

Kevin's Review - 100 NCLEX Practice Questions

1. Joey plans to revisit the organizational chart of the department. He plans to create a new position of a Patient Educator who has a coordinating relationship with the head nurse in the unit. Which of the following will likely depict this organizational relationship?

- A. Box
- B. Solid line
- C. Broken line
- D. Dotted line

Correct Answer: C. Broken line

This is a staff relationship hence it is depicted by a broken line in the organizational structure. The broken line's meaning in an organizational chart is a less formal reporting relationship. The person at the end of that line isn't the immediate and permanent manager, but someone else. In theory, it means that these reporting relationships are secondary, but in practice, that's not always the case.

- **Option A:** The boxes on an organizational chart might represent individual employees, ad-hoc working groups, or formal teams or departments. Employee names and titles and/or job positions are generally depicted in boxes or circles with lines linking them to other employees and departments.
- **Option B:** The lines always represent the reporting path for anyone in a given box. In a simple hierarchy, the lines run vertically from employees to managers and ultimately the CEO or proprietor.
- **Option D:** For example, the department or a member might be assigned to do some work for a team or a manager in some other part of the company. This member will still have a solid line connecting to the full-time manager, but now he'll also have a dotted line connecting to whoever's in charge of the other project. This particular relationship is often referred to as "dotted line reporting."

2. Jam is under chemotherapy in which nausea is an expected side effect. Which of the following drugs is indicated to prevent such side effects?

- A. metoclopramide
- B. cimetidine
- C. tagamet
- D. famotidine

Correct Answer: A. metoclopramide

This is the only drug among the choices that is indicated to prevent nausea. Metoclopramide has been approved by the FDA specifically to treat nausea and vomiting in patients with gastroesophageal reflux disease or diabetic gastroparesis by increasing gastric motility. It is also used to control nausea and vomiting in chemotherapy patients.

- **Option B:** Cimetidine is a gastric acid reducer used in the short-term treatment of duodenal and gastric ulcers. The drug is effective in managing gastric hypersecretion, and therefore, used for the management of reflux esophagitis disease and in the prevention of stress ulcers. With the development of proton pump inhibitors, such as omeprazole, approved for the same indications,

cimetidine is available as an over the counter formulation for the prevention of heartburn or acid indigestion, along with the other H₂-receptor antagonists.

- **Option C:** Tagamet (cimetidine) is a histamine receptor antagonist used to treat and prevent certain types of ulcer, and to treat conditions that cause the stomach to produce too much acid. Tagamet is also used to treat gastroesophageal reflux disease (GERD), when stomach acid backs up into the esophagus and causes heartburn.
- **Option D:** Famotidine decreases the production of stomach acid, and its pharmacologic activity is used in the treatment of acid-related gastrointestinal conditions. Famotidine is a competitive histamine H₂-receptor antagonist (H₂RA) that binds to the H₂-receptors located on the basolateral membrane of the parietal cell in the stomach, effectively blocking histamine actions. Its pharmacologic activity results in the inhibition of gastric secretion by suppressing acid concentration and volume of gastric secretion.

3. Five teaspoons is equivalent to how many milliliters (ml)?

- A. 30 ml
- B. 25 ml
- C. 12 ml
- D. 22 ml

Correct Answer: B. 25 ml

One teaspoon is equal to 5ml. Drug calculations require the use of conversion factors, for example, when converting from pounds to kilograms or liters to milliliters. Simplistic in design, this method allows clinicians to work with various units of measurement, converting factors to find the answer. These methods are useful in checking the accuracy of the other methods of calculation, thus acting as a double or triple check.

- **Option A:** 30 ml is equal to 6 teaspoons. When clinicians are prepared and know the key conversion factors, they will be less anxious about the calculation involved. This is vital to accuracy, regardless of which formula or method employed.
- **Option C:** 12 ml is equal to 2.4 teaspoons. Units of measurement must match, for example, milliliters and milliliters, or one needs to convert to like units of measurement.
- **Option D:** 22 ml is equal to 4.4 teaspoons. Medication errors can be detrimental and costly to patients. Drug calculation and basic mathematical skills play a role in the safe administration of medications.

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

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

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

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

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

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

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

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

5. Stimulation of the sympathetic nervous system produces which of the following responses?

- A. Bradycardia
- B. Tachycardia
- C. Hypotension
- D. Decreased myocardial contractility

Correct Answer: B. Tachycardia

Stimulation of the sympathetic nervous system causes tachycardia and increased contractility. The other symptoms listed are related to the parasympathetic nervous system, which is responsible for slowing the heart rate. Studies have mainly focused on the role of the sympathetic nervous system, specifically evaluating the effect of increased sympathetic activity. It has been well documented that heart rate variability is diminished, and heart rate increases, before ventricular tachycardia in humans, which is likely reflective of increased sympathetic tone.

- **Option A:** Via the vagus nerve, the parasympathetic nervous system stimulates neurons that release the neurotransmitter acetylcholine (ACh) at synapses with cardiac muscle cells. Acetylcholine then binds to M2 muscarinic receptors, causing the decrease in heart rate that is referred to as reflex bradycardia.
- **Option C:** A key modulator of blood viscosity is the renin-angiotensin system (RAS) or the renin-angiotensin-aldosterone system (RAAS), a hormone system that regulates blood pressure and water balance. When blood volume is low, juxtaglomerular cells in the kidneys secrete renin directly into circulation.

- **Option D:** The activation of M2 receptors reduces the contractility of atrial cardiomyocytes, thus reducing, in part, the overall cardiac output of the heart as a result of reduced atrial kick, smaller stroke volume, and slower heart rate. Cardiac output is determined by heart rate and stroke volume ($CO = HR \times SV$).

6. The nurse is working on a unit that uses nursing assessment flow sheets. Which statement best describes this form of charting? Nursing assessment flow sheets:

- A. Are comprehensive charting forms that integrate assessments and nursing actions.
- B. Contain only graphic information, such as I&O, vital signs, and medication administration.
- C. Are used to record routine aspects of care; they do not contain assessment data.
- D. Contain vital data collected upon admission, which can be compared with newly collected data.

Correct Answer: A. Are comprehensive charting forms that integrate assessments and nursing actions

Nursing assessment flow sheets are organized by body systems. The nurse checks the box corresponding to the current assessment findings. Nursing actions, such as wound care, treatments, or IV fluid administration, are also included. A flow sheet is simply a one- or two-page form that gathers all the important data regarding a patient's condition. The flow sheet is housed in the patient's chart and serves as a reminder of care and a record of whether care expectations have been met.

- **Option B:** Graphic information, such as vital signs, I&O;, and routine care, may be found on the graphic record. This where records of serial measurements and observations, nursing interventions, and nursing care plans are recorded.
- **Option C:** Nursing documentation covers a wide variety of issues, topics, and systems. Researchers, practitioners, and hospital administrators view recordkeeping as an important element leading to continuity of care, safety, quality care, and compliance.
- **Option D:** The admission form contains baseline information. In health care organizations, the EHR, oral reports, handoffs, conferences, and health information technologies (HIT) are intended to facilitate information flow. In particular, the JCAHO specifically conceptualizes the care planning process as the structuring framework for coordinating communication that will result in safe and effective care.

7. Nurse Aaron is inserting a nasogastric tube to a stroke client. He understands that the best position for the insertion is?

- A. Low Fowler's.
- B. Sims position.
- C. Trendelenburg.
- D. High Fowler's.

Correct Answer: D. High Fowler's.

The best position during a nasogastric tube insertion is sitting or High Fowler's position in order to prevent the risk of aspiration. Position patient sitting up at 45 to 90 degrees (unless contraindicated by the patient's condition), with a pillow under the head and shoulders. This allows the NG tube to pass

more easily through the nasopharynx and into the stomach.

- **Option A:** Low Fowler's position is similar to the supine position, and is considered the best position for rest. In a low-Fowler's position, the patient's head is inclined at a 15- or 30-degree angle. Insertion of NGT could be particularly difficult in this position. Low Fowler's position is typically used to reduce lower back pain, during administration of drugs, or during tube feeding.
- **Option B:** Insertion of NGT would be impossible in Sim's position. The Sims position is a standard position in which the patient lies on their left side, with right hip and knees bent. The lower arm is behind the back, the thighs flexed. The left knee is slightly tilted. The right arm is positioned comfortably in front of the body, the right arm is rested behind the body. This is also known as "lateral" position. Sim's position is often used for rectal examination and treatments.
- **Option C:** Placing the patient in Trendelenburg position for NGT insertion is highly inappropriate. In Trendelenburg position, the patient is supine on the table with their head declined below their feet at an angle of roughly 16°. Trendelenburg position is typically used for lower abdominal surgeries including colorectal, gynecological, and genitourinary procedures as well as central venous catheter placement.

8. When evaluating a severely depressed adolescent, the nurse knows that one indicator of a high risk for suicide is:

- A. Depression
- B. Excessive sleepiness
- C. A history of cocaine use
- D. A preoccupation with death

Correct Answer: D. A preoccupation with death

An adolescent who demonstrates a preoccupation with death (such as by talking about death frequently) should be considered at high risk for suicide. Repeated thoughts of death (not just fear of dying), recurrent suicidal ideation without specific plans; suicide attempt; or a definite plan to commit suicide is also observed.

- **Option A:** The occurrence of the major depressive episode cannot be explained by schizoaffective disorder, schizophrenia, schizophreniform disorder, delusional disorder, or other specified and unspecified schizophrenia spectrum and other psychotic disorders.
- **Option B:** Lack of sleep or excessive sleeping almost every day is not specific only to severely depressed adolescents. The presence of at least 5 specific symptoms in the same 2-week period with a change in the level of function. At least 1 of the items is either a depressed mood or loss of interest or pleasure. It is important to note that other medical conditions can not explain symptoms.
- **Option C:** Although a history of cocaine use may occur in suicidal adolescents; they also occur in adolescents who are not suicidal. The episode is not due to the physiological effects of a substance or another medical condition.

9. A pregnant client calls the clinic and tells a nurse that she is experiencing leg cramps and is awakened by the cramps at night. To provide relief from the leg cramps, the nurse tells the client to:

- A. Dorsiflex the foot while extending the knee when the cramps occur.

- B. Dorsiflex the foot while flexing the knee when the cramps occur.
- C. Plantar flex the foot while flexing the knee when the cramps occur.
- D. Plantar flex the foot while extending the knee when the cramps occur.

Correct Answer: A. Dorsiflex the foot while extending the knee when the cramps occur.

Legs cramps occur when the pregnant woman stretches the leg and plantar flexes the foot. Dorsiflexion of the foot while extending the knee stretches the affected muscle, prevents the muscle from contracting, and stops the cramping.

- **Option B:** If the cramps are in the calf, flex the foot to attempt to stretch the muscle, or walk around on the heels if the pain isn't unbearable.
- **Option C:** Because they often happen at night when the legs are slightly bent and the feet are pointed downward, some have suggested that this tightening triggers a spasm.
- **Option D:** Although the exact cause of muscle cramps is unknown (idiopathic), some researchers believe inadequate stretching and muscle fatigue leads to abnormalities in the mechanisms that control muscle contraction. Other factors may also be involved, including poor conditioning, exercising or working in intense heat, dehydration, and depletion of salt and minerals (electrolytes).

10. A female adult client with atopic dermatitis is prescribed a potent topical corticosteroid, to be covered with an occlusive dressing. To address a potential client problem associated with this treatment, the nurse formulates the nursing diagnosis of Risk for injury. To complete the nursing diagnosis statement, the nurse should add which "related-to" phrase?

- A. Related to potential interactions between the topical corticosteroid and other prescribed drugs
- B. Related to vasodilatory effects of the topical corticosteroid
- C. Related to percutaneous absorption of the topical corticosteroid
- D. Related to topical corticosteroid application to the face, neck, and intertriginous sites

Correct Answer: C. Related to percutaneous absorption of the topical corticosteroid

A potent topical corticosteroid may increase the client's risk for injury because it may be absorbed percutaneously, causing the same adverse effects as systemic corticosteroids. Corticosteroids are better absorbed and more permeable in regions of thin epidermis, such as the eyelid, compared to thicker regions of epidermis, such as the sole. The penetration difference between the two varies by 300 fold. The penetration increases two- to ten-fold in diseased states, such as inflammation and desquamation.

- **Option A:** Topical corticosteroids aren't involved in significant drug interactions. Patients need to be monitored carefully as unsupervised use of these medications can result in local and systemic adverse effects. The duration of treatment should not be greater than 2 to 4 weeks, regardless of potency. High-potency steroids should not be administered for longer than 2 weeks, and after this period, should be tapered to avoid adverse effects.
- **Option B:** These preparations cause vasoconstriction, not vasodilation. The anti-inflammatory effect of topical corticosteroids consists of vasoconstriction, inhibition of the release of phospholipase A2, and a direct inhibitory effect on DNA and inflammatory transcription factors. Vasoconstriction of the blood vessels within the upper dermis decreases the number of inflammatory mediators being delivered to the region applied.

- **Option D:** A potent topical corticosteroid rarely is prescribed for use on the face, neck, or intertriginous sites because the application in these areas may lead to increased adverse effects. The adverse effects of topical corticosteroids can be divided into local and systemic effects. Local adverse effects occur with prolonged treatment and are based on the topical steroid potency, vehicle, and application site. The most commonly local effects include atrophy, striae, rosacea, perioral dermatitis, acne, and purpura.

11. A 20-year-old male client was brought to the emergency department with a gunshot wound to the chest. In obtaining a history of the incident to determine possible injuries, the nurse should ask which of the following?

- A. "How long ago did the incident occur?"
- B. "What was the initial first aid done?"
- C. "Where did the incident happen?"
- D. "What direction did the bullet enter into the body?"

Correct Answer: D. "What direction did the bullet enter into the body?"

The entry point and direction of the bullet will predict the injuries of the client. In gunshot wounds, due to the high-intensity kinetic energy of the bullet, the pathway is often unpredictable in nature as well as the internal organs that may be affected. The most common organs injured are the small and large bowel at 50% and 40%, respectively.

- **Option A:** Personnel such as paramedics, police officers, or fire rescue who may have arrived at the scene of the injury may be utilized as sources of essential history regarding the etiology of the injury. This is especially important if the patient has altered mental status and is unable to relay the history of the incident.
- **Option B:** In penetrating abdominal injury due to a gunshot wound, initial treatment can be paramount for the prognosis and survival of the victim. The most important task for the initial assessment is to assess the airway, breathing, and circulation of the patient and stop the bleeding.
- **Option C:** The other information is not as useful in determining which diagnostic studies and care are needed immediately. It is beneficial to gather information regarding the events surrounding the injury, including the environment, people involved, allergies, medications, and past medical history of the patient. Information about the caliber of the weapon, the number of shots heard, and any other extenuating circumstances may provide additional valuable information.

12. Which of the following toys should the nurse recommend for a 5-month-old?

- A. A big red balloon
- B. A teddy bear with button eyes
- C. A push-pull wooden truck
- D. A colorful busy box

Correct Answer: D. A colorful busy box

A busy box facilitates fine motor development that occurs between 4 and 6 months.

- **Option A:** Balloons are contraindicated because small children may aspirate balloons.

- **Option B:** Because the button eyes of a teddy bear may detach and be aspirated, this toy is unsafe for children younger than 3 years.
- **Option C:** A 5-month-old is too young to use a push-pull toy. Toddlers are full of energy, eager to explore everything around them. They love all kinds of physical activities such as pulling, pushing, lugging, knocking down, emptying, and filling.

13. Mina, who is suspected of an ovarian tumor is scheduled for a pelvic ultrasound. The nurse provides which pre-procedure instruction to the client?

- A. Wear comfortable clothing and shoes for the procedure
- B. Maintain an NPO status before the procedure
- C. Drink six to eight glasses of water without voiding before the test
- D. Eat a light breakfast only

Correct Answer: C. Drink six to eight glasses of water without voiding before the test

- **Option C:** A pelvic ultrasound requires the ingestion of large volumes of water just before the procedure. A full bladder is necessary so that it will be visualized as such and not mistaken for possible pelvic growth.
- **Option A:** Comfortable shoes and clothing is unrelated to this specific procedure.
- **Option B:** An abdominal ultrasound may require that the client abstain from food or fluid for several hours before the procedure.
- **Option D:** A patient may eat and drink on the day of the exam regardless of quantity.

14. Aminophylline (theophylline) is prescribed for a client with acute bronchitis. A nurse administers the medication, knowing that the primary action of this medication is to:

- A. Promote expectoration.
- B. Suppress the cough.
- C. Relax smooth muscles of the bronchial airway.
- D. Prevent infection.

