

# Kevin's Review - 35 NCLEX Practice Questions

**1. Mr. Howard, a 45-year-old patient, presents to the dermatology clinic with concerns about progressive hair thinning. After discussing the potential causes, Dr. Smith delves deeper into the science behind hair growth and explains the stages of the hair growth cycle. During this conversation, Dr. Smith mentions a phase in which the hair follicle starts to shrink and gradually detaches from the hair bulb. This results in the cessation of hair growth and ultimately leads to the hair strand falling out. Which term from the given options best describes this transitional stage?**

- A. Catagen
- B. Anagen
- C. Collagen
- D. Telogen

**Correct Answer: A. Catagen**

The catagen phase is the transitional phase of the hair growth cycle. During the catagen phase, the hair follicle undergoes involution, or shrinkage, and begins to detach from the dermal papilla (hair bulb). This stage typically lasts a few weeks. Hair growth stops, and the hair strand is cut off from its nourishing blood supply. Over time, the hair eventually falls out.

- **Option B:** Anagen is the active growth phase of the hair follicle where new hair cells are rapidly produced at the hair bulb, resulting in the continuous lengthening of the hair shaft. This phase can last for several years, and the hair typically grows about half an inch (1.25 cm) per month during this period.
- **Option C:** Collagen is the most abundant protein in the human body and plays a crucial role in maintaining the skin's strength, structure, and elasticity. It forms a supportive framework for tissues and contributes to skin's firmness and resilience, but collagen production can decrease with age, leading to wrinkles and sagging skin.
- **Option D:** Telogen is the resting phase of the hair growth cycle, during which the hair follicle is no longer actively producing new hair cells. Hair in the telogen phase remains in place but is not growing, and this phase can last for several weeks to several months before the hair eventually falls out and is replaced by a new hair shaft in the anagen phase.

**2. Mandy, age 12, is brought to the clinic for evaluation for a suspected eating disorder. To best assess the effects of role and relationship patterns on the child's nutritional intake, the nurse should ask:**

- A. "What activities do you engage in during the day?"
- B. "Do you have any allergies to foods?"
- C. "Do you like yourself physically?"
- D. "What kinds of food do you like to eat?"

**Correct Answer: C. "Do you like yourself physically?"**

Role and relationship patterns focus on body image and the patient's relationship with others, which are commonly interrelated with food intake. Eating behaviors evolve during the first years of life; children learn what, when, and how much to eat through direct experiences with food and by observing the

eating behaviors of others.

- **Option A:** Parents influence children's eating behavior in a variety of ways: parents actively make food choices for the family, serve as models for dietary choices and patterns, and use feeding practices to reinforce the development of eating patterns and behaviors that they deem appropriate.
- **Option B:** Questions about food allergies elicit information about health and illness patterns. Parents who are concerned about their child's diet may attempt to limit what and how much food is eaten, pressure their child to eat a healthier diet or reward their child for eating healthy foods, practices which may all lead to unintended consequences.
- **Option C:** Questions about activities and food preferences elicit information about health promotion and health protection behaviors. Children also learn about food by observing the eating behaviors modeled by others. For example, research reveals that children's intake of fruits, vegetables, and milk increased after observing adults consuming the foods.

**3. When planning care for a client who has ingested phencyclidine (PCP), nurse Wayne is aware that the following is the highest priority?**

- A. Client's physical needs
- B. Client's safety needs
- C. Client's psychosocial needs
- D. Client's medical needs

**Correct Answer: B. Client's safety needs**

The highest priority for a client who has ingested PCP is meeting safety needs of the client as well as the staff. Drug effects are unpredictable and prolonged, and the client may lose control easily. Phencyclidine (PCP) is a dissociative anesthetic that is a commonly used recreational drug. PCP is a crystalline powder that can be ingested orally, injected intravenously, inhaled, or smoked. PCP is available as a powder, crystal, liquid, and tablet. It produces both stimulation and depression of the CNS. PCP is a non-competitive antagonist to the NMDA receptor, which causes analgesia, anesthesia, cognitive defects, and psychosis.

- **Option A:** Depending on the dose and route of administration, PCP can have a wide range of central nervous system (CNS) manifestations. Emergency department providers should become familiar with how to manage patients with PCP toxicity since rhabdomyolysis, hypoglycemia, seizures, hypertensive crisis, coma, and trauma are several of the complications that can arise with PCP use
- **Option C:** PCP blocks the uptake of dopamine and norepinephrine, leading to sympathomimetic effects such as hypertension, tachycardia, bronchodilation, and agitation. PCP can also cause sedation, muscarinic, and nicotinic signs by binding to acetylcholine receptors and GABA receptors. Sigma receptor stimulation by PCP causes lethargy and coma.
- **Option D:** Most patients survive PCP intoxication with supportive care. Airway, breathing, circulation, and hemodynamic monitoring are essential to the care of patients with PCP toxicity. Intubation with ventilatory support may be required for airway protection. Gastrointestinal decontamination is generally unnecessary in PCP ingestions; however, activated charcoal may be beneficial with a massive ingestion of PCP or a dangerous coingestion. Activated charcoal therapy should only be started within one hour from the time of ingestion. The activated charcoal dose is 1 g/kg, with a maximum dose of 50 g.

**4. On a follow-up visit after having a vaginal hysterectomy, a 32-year-old patient has a decreased hematocrit level. Which of the following complications does this suggest?**

- A. Hematoma
- B. Hypovolemia
- C. Infection
- D. Pulmonary embolus (PE)

**Correct Answer: A. Hematoma**

A decreased hematocrit level is a sign of hematoma, a delayed complication of abdominal and vaginal hysterectomy.

- **Option B:** Symptoms of hypovolemia include increased hematocrit and hemoglobin values.
- **Option C:** Infection manifests with fever and high WBC count.
- **Option D:** Symptoms of a PE include dyspnea, chest pain, cough, hemoptysis, restlessness, and signs of shock.

**5. The nurse is assessing a 9-month-old boy for a well-baby check-up. Which of the following observations would be of most concern?**

- A. The baby cannot say “mama” when he wants his mother.
- B. The mother has not given him finger foods.
- C. The child does not sit unsupported.
- D. The baby cries whenever the mother goes out.

**Correct Answer: C. The child does not sit unsupported.**

Over 90% percent of babies can sit unsupported by nine months. At 4 months, a baby typically can hold his/her head steady without support, and at 6 months, he/she begins to sit with a little help. At 9 months he/she sits well without support, and gets in and out of a sitting position but may require help.

