treating surgeon. Therefore, timely recognition of those patients at risk for this complication is very important, as it allows for adopting measures to reduce this risk.
- **Option B:** Antibiotic-mediated cell death, however, is a complex process that begins with the physical interaction between a drug molecule and its bacterial-specific target, and involves alterations to the affected bacterium at the biochemical, molecular and ultrastructural levels. Antibiotic-induced cell death has been associated with the formation of double-stranded DNA breaks following treatment with DNA gyrase inhibitors, with the arrest of DNA-dependent RNA synthesis following treatment with rifamycins, with cell envelope damage and loss of structural integrity following treatment with cell-wall synthesis inhibitors, and with cellular energetics, ribosome binding and protein mistranslation following treatment with protein synthesis inhibitors.
- **Option D:** People who have had diabetes for a long time may have peripheral nerve damage and reduced blood flow to their extremities, which increases the chance for infection. The high sugar levels in your blood and tissues allow bacteria to grow and allow infections to develop more quickly.

**25. A nurse is conducting a health history with a client with a primary diagnosis of heart failure. Which of the following disorders reported by the client is**

***unlikely to play a role in exacerbating the heart failure?***

- A. Recent URI
- B. Nutritional anemia
- C. Peptic ulcer disease
- D. A-Fib

**Correct Answer: C. Peptic ulcer disease**

Heart failure is precipitated or exacerbated by physical or emotional stress, dysrhythmias, infections, anemia, thyroid disorders, pregnancy, Paget's disease, nutritional deficiencies (thiamine, alcoholism), pulmonary disease, and hypervolemia.

- **Option A:** Heart failure is caused by several disorders, including diseases affecting the pericardium, myocardium, endocardium, cardiac valves, vasculature, or metabolism. Heart failure is a complex clinical syndrome that results from any functional or structural heart disorder, impairing ventricular filling or ejection of blood to the systemic circulation to meet the systemic needs.
- **Option B:** Heart failure with preserved ejection fraction (HFpEF) on the other hand has also been variably classified as EF >40%, >45%, >50%, and/or ?55%. The term HFpEF has been used since some of these patients do not have entirely normal EF but also do not have a major reduction in the systolic function.
- **Option D:** The most common causes of systolic dysfunction (HFrEF) are idiopathic dilated cardiomyopathy (DCM), coronary heart disease (ischemic), hypertension, and valvular disease. Hypertension, obesity, coronary artery disease, diabetes mellitus, atrial fibrillation, and hyperlipidemia are highly prevalent in HFpEF patients. Hypertension by far is the most important cause of HFpEF. In addition, conditions like hypertrophic obstructive cardiomyopathy, and restrictive cardiomyopathy are associated with significant diastolic dysfunction, leading to HFpEF.

***26. SC heparin should be administered in the:***

- A. Flank
- B. Abdominal fat
- C. Leg
- D. Gluteal area

**Correct Answer: B. Abdominal fat**

Heparin should be given in the abdominal area around the umbilicus, deep into the fat. The preferred site of injection is the abdominal area. Injections must be given 2 inches away from the umbilicus.

- **Option A:** The medication prescribed should be injected into subcutaneous tissue. This is the tissue between the fat layer just under the skin and over the top of the muscles.
- **Option C:** Subcutaneous tissue is all over the body, but one of the most common areas for subcutaneous injections is the front and outer sides of the thighs
- **Option D:** If there is a need for another area to inject Heparin, the client may use the thighs or buttocks. Rotate the sites of injections. Avoid injecting a bruised area.

**27. The following are signs and symptoms of fetal distress EXCEPT:**

- A. Fetal heart rate (FHR) decreases during a contraction and persists even after the uterine contraction ends.
- B. The FHR is less than 120 bpm or over 160 bpm.
- C. The pre-contraction FHR is 130 bpm, FHR during contraction is 118 bpm, and FHR after uterine contraction is 126 bpm.
- D. FHR is 160 bpm, weak and irregular.

**Correct Answer: C. The pre-contraction FHR is 130 bpm, FHR during contraction is 118 bpm, and FHR after uterine contraction is 126 bpm.**

The normal range of FHR is 120-160 bpm, strong and regular. During a contraction, the FHR usually goes down but must return to its pre-contraction rate after the contraction ends.