Correct Answer: C. Relax smooth muscles of the bronchial airway.

Aminophylline is a bronchodilator that directly relaxes the smooth muscles of the bronchial airway. Theophylline causes non-selective inhibition of type III and type IV isoenzymes of phosphodiesterase, which leads to increased tissue cyclic adenosine monophosphate (cAMP) and cyclic 3',5' guanosine monophosphate concentrations, resulting in smooth muscle relaxation in lungs and pulmonary vessels, diuresis, CNS and cardiac stimulation.

- **Option A:** Guaifenesin is an expectorant. It works by thinning and loosening mucus in the airways, clearing congestion, and making breathing easier. Mucolytics are drugs belonging to the class of mucoactive agents. They exert their effect on the mucus layer lining the respiratory tract with the motive of enhancing its clearance.

- **Option B:** Antitussives are drugs that suppress the cough reflex. Persistent coughing can be exhausting and can cause muscle strain and further irritation of the respiratory tract. They act on the cough-control center in the medulla to suppress the cough reflex.
- **Option D:** Antibiotics are powerful medicines that fight bacterial infections. They either kill bacteria or stop them from reproducing, allowing the body's natural defenses to eliminate the pathogens. Used properly, antibiotics can save lives. But growing antibiotic resistance is curbing the effectiveness of these drugs. Taking an antibiotic as directed, even after symptoms disappear, is key to curing infection and preventing the development of resistant bacteria.

15. Nurse Anna can minimize agitation in a disturbed client by:

- A. Increasing stimulation.
- B. Limiting unnecessary interaction.
- C. Increasing appropriate sensory perception.
- D. Ensuring constant client and staff contact.

Correct Answer: B. Limiting unnecessary interaction

Limiting unnecessary interaction will decrease stimulation and agitation. Keep immediate surroundings low in stimuli (dim lighting, few people, simple decor); a stimulating environment may increase the level of anxiety. Reassure the client of his or her safety and security; this can be conveyed by the physical presence of the nurse; do not leave the client alone at this time.

- **Option A:** Move the client to a quiet area with minimal stimuli such as a small room or seclusion area (dim lighting, few people, and so on.) Anxious behavior escalates by external stimuli. A smaller or secluded area enhances a sense of security as compared to a large area which can make the client feel lost and panicked.
- **Option C:** Maintain a calm, non-threatening manner while working with the client. Anxiety is contagious and may be transferred from health care provider to client or vice versa. The client develops a feeling of security in presence of a calm staff person. Avoid asking or forcing the client to make choices. The client may not make sound and appropriate decisions or may be unable to make decisions at all.
- **Option D:** Maintain calmness in your approach to the client. The client will feel more secure if you are calm and if the client feels you are in control of the situation. Observe for increasing anxiety. Assume a calm manner, decrease environmental stimulation, and provide temporary isolation as indicated. Early detection and intervention facilitate modifying a client's behavior by changing the environment and the client's interaction with it, to minimize the spread of anxiety.

16. The mother of a 14-month-old child reports to the nurse that her child will not fall asleep at night without a bottle of milk in the crib and often wakes during the night asking for another. Which of the following instructions by the nurse is correct?

- A. Allow the child to have the bottle at bedtime, but withhold the one later in the night.
- B. Put juice in the bottle instead of milk.
- C. Give only a bottle of water at bedtime.
- D. Do not allow bottles in the crib.

Correct Answer: C. Give only a bottle of water at bedtime.

Babies and toddlers should not fall asleep with bottles containing liquid other than plain water due to the risk of dental decay. Wean one ounce a night. Let's say the child takes three 4 oz bottles a night. Take the last bottle and reduce it by an oz on night one. On night 2, reduce bottle 2 by 1 oz. On night 3 reduce Bottle #1 by 1 oz. When a bottle gets down to 2 oz, substitute a bottle of water. After this step, get rid of the bottle. Don't ever wake up the child if they sleep through a feeding— that is the goal.

- **Option A:** If they skip a feeding one night but wake up the following night for that feeding, it is OK to give them the scheduled bottle. Limit the water bottles to 2 oz, simply to reduce the amount of urine produced and wet diapers to deal with. If the child doesn't want the water, that is fine. But don't give in and give the milk.
- **Option B:** Sugars in juice remain in the mouth during sleep and cause caries, even in teeth that have not yet erupted. Make slow incremental changes over time. These changes are relatively easy to make and the child will tolerate them well.
- **Option D:** The child could have a bottle of water in the crib with close supervision. Bottle fed infants typically can wean off night feeding by 6 months of age. Breast fed infants tend to take longer, up to a year of age. The American Academy of Pediatrics recommends exclusive breastfeeding for six months, with the addition of complementary foods continuing up to a year, or longer "as desired by mother and infant". It's important to note that night weaning can lead to weaning altogether.

17. Nurse Ronn is assessing a client with possible Cushing's syndrome. In a client with Cushing's syndrome, the nurse would expect to find:

- A. Hypotension.
- B. Thick, coarse skin.
- C. Deposits of adipose tissue in the trunk and dorsocervical area.
- D. Weight gain in arms and legs.

Correct Answer: C. Deposits of adipose tissue in the trunk and dorsocervical area.

Because of changes in fat distribution, adipose tissue accumulates in the trunk, face (moonface), and dorsocervical areas (buffalo hump). Physical examination of the patient will reveal increased fat deposits in the upper half of the body leading to "Buffalo torso," characteristic moon facies (earlobes are not visible when viewed from the front), thin arms and legs, acne, hirsutism, proximal muscle weakness of shoulder and hip girdle muscles, paper-thin skin, abdominal pain due to gut perforation in rare cases, and wide vertical purplish abdominal striae.

- **Option A:** Hypertension is caused by fluid retention. Patients may also have a history of hypertension, peptic ulcer disease, and diabetes. Hypertension is a very common comorbidity in patients with Cushing's disease/syndrome, resulting from the interplay of several pathophysiologic mechanisms, including stimulation of mineralocorticoid and glucocorticoid receptors as well as the associated insulin resistance, sleep apnea, and overexpression of renin-angiotensin system.
- **Option B:** Thinning of the skin and other mucous membranes: the skin becomes dry and bruises easily. Cortisol causes the breakdown of some dermal proteins along with the weakening of small blood vessels. In fact, the skin may become so weak as to develop a shiny, paper-thin quality which allows it to be torn easily.
- **Option D:** Muscle wasting causes muscle atrophy and thin extremities. The effect of circulating levels of cortisol on the muscles varies from slight to marked. Muscle wasting can be so extensive

that the condition stimulates muscular dystrophy. Marked weakness of the quadriceps muscle often prevents affected people from rising out of a chair unassisted.

18. A female client has a neurological deficit involving the limbic system. Specific to this type of deficit, the nurse would document which of the following information related to the client's behavior.

- A. Is disoriented to person, place, and time.
- B. Affect is flat, with periods of emotional lability.
- C. Cannot recall what was eaten for breakfast today.
- D. Demonstrate inability to add and subtract; does not know who is the president.

Correct Answer: B. Affect is flat, with periods of emotional lability.

The limbic system is responsible for feelings (affect) and emotions. While the limbic system was initially suggested to be the sole neurological system involved in regulating emotion, it is now considered only one part of the brain to regulate visceral, autonomic processes. In general, the limbic system assists in various processes relating to cognition; including spatial memory, learning, motivation, emotional processing, and social processing.

- **Option A:** The cerebral hemispheres, with specific regional functions, control orientation. The frontal lobe further divides into a superior, middle, and inferior frontal gyrus, primary motor cortex, and orbital area. These areas combine to control our executive and motor functions. It controls judgment, problem-solving, planning, behavior, personality, speech, writing, speaking, concentration, self-awareness, and intelligence. The parietal lobe is posterior to the central sulcus and anterior to the parieto-occipital sulcus. This lobe controls perception and sensation. The occipital lobe is posterior to the parieto-occipital sulcus and superior to the tentorium cerebelli. This lobe interprets vision, distance, depth, color, and facial recognition. The temporal lobe is inferior to the lateral fissure and further divides into a superior, middle, and inferior temporal gyrus. This lobe controls language comprehension, hearing, and memory.
- **Option C:** Recall of recent events is controlled by the hippocampus. The hippocampus, parahippocampal region of the medial temporal lobe, and the neocortical association have been shown through the autopsy and imaging studies to be essential for memory processing. Impairment of short-term memory leading up to an inability to form new memories occurs when there is bilateral damage to the above-mentioned regions.
- **Option D:** Calculation ability and knowledge of current events relates to the function of the frontal lobe. The frontal lobe further divides into a superior, middle, and inferior frontal gyrus, primary motor cortex, and orbital area. These areas combine to control our executive and motor functions. It controls judgment, problem-solving, planning, behavior, personality, speech, writing, speaking, concentration, self-awareness, and intelligence.

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

- A. "I guess you're worried about something, aren't you?"
- B. "Can I get you some medication to help calm you?"
- C. "Have you been pacing for a long time?"

D. "I notice that you're pacing. How are you feeling?"

Correct Answer: D. "I notice that you're pacing. How are you feeling?"

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

- **Option A:** The nurse is offering an interpretation that may or may not be accurate; the nurse is also asking a question that may be answered by a "yes" or "no" response, which is not therapeutic. Therapeutic communication is often most effective when patients direct the flow of conversation and decide what to talk about. To that end, giving patients a broad opening such as "What's on your mind today?" or "What would you like to talk about?" can be a good way to allow patients an opportunity to discuss what's on their mind.
- **Option B:** The nurse is intervening before accurately assessing the problem. By using nonverbal and verbal cues such as nodding and saying "I see," nurses can encourage patients to continue talking. Active listening involves showing interest in what patients have to say, acknowledging that you're listening and understanding, and engaging with them throughout the conversation. Nurses can offer general leads such as "What happened next?" to guide the conversation or propel it forward.
- **Option C:** This statement encourages a "yes" or "no" response, avoids focusing on the client's anxiety, which is the reason for his pacing. Observations about the appearance, demeanor, or behavior of patients can help draw attention to areas that might pose a problem for them. Observing that they look tired may prompt patients to explain why they haven't been getting much sleep lately; making an observation that they haven't been eating much may lead to the discovery of a new symptom.

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

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

Correct Answer: B & F.

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

- **Option A:** Poston et al. define family as "people who think of themselves as part of the family, whether by blood or marriage or not, and who support and care for each other on a regular basis", and this definition is thought to acknowledge the diverse social arrangements that may constitute a

family.

- **Option B:** When providing care to a client, the nurse should consider family members to be all the people whom the client views as family. Rather than simply defining family by a dictionary definition, each individual should look to define a family by their own standards.
- **Option C:** The traditional definition of a family has changed and may include people who may not live in the same house as the client. Many people consider friends to be as close or even closer than extended (or immediate) family. People who have lost close family members or have become removed from them may create a family unit of friends with similar interests and goals to become replacements or enhancements to a lacking family structure.
- **Option D:** Family members are defined by the client, not by the nurse. Who comprises a family is up to the people in the family themselves. People may opt to keep blood relatives in their lives, or let them go if they are toxic to their well-being. Many folks add caring and supportive people to their extended clan when they choose, deciding who belongs in their specific definition of family.
- **Option E:** In addition to a universal family definition, plenty of people consider a group of friends to be family, and many consider pets as defining members of the family unit.
- **Option F:** Family members may also include those people who provide for the physical and emotional needs of the client. The traditional definition of a family has changed and may include people not related by blood or marriage, those of a different racial background, and those who may not live in the same house as the client.

21. A child is admitted to the pediatric unit with a diagnosis of suspected meningococcal meningitis. Which of the following nursing measures should the nurse do first?

- A. Assess vital signs
- B. Institute seizure precautions
- C. Assess neurologic status
- D. Place in respiratory isolation

Correct Answer: D. Place in respiratory isolation

The initial therapeutic management of acute bacterial meningitis includes isolation precautions, initiation of antimicrobial therapy, and maintenance of optimum hydration. Nurses should take necessary precautions to protect themselves and others from possible infection. The patient with suspected or confirmed N. meningitidis should follow droplet precaution. This should be continued until after 24 hours of effective antibiotics administration.

- **Option A:** Prompt recognition and immediate initiation of treatment are of utmost importance in the management of bacterial meningitis. Patients can present with abnormal vital signs, including fever, tachypnea, tachycardia, and hypotension. Hypotension with elevated pulse rate is suggestive of early vascular instability.
- **Option B:** Complications of meningococcal meningitis can arise early or late in the disease course and can adversely impact morbidity and mortality. Late complications of meningococcal meningitis include chronic pain, skin scarring, and neurologic impairment. Other common complications include hearing impairment, visual impairment, and seizures.
- **Option C:** Assessment should be performed after the patient is placed on respiratory isolation in order to avoid infecting other patients. Prompt antibiotic administration, especially within one hour,

has been proven to improve morbidity and mortality, as well as prevent complications such as increased intracranial pressure and septic shock.

22. An 89-year-old female patient who has been admitted to the medical unit with new-onset angina also has a diagnosis of Alzheimer's disease. The patient's husband reports to you that he rarely gets a good night's sleep because he needs to make sure his wife does not wander during the night. He insists on checking each of the medications you give her to be sure they are the same as the ones she takes at home. Based on this information, which nursing diagnosis is most appropriate for this patient?

- A. Decreased Cardiac Output related to poor myocardial contractility
- B. Caregiver Role Strain related to continuous need for providing care
- C. Ineffective Therapeutic Regimen Management related to poor patient memory
- D. Risk for Falls related to patient wandering behavior during the night

Correct Answer: B. Caregiver Role Strain related to continuous need for providing care

The husband's statement about lack of sleep and anxiety over whether the patient is receiving the correct medications are behaviors that support this diagnosis.

- **Option A:** There is no evidence that the patient's cardiac output is decreased. Alzheimer's disease and HF often occur together and thus increase the cost of care and health resource utilization; this highlights the need to investigate the relationship between these two conditions. Impaired cognition in HF patients leads to significantly more frequent hospital readmissions and increases mortality rates.
- **Option C:** Ineffective Therapeutic Regimen Management is not a priority as based on the statement.
- **Option D:** Risk for falls is not the priority at this time. Falls are a leading cause of broken hips and other serious injuries in the elderly, and those with Alzheimer's are at particularly high risk of falling. Problems with vision, perception, and balance increase as Alzheimer's advances, making the risk of a fall more likely.

23. A 58-year-old male patient with a 10-year history of rheumatoid arthritis (RA) is admitted to the rheumatology unit of a tertiary care hospital. He is currently experiencing an exacerbation of his symptoms, with notable severe joint pain in his hands, knees, and elbows. The patient has been on a regimen of nonsteroidal anti-inflammatory drugs (NSAIDs) for pain relief and is now being introduced to a new medication by his rheumatologist. Intrigued and somewhat overwhelmed, he inquires of the attending nurse, "Why do I need to take disease-modifying antirheumatic drugs (DMARDs) if I already take pain medications?" Which is the best response by the nurse?

- A. "Pain medications only provide temporary relief, but DMARDs can slow down the progression of rheumatoid arthritis."
- B. "DMARDs are more effective in managing joint pain compared to pain medications alone."

- C. "DMARDs are necessary to prevent the development of osteoporosis, which can worsen joint pain."
- D. "Taking DMARDs can help reduce the frequency and severity of flare-ups, leading to less joint pain overall."

Correct Answer: A. "Pain medications only provide temporary relief, but DMARDs can slow down the progression of rheumatoid arthritis."

This statement is correct. While NSAIDs and other pain medications target the symptoms (in this case, pain) of rheumatoid arthritis, DMARDs specifically target the underlying processes that drive the disease. By modifying the disease course, DMARDs have the potential to slow down or even halt the progression of RA, potentially preventing joint damage and disability.

- **Option B:** This is misleading. DMARDs are primarily used to slow or stop the disease progression, not specifically for pain management. While DMARDs might reduce symptoms as the disease is controlled, pain medications are specifically formulated to manage pain. Therefore, while DMARDs might have an indirect effect on pain by controlling disease activity, they are not primarily analgesics.
- **Option C:** While RA is a risk factor for osteoporosis, DMARDs are not primarily prescribed for osteoporosis prevention. There are other medications and strategies specifically for the prevention and treatment of osteoporosis in RA patients. This statement can be misleading in the context of the question.
- **Option D:** This statement is also correct. By controlling the underlying disease process, DMARDs can decrease the frequency and severity of RA flare-ups. As flare-ups are associated with increased symptoms, including pain, reducing these flare-ups indirectly leads to reduced pain. However, it should be noted that the primary purpose of DMARDs isn't pain management but disease control.