- **Option A:** Most babies cannot say “mama” in the sense that it refers to their mother at this time. Generally, children begin to babble from around the age of six months and say their first words between ten and 15 months (most start speaking at about 12 months). They then begin to pick up increasing numbers of words and start to combine them into simple sentences after around 18 months.
- **Option B:** As they get older, parents can introduce new foods to their diet. From 9 to 12 months old, the baby needs approximately 750–900 calories every day. Between 400 and 500 of those calories should come from breast milk or formula. The remaining calories will come from food.
- **Option D:** Although some babies display object permanence and separation anxiety as early as 4 to 5 months of age, most develop more robust separation anxiety at around 9 months. The leave-taking can be worse if the infant is hungry, tired, or not feeling well. Keep transitions short and routine if it's a tough day.

**6. The client with chronic renal failure tells the nurse he takes magnesium hydroxide (milk of magnesia) at home for constipation. The nurse suggests that the client switch to psyllium hydrophilic mucilloid (Metamucil) because:**

- A. MOM can cause magnesium toxicity.
- B. MOM is too harsh on the bowel.
- C. Metamucil is more palatable.
- D. MOM is high in sodium.

**Correct Answer: A. MOM can cause magnesium toxicity.**

Magnesium is normally excreted by the kidneys. When the kidneys fail, magnesium can accumulate and cause severe neurologic problems. The kidney has a vital role in magnesium homeostasis and, although the renal handling of magnesium is highly adaptable, this ability deteriorates when renal function declines significantly. In moderate chronic kidney disease (CKD), increases in the fractional excretion of magnesium largely compensate for the loss of glomerular filtration rate to maintain normal serum magnesium levels.

- **Option B:** MOM is harsher than Metamucil, but magnesium toxicity is a more serious problem. As such, renal failure patients might be more vulnerable to changes in magnesium intake via the diet or via medication (e.g. antacids or phosphate binders) and/or the use of diuretics. Furthermore, intestinal absorption of magnesium can also be influenced by calcium and vice versa
- **Option C:** A client may find both MOM and Metamucil unpalatable. People of all ages should drink a full glass, or 8 ounces, of water with each dose of milk of magnesia. If anyone experienced diarrhea after taking a dose of milk of magnesia, they should avoid taking it again.
- **Option D:** MOM is not high in sodium. Milk of magnesia is a type of hyperosmotic laxative. This kind of oral laxative works by drawing water to the bowel from nearby tissue. This softens and moistens the stool. It also helps increase bowel activity.

**7. A dying male client gradually moves toward resolution of feelings regarding impending death. Basing care on the theory of Kubler-Ross, Nurse Trish plans to use nonverbal interventions when assessment reveals that the client is in the:**

- A. Anger stage
- B. Denial stage
- C. Bargaining stage
- D. Acceptance stage

**Correct Answer: D. Acceptance stage**

Communication and intervention during this stage are mainly nonverbal, as when the client gestures to hold the nurse's hand. Provide time for acceptance, final farewell, and arrangements for memorial or funeral service according to individual spiritual, cultural, ethnic needs. Accommodation of personal and family wishes helps reduce anxiety and may promote a sense of peace.

- **Option A:** Assess the level of anxiety present in the family and/or SO. Anxiety level needs to be dealt with before problem-solving can begin. Individuals may be so preoccupied with their own reactions to the situation that they are unable to respond to another's needs. Establish rapport and

acknowledge the difficulty of the situation for the family. May assist SO to accept what is happening and be willing to share problems with staff.

- **Option B:** Determine the level of impairment of perceptual, cognitive, and/or physical abilities. Evaluate illness and current behaviors that are interfering with the care of the patient. Information about family problems will be helpful in determining options and developing an appropriate plan of care.
- **Option C:** Assist family and patient to understand “who owns the problem” and who is responsible for resolution. Avoid placing blame or guilt. When these boundaries are defined, each individual can begin to take care of their own self and stop taking care of others in inappropriate ways.

**8. A young, handsome man with a diagnosis of antisocial personality disorder is being discharged from the hospital next week. He asks the nurse for her phone number so that he can call her for a date. The nurse’s best response would be:**

- A. “We are not permitted to date clients.”
- B. “No, you are a client and I am a nurse.”
- C. “I like you, but our relationship is professional.”
- D. “It’s against my professional ethics to date clients.”

**Correct Answer: C. “I like you, but our relationship is professional.”**

This accepts the client as a person of worth rather than being cold or implying rejection. However, the nurse maintains a professional rather than a social role. Maintain a neutral, calm, and respectful manner, although with some clients this is easier said than done. Helps a client see himself or herself as respected as a person even when behavior might not be appropriate.

- **Option A:** Keep in mind clients with personality disorders might defend against feelings of low-self-esteem through blaming, projection, anger, passivity, and demanding behaviors. Many behaviors seen in PD clients cover a fragile sense of self. Often these behaviors are the crux of clients’ interpersonal difficulties in all their relationships.
- **Option B:** Focus questions in a positive and active light; helps client refocus on the present and look to the future. For example, “What can you do differently now?” or “What have you learned from that experience?”. Allows the client to look at past behaviors differently, and gives the client a sense that he or she has choices in the future.
- **Option D:** Give the client honest and genuine feedback regarding your observations as to his or her strengths, and areas that could use additional skills. Feedback helps give clients a more accurate view of self, strengths, areas to work on, as well as a sense that someone is trying to understand them.

**9. 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).

**10. The nurse is assessing a client who has just been admitted to the emergency department. Which signs would suggest an overdose of an antianxiety agent?**

- A. Combativeness, sweating, and confusion
- B. Agitation, hyperactivity, and grandiose ideation
- C. Emotional lability, euphoria, and impaired memory
- D. Suspiciousness, dilated pupils, and increased blood pressure

**Correct Answer: C. Emotional lability, euphoria, and impaired memory**

Signs of antianxiety agent overdose include emotional lability, euphoria, and impaired memory. The classic presentation in patients with isolated benzodiazepine overdose will include central nervous system (CNS) depression with normal or near-normal vital signs. Many patients will still be arousable and even provide a reliable history. Classic symptoms include slurred speech, ataxia, and altered mental status.