- **Option A:** Usually, doctors identify fetal distress based on an abnormal heart rate pattern in the fetus. Throughout labor, the fetus's heart rate is monitored. It is usually monitored continuously with electronic fetal heart monitoring. Or a handheld Doppler ultrasound device may be used to check the heart rate every 15 minutes during early labor and after each contraction during late labor.
- **Option B:** Contractions that are too strong and/or too close together may cause fetal distress. If oxytocin was used to stimulate contractions, it is stopped immediately. The woman may be repositioned and given analgesics. If no drug was used to stimulate contractions, the woman may be given a drug that can slow labor (such as terbutaline, given by injection) to stop or slow the contractions.
- **Option D:** Fetal rhythm abnormalities, which include fetal heart rates that are irregular, too fast or too slow, occur in up to 2% of pregnancies and account for 10–20% of the referrals to fetal cardiologists.

**28. You have a patient with achalasia (incomplete muscle relaxation of the GI tract, especially sphincter muscles). Which medications do you anticipate to administer?**

- A. isosorbide dinitrate (Isordil)
- B. digoxin (Lanoxin)
- C. captopril (Capoten)
- D. propranolol (Inderal)

**Correct Answer: A. isosorbide dinitrate (Isordil)**

Achalasia is characterized by incomplete relaxation of the LES, dilation of the lower esophagus, and a lack of esophageal peristalsis. Because nitrates relax the lower esophageal sphincter, expect to give Isordil orally or sublingually. Isosorbide is a nitrate that exerts its pharmacologic effect by releasing nitric oxide (NO), an endothelium-derived relaxing factor (EDRF). NO is endogenously produced in the endothelium to dilate the blood vessels.

- **Option B:** Digoxin is a medication used in the management and treatment of heart failure and certain arrhythmias and abortion. It is in the cardiac glycoside class of drugs. It is used for rate control in atrial fibrillation or atrial flutter when conventional therapies have not achieved goal heart rate. Digoxin should not be administered in cases of pre-excitation caused by accessory pathways



as digoxin induces AV blockade and may trigger ventricular tachyarrhythmias.

- **Option C:** The benefits of captopril in hypertension and heart failure result primarily from suppressing the renin-angiotensin-aldosterone system (RAAS). As an angiotensin-converting enzyme (ACE) inhibitor, it inhibits ACE, which converts angiotensin I to angiotensin II. Angiotensin II binds to AT1 receptors on smooth muscles to produce vasoconstriction of precapillary arterioles and postcapillary venules, inhibits the reuptake of norepinephrine, and release of catecholamines from the adrenal medulla, which all increases blood pressure.
- **Option D:** Propranolol can be used to ameliorate the sympathetic response in angina, tachyarrhythmias, prevention of acute ischemic attacks, migraine prophylaxis, and restless leg syndrome. Propranolol can be used in almost all cases if the desired result is to slow contractility and decrease a patient's heart rate.

**29. Nurse Myrna develops a counter-transference reaction. This is evidenced by:**

- A. Revealing personal information to the client.
- B. Focusing on the feelings of the client.
- C. Confronting the client about discrepancies in verbal or nonverbal behavior.
- D. The client feels angry towards the nurse who resembles his mother.

**Correct Answer: A. Revealing personal information to the client**

Counter-transference is an emotional reaction of the nurse on the client based on her unconscious needs and conflicts. Countertransference is defined as redirection of a psychotherapist's feelings toward a client – or, more generally, as a therapist's emotional entanglement with a client. Just as transference is the concept of a client redirecting feelings meant for others onto the therapist, countertransference is the reaction to a client's transference, in which the counselor projects his or her feelings unconsciously onto the client. How countertransference is used in therapy can make it either helpful or problematic.

- **Option B:** It is important for the therapist to understand the role that of transference and countertransference, and deal with those emotions in such a way that the core of the counseling relationship is not shattered by these feelings. Once countertransference is recognized, it is important that the therapist acknowledge and work through those feelings.
- **Option C:** This is a therapeutic approach. The idea of countertransference — the counselor's unconscious feelings that emerge as a result of working with the client — is most often attributed to Sigmund Freud, who was the first to name the phenomenon and caution other analysts to manage it within themselves. Some suggest that categorizing countertransference as part of the "psychodynamic approach" has made its understanding more difficult, particularly with the rise of other counseling styles that may not emphasize self-awareness and exploration.
- **Option D:** This is a transference reaction where a client has an emotional reaction towards the nurse based on her past. Signs of countertransference in therapy can include a variety of behaviors, including excessive self-disclosure on the part of the therapist or an inappropriate interest in irrelevant details from the life of the person in treatment. A therapist who acts on their feelings toward the person being treated or that person's situation or engages in behavior not appropriate to the treatment process may not be effectively managing countertransference.