24. Which document addresses the client's right to information, informed consent, and treatment refusal?

- A. Standard of Nursing Practice
- B. Patient's Bill of Rights
- C. Nurse Practice Act
- D. 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.

26. A client with delusional thinking shows a lack of interest in eating at meal times. She states that she is unworthy of eating and that her children will die if she eats. Which nursing action would be most appropriate for this client?

- A. Telling the client that she may become sick and die unless she eats.
- B. Paying special attention to the client's rituals and emotions associated with meals.
- C. Restricting the client's access to food except at specified meal and snack times.
- D. Encouraging the client to express her feelings at meal times.

Correct Answer: C. Restricting the client's access to food except at specified meal and snack times

Restricting access to food except at specified times prevents the client from eating when she feels anxious, guilty, or depressed; this, in turn, decreases the association between these emotions and food. Be consistent in setting expectations, enforcing rules, and so forth. Clear, consistent limits provide a secure structure for the patient.

- **Option A:** Telling the client she may become sick or die may reinforce her behavior because illness or death may be her goal. Present reality concisely and briefly and do not challenge illogical thinking. Avoid vague or evasive remarks. Delusional patients are extremely sensitive about others and can recognize insincerity. Evasive comments or hesitation reinforces mistrust or delusions.
- **Option B:** Paying special attention to rituals and emotions associated with meals also would reinforce undesirable behavior. Reduce provocative stimuli, negative criticism, arguments, and confrontations. This is to avoid triggering fight/flight responses. Identify specific conflicts that remain unresolved, and assist the patient to identify possible solutions. Unless these underlying conflicts are resolved, any improvement in coping behaviors must be viewed as only temporary.
- **Option D:** Encouraging the client to express feelings at mealtimes would increase the association between emotions and food; instead, the nurse should encourage her to express feelings at other times. Encourage the patient to verbalize true feelings. Avoid becoming defensive when angry feelings are directed at him or her. Verbalization of feelings in a non-threatening environment may help the patient come to terms with long-unresolved issues.

27. Parents can facilitate the adjustment of their other children to a new baby by:

- A. Having the children choose or make a gift to give to the new baby upon its arrival home.
- B. Emphasizing activities that keep the new baby and other children together.
- C. Having the mother carry the new baby into the home so she can show the other children the new baby.
- D. Reducing stress on other children by limiting their involvement in the care of the new baby.

Correct Answer: A. Having the children choose or make a gift to give to the new baby upon its arrival home.

Regardless of the older child's age, make sure that he or she gets individual attention when the new baby arrives. If you're taking pictures or videos, include the older child. Take pictures or videos of him or her alone, too. Consider having a few small gifts on hand to give to your older child in case friends visit with gifts for the new baby.

- **Option B:** Special time should be set aside just for the other children without interruption from the newborn. Spend regular one-on-one time together. Try to give the toddler a bit of undivided attention, even if it's just 10 to 20 minutes a day. One way to accomplish this more easily is to wear the newborn in a sling, which gives the mother two free hands to play a game with the older child. And have the older child cuddle while you're nursing.
- **Option C:** Someone other than the mother should carry the baby into the home so she can give full attention to greeting her other children. Acknowledge the child's feelings. Know that the little one may express negative feelings or act out, and don't scold. Instead say, "Being a big sibling can be hard. Sometimes you will feel sad or mad or do things you don't mean to do and that's OK. We will always love you and want to help you feel better."
- **Option D:** Children should be actively involved in the care of the baby according to their ability without overwhelming them. Ask for help with baby-related tasks. Ask the child to put diapers on the shelf next to the changing table or fetch blankets or bottles for the baby. Once the mother feels he's ready, the older child can even help burp, bathe and dress the new baby. No doubt he will feel proud to be given some new responsibilities.

28. Immunization of children with *Haemophilus influenzae type B (Hib)* vaccine decreases the incidence of which of the following conditions?

- A. Bronchiolitis
- B. Laryngotracheobronchitis (LTB)
- C. Epiglottitis
- D. Pneumonia

Correct Answer: C. Epiglottitis

Epiglottitis is a bacterial infection of the epiglottis primarily caused by Hib. Administration of the vaccine has decreased the incidence of epiglottitis. By the early 1990s, the use of the Hib conjugate vaccine caused a 99% drop in infections caused by Hib. Widespread use of the Hib vaccine has also been shown to significantly decrease rates of epiglottitis, which usually occurs in children.

- **Option A:** Bronchiolitis is usually caused by Respiratory Syncytial Virus (RSV). RSV accounts for the majority of cases, although in about 30% of infants, there may be 2 viruses present at the same time. It is important to know that the respiratory syncytial virus is just one cause of bronchiolitis. The infection can occur in individuals of any age, but overall, the most severe symptoms tend to be common in infants.
- **Option B:** Acute LTB is of viral origin. Croup is most often a viral infection that affects the subglottic airway, commonly caused by the parainfluenza virus. Other viruses that are known to cause croup include the respiratory syncytial virus (RSV), rhinovirus, enterovirus, influenza, and adenovirus.
- **Option D:** The most common bacterial organisms causing pneumonia in children are pneumococci, streptococci, and staphylococci. The etiology of pneumonia in the pediatric

population can be classified by age-specific versus pathogen-specific organisms. Neonates are at risk for bacterial pathogens present in the birth canal, and this includes organisms such as group B streptococci, Klebsiella, Escherichia coli, and Listeria monocytogenes. Streptococcus pneumoniae, Streptococcus pyogenes, and Staphylococcus aureus can be identified in late-onset neonatal pneumonia.

29. The nurse is monitoring a client for the early signs of dumping syndrome. Which symptom indicates this occurrence?

- A. Abdominal cramping and pain
- B. Bradycardia and indigestion
- C. Sweating and pallor
- D. Double vision and chest pain

Correct Answer: C. Sweating and pallor

Early manifestations of dumping syndrome occur 5 to 30 minutes after eating. Symptoms include vertigo, tachycardia, syncope, sweating, pallor, palpitations, and the desire to lie down. In early dumping, the symptoms usually occur within 10 to 30 minutes after a meal. The rapid transit of hyperosmolar chyme from the stomach into the duodenum causes fluid to shift from the vasculature to the intestinal lumen, leading to increased volume in the small bowel.

- **Option A:** Late dumping, also known as postprandial hyperinsulinemic hypoglycemia, usually occurs 1 to 3 hours after a high-carbohydrate meal. There is an association with hypoglycemia, but the exact mechanism is unknown. It is proposed that the rapid absorption of carbohydrates exaggerates the glucose-mediated insulin response.
- **Option B:** There may be GI or vasomotor symptoms. GI symptoms include nausea, vomiting, diarrhea, or belching. Vasomotor symptoms include shock, syncope, near-syncope, palpitations, dizziness, desire to lie down, or diaphoresis.
- **Option D:** GI hormones such as enteroglucagon, pancreatic polypeptide, peptide YY, vasoactive intestinal polypeptide, glucagon-like peptide, and neurotensin have been evident with higher values after meals. Hormonal imbalances may cause delayed motility, decreased gastric and intestinal secretions, which delay the digestion and transit of food that arrives at the small bowel.

30. A client who is gravida 1, para 0 is admitted in labor. Her cervix is 100% effaced, and she is dilated to 3 cm. Her fetus is at +1 station. The nurse is aware that the fetus' head is:

- A. Not yet engaged
- B. Entering the pelvic inlet
- C. Below the ischial spines
- D. Visible at the vaginal opening

Correct Answer: C. Below the ischial spines

A station of +1 indicates that the fetal head is 1 cm below the ischial spines. Positive numbers are used when a baby has descended beyond the ischial spines. During birth, a baby is at the +4 to +5 station.

- **Option A:** During a vaginal exam, the doctor will feel for the baby's head. If the head is high and not yet engaged in the birth canal, it may float away from their fingers.
- **Option B:** When the baby's head is level with the ischial spines, the fetal station is zero. Once the baby's head fills the vaginal opening, just before birth, the fetal station is +5.
- **Option D:** Usually about two weeks before delivery, the baby will drop into the birth canal. This is called being "engaged." At this point, the baby is at station 0. This drop into the birth canal is called a lightening.

31. Dr. Hugo has prescribed sulfonylureas for Rebecca in the management of diabetes mellitus type 2. As a nurse, you know that the primary purpose of sulfonylureas, such as long-acting glyburide (Micronase), is to:

- A. Induce hypoglycemia by decreasing insulin sensitivity.
- B. Improve insulin sensitivity and decrease hyperglycemia.
- C. Stimulate the beta cells of the pancreas to secrete insulin.
- D. Decrease insulin sensitivity by enhancing glucose uptake.

Correct Answer: C. Stimulate the beta cells of the pancreas to secrete insulin.

Sulfonylureas such as glyburide are used only with patients who have some remaining pancreatic-beta cell function. These drugs stimulate insulin secretion, which reduces liver glucose output and increases cell uptake of glucose, enhancing the number of and sensitivity of cell receptor sites for interaction with insulin.

- **Option A:** Medications that reduce insulin resistance (insulin-sensitizing and antihyperglycemic effects) include metformin and thiazolidinediones. Metformin is a biguanide; it reduces hepatic glucose output and increases the uptake in the peripheral tissues (muscle and adipocytes).
- **Option B:** Thiazolidinediones (TZDs) are insulin sensitizers that act on intracellular metabolic pathways to enhance insulin action and increase insulin sensitivity in critical tissues. TZDs also increases adiponectin levels, decrease hepatic gluconeogenesis, and increase insulin-dependent glucose uptake in muscle and fat. Adiponectin, a cytokine secreted by fat tissue, increases insulin sensitivity, and fatty acid oxidation increases with TZD therapy.
- **Option D:** Metformin exerts its glucose-lowering effect by suppressing gluconeogenesis in the liver and facilitating glucose uptake and use by peripheral tissues. Decreased glucose uptake may result from suppressed insulin signaling or impaired glucose transporter (GLUT) 4 trafficking.

32. A client with schizophrenia is receiving antipsychotic medication. Which nursing diagnosis may be appropriate for this client?

- A. Ineffective protection related to blood dyscrasias
- B. Urinary frequency related to adverse effects of antipsychotic medication
- C. Risk for injury related to a severely decreased level of consciousness
- D. Risk for injury related to electrolyte disturbances

Correct Answer: A. Ineffective protection related to blood dyscrasias

Antipsychotic medications may cause neutropenia and granulocytopenia, life-threatening blood dyscrasias, that warrant a nursing diagnosis of Ineffective protection related to blood dyscrasias. These medications also have anticholinergic effects, such as urine retention, dry mouth, and constipation. Leukopenia, thrombocytopenia, and blood dyscrasia are rare side effects of treatment with FGAs.

- **Option B:** Urinary frequency isn't an approved nursing diagnosis. First-generation antipsychotics (FGAs) are associated with significant extrapyramidal side effects. Anticholinergic adverse effects like dry mouth, constipation, urinary retention are common with low potency dopamine receptor antagonists like chlorpromazine, thioridazine.
- **Option C:** Although antipsychotic medications may cause sedation, they don't severely decrease the level of consciousness. The action of H1 histamine blocking by First-generation antipsychotics causes sedation. Chlorpromazine is the most sedating, while fluphenazine, haloperidol, and pimozide are less sedating. First-generation antipsychotics can also lower the seizure threshold, and chlorpromazine and thioridazine are more epileptogenic than others.
- **Option D:** These drugs don't cause electrolyte disturbances. Neuroleptic malignant syndrome is a rare but fatal adverse effect that can occur at any time during treatment with FGAs. The onset of symptoms is over 24 to 72 hours with increased temperature, severe muscular rigidity, confusion, agitation, elevation in white blood cell count, elevated creatinine phosphokinase concentrations, elevated liver enzymes, myoglobinuria, and acute renal failure.

33. While making a visit to the home of a postpartum woman 1 week after birth, the nurse should recognize that the woman would characteristically:

- A. Express a strong need to review the events and her behavior during the process of labor and birth.
- B. Exhibit a reduced attention span, limiting readiness to learn.
- C. Vacillate between the desire to have her own nurturing needs met and the need to take charge of her own care and that of her newborn.
- D. Have reestablished her role as a spouse or partner.

Correct Answer: C. Vacillate between the desire to have her own nurturing needs met and the need to take charge of her own care and that of her newborn.

One week after birth the woman should exhibit behaviors characteristic of the dependent-independent or taking-hold stage. She still has needs for nurturing and acceptance by others.

- **Option A:** Wanting to discuss the events of her labor and delivery are characteristics of the taking-in stage; this stage lasts from the first 24 hours until 2 days after delivery.
- **Option B:** A reduced attention span and limiting readiness to learn is also characteristic of the taking-in stage. This dependence is mainly due to her physical discomfort from hemorrhoids or the after pains, from the uncertainty of how she could care for the newborn, and also from the extreme tiredness she feels that follows childbirth.
- **Option D:** Having reestablished her role as a spouse reflects the letting-go stage, which indicates that psychosocial recovery is complete.

34. During a nursing clinical rotation in a cardiac care unit, a student encounters a 68-year-old patient with a history of atrial fibrillation experiencing exacerbation of cardiac arrhythmias post an elective cholecystectomy. During a bedside teaching session, the nurse instructor highlights the intricate

neurocardiac interactions and underscores the importance of understanding the cranial nerves involved in regulating cardiac function. The instructor then challenges the student to identify the cranial nerves that are classified as mixed nerves and provide parasympathetic innervation to the viscera of the thorax and abdomen, including the heart, in the context of potential modulation of cardiac arrhythmias. Which among the following cranial nerves should the student recognize as being primarily responsible for such parasympathetic innervation?

- A. Vagus nerves
- B. Trigeminal nerves
- C. Accessory nerves
- D. Abducens nerves

Correct Answer: A. Vagus nerves

The vagus nerves (cranial nerve X) are mixed nerves that provide the predominant parasympathetic innervation to the viscera of the thorax and abdomen, including the heart. Parasympathetic activation via the vagus nerves can modulate cardiac function by decreasing heart rate and reducing the force of myocardial contractions, which can be pertinent in the management of certain cardiac arrhythmias.

- **Option B:** The trigeminal nerves (cranial nerve V) are primarily associated with sensory innervation to the face and motor innervation to the muscles of mastication. They do not provide parasympathetic innervation to the viscera of the thorax and abdomen and are not directly involved in cardiac regulation.
- **Option C:** The accessory nerves (cranial nerve XI) are primarily motor nerves that innervate the sternocleidomastoid and trapezius muscles. They do not have a role in parasympathetic innervation to the viscera of the thorax and abdomen, nor in cardiac regulation.
- **Option D:** The abducens nerves (cranial nerve VI) are motor nerves responsible for the lateral movement of the eyeball via innervation of the lateral rectus muscle. They do not have a role in parasympathetic innervation to the viscera of the thorax and abdomen, nor in cardiac regulation.

35. Mr. Miyazaki, who is diagnosed with bipolar disorder has been drinking copious amounts of water and voiding frequently. The patient is experiencing muscle cramps, twitching, and is reporting dizziness. the nurse checks lab work for:

- A. Complete blood count results, particularly the platelets.
- B. Electrolytes, particularly the serum sodium.
- C. Urine analysis, particularly for the presence of white blood cells.
- D. EEG results

Correct Answer: B. Electrolytes, particularly the serum sodium.

The patient is exhibiting behavior that could lead to a sodium and water imbalance and is exhibiting signs of hyponatremia. The nurse would check the electrolytes with attention to the sodium level. Monitor serum and urine electrolytes and osmolality. Evaluates therapy needs and effectiveness.

- **Option A:** The monitoring of platelet quantity and function is frequently useful in evaluating the bleeding risk in hospitalized patients. In healthy patients, platelets are incredibly numerous, with a range of 150 to 350 x10/L. A drop in this number can indicate the consumption of platelets by a condition such as disseminated intravascular coagulation, or autoimmune destruction of platelets, as in immune thrombocytopenia.
- **Option C:** When this test is positive and/or the WBC count in urine is high, it may indicate that there is inflammation in the urinary tract or kidneys. The most common cause for WBCs in urine (leukocyturia) is a bacterial urinary tract infection (UTI), such as a bladder or kidney infection.
- **Option D:** An electroencephalogram (EEG) is an essential tool that studies the brain's electrical activity. Despite the development of more advanced imaging techniques, EEG remains the essential paraclinical tool for seizure evaluation. It is primarily used to assess seizures and conditions that may mimic seizures.