- **Option A:** Phencyclidine overdose can cause combativeness, sweating, and confusion. PCP begins to cause symptoms at a dose of 0.05mg/kg, and a dose of 20 mg or more can cause seizures, coma, and death. It is mainly metabolized by the liver, and 10% is excreted in the kidneys. Inhalation (the most common route of administration) and intravenous routes of administration produce symptoms in 2 to 5 minutes. Oral ingestion produces symptoms in 30 to 60 minutes.

- **Option B:** Amphetamine overdose can result in agitation, hyperactivity, and grandiose ideation. Methamphetamine (METH) and its derivative, 3,4-methylenedioxymethamphetamine (MDMA), are extensively abused drugs, and the acute effects of these drugs include increased alertness, hyperthermia, decreased appetite, and euphoria. However, long-term abuse can result in neurotoxicity and psychosis.
- **Option D:** Hallucinogen overdose can produce suspiciousness, dilated pupils, and increased blood pressure. Classic hallucinogens can cause users to see images, hear sounds, and feel sensations that seem real but do not exist. The effects generally begin within 20 to 90 minutes and can last as long as 12 hours in some cases (LSD) or as short as 15 minutes in others (synthetic DMT). Hallucinogen users refer to the experiences brought on by these drugs as “trips.” If the experience is unpleasant, users sometimes call it a “bad trip.”

**11. A client with borderline personality disorder is admitted to the unit after slashing his wrist. Which of the following goals is most important after promoting safety?**

- Establish a therapeutic relationship with the client.
- Identify whether splitting is present in the client’s thoughts.
- Talk about the client’s acting out and self-destructive tendencies.
- Encourage the client to understand why he blames others.

**Correct Answer: A. Establish a therapeutic relationship with the client.**

After promoting safety, the nurse establishes a rapport with the client to facilitate appropriate expression of feelings. At this time, the client isn’t ready to address the unhealthy behavior. A therapeutic relationship must be established before the nurse can effectively work with the client on self-destructive tendencies and the issues of splitting.

- **Option B:** Identify feelings experienced before and around the act of self-mutilation. Feelings are a guideline for future intervention (e.g., rage at feeling left out or abandoned). Explore with the client what these feelings might mean.
- **Option C:** Work out a plan identifying alternatives to self-mutilating behaviors. Anticipate certain situations that might lead to increased stress (e.g., tension or rage). Identify actions that might modify the intensity of such situations.
- **Option D:** Set and maintain limits on acceptable behavior and make clear client’s responsibilities. If the client is hospitalized at the time, be clear regarding the unit rules. Clear and non-punitive limit setting is essential for decreasing negative behaviors.

**12. Which document addresses the client’s right to information, informed consent, and treatment refusal?**

- Standard of Nursing Practice
- Patient’s Bill of Rights
- Nurse Practice Act
- Code for Nurses

**Correct Answer: B. Patient’s Bill of Rights**

The Patient's Bill of Rights addresses the client's right to information, informed consent, timely responses to requests for services, and treatment refusal. A legal document, it serves as a guideline for the nurse's decision making. Standards of Nursing Practice, the Nurse Practice Act, and the Code for Nurses contain nursing practice parameters and primarily describe the use of the nursing process in providing care.

- **Option A:** Standards of nursing practice developed by the American Nurses' Association (ANA) provide guidelines for nursing performance. They are the rules or definition of what it means to provide competent care. The registered professional nurse is required by law to carry out care in accordance with what other reasonably prudent nurses would do in the same or similar circumstances. Thus, provision of high-quality care consistent with established standards is critical.
- **Option C:** Every state and territory in the US set laws to govern the practice of nursing. These laws are defined in the Nursing Practice Act (NPA). The NPA is then interpreted into regulations by each state and territorial nursing board with the authority to regulate the practice of nursing care and the power to enforce the laws.
- **Option D:** The ANA Code of Ethics for Nurses serves the following purposes: It is a succinct statement of the ethical obligations and duties of every individual who enters the nursing profession. It is the profession's nonnegotiable ethical standard. It is an expression of nursing's own understanding of its commitment to society.

**13. What is the approximate time that the blastocyst spends traveling to the uterus for implantation?**

- A. 2 days
- B. 7 days
- C. 10 days
- D. 14 weeks

**Correct Answer: B. 7 days**

The blastocyst takes approximately 1 week to travel to the uterus for implantation. Implantation is a process in which a developing embryo, moving as a blastocyst through a uterus, makes contact with the uterine wall and remains attached to it until birth.

- **Option A:** The zygote moves through the fallopian tube and undergoes cell division, a process called cleavage. These cell divisions produce the inner cell mass (ICM), which will become the embryo, and the trophoblast, which surrounds the ICM and interacts with maternal tissues. Together, the ICM and the trophoblast are called the blastocyst.
- **Option C:** A blastocyst successfully implants in the uterus when, as the zona pellucida exits the fallopian tube, the blastocyst leaves the zona pellucida and binds to the endometrium.
- **Option D:** 14 weeks is too long a time to wait for implantation. If the blastocyst does not implant within 7 days, the pregnancy may not occur at all.

**14. A nurse is reviewing the complete blood count (CBC) of a child who has been diagnosed with idiopathic thrombocytopenic purpura. Which of the following laboratory results should the nurse report immediately to the physician?**



- A. Platelet count of 30,000/mm<sup>3</sup>.
- B. Hemoglobin level of 7.5 g/dL.
- C. Reticulocyte count of 6.5%.
- D. Eosinophil count of 700 cells/mm<sup>3</sup>.

**Correct Answer: B. Hemoglobin level of 7.5 g/dL.**

The low hemoglobin level indicates that the client has active bleeding, and immediate actions such as additional diagnostic exams and blood transfusions can be suggested. An initial impression of the severity of ITP is formed by examining the skin and mucous membranes. Widespread petechiae and ecchymoses, oozing from a venipuncture site, gingival bleeding, and hemorrhagic bullae indicate that the patient is at risk for a serious bleeding complication.