**30. When evaluating an ABG from a client with a subdural hematoma, the nurse notes the PaCO<sub>2</sub> is 30 mm Hg. Which of the following responses best describes this result?**

- A. Appropriate; lowering carbon dioxide (CO<sub>2</sub>) reduces intracranial pressure (ICP).
- B. Emergent; the client is poorly oxygenated.
- C. Normal
- D. Significant; the client has alveolar hypoventilation.

**Correct Answer: A. Appropriate; lowering carbon dioxide (CO<sub>2</sub>) reduces intracranial pressure (ICP).**

A normal PaCO<sub>2</sub> value is 35 to 45 mm Hg. CO<sub>2</sub> has vasodilating properties; therefore, lowering PaCO<sub>2</sub> through hyperventilation will lower ICP caused by dilated cerebral vessels. A subdural hematoma forms because of an accumulation of blood under the dura mater, one of the protective layers to the brain tissue under the calvarium.

- **Option B:** Oxygenation is evaluated through PaO<sub>2</sub> and oxygen saturation. The clinician must begin immediate medical management. These measures include sedation, neuromuscular blockade when appropriate, moderate hyperventilation to a PaCO<sub>2</sub> (32 to 36), adequate oxygenation to maintain SpO<sub>2</sub> greater than 95%, head elevation, and avoidance of hyperthermia.
- **Option C:** Often, the bleeding is undetected initially, discovered as a chronic subdural hematoma. When there is a sufficient accumulation of blood to occupy a large intracranial space, the brain midline shifts toward the opposite side, encroaching on the brain structures against the inner surface of the calvarium after decreasing the volume of the lateral third and fourth ventricles. As the intracranial space becomes limited, the volumetric forces push the uncus portion of the temporal lobe toward the foramen magnum causing herniation of the brain.
- **Option D:** Alveolar hypoventilation would be reflected in an increased PaCO<sub>2</sub>. The infusion of hypertonic saline or mannitol serves to decrease intracranial pressure by promoting osmotic changes in the brain and transiently affecting the rheological properties of the cerebral blood flow, respectively.

**31. A patient with Addison's disease asks a nurse for nutrition and diet advice. Which of the following diet modifications is not recommended?**

- A. A diet high in grains
- B. A diet with adequate caloric intake
- C. A high protein diet
- D. A restricted sodium diet

**Correct Answer: D. A restricted sodium diet**

A patient with Addison's disease requires normal dietary sodium to prevent excess fluid loss. Patients should eat an unrestricted diet. Those with primary adrenal insufficiency (Addison disease) should have ample access to salt because of the salt-wasting that occurs if their condition is untreated. Infants with primary adrenal insufficiency often need 2-4 g of sodium chloride per day.

- **Option A:** A well-balanced diet is the best way to keep the body healthy and to regulate sugar levels. Doctors recommend balancing protein, healthy fats, and high-quality, nutrient-dense

carbohydrates.

- **Option B:** High-calorie comfort food reduces symptoms of neuroglycopenia in Addison patients, suggesting that Addison's disease is associated with a deficit in cerebral energy supply that can partly be alleviated by intake of palatable food.
- **Option C:** Healthy fats and high-quality proteins slow the blood sugar rollercoaster and promote stable blood sugar levels throughout the day.

**32. A patient with Parkinson's disease has a nursing diagnosis of Impaired Physical Mobility related to neuromuscular impairment. You observe a nursing assistant performing all of these actions. For which action must you intervene?**

- A. The NA assists the patient to ambulate to the bathroom and back to bed.
- B. The NA reminds the patient not to look at his feet when he is walking.
- C. The NA performs the patient's complete bath and oral care.
- D. The NA sets up the patient's tray and encourages the patient to feed himself.

**Correct Answer: C. The NA performs the patient's complete bath and oral care.**

The nursing assistant should assist the patient with morning care as needed, but the goal is to keep this patient as independent and mobile as possible.

- **Option A:** Assisting the patient to ambulate prevents incidences of fall and injury.
- **Option B:** Reminding the patient not to look at his feet while walking maintains the client's independence while keeping him safe.
- **Option D:** Encouraging the patient to feed himself is an appropriate goal of maintaining independence.

**33. Which drug is used to stop bleeding associated with heparin overdose?**

- A. urokinase (Abbokinase).
- B. aminocaproic acid (Amicar).
- C. protamine sulfate (Protamine).
- D. vitamin K (AquaMEPHYTON).