36. Which of the following symptoms might a client with right-sided heart failure exhibit?

- A. Adequate urine output
- B. Polyuria
- C. Oliguria
- D. Polydipsia

Correct Answer: C. Oliguria

Inadequate deactivation of aldosterone by the liver after right-sided heart failure leads to fluid retention, which causes oliguria. Oliguria is a late finding in heart failure, and it is found in patients with markedly reduced cardiac output from severely reduced LV function. Nocturia may occur relatively early in the course of heart failure. Recumbency reduces the deficit in cardiac output in relation to oxygen demand, renal vasoconstriction diminishes, and urine formation increases.

- **Option A:** When the body thinks it needs more fluid in its blood vessels, it releases specific chemicals (renin, angiotensin, and aldosterone) that cause the blood vessels to constrict. In addition, these hormones cause the body to retain more sodium and water. This adds fluid to the circulatory system. This fluid becomes part of the blood circulating throughout the system.
- **Option B:** With heart failure, the heart doesn't pump as well as it should. So the body doesn't get enough blood and oxygen. When this occurs, the body believes that there isn't enough fluid inside its vessels. The body's hormone and nervous systems try to make up for this by increasing blood pressure, holding on to salt (sodium) and water in the body, and increasing heart rate. These responses are the body's attempt to compensate for the poor blood circulation and backup of blood.
- **Option D:** Primary polydipsia (PP) is a condition where there is excess consumption of fluids leading to polyuria with diluted urine and, ultimately, hyponatremia. Polyuria can be defined as urine production greater than 40-50 ml/kg in a twenty-four-hour period.

37. Rocky has started taking haloperidol (Haldol). Which of the following instructions is most appropriate for Ricky before taking haloperidol?

- A. Should report feelings of restlessness or agitation at once.

- B. Use sunscreen outdoors on a year-round basis.
- C. Be aware you'll feel increased energy taking this drug.
- D. Avoid eating sugar-free sweets.

Correct Answer: A. Should report feelings of restlessness or agitation at once

Haloperidol is a first-generation (typical) antipsychotic medication that is used widely around the world. Food and Drug Administration (FDA) approved the use of haloperidol is for schizophrenia, Tourette syndrome (control of tics and vocal utterances in adults and children), hyperactivity (which may present as impulsivity, difficulty maintaining attention, severe aggressivity, mood instability, and frustration intolerance), severe childhood behavioral problems (such as combative, explosive hyperexcitability), intractable hiccups. It is a typical antipsychotic because it works on positive symptoms of schizophrenia, such as hallucinations and delusions.

- **Option A:** Agitation and restlessness are adverse effects of haloperidol and can be treated with anticholinergic drugs. Due to the blockade of the dopamine pathway in the brain, typical antipsychotic medications such as haloperidol have correlations with extrapyramidal side effects.
- **Option B:** Haloperidol isn't likely to cause photosensitivity or control essential hypertension. Due to potential side effects development, patients receiving haloperidol require monitoring, especially when receiving the intramuscular form. It can be easily monitored by taking blood levels. It has a therapeutic range of 2 to 15 ng/ml in serum. Blood levels should be monitored at 12-hour or 24-hour intervals or after the last dose of haloperidol use in a patient.
- **Option C:** Although the client may experience increased concentration and activity, these effects are due to a decrease in symptoms, not the drug itself. Haloperidol is a first-generation (typical antipsychotic) which exerts its antipsychotic action by blocking dopamine D2 receptors in the brain. When 72% of dopamine receptors are blocked, this drug achieves its maximal effect. Haloperidol is not selective for the D2 receptor. It also has noradrenergic, cholinergic, and histaminergic blocking action. The blocking of these receptors is associated with various side effects.
Option D: Haloperidol may produce anticholinergic side effects such as dry mouth, hence the health care provider will teach the client interventions to relieve symptoms such as chewing a sugarless hard candy or gum.

38. Which of the following symptoms is expected with hemoglobin of 10 g/dl?

- A. None
- B. Pallor
- C. Palpitations
- D. Shortness of breath

Correct Answer: A. None

Mild anemia usually has no clinical signs. Palpitations, SOB, and pallor are all associated with severe anemia. Whether or not a patient becomes symptomatic depends on the etiology of anemia, the acuity of onset, and the presence of other comorbidities, especially the presence of cardiovascular disease. Most patients experience some symptoms related to anemia when the hemoglobin drops below 7.0 g/dL.

- **Option B:** Pallor is the most commonly encountered physical finding in patients with anemia. As mentioned earlier, this sign is due to the shunting of blood away from the skin and other peripheral tissues, permitting enhanced blood flow to vital organs.

- **Option C:** Hemoglobin is the protein in red blood cells that helps transport oxygen around the body. In iron deficiency, low levels of hemoglobin mean the heart has to work extra hard to carry oxygen. This may lead to irregular heartbeats or the feeling that the heart is beating abnormally fast.
- **Option D:** Hemoglobin is an iron-rich protein that helps red blood cells carry oxygen from the lungs to the rest of the body. If the client has anemia, the body does not get enough oxygen-rich blood. This can cause him to feel tired or weak. He may also have shortness of breath, dizziness, headaches, or an irregular heartbeat.

39. A male client comes to the emergency department complaining of sudden onset of sharp, severe pain in the lumbar region, which radiates around the side and toward the bladder. The client also reports nausea and vomiting and appears pale, diaphoretic, and anxious. The physician tentatively diagnosed renal calculi and ordered flat-plate abdominal X-rays. Renal calculi can form anywhere in the urinary tract. What is their most common formation site?

- A. Kidney
- B. Ureter
- C. Bladder
- D. Urethra

Correct Answer: A. Kidney

The most common site of renal calculi formation is the kidney. Calculi may travel down the urinary tract with or without causing damage and may lodge anywhere along the tract or may stay within the kidney. Renal calculi are a common cause of blood in the urine (hematuria) and pain in the abdomen, flank, or groin. They occur in one in 11 people at some time in their lifetimes with men affected 2 to 1 over women.

- **Option B:** Development of the stones is related to decreased urine volume or increased excretion of stone-forming components such as calcium, oxalate, uric acid, cystine, xanthine, and phosphate. Calculi may also be caused by low urinary citrate levels or excessive urinary acidity.
- **Option C:** Urolithiasis occurs when solutes crystallize out of urine to form stones. Urolithiasis may occur due to anatomic features leading to urinary stasis, low urine volume, dietary factors (e.g., high oxalate or high sodium), urinary tract infections, systemic acidosis, medications, or uncommonly genetic factors such as cystinuria.
- **Option D:** The most common cause of stone disease is inadequate hydration and subsequent low urine volume. The other four most common factors contributing to urinary stone formation are hypercalciuria, hyperoxaluria, hyperuricosuria, and hypocitraturia. The ureter, bladder, and urethra are less common sites of renal calculi formation.

40. In which of the following conditions can the causative agent pass through the placenta and affect the fetus in utero?

- A. Gonorrhea
- B. Rubella
- C. Candidiasis

D. Moniliasis

Correct Answer: B. Rubella

Rubella is caused by a virus and viruses have low molecular weight thus can pass through the placental barrier. Relatively few pathogens are capable of placental and fetal infections in humans and even for these, maternal infection does not guarantee placental or fetal infection.

- **Option A:** Other STIs, like gonorrhea, chlamydia, hepatitis B, and genital herpes, can pass from the mother to the baby as the baby passes through the birth canal. This infection in an infant can cause eye infections, pneumonia, or infections of the joints or blood. Treating gonorrhea as soon as it is detected in pregnant women will reduce the risk of transmission.
- **Option C:** Candida infection of the fetus results in prematurity and death, infection can occur across intact membranes, and systemic candidiasis in the fetus is likely to be associated with an intrauterine device. The pathology of the placenta includes microscopic granulomata and presence of filaments or spores on the cord and histological change of the membrane or chorionic plate revealing intense chorioamnionitis with occasional focal granuloma.
- **Option D:** Bacterial or viral infection of the mother during the course of pregnancy can cross the placenta and actively infect the fetus. However, especially for bacteria, it is more common for mothers to experience an infection that can be treated without overt fetal infection.

41. John Joseph was scheduled for a physical assessment. When percussing the client's chest, the nurse would expect to find which assessment data as a normal sign over his lungs?

- A. Dullness
- B. Resonance
- C. Hyperresonance
- D. Tympany

Correct Answer: B. Resonance

Normally, when percussing a client's chest, percussion over the lungs reveals resonance, a hollow or loud, low-pitched sound of long duration. Since lungs are mostly filled with air that we breathe in, percussion performed over most of the lung area produces a resonant sound, which is a low-pitched, hollow sound. Therefore, any dullness or hyper-resonance is indicative of lung pathology, such as pleural effusion or pneumothorax, respectively.

- **Option A:** Dullness is typically heard on percussion of solid organs, such as the liver or areas of consolidation. Dullness to percussion indicates denser tissue, such as zones of effusion or consolidation. Once an abnormality is detected, percussion can be used around the area of interest to define the extent of the abnormality. Normal areas of dullness are those overlying the liver and spleen at the anterior bases of the lungs.
- **Option C:** Hyperresonance would be evidenced by percussion over areas of overinflation such as an emphysematous lung. Hyperresonant sounds may also be heard when percussing lungs hyperinflated with air, such as may occur in patients with COPD, or patients having an acute asthmatic attack. An area of hyper resonance on one side of the chest may indicate a pneumothorax.
- **Option D:** Tympany is typically heard on percussion over such areas as a gastric air bubble or the intestine. Tympanic sounds are hollow, high, drumlike sounds. Tympany is normally heard over the

stomach but is not a normal chest sound. Tympanic sounds heard over the chest indicate excessive air in the chest, such as may occur with pneumothorax.

42. The right forearm of a client who had a purified protein derivative (PPD) test for tuberculosis is reddened and raised about 3mm where the test was given. This PPD would be read as having which of the following results?

- A. Indeterminate
- B. Needs to be redone
- C. Negative
- D. Positive

Correct Answer: C. Negative

This test would be classed as negative. A 5 mm raised area would be a positive result if a client was HIV+ or had recent close contact with someone diagnosed with TB. If the patient is at a high risk of developing an active infection, a repeat test is recommended after an initial negative test to rule out the possibility of missing a case. However, a decision is made based on the risk factors.

- **Option A:** Indeterminate isn't a term used to describe results of a PPD test. It is a time-sensitive test. Tests that are read late are not accurate as they tend to under-estimate the size of the skin reaction. Therefore, the reliability of the test is compromised, and the results are doubtful.
- **Option B:** To avoid this, repeat testing is recommended if the reaction is not read on time. The second test can be administered as soon as possible. However, if repeated, the test should preferably be performed within 7 days of the initial test to avoid boosting effect.
- **Option D:** If the PPD is reddened and raised 10mm or more, it's considered positive according to the CDC. If the infection risk is very high, the PPD test need not be repeated. The positive PPD test is usually followed by TB symptom assessment, physical exam, and chest radiograph.

43. Alkalosis is characterized by overexcitement of the nervous system.

- A. True
- B. False
- C. The major effect of Alkalosis is a depression of the central nervous system.
- D. Both Acidosis and Alkalosis result in overexcitement of the central nervous system.

Correct Answer: A. True

The muscles may go into a state of tetany and convulsions.

44. During a community health outreach program, a group of pediatricians and nurses organize a session on infant health and immunity for new parents. During the session, a nurse educator discusses the significance of breastfeeding in transferring immunity from mother to child. A concerned mother, whose infant has recurrent upper respiratory infections, inquires about the specific antibody present in various bodily secretions like saliva, tears, and

colostrum which offers localized immunity to her child. She is particularly interested in understanding how breastfeeding might bolster her child's immune defense against such infections. Given this scenario, which antibody is notably abundant in saliva, tears, and colostrum, offering localized immune defense against infections?

- A. IgA
- B. IgE
- C. IgG
- D. IgM

Correct Answer: A. IgA

Immunoglobulin A (IgA) is predominantly found in mucous membranes lining the gut and respiratory tracts, saliva, tears, and colostrum. It plays a critical role in mucosal immunity by preventing the attachment of bacteria and viruses to mucous membranes, and is particularly vital in providing passive immunity to infants through breastfeeding.

- **Option B:** Immunoglobulin E (IgE) is associated primarily with allergic reactions and parasitic infections. It does not play a primary role in mucosal immunity nor is it significantly present in bodily secretions like saliva, tears, and colostrum.
- **Option C:** Although Immunoglobulin G (IgG) is the most abundant antibody isotype in the blood and provides the majority of antibody-based immunity against invading pathogens, it is not the primary immunoglobulin found in bodily secretions like saliva, tears, and colostrum which provide localized mucosal immunity.
- **Option D:** Immunoglobulin M (IgM) is the first antibody produced in response to an initial exposure to an antigen. It is primarily found in the blood and lymph fluid, playing a crucial role in the early stages of immunity.

45. Which outcome is most appropriate for Francis who has a dissociative disorder?

- A. Francis will deal with uncomfortable emotions on a conscious level.
- B. Francis will modify stress with the use of relaxation techniques.
- C. Francis will identify his anxiety responses.
- D. Francis will use problem-solving strategies when feeling stressed.

Correct Answer: A. Francis will deal with uncomfortable emotions on a conscious level.

Dissociative disorders occur when traumatic events are beyond an individual's recall because these memories have been "blocked" from conscious awareness. Bringing the feelings associated with these events into conscious awareness and coping with these feelings will decrease the need for dissociation. Explore client's feelings. Explore feelings that client experienced in response to the stressor; help client understand that the disequilibrium felt is acceptable-indeed, even expected-in times of severe stress.

- **Option B:** Assess for stressors. Identify stressor that precipitated severe anxiety; this information is necessary to the development of an effective plan of client care and problem resolution. Encourage methods for coping. Have the client identify methods of coping with stress in the past and

determine whether the response was adaptive or maladaptive.

- **Option C:** Identify behavioral limits and behaviors that are expected. Client needs a clear structure. Expect frequent testing of limits initially. Maintaining limits can enhance feelings of safety in the client. Identify what the client sees as the behaviors and circumstances that lead to the hospitalization. Ascertain client's understanding of behaviors and responsibility for own actions.
- **Option D:** Ascertain from family/friends how the person interacts with significant people. Is the client always withdrawn, distrustful, hostile, and have continuous physical complaints? Identifying baseline behaviors helps with setting goals. When the client is ready and interested, teach client coping skills to help defuse tension and trouble feelings (e.g., anxiety reduction, assertiveness skills). Increasing skills helps the client use healthier ways to defuse tensions and get needs met.

46. Megestrol acetate (Megace) is prescribed for a client with advanced breast cancer. The nurse reviews the client's history and contacts the physician if which of the following is documented in the client's history?

- A. Bronchial asthma
- B. Gouty arthritis
- C. Pulmonary embolism
- D. Ischemic heart disease

Correct Answer: C. Pulmonary embolism

Megestrol acetate (Megace) is an antineoplastic agent that treats breast and endometrial cancer. This medication is contraindicated for patients with a history of thrombophlebitis and pulmonary embolism.

- **Options A, B, & D:** These are not contraindicated with this medication.

47. Among the following components thorough pain assessment, which is the most significant?

- A. Effect
- B. Cause
- C. Causing factors
- D. Intensity

Correct Answer: D. Intensity

Intensity is the major indicative of severity of pain and it is important for the evaluation of the treatment. Severity of pain may include the intensity graded by the patient or the impact pain has on function. Intensity may be assessed with certain scales that will be reviewed below. The impact on function may include changes with activities of daily living, activity level, and work-related duties. Pain may have an impact on sleep, mood, appetite, or social relationships.

- **Option A:** The effect of pain is an important factor during assessment, especially on the activities of daily living, but it is not the most significant. Factors that relieve pain should be assessed not only to aid in diagnosis, but also with determining what has been attempted and what helps or does not help with their pain. Determining how the patient alleviates pain may also assess for healthy coping behaviors.

- **Option B:** Various stimuli may exacerbate pain, and determining these factors can aid in establishing the pathophysiologic mechanisms of pain. The history of pain or “pain history” is the physician’s initial tool to assess a patient in pain. A detailed history and physical examination is essential, not only to narrow the diagnoses but also to guide further diagnostic studies, if appropriate.
- **Option C:** Causing factors are not a part of the components in assessing pain. Different disease processes may present with similar pain characteristics. Vascular and neurogenic claudication symptoms are a classic example. However, patients with similar pathology may describe different types of pain or may have no pain at all (eg, spinal cord lesions, diabetic neuropathy).