- **Option A:** Decreased platelet count is expected in a child with idiopathic thrombocytopenic purpura. Immune thrombocytopenia (ITP) is a syndrome in which platelets become coated with autoantibodies to platelet membrane antigens, resulting in splenic sequestration and phagocytosis by mononuclear macrophages. The resulting shortened life span of platelets in the circulation, together with incomplete compensation by increased platelet production by bone marrow megakaryocytes, results in a decreased number of circulating platelets.
- **Option C:** Increased reticulocyte is expected in a child with idiopathic thrombocytopenic purpura. The measurement of the content of hemoglobin of reticulocytes (CHr or Ret-He) reflects the synthesis of hemoglobin in marrow precursors and allows the detection of early stages of iron deficiency.
- **Option D:** An increased eosinophil count is expected in a child with idiopathic thrombocytopenic purpura. Many authors have reported associations between the increased numbers of eosinophils with platelet dysfunctions, such as increased bleeding time, reduction in platelet aggregation induced by various agonists, among other disorders.

**15. Which of the following assessments would provide the best information about the client's physiologic response and the effectiveness of the medication prescribed specifically for alcohol withdrawal?**

- A. Sleeping pattern
- B. Mental alertness
- C. Nutritional status
- D. Vital signs

**Correct Answer: D. Vital signs**

Monitoring of vital signs provides the best information about the client's overall physiologic status during alcohol withdrawal & the physiologic response to the medication used. Alcohol withdrawal symptoms occur when patients stop drinking or significantly decrease their alcohol intake after long-term dependence. Withdrawal has a broad range of symptoms from mild tremors to a condition called delirium tremens, which results in seizures and could progress to death if not recognized and treated promptly. The reported mortality rates for patients who experience delirium tremens is anywhere from 1-5%.

- **Option A:** Alcohol withdrawal can range from very mild symptoms to the severe form, which is named delirium tremens. The hallmark is autonomic dysfunction resulting from the excitation of the central nervous system. Mild signs/symptoms can arise within six hours of alcohol cessation. If

symptoms do not progress to more severe symptoms within 24 to 48 hours, the patient will likely recover.

- **Option B:** Nurses monitoring alcoholic patients should be familiar with signs and symptoms of alcohol withdrawal and communicate to the interprofessional team if there are any deviations from normal. In most cases, the symptoms are autonomic. For those who develop delirium tremens, monitoring in a quiet room is recommended.
- **Option C:** Patients should be kept calm in a controlled environment to try to reduce the risks of progression from mild symptoms to hallucinations. With mild to moderate symptoms, patients should receive supportive therapy in the form of intravenous rehydration, correction of electrolyte abnormalities, and have comorbid conditions as listed above ruled out. Due to the risk of a comorbid condition called Wernicke-Korsakoff syndrome, patients can also receive a “banana bag” or cocktail of folate, thiamine, dextrose containing fluids, and multivitamin.

**16. This is characterized by severe symptoms relatively of short duration.**

- A. Chronic Illness
- B. Acute Illness
- C. Pain
- D. Syndrome

**Correct Answer: B. Acute Illness**

Acute illnesses are different than chronic illnesses in that they usually develop quickly and they only last a short time – usually a few days or weeks. Acute illnesses are often caused by viral or bacterial infections.

- **Option A:** Chronic Illness (Choice A) are illnesses that are persistent or long-term. A chronic illness is a condition that develops over time and is present for a long period of time. Some people have chronic conditions for many years. Technically, a chronic disease is defined as a health condition that lasts anywhere from three months to a lifetime. Chronic conditions may get worse over time.
- **Option C:** Pain refers to the product of higher brain center processing; it entails the actual unpleasant emotional and sensory experience generated from nervous signals.
- **Option D:** A syndrome is a set of medical signs and symptoms which are correlated with each other and often associated with a particular disease or disorder. The word derives from the Greek ??????????, meaning “concurrency”.

**17. A woman who is 32 years old and 35 weeks pregnant has had rupture of membranes for eight hours and is four (4) cm dilated. Since she is a candidate for infection, the nurse should include which of the following in the care plan?**

- A. Universal precautions
- B. Oxytocin administration
- C. Frequent temperature monitoring
- D. More frequent vaginal examinations

**Correct Answer: C. Frequent temperature monitoring**

Temperature elevation will indicate beginning infection. This is the most important measure to help assess the client for infections since the lost mucus plug and the ruptured membranes increase the potential for ascending bacteria from the reproductive tract. This will infect the fetus, membranes, and uterine cavity.

- **Option A:** Universal precautions are necessary for all clients but a specific assessment of the client's temperature will give an indication the client is becoming infected.
- **Option B:** Oxytocin may be needed to induce labor if it is not progressing, but it is not done initially. In the antepartum period, exogenous oxytocin is FDA-approved for strengthening uterine contractions with the aim of successful vaginal delivery of the fetus. It is indicated for mothers with inactive uteri that require stimulation to start labor
- **Option D:** More frequent vaginal examinations are not recommended, as frequent vaginal exams can increase the chances of infection. VEs following rupture of membranes has been demonstrated to increase the risk of chorioamnionitis. Obstetricians are, therefore, routinely expected to weigh the need for VEs for the assessment of labor progression, against the risk of maternal discomfort and of infection with an increased number of examinations.

**18. During a trichology seminar at a prestigious institution, Dr. Patel presented a curious case of a 28-year-old patient exhibiting sudden changes in hair texture and slowed hair growth after recovering from severe malnutrition. Drawing connections between nutrition, systemic health, and hair physiology, Dr. Patel then steers the discussion towards fundamental hair structures. He poses a pertinent question: In the vast realm of hair growth dynamics, which specific structure is instrumental in birthing new hair cells at the foundational level of the hair follicle and remains pivotal in determining both hair growth rate and its texture?**

- A. Hair Bulb
- B. Papilla
- C. Shaft
- D. Arrector pili

**Correct Answer: A. Hair Bulb**

The hair bulb is the base of the hair follicle where active and rapid cell division occurs, leading to the production of new hair cells. As these cells push upwards, they keratinize and form the hair we see. The texture and growth of the hair are significantly influenced by the activity and health of the hair bulb. The presented case of altered hair growth and texture after malnutrition underscores the importance of nutrients in supporting the health and function of the hair bulb.

- **Option B:** Positioned at the base of the hair follicle, the papilla is rich in blood vessels that supply nutrients to the hair bulb. Though crucial for nourishing the hair follicle, the papilla itself does not produce hair cells.
- **Option C:** The shaft is the part of the hair that we see protruding from the skin's surface. It is composed of dead, keratinized cells and does not play a direct role in producing new hair cells.
- **Option D:** The arrector pili muscles (APM) are tiny muscles attached to hair follicles. When these muscles contract (usually in response to cold or emotional stimuli), it causes the hair to stand erect, commonly known as "goosebumps." They don't have a role in the direct production of hair cells.