**Correct Answer: C. protamine sulfate (Protamine).**

Protamine is the drug used to reverse the adverse effects of bleeding that occurs with heparin administration. When heparin toxicity occurs, protamine is recommended for reversal of heparin's anticoagulant effect. Patients with life-threatening or severe bleeding or patients who undergo surgery may require protamine for reversal. Neutralization of heparin occurs when protamine binds to the heparin by ionic properties. The protamine-heparin complex is inactive, and heparin is unable to act as an anticoagulant. Protamine administration should be via slow IV push with no more than 50 mg over 10 minutes.

- **Option A:** Urokinase has been used most often for occluded catheters and peripheral vascular thrombosis. It is considered a physiologic thrombolytic that is usually produced by renal parenchyma, thus purified from human urine. However, recombinant urokinase is also commercially available. In contrast to streptokinase, urokinase directly cleaves plasminogen into

plasmin. Its low antigenicity allows repeated dosing without antigenic problems.

- **Option B:** 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. Indications also include the treatment of surgical and non-surgical hematuria.
- **Option D:** Vitamin K is a fat-soluble vitamin that affects coagulation pathways within the body. Vitamin K is found in foods and can be a dietary supplement. Vitamin K is essential for the synthesis of coagulation proteins. It is a cofactor for vitamin K-dependent carboxylation, which includes various enzymes.

**34. A 32-year-old pregnant woman attends a nursing seminar aiming to learn more about her changing body, especially in relation to the hormones surging throughout her system. As the seminar delves into the intricate world of the endocrine system, the facilitator presents an array of its functions to emphasize its vital role in homeostasis. Curious about the audience's grasp of the topic and to engage them, the facilitator throws out a challenge: "Given the diverse roles of the endocrine system, can anyone spot which of the following functions is NOT primarily governed by it?"**

- A. Regulates immune system
- B. Controls reproductive function
- C. Regulate heart rate and blood pressure
- D. Water balance
- E. Direct blood flow

**Correct Answer: E. Direct blood flow**

While hormones can influence blood pressure and induce vasoconstriction or vasodilation, the primary control of directing blood flow to specific tissues or organs is not a function of the endocrine system but is largely achieved through local autoregulatory mechanisms and the nervous system. This makes it the least direct role of the endocrine system among the options given.

- **Option A:** The endocrine system does play a role in regulating the immune system. For example, hormones like cortisol can suppress immune responses.
- **Option B:** This is certainly a primary role of the endocrine system. Hormones such as estrogen, progesterone, and testosterone are vital for various reproductive functions.
- **Option C:** The endocrine system releases hormones like epinephrine and norepinephrine from the adrenal medulla that can influence heart rate and blood pressure.
- **Option D:** The endocrine system, particularly the pituitary gland, releases vasopressin (antidiuretic hormone or ADH) which plays a pivotal role in maintaining water balance in the body.

**35. Which factors are the most essential for the nurse to assess when providing crisis intervention for a client?**

- A. The client's communication and coping skills.

- B. The client's anxiety level and ability to express feelings.
- C. The client's perception of the triggering event and availability of situational supports.
- D. The client's use of reality testing and level of depression.

**Correct Answer: C. The client's perception of the triggering event and availability of situational supports**

The most important factors to determine in these situations are the client's perception of the crisis event and the availability of support (including family and friends) to provide basic needs. Crisis intervention is a short-term management technique designed to reduce potential permanent damage to an individual affected by a crisis. A crisis is defined as an overwhelming event, which can include divorce, violence, the passing of a loved one, or the discovery of a serious illness.

- **Option A:** A successful intervention involves obtaining background information on the patient, establishing a positive relationship, discussing the events, and providing emotional support. SAFER-R is a common intervention model used, which consists of stabilization, acknowledgment, facilitate understanding, encouragement, recovery, and referral. SAFER-R helps patients return to their mental baseline following a crisis.
- **Option B:** In these cases, psychological crisis intervention is necessary to prevent traumatized victims from developing illnesses. It also alleviates stress upon healthcare workers so that they can continue helping others. Another major concern is what coping strategies are most effective. Social support and problem-solving planning are effective coping mechanisms that are frequently used by school staff following a crisis.
- **Option D:** Although the nurse should assess the other factors, they are not as essential as determining why the client considers this a crisis and whether he can meet his present needs. The use of humor, emotional support, planning, and acceptance also correlate with superior mental health outcomes compared to substance abuse and denial. Positive coping mechanisms, such as the ones listed above, are reported to be effective in crisis management, and with crisis intervention services in place, people will be better equipped to handle unexpected events.