48. Nurse Helen is assigned to care for a client with anorexia nervosa. Initially, which nursing intervention is most appropriate for this client?

- A. Providing one-on-one supervision during meals and for one (1) hour afterward.
- B. Letting the client eat with other clients to create a normal mealtime atmosphere.
- C. Trying to persuade the client to eat and thus restore nutritional balance.
- D. Giving the client as much time to eat as desired.

Correct Answer: A. Providing one-on-one supervision during meals and for one (1) hour afterward.

Because the client with anorexia nervosa may discard food or induce vomiting in the bathroom, the nurse should provide one-on-one supervision during meals and for 1 hour afterward. Provide one-to-one supervision and have a patient with bulimia remain in the day room area with no bathroom privileges for a specified period (1 hr) following eating, if contracting is unsuccessful. Prevents vomiting during and after eating. The patient may desire food and use a binge-purge syndrome to maintain weight. Note: The patient may purge for the first time in response to the establishment of a weight gain program.

- **Option B:** This wouldn’t be therapeutic because other clients may urge the client to eat and give attention for not eating. Supervise the patient during mealtimes and for a specified period after meals (usually one hour). It prevents vomiting during or after eating.
- **Option C:** This would reinforce control issues, which are central to this client’s underlying psychological problem. Establish a minimum weight goal and daily nutritional requirements. Malnutrition is a mood-altering condition, leading to depression and agitation and affecting cognitive function and decision making. Improved nutritional status enhances thinking ability, allowing initiation of psychological work.
- **Option D:** Instead of giving the client unlimited time to eat, the nurse should set limits and let the client know what is expected. Make a selective menu available, and allow the patient to control choices as much as possible. Patient who gains confidence in himself and feels in control of the environment is more likely to eat preferred foods. Be alert to choices of low-calorie foods and beverages; hoarding food; disposing of food in various places, such as pockets or wastebaskets. Patients will try to avoid taking in what is viewed as excessive calories and may go to great lengths to avoid eating.

49. The nurse is assigned to care for a female client with herpes zoster (Shingles). Which of the following characteristics would the nurse expect to note when assessing the lesions of this infection?

- A. Clustered skin vesicles
- B. A generalized body rash
- C. Small blue-white spots with a red base
- D. Cutaneous lesions on the hands, feet, and buttocks

Correct Answer: A. Clustered skin vesicles

The primary lesion of herpes zoster is a vesicle. The classic presentation is grouped vesicles on an erythematous base along a dermatome. Because the lesions follow nerve pathways, they do not cross the midline of the body.

- **Option B:** Generalized rashes are normally the result of skin inflammation that is observed in eczema and atopic dermatitis.
- **Option C:** Small blue-white spot with a red base is a characteristic of a Koplik spot that is seen in measles.
- **Option D:** Cutaneous lesions on the hands, feet, and buttocks are signs of Hand-foot-and-mouth disease (HFMD).

50. A female client comes into the emergency room complaining of SOB and pain in the lung area. She states that she started taking birth control pills 3 weeks ago and that she smokes. Her VS are: 140/80, P 110, R 40. The physician orders ABG's, results are as follows: pH: 7.50; PaCO₂ 29 mm Hg; PaO₂ 60 mm Hg; HCO₃⁻ 24 mEq/L; SaO₂ 86%. Considering these results, the first intervention is to:

- A. Begin mechanical ventilation.
- B. Place the client on oxygen.
- C. Give the client sodium bicarbonate.
- D. Monitor for pulmonary embolism.

Correct Answer: B. Place the client on oxygen

The pH (7.50) reflects alkalosis, and the low PaCO₂ indicates the lungs are involved. The client should immediately be placed on oxygen via mask so that the SaO₂ is brought up to 95%. Encourage slow, regular breathing to decrease the amount of CO₂ she is losing.

- **Option A:** Mechanical ventilation may be ordered for acute respiratory acidosis. In patients who are not significantly encephalopathic and have no excessive secretions, noninvasive ventilation with CPAP or BIPAP can be a useful modality to support ventilation and avoid the need for anesthesia and sedation, as well as the risk of nosocomial infection with endotracheal intubation.
- **Option C:** Sodium bicarbonate would be given to reverse acidosis. Sodium bicarbonate infusion reduces plasma ionized calcium concentration in critically ill patients with metabolic acidosis. In vitro, bicarbonate concentration has a major effect reducing ionized calcium level in serum
- **Option D:** This client may have pulmonary embolism, so she should be monitored for this condition, but it is not the first intervention. A timely diagnosis of a pulmonary embolism (PE) is crucial because of the high associated mortality and morbidity, which may be prevented with early treatment. It is important to note that 30% of untreated patients with pulmonary embolism die, while only 8% die after timely therapy.

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

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

Correct Answer: B. Routine Activities

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

- **Option A:** Involve the client in gross motor activities that call for very little concentration (e.g., walking). Such activities will aid in relieving tensions and might help in elevating the mood. When the client is in the most depressed state, involve the client in a one-to-one activity. Maximizes the potential for interactions while minimizing anxiety levels.
- **Option C:** Eventually involve the client in group activities (e.g., group discussions, art therapy, dance therapy). Socialization minimizes feelings of isolation. Genuine regard for others can increase feelings of self-worth. Eventually maximize the client’s contacts with others (first one other, then two others, etc.). Contact with others distracts the client from self-preoccupation.
- **Option D:** Allow the patient to engage in simple recreational activities, advancing to more complex activities in a group environment. The patient may feel overwhelmed at the start when participating in a group setting. Give positive feedback after a task is achieved. Positive reinforcement has a big part in building self-esteem.

52. What supplemental medication is most frequently ordered in conjunction with furosemide (Lasix)?

- A. Chloride
- B. Digoxin
- C. Potassium
- D. Sodium

Correct Answer: C. Potassium

Supplemental potassium is given with furosemide because of the potassium loss that occurs as a result of this diuretic. Loop diuretics act at the ascending loop of Henle in the kidney and help the body push out extra fluid that could accumulate in the lungs or legs and ankles when the heart is unable to completely pump blood throughout the body. But they may also cause the body to eliminate excessive amounts of potassium, which might be expected to increase mortality from heart arrhythmias. As a precaution, therefore, many doctors prescribe potassium supplements to their patients receiving loop diuretics.

- **Option A:** Chloride isn’t lost during diuresis. Continued use of diuretics, will cause some overall sodium and chloride loss. The body, however, has a natural way of compensating for these losses

by reducing the excretion of sodium and chloride and stabilizing the amount of sodium, chloride, and water in the body. In this manner, fluid depletion usually is prevented.

- **Option B:** Digoxin acts to increase contractility but isn't given routinely with furosemide. People with heart failure who take digoxin are commonly given medicines called diuretics. These drugs remove excess fluid from the body. Many diuretics can cause potassium loss. A low level of potassium in the body can increase the risk of digitalis toxicity.
- **Option D:** Sodium is not lost during diuresis. Diuretic drugs increase urine output by the kidney (i.e., promote diuresis). This is accomplished by altering how the kidney handles sodium. If the kidney excretes more sodium, then water excretion will also increase.

53. A male client with a peptic ulcer is scheduled for a vagotomy and the client asks the nurse about the purpose of this procedure. Which response by the nurse best describes the purpose of a vagotomy?

- A. Halts stress reactions
- B. Heals the gastric mucosa
- C. Reduces the stimulus to acid secretions
- D. Decreases food absorption in the stomach

Correct Answer: C. Reduces the stimulus to acid secretions.

A vagotomy, or cutting of the vagus nerve, is done to eliminate parasympathetic stimulation of gastric secretion. A vagotomy is a type of surgery that removes all or part of the vagus nerve. This nerve runs from the bottom of the brain, through the neck, and along the esophagus, stomach, and intestines in the gastrointestinal (GI) tract.

- **Option A:** Vagotomy was once commonly performed to treat and prevent PUD; however, with the availability of excellent acid secretion control with H₂-receptor antagonists, proton pump inhibitors, and anti-Helicobacter pylori medications, the need for surgical management of this condition has greatly decreased.
- **Option B:** The relevant physiology revolves around the mechanisms relating to stomach acid secretion. Intraluminal gastric acid is released by the parietal cells, mainly located in the body of the stomach. Parietal cells are stimulated via 3 mechanisms: gastrin, acetylcholine, and histamine. All 3 mechanisms activate the hydrogen-potassium ATPase-releasing hydrogen ion into the stomach lumen.
- **Option D:** The indications for vagotomy are few with the advancements of medical therapy. Generally, acid-reducing operations are reserved for complicated ulcer disease in a stable patient who has failed maximum medical therapy. The type of surgery performed depends on the type of ulcer (duodenal versus gastric), the complication of PUD (bleeding, perforation, obstruction, intractability), and the location of the ulcer (types I to V gastric ulcers as described by the Modified Johnson Classification system).

55. After the expulsion of the placenta in a client who has six living children, an infusion of lactated ringer's solution with 10 units of Pitocin is ordered. The nurse understands that this is indicated for this client because:

- A. She had a precipitate birth

- B. This was an extramural birth
- C. Retained placental fragments must be expelled
- D. Multigravidae are at increased risk for uterine atony

Correct Answer: D. Multigravidas are at increased risk for uterine atony.

Multiple full-term pregnancies and deliveries result in overstretched uterine muscles that do not contract efficiently and bleeding may ensue. Risk factors for uterine atony include prolonged labor, precipitous labor, uterine distension (multifetal gestation, polyhydramnios, fetal macrosomia), fibroid uterus, chorioamnionitis, indicated magnesium sulfate infusions, and prolonged use of oxytocin.

- **Option A:** The woman did not have precipitate labor. Contraction of the myometrium that mechanically compresses the blood vessels supplying the placental bed provides the principal mechanism uterine hemostasis after delivery of the fetus, and the placenta is concluded. The process is complemented by local decidual hemostatic factors such as tissue factor type-1 plasminogen activator inhibitors as well as by systemic coagulation factors such as platelets, circulating clotting factors.
- **Option B:** In obstetrical, midwifery, and public health scholarship, “extramural” can describe any birth outside a childbirth facility. More often, it means a birth both outside and intended, sanctioned location and without the supervision of a skilled birth attendant. It is not indicated in the situation that the woman gave birth outside a healthcare facility.
- **Option C:** An expeditious exclusion of retained gestational products or obstetric lacerations quickly excludes additional co-concomitant etiologies. Uterine atony refers to the corpus uteri myometrial cells inadequate contraction in response to endogenous oxytocin that is released in the course of delivery. It leads to postpartum hemorrhage as delivery of the placenta leaves disrupted spiral arteries which are uniquely void of musculature and dependent on contractions to mechanically squeeze them into a hemostatic state. Uterine atony is a principal cause of postpartum hemorrhage, an obstetric emergency. Globally, this is one of the top 5 causes of maternal mortality.

56. To assess the kidney function of a patient with an indwelling urinary (Foley) catheter, the nurse measures his hourly urine output. She should notify the physician if the urine output is:

- A. Less than 30 ml/hour
- B. 64 ml in 2 hours
- C. 90 ml in 3 hours
- D. 125 ml in 4 hours

Correct Answer: A. Less than 30 ml/hour

A urine output of less than 30ml/hour indicates hypovolemia or oliguria, which is related to kidney function and inadequate fluid intake. Urine output is a noninvasive method to measure fluid balance once intravascular volume has been restored. Normal urine output is defined as 1.5 to 2 mL/kg per hour

- **Option B:** Micturition process entails contraction of the detrusor muscle and relaxation of the internal and external urethral sphincter. The process is slightly different based on age. Children younger than three years old have the micturition process coordinated by the spinal reflex.
- **Option C:** It starts with urine accumulation in the bladder that stretches the detrusor muscle causing activation of stretch receptors. The stretch sensation is carried by the visceral afferent to the sacral region of the spinal cord where it synapses with the interneuron that excites the

parasympathetic neurons and inhibits the sympathetic neurons. The visceral afferent impulse concurrently decreases the firing of the somatic efferent that normally keeps the external urethral sphincter closed allowing reflexive urine output.

- **Option D:** Low bladder volume activates the pontine storage center which activates the sympathetic nervous system and inhibits the parasympathetic nervous system cumulatively allowing the accumulation of urine in the bladder. High bladder volume activates the pontine micturition center which activates the parasympathetic nervous system and inhibits the sympathetic nervous system as well as triggers awareness of a full bladder; consequently leading to relaxation of the internal sphincter and a choice to relax the external urethral sphincter once ready to void.

57. Which of the following factors causes the nausea associated with renal failure?

- A. Oliguria
- B. Gastric ulcers
- C. Electrolyte imbalances
- D. Accumulation of waste products

Correct Answer: D. Accumulation of waste products

Although clients with renal failure can develop stress ulcers, the nausea is usually related to the poisons of metabolic wastes that accumulate when the kidneys are unable to eliminate them. Nausea and vomiting are very common in kidney patients and have many causes. These causes include the build-up of uremic toxins, medications, gastroparesis, ulcers, gastroesophageal reflux disease, gallbladder disease, and many many more.

- **Option A:** The client has oliguria, but this doesn't directly cause nausea. In patients with acute oliguria, one of the most common functional derangements that are observed is the sudden fall in the GRF, leading to acute renal failure. It results in rapid increment in plasma urea and creatinine levels, metabolic acidosis with hyperkalemia, other electrolyte abnormalities, and volume overload.
- **Option B:** The occurrence and pathophysiology of peptic ulcer was studied in 117 uraemic patients. Ulcer disease was unusually frequent, and the highest incidence was found in patients on regular dialysis (48%). Factors implicated were hyperacidity, hypergastrinemia, and the effect of dialysis itself.
- **Option C:** In renal failure, acute or chronic, one most commonly sees patients who have a tendency to develop hypervolemia, hyperkalemia, hyperphosphatemia, hypocalcemia, and bicarbonate deficiency (metabolic acidosis). Sodium is generally retained, but may appear normal, or hyponatremic, because of dilution from fluid retention.

58. Medical treatment of coronary artery disease includes which of the following procedures?

- A. Cardiac catheterization
- B. Coronary artery bypass surgery
- C. Oral medication therapy
- D. Percutaneous transluminal coronary angioplasty

Correct Answer: C. Oral medication therapy

Oral medication administration is a noninvasive, medical treatment for coronary artery disease. Nitrates should be given for pain relief after making sure there are no contraindications to nitrates like hypotension, RV failure, and consumption of phosphodiesterase inhibitors in the past 24-48 hours. High-dose statin therapy and beta-blockers should also be initiated early. P2Y12 inhibitors (prasugrel, ticagrelor, or prasugrel) should be started based on the patient profile.

- **Option A:** Cardiac catheterization isn't a treatment, but a diagnostic tool. Cardiac catheterization (cardiac cath or heart cath) is a procedure to examine how well the heart is working. A thin, hollow tube called a catheter is inserted into a large blood vessel that leads to the heart.
- **Option B:** Coronary artery bypass surgery is an invasive treatment. Coronary artery bypass grafting (CABG) is a major surgical operation where atheromatous blockages in a patient's coronary arteries are bypassed with harvested venous or arterial conduits. The bypass restores blood flow to the ischemic myocardium which, in turn, restores function, viability, and relieves anginal symptoms.
- **Option D:** Percutaneous transluminal coronary angioplasty is an invasive, surgical treatment. Percutaneous transluminal coronary angioplasty (PTCA) also called percutaneous coronary intervention (PCI) is a minimally invasive procedure to open blocked or stenosed coronary arteries allowing unobstructed blood flow to the myocardium. The blockages occur because of lipid-rich plaque within the arteries, diminishing blood flow to the myocardium.

59. Yesterday, a client with schizophrenia began treatment with haloperidol (Haldol). Today, the nurse notices that the client is holding his head to one side and complaining of neck and jaw spasms. What should the nurse do?

- A. Assume that the client is posturing.
- B. Tell the client to lie down and relax.
- C. Evaluate the client for adverse reactions to haloperidol.
- D. Put the client on the list for the physician to see tomorrow.

Correct Answer: C. Evaluate the client for adverse reactions to haloperidol.

An antipsychotic agent, such as haloperidol, can cause muscle spasms in the neck, face, tongue, back, and sometimes legs as well as torticollis (twisted neck position). The nurse should be aware of these adverse reactions and assess for related reactions promptly. The extrapyramidal symptoms are muscular weakness or rigidity, a generalized or localized tremor that may be characterized by the akinetic or agitation types of movements, respectively. Due to the blockade of the dopamine pathway in the brain, typical antipsychotic medications such as haloperidol have correlations with extrapyramidal side effects.