**19. The expected weight gain in a normal pregnancy during the 3rd trimester is:**

- A. 1 pound a week
- B. 2 pounds a week
- C. 10 lbs a month
- D. 10 lbs total weight gain in the 3rd trimester

**Correct Answer: A. 1 pound a week**

During the 3rd trimester, the fetus is gaining more subcutaneous fat and is growing fast in preparation for extrauterine life. Thus, one pound a week is expected.

- **Option B:** In the first trimester, most women don't need to gain much weight — which is good news if she is struggling with morning sickness. If a pregnant woman starts out at a healthy or normal weight, she needs to gain only about 1 to 4 pounds (0.5 to 1.8 kilograms) in the first few months of pregnancy.
- **Option C:** Gaining too much weight during pregnancy can increase the baby's risk of health problems, such as being born significantly larger than average (fetal macrosomia). The woman might also be at increased risk of pregnancy-related hypertension, gestational diabetes, prolonged labor, and the need for a C-section or delivery before her due date. Excessive weight gain during pregnancy can also increase the risk of postpartum weight retention and increases the risk of blood clots in the postpartum period.
- **Option D:** Steady weight gain is more important in the second and third trimesters — especially if a pregnant woman starts out at a healthy weight or she is underweight. According to the guidelines, the pregnant woman will gain about 1 pound (0.5 kilogram) a week until delivery. An extra 300 calories a day — half a sandwich and a glass of skim milk — might be enough to help her meet this goal.

**20. Mario is admitted to the emergency room with drug-included anxiety related to over ingestion of prescribed antipsychotic medication. The most important piece of information the nurse in charge should obtain initially is the:**

- A. Length of time on the med.
- B. Name of the ingested medication & the amount ingested.
- C. Reason for the suicide attempt.
- D. Name of the nearest relative & their phone number.

**Correct Answer: B. Name of the ingested medication & the amount ingested.**

In an emergency, lives saving facts are obtained first. The name and the amount of medication ingested are of utmost important in treating this potentially life-threatening situation. Second-generation antipsychotics carry the FDA boxed warning of increased incidence of stroke in elderly patients with dementia. The recommendation is to avoid the use of second-generation antipsychotics along with other drugs that prolong the QTc interval.

- **Option A:** All dopamine receptor antagonists are available and can be administered in oral form. Except for thioridazine, pimozide, and molindone, all other first-generation antipsychotics can also be given parenterally. Haloperidol and fluphenazine can be delivered in long-acting depot parenteral form.

- **Option B:** Some antipsychotics can be monitored for a plasma therapeutic range. It is recommended to monitor plasma concentrations at a trough, which is at a minimum of 12 hours after the prior dose, and best at 20 to 24 hours after the last dose. Most antipsychotics do not have a well-defined dose-response curve.
- **Option D:** Antipsychotics are widely used medications for a variety of mental health disorders. While effective, these drugs do have many potential side effects. Healthcare workers, working as an interprofessional team, need to be aware of the adverse effects because they can seriously affect the quality of life. To avoid the metabolic effects of these drugs, the patient needs to receive information regarding lifestyle changes. Regular exercise, discontinuation of smoking, and eating a healthy diet are essential.

**21. With the image below, what is the name of the structure marked #3?**

- A. Kidney
- B. Urethra
- C. Stomach
- D. Spleen
- E. Urinary bladder
- F. Gallbladder

**Correct answer: E. Urinary bladder**

- The urinary bladder is a hollow, muscular organ that stores urine. It is located in the pelvic cavity, behind the pubic bone. The bladder is made up of three layers:
- The outer layer is the serous layer, which is a thin membrane that covers the bladder.
- The middle layer is the muscular layer, which is made up of smooth muscle tissue. This layer contracts and relaxes to allow urine to enter and exit the bladder.
- The inner layer is the mucous layer, which is a lining that helps to protect the bladder from infection.

**22. Cristina undergoes a biopsy of a suspicious lesion. The biopsy report classifies the lesion according to the TNM staging system as follows: TIS, N0, M0. What does this classification mean?**

- A. No evidence of primary tumor, no abnormal regional lymph nodes, and no evidence of distant metastasis.
- B. Carcinoma in situ, no abnormal regional lymph nodes, and no evidence of distant metastasis.
- C. Can't assess tumor or regional lymph nodes and no evidence of metastasis.
- D. Carcinoma in situ, no demonstrable metastasis of the regional lymph nodes, and ascending degrees of distant metastasis.

**Correct Answer: B. Carcinoma in situ, no abnormal regional lymph nodes, and no evidence of distant metastasis**

TIS, N0, M0 denotes carcinoma in situ, no abnormal regional lymph nodes, and no evidence of distant metastasis.

- **Option A:** No evidence of primary tumor, no abnormal regional lymph nodes, and no evidence of distant metastasis is classified as T0, N0, M0.
- **Option C:** If the tumor and regional lymph nodes can't be assessed and no evidence of metastasis exists, the lesion is classified as TX, NX, M0.
- **Option D:** A progressive increase in tumor size, no demonstrable metastases of the regional lymph nodes, and ascending degrees of distant metastasis is classified as T1, T2, T3, or T4; N0; and M1, M2, or M3.

**23. A male client's left tibia was fractured in an automobile accident, and a cast is applied. To assess for damage to major blood vessels from the fracture tibia, the nurse in charge should monitor the client for:**

- A. Swelling of the left thigh
- B. Increased skin temperature of the foot
- C. Prolonged reperfusion of the toes after blanching
- D. Increased blood pressure

**Correct Answer: C. Prolonged reperfusion of the toes after blanching**

Damage to blood vessels may decrease the circulatory perfusion of the toes, this would indicate the lack of blood supply to the extremity. If the intracompartmental pressure becomes higher than arterial pressure, a decrease in arterial inflow will also occur. The reduction of venous outflow and arterial inflow result in decreased oxygenation of tissues causing ischemia. If the deficit of oxygenation becomes high enough, irreversible necrosis may occur.