- **Option A:** Although posturing may occur in clients with schizophrenia, it isn't the same as neck and jaw spasms. Due to potential side effects development, patients receiving haloperidol require monitoring, especially when receiving the intramuscular form. It can be easily monitored by taking blood levels. It has a therapeutic range of 2 to 15 ng/ml in serum. Blood levels should be monitored at 12-hour or 24-hour intervals or after the last dose of haloperidol use in a patient.
- **Option B:** Having the client relax can reduce tension-induced muscle stiffness but not drug-induced muscle spasms. Since there is no specific antidote, supportive treatment is the mainstay of haloperidol toxicity. If a patient develops sign symptoms of toxicities, the clinician should consider gastric lavage or induction of emesis as soon as possible, followed by the

administration of activated charcoal.

- **Option D:** When a client develops a new sign or symptom, the nurse should consider an adverse drug reaction as the possible cause and obtain treatment immediately, rather than have the client wait. Since the drug can cause several side effects and related to several toxicities after initiation, the healthcare workers must be familiar with its pharmacology, signs symptoms of toxicity, and management of adverse effects. They must monitor their side effects and toxicities. A proper history and physical examination are necessary before the initiation of haloperidol in any patient.

60. Heartburn and flatulence, common in the second trimester, are most likely the result of which of the following?

- A. Increased plasma HCG levels
- B. Decreased intestinal motility
- C. Decreased gastric acidity
- D. Elevated estrogen levels

Correct Answer: C. Decreased gastric acidity

During the second trimester, the reduction in gastric acidity in conjunction with pressure from the growing uterus and smooth muscle relaxation can cause heartburn and flatulence.

- **Option A:** HCG levels increase in the first, not the second, trimester. Typically, the hCG levels will double every 72 hours. The level will reach its peak in the first 8-11 weeks of pregnancy and then will decline and level off for the remainder of the pregnancy.
- **Option B:** Decrease intestinal motility would most likely be the cause of constipation and bloating. The gallbladder enlarges and empties sluggishly in response to meals during pregnancy. Small bowel transit is slowed, and the resting pressure of the lower esophageal sphincter is reduced. All these effects are reversed by delivery; motility reverts toward normal in the postpartum period. The rapid return of normal motility suggests that the effects of pregnancy are hormonally related.
- **Option D:** Estrogen levels decrease in the second trimester. Estrogen is a major hormone that involves a lot of minor hormones like estradiol which was mentioned above. The estrogen hormones in women are critical as they are produced by the placenta and ovaries and play a pivotal role in seeing the pregnancy to term. They do so by maintaining the uterine lining which provides a safe space for the growth of the baby. They also help regulate other hormones like progesterone which are essential for fetal growth.

61. The nurse would monitor a patient using sodium bicarbonate to treat gastric hyperacidity for signs and symptoms of:*A. Metabolic alkalosis*

- A. Metabolic alkalosis
- B. Metabolic acidosis
- C. Hyperkalemia
- D. Hypercalcemia

Correct Answer: A. Metabolic alkalosis

Solutions containing sodium bicarbonate (a base) can cause metabolic alkalosis. Serum K and serum calcium would decrease with alkalosis, not increase. Due to rapid alkalotic effects, sodium bicarbonate

is contraindicated in those with signs/symptoms or laboratory values indicating underlying metabolic or respiratory alkalosis due to the potential for exacerbation of symptoms.

- **Option B:** Sodium bicarbonate is indicated for acute metabolic acidosis. If pH is less than 7.1 or pH less than 7.1 to 7.2 in patients with severe acute kidney injury (oliguria or 2-fold or larger increase in serum creatinine level). It is also indicated for chronic metabolic acidosis. 50-100 mEq oral tablet can be initiated and titrated according to the ongoing evaluation of acid-base balance.
- **Option C:** When patients with severe hyperkalemia (serum potassium level of more than 6 mEq/L or more than 5.5 mEq/L with arrhythmia or EKG changes) have metabolic acidosis, sodium bicarbonate should be administered. The dose needed is empirical and is unpredictable. Initially, 150 mEq of sodium bicarbonate can be given in 1 liter of 5% dextrose over 4 hours. More can be given if acidosis does not correct with this regimen.
- **Option D:** Sodium bicarbonate administration in a rapid infusion or as large boluses can result in acute metabolic alkalosis resulting in reduced serum ionized calcium. This acute shift in ionized calcium can result in tetany. This severe alkalosis is potentially treatable with ammonium chloride. Hypocalcemia may be addressed with calcium gluconate. An addition of 0.9 % NS infusion and potassium supplementation may also be indicated.

62. Corinne is experiencing diarrhea after consuming her prescribed antibiotics for the whole week. This is because:

- A. The drugs render food indigestible.
- B. Gastric flora is disturbed.
- C. Fluid is added into the intestine.
- D. Normal intestinal bacteria are destroyed.

Correct Answer: D. Normal intestinal bacteria are destroyed.

The destruction of normal intestinal flora causes diarrhea. Bacteria in the gut, for example, help break down food. Antibiotics kill these “good” microbes along with bacteria that are causing an infection. This upsets the balance of the normal flora in the intestines. The result is often loose, watery stools known as antibiotic-associated diarrhea.

- **Option A:** A drug that rendered food indigestible could not be given because it would cause severe malnutrition. Thousands of species of bacteria, yeast, and other microorganisms live on our skin, in our intestines, and on other body surfaces. They’re known as our “normal flora.” When it is in balance, these microbes stay put and many of them contribute to good health. Bacteria in the gut, for example, help break down food.
- **Option B:** This is incorrect because there is no gastric flora. About one in three people who take antibiotics develop diarrhea. The symptoms usually start on the last day or two of antibiotic therapy, or a day or so after it has ended. The diarrhea is usually mild, with two to four loose stools lasting for a couple days. In most cases, it gets better quickly without treatment. That said, antibiotic-associated diarrhea makes some people very sick. The most severe form, called *C. difficile* colitis, can be life-threatening.
- **Option C:** There is no way to add fluid into the intestine. Almost all antibiotics, particularly those that act on anaerobes, can cause diarrhea, but the risk is higher with aminopenicillins, a combination of aminopenicillins and clavulanate, cephalosporins, and clindamycin.^{1,4,5} Host factors for antibiotic-associated diarrhea include age over 65, immunosuppression, being in an intensive care unit, and prolonged hospitalization.

63. A 30 y.o. female patient is undergoing hemodialysis with an internal arteriovenous fistula in place. What do you do to prevent complications associated with this device?

- A. Insert I.V. lines above the fistula.
- B. Avoid taking blood pressures in the arm with the fistula.
- C. Palpate pulses above the fistula.
- D. Report a bruit or thrill over the fistula to the doctor.

Correct Answer: B. Avoid taking blood pressures in the arm with the fistula.

Don't take blood pressure readings in the arm with the fistula because the compression could damage the fistula. Do not let anyone put a blood pressure cuff on the access arm. An AV fistula causes extra pressure and extra blood to flow into the vein, making it grow large and strong. The larger vein provides easy, reliable access to blood vessels. Without this kind of access, regular hemodialysis sessions would not be possible.

- **Option A:** IV lines shouldn't be inserted in the arm used for hemodialysis. Untreated veins cannot withstand repeated needle insertions, because they would collapse the way a straw collapses under strong suction.
- **Option C:** Palpate pulses below the fistula. Ensuring to check the access for signs of infection or problems with blood flow before each hemodialysis treatment, even if the patient is inserting the needles. Watch for and report signs of infection, including redness, tenderness, or pus.
- **Option D:** Lack of bruit or thrill should be reported to the doctor. Check the thrill in the access every day. The thrill is the rhythmic vibration a person can feel over the vascular access. Do not wear jewelry or tight clothes over the access site. Do not sleep with the access arm under the head or body.

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

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

Correct Answer: D. Sarcoma

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

65. When developing a plan of care for a client newly diagnosed with gestational diabetes, which of the following instructions would be the priority?

- A. Dietary intake
- B. Medication
- C. Exercise
- D. Glucose monitoring

Correct Answer: A. Dietary intake

Although all of the choices are important in the management of diabetes, diet therapy is the mainstay of the treatment plan and should always be the priority. The goal of dietary therapy is to avoid single large meals and foods with a large percentage of simple carbohydrates.

- **Option B:** Women diagnosed with gestational diabetes generally need only diet therapy without medication to control their blood sugar levels. A total of 6 feedings per day is preferred, with 3 major meals and 3 snacks to limit the amount of energy intake presented to the bloodstream at any interval.
- **Option C:** Exercise, is important for all pregnant women and especially for diabetic women, because it burns up glucose, thus decreasing blood sugar. However, dietary intake, not exercise, is the priority. The diet should include foods with complex carbohydrates and cellulose, such as whole-grain bread and legumes.
- **Option D:** All pregnant women with diabetes should have periodic monitoring of serum glucose. However, those with gestational diabetes generally do not need daily glucose monitoring. The standard of care recommends a fasting and 2-hour postprandial blood sugar level every 2 weeks.

66. A 23-year-old patient in the 27th week of pregnancy has been hospitalized on complete bed rest for 6 days. She experiences sudden shortness of breath, accompanied by chest pain. Which of the following conditions is the most likely cause of her symptoms?

- A. Myocardial infarction due to a history of atherosclerosis.
- B. Pulmonary embolism due to deep vein thrombosis (DVT).
- C. Anxiety attacks due to worries about her baby's health.
- D. Congestive heart failure due to fluid overload.

Correct Answer: B. Pulmonary embolism due to deep vein thrombosis (DVT).

In a hospitalized patient on prolonged bed rest, the most likely cause of sudden onset shortness of breath and chest pain is pulmonary embolism. Pregnancy and prolonged inactivity both increase the risk of clot formation in the deep veins of the legs. These clots can then break loose and travel to the lungs.

- **Option A:** Atherosclerosis is the disease primarily responsible for most acute coronary syndrome (ACS) cases. Approximately 90% of myocardial infarctions (MIs) result from an acute thrombus that obstructs an atherosclerotic coronary artery. Plaque rupture and erosion are considered to be the major triggers for coronary thrombosis. Following plaque erosion or rupture, platelet activation and aggregation, coagulation pathway activation, and endothelial vasoconstriction occur, leading to coronary thrombosis and occlusion.

- **Option C:** There is no reason to suspect an anxiety disorder in this patient. Though anxiety is a possible cause of her symptoms, the seriousness of pulmonary embolism demands that it be considered first.
- **Option D:** According to 2017 American Heart Association (AHA) data, heart failure affects an estimated 6.5 million Americans aged 20 years and older. [31] With improved survival of patients with acute myocardial infarction and with a population that continues to age, heart failure will continue to increase in prominence as a major health problem in the United States.

67. Which of the following areas is the most common site of fistulas in clients with Crohn's disease?

- A. Anorectal
- B. Ileum
- C. Rectovaginal
- D. Transverse colon

Correct Answer: A. Anorectal

Fistulas occur in all these areas, but the anorectal area is most common because of the relative thinness of the intestinal wall in this area. The initial lesion starts out as an infiltrate around an intestinal crypt. This goes on to develop ulceration first in the superficial mucosa and involves deeper layers. As the inflammation progresses, non-caseating granulomas form involving all layers of the intestinal wall.

- **Option B:** Small bowel follow-through is often used to assess the involvement of the terminal ileum and can also detect fistulas. The classic string sign due to stricture formation or spasm is often seen.
- **Option C:** Granuloma formation is very common in Crohn's disease but their absence does not exclude the diagnosis. The ongoing inflammation and scarring lead to bowel obstruction and stricture formation.
- **Option D:** It can develop into the classic cobblestone mucosal appearances and skip lesions along the length of the intestine sparing areas with normal mucosa. As the flare of Crohn's settles, scarring replaces the inflamed areas of the intestines.

68. Nurse Cecile is teaching a female client about preventing osteoporosis. Which of the following teaching points is correct?

- A. Obtaining an X-ray of the bones every 3 years is recommended to detect bone loss.
- B. To avoid fractures, the client should avoid strenuous exercise.
- C. The recommended daily allowance of calcium may be found in a wide variety of foods
- D. Obtaining the recommended daily allowance of calcium requires taking a calcium supplement.

Correct Answer: C. The recommended daily allowance of calcium may be found in a wide variety of foods.

Premenopausal women require 1,000 mg of calcium per day. Postmenopausal women require 1,500 mg per day. It's often, though not always, possible to get the recommended daily requirement in the foods we eat.

- **Option D:** Supplements are available but not always necessary.
- **Option A:** Osteoporosis doesn't show up on ordinary X-rays until 30% of the bone loss has occurred. Bone densitometry can detect bone loss of 3% or less. This test is sometimes recommended routinely for women over 35 who are at risk.
- **Option B:** Strenuous exercise won't cause fractures. Weight-bearing aerobics exercises and resistance training are good for people with osteoporosis.

69. The family of a client who has been burned asks at what point the client will no longer be at greater risk for infection. What is the nurse's best response?

- A. "As soon as he finishes his antibiotic prescription."
- B. "As soon as his albumin level returns to normal."
- C. "When fluid remobilization has started."
- D. "When the burn wounds are closed."

Correct Answer: D. "When the burn wounds are closed."

Intact skin is a major barrier to infection and other disruptions in homeostasis. No matter how much time has passed since the burn injury, the client remains at high risk for infection as long as any area of skin is open.

- **Option A:** Even after the course of treatment of antibiotics, the patient is still at risk for infection if the wounds remain open. Examine wounds daily, note and document changes in appearance, odor, or quantity of drainage.
- **Option B:** Albumin levels are monitored if there is significant edema. Implement appropriate isolation techniques as indicated. Depending on the type or extent of wounds and the choice of wound treatment (open versus closed), isolation may range from a simple wound and/or skin to complete or reverse to reduce the risk of cross-contamination and exposure to multiple bacterial flora.
- **Option C:** Fluid resuscitation replaces lost fluids and electrolytes and helps prevent complications (shock, acute tubular necrosis). Once initial fluid resuscitation has been accomplished, a steady rate of fluid administration is preferred to boluses, which may increase interstitial fluid shifts and cardiopulmonary congestion.

70. A client arrives in the emergency with complaints of chest pain and is diagnosed with acute MI. A morphine 4mg IV was given 5 minutes ago. Which of the following assessments made by the nurse indicates a further immediate action?

- A. Respiratory rate from 20 bpm to 12 bpm.
- B. Blood pressure from 120/70 to 100/60 mmHg.
- C. The client still complains of chest pain with a pain scale of 2/10.
- D. Cardiac rate of 103 bpm and a normal sinus rhythm of the ECG.

Correct Answer: C. The client still complains of chest pain with a pain scale of 2/10.

The goal for the client with an acute myocardial infarction is to eliminate the pain. Even pain related to a level of 2/10 should be managed with an additional dose of morphine.

- **Options A, B, & D:** Although hypotension, respiratory depression, and tachycardia are the side effects of morphine, they do not require further action at this time.

71. A screen test for the detection of human immunodeficiency virus (HIV) reveals a positive ELISA exam. Which of the following tests will be used to confirm the diagnosis of HIV?

- A. Indirect immunofluorescence assay (IFA).
- B. CD4-to-CD8 ratio.
- C. Radioimmunoprecipitation assay (RIPA) test.
- D. p24 antigen assay.

Correct Answer: A. Indirect immunofluorescence assay (IFA)

The indirect immunofluorescence assay (IFA) test and Western Blot test result are considered as confirmatory for HIV. An initial HIV test usually will either be an antigen/antibody test or an antibody test. If the initial HIV test is a rapid test or a self-test and it is positive, the individual should go to a health care provider to get follow-up testing. If the initial HIV test is a laboratory test and it is positive, the laboratory will usually conduct follow-up testing on the same blood sample as the initial test. Although HIV tests are generally very accurate, follow-up testing allows the health care provider to be sure the diagnosis is right.

- **Option B:** CD4-to-CD8 ratio monitors the progression of HIV. A normal CD4/CD8 ratio is greater than 1.0, with CD4 lymphocytes ranging from 500 to 1200/mm³ and CD8 lymphocytes ranging from 150 to 1000/mm³. If the ratio is higher than 1, it means the immune system is strong and the client may not have HIV. If the ratio is less than 1, the client may have HIV.
- **Option C:** Radioimmunoprecipitation assay (RIPA) test detects HIV protein rather than showing antibodies. Radioimmunoprecipitation assay buffer (RIPA buffer) is a lysis buffer used for rapid, efficient cell lysis and solubilization of proteins from both adherent and suspension-cultured mammalian cells.
- **Option D:** p24 antigen assay quantifies the amount of HIV viral core protein. One distinctive HIV antigen is a viral protein called p24, a structural protein that makes up most of the HIV viral core, or 'capsid'. High levels of p24 are present in the blood serum of newly infected individuals during the short period between infection and seroconversion, making p24 antigen assays useful in diagnosing primary HIV infection.