- **Option A:** Compartment syndrome is one of the most serious complications of casting. Symptoms may include swelling, delayed capillary refill, or dusky appearance of exposed extremities. Beware that the presence or absence of a palpable arterial pulse may not accurately indicate relative tissue pressure or predict the risk for compartment syndrome. In some patients, a pulse is still present, even in a severely compromised extremity.
- **Option B:** Thermal injuries to the skin can occur as a result of casting. In the initial stages, pain may be characterized as a burning sensation or as a deep ache of the involved compartment. Paresthesia, hypoesthesia, or poorly localized deep muscular pain may also be present.
- **Option D:** Increased blood pressure is not a symptom of damage to the major blood vessels. Classically, the presentation of acute compartment syndrome has been remembered by "The Five P's": pain, pulselessness, paresthesia, paralysis, and pallor. However, aside from paresthesia, which may occur earlier in the course of the condition, these are typically late findings.

**24. Hydrochloric acid secretion is blocked by which of the following categories of drugs?**

- A. Antacids
- B. Gastric stimulants
- C. Histamine-2 antagonists
- D. Antihistamines

**Correct Answer: C. histamine-2 antagonists**

This is the only category of drugs that reduces the volume of secretions. H2RAs decrease gastric acid secretion by reversibly binding to histamine H2 receptors located on gastric parietal cells, thereby inhibiting the binding and action of the endogenous ligand histamine. H2 blockers thus function as competitive antagonists. By blocking the histamine receptor and thus histamine stimulation of parietal cell acid secretion, H2RAs suppress both stimulated and basal gastric acid secretion that is induced by histamine.

- **Option A:** The antacids reduce the acid reaching the duodenum by neutralizing the acid present in the stomach. The salts' mechanism of neutralization of acid varies, and each salt has a different mechanism with the ultimate goal of acid neutralization. It is known to heal chronic ulcers and prevent acute mucosal damage induced chemically by reducing access to pepsin and acid.
- **Option B:** Gastrointestinal stimulants are drugs that increase motility of the gastrointestinal smooth muscle, without acting as a purgative. These drugs have different mechanisms of action but they all work to move the contents of the gastrointestinal tract faster.
- **Option D:** First-generation antihistamines easily cross the blood-brain barrier into the central nervous system and antagonize H-1 receptors, which leads to a different therapeutic and adverse effect profile in contrast to second-generation antihistamines, which selectively bind to peripheral histamine receptors.

**25. The nurse is caring for a woman 2 hours after a vaginal delivery. Documentation indicates that the membranes were ruptured for 36 hours prior to delivery. What are the priority nursing diagnoses at this time?**

Altered tissue perfusion

Risk for fluid volume deficit

High risk for hemorrhage

Risk for infection

**Correct Answer: D. Risk for infection**

Membranes ruptured over 24 hours prior to birth greatly increases the risk of infection to both mother and the newborn. Rupture of membranes results from a variety of factors that ultimately lead to accelerated membrane weakening. This is caused by an increase in local cytokines, an imbalance in the interaction between matrix metalloproteinases and tissue inhibitors of matrix metalloproteinases, increased collagenase and protease activity, and other factors that can cause increased intrauterine pressure.

- **Option A:** There should be little or no alteration in perfusion after premature rupture of the membranes. Decreased tissue perfusion can be temporary, with few or minimal consequences to the health of the patient, or it can be more acute or protracted, with potentially destructive effects on the patient. When diminished tissue perfusion becomes chronic, it can result in tissue or organ damage or death.
- **Option B:** There may be a risk for deficient fluid volume, but it is not a priority. Fluid volume deficit (FVD) or hypovolemia is a state or condition where the fluid output exceeds the fluid intake. It occurs when the body loses both water and electrolytes from the ECF in similar proportions. Common sources of fluid loss are the gastrointestinal tract, polyuria, and increased perspiration.
- **Option C:** Hemorrhage is not a great risk in premature rupture of membranes. One of the complications of PROM is intraventricular hemorrhage. This is because blood vessels in the brain

of premature infants are not fully developed, and are therefore weaker than that of term babies. Research shows that intraventricular hemorrhages (IVH) or brain bleeds are significantly reduced by steroid treatment, without an increase in either maternal or neonatal infection.

**26. For a male client with dysthymic disorder, which of the following approaches would the nurse expect to implement?**

- A. ECT
- B. Psychotherapeutic approach
- C. Psychoanalysis
- D. Antidepressant therapy

**Correct Answer: B. Psychotherapeutic approach**

Dysthymia is a less severe, chronic depression diagnosed when a client has had a depressed mood for more days than not over a period of at least 2 years. Clients with dysthymic disorder benefit from psychotherapeutic approaches that assist the client in reversing the negative self-image, negative feelings about the future. In addition to pharmacotherapy, psychotherapy may be helpful. However, Dunner cautions that "treatment with psychotherapy is difficult." A number of psychotherapies have been advocated including cognitive behavioral analysis system of psychotherapy (CBASP), interpersonal psychotherapy (IPT), cognitive behavioral therapy, manualized group therapy and problem-solving therapy. These do not exclude the potential value of supportive or psychodynamic psychotherapies.

- **Option A:** ECT is indicated in patients with treatment-resistant depression or severe major depression that impairs activities of daily living. The definition of treatment-resistant depression is depression that is unresponsive to multiple antidepressant medication trials. There are also suggestions for ECT as a treatment for suicidality, severe psychosis, food refusal secondary to depression, and catatonia. Bipolar depressive and manic patients can also receive treatment with ECT. ECT may have a safer profile than antidepressants or antipsychotics in debilitated, elderly, pregnant, and breastfeeding patients.
- **Option C:** Psychoanalysis is defined as a set of psychological theories and therapeutic techniques that have their origin in the work and theories of Sigmund Freud. The core of psychoanalysis is the belief that all people possess unconscious thoughts, feelings, desires, and memories. Psychoanalysis suggests that people can experience catharsis and gain insight into their current state of mind by bringing the content of the unconscious into conscious awareness. Through this process, a person can find relief from psychological distress.
- **Option D:** Antidepressants are a popular treatment choice for depression. Although antidepressants may not cure depression, they can reduce symptoms. The first antidepressant you try may work fine. But if it doesn't relieve your symptoms or it causes side effects that bother you, you may need to try another.

**27. Before administering a client's morning dose of Lanoxin (digoxin), the nurse checks the apical pulse rate and finds a rate of 52. The appropriate nursing intervention is to:**

- A. Record the pulse rate and administer the medication
- B. Administer the medication and monitor the heart rate



- C. Withhold the medication and notify the doctor
- D. Withhold the medication until the heart rate increases

**Correct Answer: C. Withhold the medication and notify the doctor**

- Option C: Digoxin may further slow the heart rate therefore the medication should be withheld and the doctor should be notified.
- Options A, B, and D: They do not provide for the client's safety.

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

- A. Severe aplastic anemia
- B. Severe combined immunodeficiency
- C. Acute lymphocytic leukemia
- D. Chronic myeloid leukemia

**Correct Answer: C. Acute lymphocytic leukemia**

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

**29. The nurse is caring for a client with schizophrenia. Which of the following outcomes is the least desirable?**

- A. The client spends more time by himself.
- B. The client doesn't engage in delusional thinking.
- C. The client doesn't harm himself or others.
- D. The client demonstrates the ability to meet his own self-care needs.

**Correct Answer: A. The client spends more time by himself.**

The client with schizophrenia is commonly socially isolated and withdrawn; therefore, having the client spend more time by himself wouldn't be a desirable outcome. Rather, a desirable outcome would specify that the client spends more time with other clients and staff on the unit. Delusions are false personal beliefs. Eventually engage other clients and significant others in social interactions and activities with the client (card games, ping pong, sing-a-songs, group sharing activities) at the client's level. Client continues to feel safe and competent in a graduated hierarchy of interactions.

- **Option B:** Reducing or eliminating delusional thinking using talking therapy and antipsychotic medications would be a desirable outcome. If the client is delusional/hallucinating or is having trouble concentrating at this time, provide very simple concrete activities with the client (e.g.,

looking at a picture or doing a painting). Even simple activities help draw the client away from delusional thinking into reality in the environment.

- **Option C:** Protecting the client and others from harm is a desirable client outcome achieved by close observation, removing any dangerous objects, and administering medications. Ensure that the goals set are realistic; whether in the hospital or community. Avoids pressure on the client and sense of failure on part of the nurse/family. This sense of failure can lead to mutual withdrawal.
- **Option D:** Because the client with schizophrenia may have difficulty meeting his or her own self-care needs, fostering the ability to perform self-care independently is a desirable client outcome. Remember to give acknowledgement and recognition for positive steps the client takes in increasing social skills and appropriate interactions with others. Recognition and appreciation go a long way to sustaining and increasing a specific behavior.

**30. A physician diagnoses a client with myasthenia gravis, prescribing pyridostigmine (Mestinon), 60 mg P.O. every 3 hours. Before administering this anticholinesterase agent, the nurse reviews the client's history. Which preexisting condition would contraindicate the use of pyridostigmine?**

- A. Ulcerative colitis
- B. Blood dyscrasia
- C. Intestinal obstruction
- D. Spinal cord injury

**Correct Answer: C. Intestinal obstruction**

Anticholinesterase agents such as pyridostigmine are contraindicated in a client with a mechanical obstruction of the intestines or urinary tract, peritonitis, or hypersensitivity to anticholinesterase agents. Pyridostigmine bromide is preferred over neostigmine because of its longer duration of action. In those with bromide intolerance that leads to gastrointestinal effects, ambenonium chloride can be used. Patients with MuSK MG respond poorly to these drugs and hence may require higher doses.

- **Option A:** Ulcerative colitis is not a contraindication to pyridostigmine. The mainstay of treatment in MG involves cholinesterase enzyme inhibitors and immunosuppressive agents. Symptoms that are resistant to primary treatment modalities or those requiring rapid resolution of symptoms (myasthenic crisis), plasmapheresis, or intravenous immunoglobulins can be used.
- **Option B:** Blood dyscrasia is not a contraindication to pyridostigmine. Agricultural employees who handle organophosphates for a prolonged period should have medical monitoring. Appropriate testing is recommended to identify overexposure before the occurrence of clinical illness. Both serum and RBC cholinesterase must be determined.
- **Option D:** The contraction of the smooth muscle in various organs of the body gets mediated through M3 receptors. Tone and peristalsis in the gastrointestinal tract increase and sphincters relax, causing abdominal cramps and evacuation of the bowel. The detrusor muscle contracts while the bladder trigone and sphincter relax, leading to the voiding of the bladder.

**31. The lungs participate in acid-base balance by:**

- A. Reabsorbing bicarbonate.
- B. Splitting carbonic acid in two.

- C. Using CO<sub>2</sub> to regulate hydrogen ions.
- D. Sending hydrogen ions to the renal tubules.

**Correct Answer: C. Using CO<sub>2</sub> to regulate hydrogen ions**

The lungs use carbon dioxide to regulate hydrogen ion concentration. The carbon dioxide formed during cellular respiration combines with water to create carbonic acid. Carbonic acid then dissociates into bicarbonate and a hydrogen ion. This reaction is one of the many buffer systems in the human body; it resists dramatic changes in pH to allow a person to remain within the narrow physiological pH range.

- **Option A:** The renal system affects pH by reabsorbing bicarbonate and excreting fixed acids. Whether due to pathology or necessary compensation, the kidney excretes or reabsorbs these substances which affect pH. The nephron is the functional unit of the kidney. Blood vessels called glomeruli transport substances found in the blood to the renal tubules so that some can be filtered out while others are reabsorbed into the blood and recycled.
- **Option B:** This reaction can and does occur without an enzyme; however, carbonic anhydrase is an enzyme that assists with this process. It catalyzes the first reaction above to form carbonic acid which can then freely dissociate into bicarbonate and a hydrogen ion. Carbonic anhydrase is located in red blood cells, renal tubules, gastric mucosa, and pancreatic cells.
- **Option D:** If bicarbonate is reabsorbed and/or acid is secreted into the urine, the pH becomes more alkaline (increases). When bicarbonate is not reabsorbed or acid is not excreted into the urine, pH becomes more acidic (decreases). The metabolic compensation from the renal system takes longer to occur: days rather than minutes or hours.

**32. Which research process steps may be noted in an article's abstract? Select all that apply.**

- A. Identifying the phenomenon
- B. Research question study purpose
- C. Literature review
- D. Design
- E. Sample
- F. Legal-ethical issues
- G. Data-collection procedure

**Correct Answers: A, B, D**

Scientific research involves a systematic process that focuses on being objective and gathering a multitude of information for analysis so that the researcher can come to a conclusion. This process is used in all research and evaluation projects, regardless of the research method (scientific method of inquiry, evaluation research, or action research).