72. A patient is catheterized with a #16 indwelling urinary (Foley) catheter to determine if:

- A. Trauma has occurred.
- B. His 24-hour output is adequate.
- C. He has a urinary tract infection.
- D. Residual urine remains in the bladder after voiding.

Correct Answer: B. His 24-hour output is inadequate.

A 24-hour urine output of less than 500 ml in an adult is considered inadequate and may indicate kidney failure. This must be corrected while the patient is in the acute state so that appropriate fluids, electrolytes, and medications can be administered and excreted. Indwelling catheterization is not needed to diagnose trauma, urinary tract infection, or residual urine.

- **Option A:** Urinary bladder catheterization is performed for both therapeutic and diagnostic purposes. Based on the dwell time, the urinary catheter can be either intermittent (short-term) or indwelling (long-term).
- **Option C:** Cystitis, urethritis, prostatitis (common infectious etiology in men), and vulvovaginitis in the woman can cause urinary retention.
- **Option D:** Brain or spinal cord injury, cerebrovascular accident, multiple sclerosis, Parkinson's disease, and dementia can lead to urinary retention.

73. Which stage of development is most unstable and challenging regarding the development of personal identity?

- A. Adolescence
- B. Toddlerhood
- C. Middle Childhood
- D. Young adulthood

Correct Answer: A. Adolescence

Although it occurs throughout one's lifetime, identity development is considered to be the primary psychosocial task of adolescence or as described by Erickson on identity versus identity confusion. Individuals in this stage start to integrate their values, abilities, inner drives, and past experiences into who they are as persons.

- **Option B:** Toddlers at their age focus on developing their physical, emotional, cognitive, language, and motor skills. Gaining a sense of personal control over the world is important at this stage of development. Children at this age are becoming increasingly independent and want to gain more control over what they do and how they do it.
- **Option C:** Middle childhood is a stage where children learn skills that will help them build social relationships that will prepare them for adolescence. A child's social world expands considerably as they enter school and gain new friendships with peers. Through social interactions, children begin to develop a sense of pride in their accomplishments and abilities.
- **Option D:** Young adulthood would focus on building intimate and loving relationships with other people. Romantic and sexual relationships can be an important part of this stage of life, but intimacy is more about having close, loving relationships. It includes romantic partners, but it can also encompass close, enduring friendships with people outside of the family.

74. A client is scheduled for a myelogram, and the nurse provides a list of instructions to the client regarding preparation for the procedure. Which instructions should the nurse place on the list? Select all that apply.

- A. Jewelry will need to be removed.
- B. An informed consent will need to be signed.

- C. A trained x-ray technician performs the procedure.
- D. The procedure will take approximately 45 minutes.
- E. A liquid diet can be consumed on the day of the procedure.
- F. Solid food intake needs to be restricted only on the day of the procedure.

Correct Answer: A, B, & D.

A myelogram is an X-ray exam in which a contrast agent (X-ray dye) is injected into the spinal canal to visualize the bones, discs, muscles, and nerves. A myelogram is used to detect abnormalities of the spine such as disc problems, tumors, and bone spurs, narrowing of the spinal canal, or malformations of the spine.

- **Option A:** The client will need to remove jewelry and metal objects from the chest area. Try to wear non-restrictive, comfortable clothing and slip on shoes if possible. Remove all piercings and leave all jewelry and valuables at home.
- **Option B:** An informed consent is required because the procedure is invasive. A myelogram may be done to assess the spinal cord, subarachnoid space, or other structures for changes or abnormalities.
- **Option C:** The procedure is performed by the healthcare provider. The technologist will verify identification and exam requests. The technologist and radiologist will be available to answer any questions.
- **Option D:** The client is told that the procedure takes about 45 minutes. The patient will lie on the stomach on the X-ray table. If the patient cannot tolerate lying on the stomach for at least 30 minutes, notify the doctor.
- **Option E:** If not on a fluid restriction, drink at least 6-8 glasses of fluid the day before the procedure. Do not eat or drink anything for 4 hours before the exam.
- **Option F:** Client preparation for a myelogram includes instructing the client to restrict food and fluids for 4 to 8 hours before the procedure. The client is also told that pretest medications may be prescribed for relaxation.

75. Which of the following is the correct practice of self-breast examination in a menopausal woman?

- A. She should do it at the usual time that she experiences her menstrual period in the past to ensure that her hormones are not at its peak.
- B. Any day of the month as long it is regularly observed on the same day every month.
- C. Anytime she feels like doing it ideally every day.
- D. Menopausal women do not need regular self-breast exams as long as they do it at least once every 6 months.

Correct Answer: B. Any day of the month as long it is regularly observed on the same day every month

Menopausal women still need to do self-examination of the breast regularly. Any day of the month is alright provided that she practices it monthly on the same day that she has chosen. The hormones estrogen and progesterone are already diminished during menopause so there is no need to consider the time to do it in relation to the menstrual cycle.

- **Option A:** After menopause, the breast undergoes involution, with the replacement of the pre-existing breast parenchyma with adipose and connective tissue.
- **Option C:** Because of the normal hormonal fluctuations in a woman's body that affect breast tissue, it is important to select the same time every month so you will be able to distinguish between a normal change and something that feels different.
- **Option D:** Choose a day of the month (e.g., the 1st or 15th of the month) and consistently perform the breast self-exam on that same day every month. Perform the exam again that same day but lying down – This way the woman will develop a feeling for her breasts in a different position, allowing for greater knowledge of the way her breasts feel. Forty percent of diagnosed breast cancers are detected by women who feel a lump, so establishing a regular breast self-exam is very important.

76. Patients with esophageal varices would reveal the following assessment:

- A. Increased blood pressure
- B. Increased heart rate
- C. Decreased respiratory rate
- D. Increased urinary output

Correct Answer: B. Increased heart rate

Tachycardia is an early sign of compensation for patients with esophageal varices. Since the portal venous system has no valves, resistance at any level between the splanchnic vessels and the right side of the heart results in retrograde flow and elevated pressure. The collaterals slowly enlarge and connect the systemic circulation to the portal venous system.

- **Option A:** Esophageal varices are a direct result of high blood pressure in the portal vein. This condition is called portal hypertension. It causes blood to build up in nearby blood vessels, including those in your esophagus. Veins begin to dilate and swell as a result of increased blood flow.
- **Option C:** The respiratory rate is not decreased in esophageal varices. Esophageal varices are the major complication of portal hypertension. It is detected in about 50% of cirrhosis patients, and approximately 5–15% of cirrhosis patients show newly formed varices or worsening of varices each year.
- **Option D:** Effective resuscitation, accurate diagnosis, and early treatment are key to reducing mortality in variceal bleeding. The aims are not only to stop bleeding as soon as possible but also to prevent early re-bleeding. Early rebleeding, as with peptic ulcer disease, is significantly associated with worsening mortality.

77. Which of the following ECG findings alerts the nurse that the client needs an antiarrhythmic?

- A. Normal sinus rhythm
- B. Sinus bradycardia
- C. Sinus arrhythmia
- D. Frequent ventricular ectopy

Correct Answer: D. Frequent ventricular ectopy

Ventricular ectopy can be a life-threatening arrhythmia; therefore, the client needs an arrhythmic. Frequent ventricular ectopy is a common clinical presentation in patients suffering idiopathic ventricular outflow tract arrhythmias. These are focal arrhythmias that generally occur in patients without structural heart disease and share a predilection for characteristic anatomic sites of origin. Other choices are not arrhythmias that need to be treated.

- **Option A:** Normal sinus rhythm is defined as the rhythm of a healthy heart. It means the electrical impulse from the sinus node is being properly transmitted. In adults, normal sinus rhythm usually accompanies a heart rate of 60 to 100 beats per minute.
- **Option B:** Sinus bradycardia can be defined as a sinus rhythm with a resting heart rate of 60 beats per minute or less. However, few patients actually become symptomatic until their heart rate drops to less than 50 beats per minute. Patients should have continuous cardiac monitoring and intravenous access. In patients with sinus bradycardia secondary to therapeutic use of digitalis, beta-blockers, or calcium channel blockers, simple discontinuation of the drug, along with monitored observation, are often all that is necessary. Occasionally, intravenous atropine and temporary pacing are required.
- **Option C:** Sinus arrhythmia is a commonly encountered variation of normal sinus rhythm. Sinus arrhythmia characteristically presents with an irregular rate in which the variation in the R-R interval is greater than 0.12 seconds. Additionally, P waves are typically monoform and in a pattern consistent with atrial activation originating from the sinus node. When present, sinus arrhythmia typically indicates good cardiovascular health.

78. Which patient should be assigned to the traveling nurse, new to neurologic nursing care, who has been in the neurologic unit for 1 week?

- A. A 34-year-old patient newly diagnosed with multiple sclerosis (MS).
- B. A 68-year-old patient with chronic amyotrophic lateral sclerosis (ALS).
- C. A 56-year-old patient with Guillain-Barre syndrome (GBS) in respiratory distress.
- D. A 25-year-old patient admitted with C4 level spinal cord injury (SCI).

Correct Answer: B. A 68-year-old patient with chronic amyotrophic lateral sclerosis (ALS)

The traveling nurse is relatively new to neurologic nursing and should be assigned to patients whose conditions are stable and not complex.

- **Option A:** The newly diagnosed patient will need to be transferred to the ICU. Multiple sclerosis (MS) is an immune-mediated inflammatory disease that attacks myelinated axons in the central nervous system, destroying the myelin and the axon in variable degrees and producing significant physical disability within 20–25 years in more than 30% of patients. The hallmark of MS is symptomatic episodes that occur months or years apart and affect different anatomic locations.
- **Option C:** The patient with GBS is in respiratory distress and should be assigned to an experienced neurological nurse. Guillain-Barré syndrome (GBS) is a rare disorder in which a person's own immune system damages their nerve cells, causing muscle weakness and sometimes paralysis. GBS can cause symptoms that usually last for a few weeks.
- **Option D:** The patient with C4 SCI is at risk for respiratory arrest. A C4 spinal cord injury occurs when damage is dealt about mid-way down the cervical spinal cord — the topmost portion of the spinal cord that is located in the neck and upper shoulders.

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

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

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

Activated partial thromboplastin time assesses the therapeutic level of heparin.

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

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

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

Correct Answer: A. Measure intake and output

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

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

81. When the nurse checks the fundus of a client on the first postpartum day, she notes that the fundus is firm, is at the level of the umbilicus, and is displaced to the right. The next action the nurse should take is to:

- A. Check the client for bladder distention
- B. Assess the blood pressure for hypotension
- C. Determine whether an oxytocic drug was given
- D. Check for the expulsion of small clots

Correct Answer: A. Check the client for bladder distention

If the fundus of the client is displaced to the side, this might indicate a full bladder. The next action by the nurse should be to check for bladder distention and catheterize, if necessary. The uterus continues to contract after delivery, and its size decreases rapidly as estrogen and progesterone levels diminish. Immediately after delivery, the upper portion of the uterus, known as the fundus, is midline and palpable halfway between the symphysis pubis and the umbilicus.

- **Option B:** Primary responsibilities of nurses in postpartum settings are to assess postpartum patients, provide care and teaching, and if necessary, report any significant findings. It is imperative for nurses to distinguish between normal and abnormal findings and to have a clear understanding of the nursing care necessary to promote patients' health and well-being.
- **Option C:** By approximately one-hour post-delivery, the fundus is firm and at the level of the umbilicus. The fundus continues to descend into the pelvis at the rate of approximately one centimeter (finger-breadth) per day and should be nonpalpable by two weeks postpartum.
- **Option D:** These are actions that relate to postpartum hemorrhage. After delivery, the endometrial surface of the uterus is shed via the vagina. The shedding endometrium is known as lochia. Menstruation does not typically return until 12 weeks or later. However ovulation can return prior to menses, and it is important for healthcare providers to discuss family planning with patients during the early postpartum period in order to prevent undesired pregnancies.

82. A nurse evaluates the blood theophylline level of a client receiving aminophylline (theophylline) by intravenous infusion. The nurse would determine that a therapeutic blood level exists if any of the following were noted in the laboratory report?

- A. 5 mcg/mL
- B. 15 mcg/mL
- C. 25 mcg/mL
- D. 30 mcg/mL

Correct Answer: B. 15 mcg/mL

Therapeutic theophylline blood levels range from 10-20 mcg/mL. Patients can be administered IV theophylline for acute bronchospasm. Those who are not currently taking theophylline should be given a loading dose of 5 to 7 mg/kg intravenously, followed by a maintenance dose of 0.4 to 0.6 mg/kg per hour intravenously to maintain serum concentrations at 10 to 15 mg/L.

- **Option A:** In patients with cardiac decompensation, cor pulmonale, older patients or those on medications that are known to decrease theophylline clearance, the infusion rate of theophylline should not be increased above 17 mg per hour unless the patient remains symptomatic, their steady-state serum concentrations are consistently below 10 mcg/mL, and their serum concentrations are observable at 24-hour intervals.

- **Option C:** The serum theophylline concentrations require monitoring directly to avoid toxicity as the adverse effects of theophylline are related to its plasma concentration and have been observed when plasma concentrations exceed 20 mg/L.
- **Option D:** Serum concentration of theophylline should be measured to one expected half-life (approximately 4 hours in young children [ages 1 to 9 years], or around 8 hours in otherwise healthy adults, who do not smoke) after administering a continuous infusion, then checked every 12 to 24 hours to establish if any further adjustments are required, and then at 24-hour intervals for the remainder of the infusion.

83. A baby is born precipitously in the ER. The nurse's initial action should be to:

- A. Establish an airway for the baby
- B. Ascertain the condition of the fundus
- C. Quickly tie and cut the umbilical cord
- D. Move mother and baby to the birthing unit

Correct Answer: A. Establish an airway for the baby.

- **Option A:** The nurse should position the baby with head lower than chest and rub the infant's back to stimulate crying to promote oxygenation.
- **Option C:** There is no haste in cutting the cord.

84. Which of the following symptoms is most commonly associated with left-sided heart failure?

- A. Crackles
- B. Arrhythmias
- C. Hepatic engorgement
- D. Hypotension

Correct Answer: A. Crackles

Crackles in the lungs are a classic sign of left-sided heart failure. These sounds are caused by fluid backing up into the pulmonary system. The left ventricle of the heart no longer pumps enough blood around the body. As a result, blood builds up in the pulmonary veins (the blood vessels that carry blood away from the lungs). This causes shortness of breath, trouble breathing, or coughing – especially during physical activity.

- **Option B:** Arrhythmias can be associated with both right- and left-sided heart failure. Heart failure can result if the heart is pumping ineffectively for a prolonged period due to bradycardia or tachycardia, such as atrial fibrillation. Sometimes controlling the rate of an arrhythmia that's causing heart failure can improve the heart's function.
- **Option C:** Increased pressure in the sublobular branches of the hepatic veins causes engorgement of venous blood, and is most frequently due to chronic cardiac lesions, especially those affecting the right heart (e.g., right-sided heart failure), the blood being dammed back in the inferior vena cava and hepatic veins.

- **Option D:** Left-sided heart failure causes hypertension secondary to an increased workload on the system. Patients with left heart failure may present with complaints of shortness of breath (often on exertion, a sensitivity of 89%), orthopnea (specificity of 89%), paroxysmal nocturnal dyspnea and/or symptoms of volume overload (e.g., leg swelling, weight gain, increased abdominal girth, or right upper quadrant pain due to liver congestion).

85. The school nurse assesses for anorexia nervosa in an adolescent girl. Which of the following findings are characteristic of this disorder? Select all that apply.

- A. Bradycardia
- B. Hypotension
- C. Chronic pain in one or more sites
- D. Fear of having a serious illness
- E. Irregular or absent menses
- F. Refusal to maintain a minimally normal weight

Correct Answer: A, B, E, F

These are all characteristics of anorexia nervosa. Anorexia nervosa is an eating disorder defined by restriction of energy intake relative to requirements, leading to a significantly low body weight. Patients will have an intense fear of gaining weight and distorted body image with the inability to recognize the seriousness of their significantly low body weight.