- **Option A:** The first step in the process is to identify a problem or develop a research question. The research problem may be something the agency identifies as a problem, some knowledge or information that is needed by the agency, or the desire to identify a recreation trend nationally.
- **Option B:** Many times the initial problem identified in the first step of the process is too large or broad in scope. In step 3 of the process, the researcher clarifies the problem and narrows the scope of the study. This can only be done after the literature has been reviewed.

- **Option C:** This step provides foundational knowledge about the problem area. The review of literature also educates the researcher about what studies have been conducted in the past, how these studies were conducted, and the conclusions in the problem area.
- **Option D:** The plan for the study is referred to as the instrumentation plan. The instrumentation plan serves as the road map for the entire study, specifying who will participate in the study; how, when, and where data will be collected; and the content of the program.
- **Option E:** Research projects can focus on a specific group of people, facilities, park development, employee evaluations, programs, financial status, marketing efforts, or the integration of technology into the operations. For example, if a researcher wants to examine a specific group of people in the community, the study could examine a specific age group, males or females, people living in a specific geographic area, or a specific ethnic group.
- **Option F:** The main role of human participants in research is to serve as sources of data. Researchers have a duty to 'protect the life, health, dignity, integrity, right to self-determination, privacy and confidentiality of personal information of research subjects'.
- **Option G:** Once the instrumentation plan is completed, the actual study begins with the collection of data. The collection of data is a critical step in providing the information needed to answer the research question. Every study includes the collection of some type of data—whether it is from the literature or from subjects—to answer the research question.

**33. A client was brought to the ED due to an abdominal trauma caused by a motorcycle accident. During the assessment, the client complains of epigastric pain and back pain. Which of the following is true regarding the diagnosis of pancreatic injury?**

- A. Redness and bruising may indicate the site of the injury in blunt trauma
- B. The client is symptom-free during the early post-injury period
- C. Signs of peritoneal irritation may indicate pancreatic injury
- D. All of the above

**Correct Answer: D. All of the above**

Blunt injury resulting from vehicular accidents could cause pancreatic injury. Redness, bruising in the flank and severe peritoneal irritation are signs of a pancreatic injury. The client is usually pain-free during the early post-injury period, hence a comprehensive assessment and monitoring should be done.

- **Option A:** Pancreatic injury is hidden in the shadows of coexisting intraabdominal injuries and its inherent retroperitoneal location. Symptoms of radiating epigastric pain to the back, nausea, and vomiting are also seen with the more commonly injured adjacent viscera. An abdominal exam is reported to have a false negative rate of 34% on initial evaluation.
- **Option B:** Traumatic pancreatitis can be a difficult diagnosis to make and requires meticulous investigation. Damage to the pancreas is not very common and is seldom a solitary insult. As the signs and symptoms are nonspecific, a high index of suspicion is necessary to prevent delayed diagnosis.
- **Option C:** Other complications include pancreatic pseudocyst which is a circumscribed collection of enzymes, blood, and necrotic tissue. Less frequent complications include peritonitis, intestinal obstruction, and gastrointestinal bleeding. Pancreatic trauma can disrupt the endocrine function for patients as well.

**34. Situation: A 42-year-old male client, is admitted to the ward because of bizarre behaviors. He was given a diagnosis of schizophrenia paranoid type. The client should have achieved the developmental task of:**

- A. Trust vs. Mistrust
- B. Industry vs. Inferiority
- C. Generativity vs. Stagnation
- D. Ego integrity vs. Despair

**Correct Answer: C. Generativity vs. Stagnation**

The client belongs to the middle adulthood stage (30 to 65 yrs.) The developmental task generativity is characterized by concern and care for others. It is a productive and creative stage. Adults need to create or nurture things that will outlast them, often by having children or creating a positive change that benefits other people. Success leads to feelings of usefulness and accomplishment, while failure results in shallow involvement in the world.

- **Option A:** The infancy stage (0 – 18 mos.) is concerned with the gratification of oral needs. If a child successfully develops trust, the child will feel safe and secure in the world. Caregivers who are inconsistent, emotionally unavailable, or rejecting contribute to feelings of mistrust in the children under their care. Failure to develop trust will result in fear and a belief that the world is inconsistent and unpredictable.
- **Option B:** School Age Child (6 – 12 yrs.) is characterized by the acquisition of school competencies and social skills. The fourth psychosocial stage takes place during the early school years from approximately ages 5 to 11. Through social interactions, children begin to develop a sense of pride in their accomplishments and abilities. Children need to cope with new social and academic demands. Success leads to a sense of competence, while failure results in feelings of inferiority.
- **Option D:** Late adulthood (60 and above) Concerned with a reflection on the past and his contributions to others and face the future. Erikson's theory differed from many others because it addressed development throughout the entire lifespan, including old age. Older adults need to look back on life and feel a sense of fulfillment. Success at this stage leads to feelings of wisdom, while failure results in regret, bitterness, and despair.

**35. Cholesterol, frequently discussed in relation to atherosclerosis, is a substance that:**

- A. May be controlled by eliminating food sources.
- B. Is found in many foods, both plant and animal sources.
- C. All persons would be better off without because it causes the disease process.
- D. Circulates in the blood, the level of which usually decreases when unsaturated fats are substituted for saturated fats.

**Correct Answer: D. Circulates in the blood, the level of which usually decreases when unsaturated fats are substituted for saturated fats.**

Cholesterol is a sterol found in tissue; it is attributed in part to diets high in saturated fats. Cholesterol is a lipophilic molecule that is essential for human life. It has many roles that contribute to normally functioning cells. For example, cholesterol is an important component of the cell membrane. It contributes to the structural makeup of the membrane as well as modulates its fluidity.

- **Option A:** Particular care is necessary to educate patients about the harmful effects of high cholesterol and how to reduce their serum cholesterol levels. Patient lifestyle changes like diet (reduction in saturated fat and trans fat with an increase in fiber and total calories if obese and supplementation with plant stanols), smoking cessation, and exercise are often a favorable approach to cholesterol reduction.
- **Option B:** Cholesterol can be introduced into the blood through the digestion of dietary fat via chylomicrons. However, since cholesterol has an important role in cellular function, it can also be directly synthesized by each cell in the body.
- **Option C:** Cholesterol functions as a precursor molecule in the synthesis of vitamin D, steroid hormones (e.g., cortisol and aldosterone and adrenal androgens), and sex hormones (e.g., testosterone, estrogens, and progesterone). Cholesterol is also a constituent of bile salt used in digestion to facilitate absorption of fat-soluble vitamins A, D, E, and K.