- **Option A:** Cardiac complications are arguably one of the most severe medical issues stemming from anorexia. Bradycardia (heart rate less than 60 beats per minute) and hypotension (blood pressure less than 90/50) are among the most common physical findings in anorexia, with bradycardia seen in up to 95 percent of patients.
- **Option B:** Bradycardia (pulse <60) and hypotension are among the most common physical findings in patients with anorexia nervosa, with bradycardia seen in up to 95% of patients. Anorexia nervosa should be considered in the differential for unexplained bradycardia in the outpatient setting. Low blood pressure and heart rate universally increase to normal levels after refeeding and restoration of normal weight.
- **Option C:** Chronic pain in one or more sites is common for somatoform pain disorder. The Diagnostic and Statistical Manual for Mental Disorders, Fifth Edition (DSM-5) category of Somatic Symptom Disorders and Other Related Disorders represents a group of disorders characterized by thoughts, feelings, or behaviors related to somatic symptoms. This category represents psychiatric conditions because the somatic symptoms are excessive for any medical disorder that may be present.
- **Option D:** Fear of having a serious illness is common in hypochondriasis. Illness anxiety disorder (IAD) is a recent term for what used to be diagnosed as hypochondriasis, or hypochondria. People diagnosed with IAD strongly believe they have a serious or life-threatening illness despite having no, or only mild, symptoms. Yet IAD patients' concerns are to them very real. Even if they go to doctors and no illnesses are found, they are generally not reassured and their obsessive worry continues.
- **Option E:** Of patients with anorexia nervosa, 20–25 percent may experience amenorrhea before the onset of significant weight loss, and 50–75 percent will experience amenorrhea during the course of dieting and its weight loss. In some patients with anorexia nervosa, amenorrhea occurs

only after more marked weight loss. Overall, the development of amenorrhea is most strongly correlated to loss of body weight.

- **Option F:** Many exercise compulsively for extended periods of time. Patients with anorexia nervosa develop multiple complications related to prolonged starvation and purging behaviors.

86. Nurse Bea plans to administer dexamethasone cream to a client who has dermatitis over the anterior chest. How should the nurse apply this topical agent?

- A. With a circular motion, to enhance absorption.
- B. With an upward motion, to increase blood supply to the affected area.
- C. In long, even, outward, and downward strokes in the direction of hair growth.
- D. In long, even, outward, and upward strokes in the direction opposite hair growth.

Correct Answer: C. In long, even, outward, and downward strokes in the direction of hair growth

When applying a topical agent, the nurse should begin at the midline and use long, even, outward, and downward strokes in the direction of hair growth. This application pattern reduces the risk of follicle irritation and skin inflammation. One fingertip unit (FTU) is equal to 0.5 grams. The suggested dose of FTU is dependent upon the body region being treated. Topical corticosteroids are recommended for once to twice daily use.

- **Option A:** Topical corticosteroids are administered topically; however, successful administration depends upon obtaining an accurate diagnosis, choosing the correct drug, selecting the appropriate vehicle and potency, and the frequency of application.
- **Option B:** The vehicle is the carrier of the drug. The vehicle selection depends on the region affected and the type of lesion present. It also functions to hydrate the skin and increase absorption. Creams are less potent than ointment but cosmetically more appealing since they leave no residue; the drying, non-occlusive nature leads to their administration for acute exudative inflammation and dermatitis within the intertriginous areas.
- **Option D:** Corticosteroids are better absorbed and more permeable in regions of thin epidermis, such as the eyelid, compared to thicker regions of epidermis, such as the sole. The penetration difference between the two varies by 300 fold. The penetration increases two- to ten-fold in diseased states, such as inflammation and desquamation.

87. Which statement would best explain the role of the nurse when planning care for a culturally diverse population? The nurse will plan care to:

- A. Include care that is culturally congruent with the staff from predetermined criteria.
- B. Focus only on the needs of the client, ignoring the nurse's beliefs and practices.
- C. Blend the values of the nurse that are for the good of the client and minimize the client's individual values and beliefs during care.
- D. Provide care while aware of one's own bias, focusing on the client's individual needs rather than the staff's practices.

Correct Answer: D. Provide care while aware of one's own bias, focusing on the client's individual needs rather than the staff's practices

Without understanding one's own beliefs and values, a bias or preconceived belief by the nurse could create an unexpected conflict or an area of neglect in the plan of care for a client (who might be expecting something totally different from the care). During assessment values, beliefs, practices should be identified by the nurse and used as a guide to identify the choices by the nurse to meet specific needs/outcomes of that client. Therefore identification of values, beliefs, and practices allows for planning meaningful and beneficial care specific for this client.

- **Option A:** As nurses strive to learn more about becoming culturally sensitive nurses, they should also let others know what they are doing and why. Encourage co-workers to provide more culturally competent care. Approach sharing awareness with openness and positivity, rather than from a critical point of view.
- **Option B:** Cultural competency in the health care sector supports positive patient outcomes and improves medical research accuracy. Cultural competence is learning about how cultural differences may impact healthcare decisions and being able to modify care to align with that patient's culture.
- **Option C:** Active listening in the healthcare community is imperative, especially when individuals of different racial or cultural backgrounds are involved. It's important that patients feel heard and validated, particularly when they are in a vulnerable position.

88. Progestins have been known to cause which of the following:

- A. Decrease HDL level
- B. Increase aspartate transaminase
- C. Increase HDL levels
- D. Decrease aspartate transaminase

Correct Answer: A. Decrease HDL level

Progestins decrease HDL levels, which may predispose the client to increased cardiac risk. Progestins are synthetic progestogens. Progestin drugs can be subclassified in two ways: (1) generationally or (2) based upon structural properties.

- **Option B:** Progesterone enters the cell by passive diffusion through the plasma membrane and binds to the progesterone receptor in the nucleus. When unbound, the progesterone receptor exists as a monomer. After binding progesterone, the receptor undergoes a conformational change and becomes a dimer, which increases receptor binding to DNA.
- **Option C:** Most progestins exert their contraceptive effects by suppressing the secretion of gonadotropin-releasing hormone (GnRH) by the hypothalamus and luteinizing hormone (LH) and follicle-stimulating hormone (FSH) by the pituitary gland. This adventitiously alters the menstrual cycle to suppress ovulation.
- **Option D:** Progestins also provide other benefits by secondary mechanisms such as thickening cervical mucus to prevent penetration by sperm, slowing tubal motility by impairing fallopian tube motility, and inducing endometrial atrophy.

89. During eyedrop instillation, which intervention would the nurse perform to prevent systemic adverse effects from drug absorption?

- A. Applying pressure on the eyelid rim.

- B. Having the client close his eyes tightly.
- C. Placing the client in the supine position for a few minutes.
- D. Applying pressure on the inner canthus.

Correct Answer: D. Applying pressure on the inner canthus.

Systemic absorption and subsequent adverse effects may occur if the medication enters the nasolacrimal canal. The nurse, therefore, applies pressure to the inner canthus, causing occlusion of this canal and minimizing the risk for systemic adverse effects. Systemic absorption (SA) of eye drops and ointments occurs via the conjunctival blood vessels or the nasal mucosa. This is a particular issue when drugs such as beta-blockers are prescribed (Marsden, 2007).

- **Option A:** Applying pressure on the eyelid rim would not occlude this canal. For example, the beta-blocker timolol can cause bronchoconstriction, hypotension, bradycardia, nausea, diarrhea, anxiety, depression, hallucinations, and fatigue. These effects can be reduced through the use of punctal occlusion (keeping the eye closed for a slow count of 60) after administration.
- **Option B:** Having the client close his eyes tightly may cause some of the medication to be expelled. Alternatively, the patient can apply digital pressure to the tear drainage system at the nasal corner of the closed eyelids. These techniques minimize the amount of drug being taken into the nasolacrimal system and into the systemic circulation.
- **Option C:** Positioning has no effect on the blood flow of medication into the nasolacrimal canal and subsequent absorption. Position the patient comfortably, either sitting or lying down (semi-prone or recumbent) with the head supported.

90. Dr. Anderson is reviewing a biopsy from a patient with suspected dermatological pathology. The biopsy is from a region of skin where all five epidermal layers are present. In examining the sample, she uses a microscope to start her assessment from the deepest epidermal layer, progressing to the most superficial layer. This methodical sequence is essential to ensure accurate identification and diagnosis. In considering the layers of the epidermis, which of the following sequences correctly orders these layers from the deepest layer to the most superficial layer?

- A. Stratum spinosum, S.basale, S.lucidum, S.granulosum, S.corneum
- B. Stratum corneum, S.lucidum, S.basale, S.spinosum, S.granulosum
- C. Stratum basale, S.spinosum, S.granulosum, S.lucidum, S.corneum
- D. Stratum corneum, S.lucidum, S.granulosum, S.spinosum, S.basale

Correct Answer: C. Stratum basale, S.spinosum, S.granulosum, S.lucidum, S.corneum

The correct order of layers of the epidermis, from the deepest layer to the most superficial layer, follows a logical sequence reflecting the process of keratinocyte maturation. The stratum basale, the deepest layer, houses actively dividing cells responsible for skin regeneration. As cells migrate upward through the stratum spinosum and stratum granulosum, they undergo transformation, flattening, and keratin production, culminating in the stratum corneum, the outermost layer, which serves as a protective barrier consisting of fully keratinized, flattened cells. This orderly progression ensures efficient skin regeneration and a resilient skin surface.

- **Option A:** This sequence begins with the stratum spinosum, which is not the deepest layer. Moreover, the order after that is incorrect.

- **Option B:** This sequence starts with the outermost layer and mixes up the order completely.
- **Option D:** This sequence also starts with the outermost layer and is not in the correct order.

91. While assessing a 2-hour old neonate, the nurse observes the neonate to have acrocyanosis. Which of the following nursing actions should be performed initially?

- A. Activate the code blue or emergency system
- B. Do nothing because acrocyanosis is normal in the neonate
- C. Immediately take the newborn's temperature according to hospital policy
- D. Notify the physician of the need for a cardiac consult

Correct Answer: B. Do nothing because acrocyanosis is normal in the neonate.

- **Option B:** Acrocyanosis, or bluish discoloration of the hands and feet in the neonate (also called peripheral cyanosis), is a normal finding and shouldn't last more than 24 hours after birth.

92. A client tells the doctor that she is about 20 weeks pregnant. The most definitive sign of pregnancy is:

- A. Elevated human chorionic gonadotropin
- B. The presence of fetal heart tones
- C. Uterine enlargement
- D. Breast enlargement and tenderness

Correct Answer: B. The presence of fetal heart tones

The most definitive diagnosis of pregnancy is the presence of fetal heart tones. The signs in answers A, C, and D are subjective and might be related to other medical conditions. Fetal heart tones can be appreciated between six and eight weeks of gestation. Between eight and ten weeks of gestation, important information about the pregnancy can be obtained by the provider, including placental location, fetal position and anatomy, amniotic fluid volume, and maternal anatomy, including dimensions of the cervix and uterus.

- **Option A:** It is important to note that an elevated beta-HCG level is not definitive of a normal or viable pregnancy. Conditions that result in elevated beta-HCG levels must be considered, including ectopic and heterotopic pregnancy; miscarriage; and the presence of abnormal germ cell, placental, and embryonal tissues.
- **Option C:** Uterine enlargement may be related to a hydatidiform mole. The list of early pregnancy complications is vast, including ectopic pregnancy, heterotopic pregnancy, molar pregnancy, and miscarriage. The provider needs to visualize an intrauterine pregnancy for reasons discussed in prior sections.
- **Option D:** Breast enlargement and tenderness is often present before menses or with the use of oral contraceptives. Early in pregnancy hormonal changes might make your breasts sensitive and sore. The discomfort will likely decrease after a few weeks as your body adjusts to hormonal changes.

93. Nurse Melinda is caring for an elderly bedridden adult. To prevent pressure ulcers, which intervention should the nurse include in the plan of care?

- A. Turn and reposition the client at least once every 8 hours.
- B. Vigorously massage lotion into bony prominences.
- C. Post a turning schedule at the client's bedside.
- D. Slide the client, rather than lifting, when turning.

Correct Answer: C. Post a turning schedule at the client's bedside.

A turning schedule with a signing sheet will help ensure that the client gets turned and, thus, help prevent pressure ulcers. Set goals with the patient or significant other for cooperation in activities or exercise and position changes. This enhances a sense of anticipation of progress or improvement and gives some sense of control or independence.

- **Option A:** Turning should occur every 1 to 2 hours — not every 8 hours — for clients who are in bed for prolonged periods. Keep limbs in functional alignment with one or more of the following: pillows, sandbags, wedges, or prefabricated splints. This avoids footdrop and too much plantar flexion or tightness. Maintain feet in dorsiflexed position.
- **Option B:** The nurse should apply lotion to keep the skin moist but should avoid vigorous massage, which could damage capillaries. Assess the skin over bony prominences (sacrum, trochanters, scapulae, elbows, heels, inner and outer malleolus, inner and outer knees, back of the head). These areas at highest risk for breakdown resulting from tissue ischemia from compression against a hard surface.
- **Option D:** When moving the client, the nurse should lift — rather than slide — the client to avoid shearing. Assess client's ability to move (shift weight while sitting, turn over in bed, move from the bed to a chair). Immobility is a huge risk factor for pressure ulcer development among adult hospitalized clients.

94. The nurse is most likely to report which finding to the primary care provider for a client who has an established colostomy?

- A. The stoma extends 1/2 inch above the abdomen.
- B. The skin under the appliance looks red briefly after removing the appliance.
- C. The stoma color is a deep red purple.
- D. An ascending colostomy just delivers liquid feces.

Correct Answer: C. The stoma color is a deep red purple.

An established stoma should be dark pink like the color of the buccal mucosa and is slightly raised above the abdomen. A stoma is the exteriorization of a loop of bowel from the anterior abdominal wall, done during a surgical procedure. It is done for diversion or decompression of the remaining bowel. It may be temporary or permanent, depending on the indication for which it was performed. Most stomas are incontinent, which means that there is no voluntary control over the passage of flatus and feces from the stoma.

- **Option A:** The stoma should be assessed and must be moist, above skin level, and pink to red in color, and the peristomal skin should be normal. Any deviation from this should be notified to the surgeon. The stoma should be measured, or the previous measurement remembered and size

should not be more than 1/16-1/8.

- **Option B:** The skin under the appliance may remain pink/red for a while after the adhesive is pulled off. The peristomal skin should be dried appropriately to allow good seal formation. Adhesive pastes or powders may also be applied peristomally. The paper cover on the back of the flange is then removed with the border tape in place. It is then placed around the stoma and held in place for 1 to 2 minutes to create an adequate seal.
- **Option D:** Feces from an ascending ostomy are very liquid, less so from a transverse ostomy, and more solid from a descending or sigmoid stoma. Colostomy diarrhea may be complained by the patient in case of ascending or transverse colostomies in case they are not fully explained about the nature of content expected, but stomal diarrhea may be the result of extensive resection with failure of bowel adaptation or if associated with short bowel syndrome.

95. In assessing a 46-year-old patient with a diagnosis of Chronic Lymphocytic Leukemia (CLL), who presents with fatigue, lymphadenopathy, and frequent infections, which of the following findings would the nurse least expect to be reported in the diagnostic assessment?

- A. Predominance of lymphoblasts
- B. Leukocytosis
- C. Abnormal blast cells in the bone marrow
- D. Elevated thrombocyte counts

Correct Answer: B. Leukocytosis

Chronic Lymphocytic leukemia (CLL) is characterized by increased production of leukocytes and lymphocytes resulting in leukocytosis, and proliferation of these cells within the bone marrow, spleen, and liver.

- **Option A:** Lymphoblasts are most probably common in clients with CLL.
- **Option C:** The increase in WBC production also involves abnormal blast cell production.
- **Option D:** Elevated thrombocyte counts follow as the WBCs increase.

96. In which step of the nursing process does the nurse analyze data and identify client problems?

- A. Assessment
- B. Diagnosis
- C. Planning outcomes
- D. Evaluation

Correct Answer: B. Diagnosis

In the diagnosis phase, the nurse identifies the client's health status. The North American Nursing Diagnosis Association (NANDA) provides nurses with an up to date list of nursing diagnoses. A nursing diagnosis, according to NANDA, is defined as a clinical judgment about responses to actual or potential health problems on the part of the patient, family, or community.

- **Option A:** In the assessment phase, the nurse gathers data from many sources for analysis in the diagnosis phase. Assessment is the first step and involves critical thinking skills and data collection; subjective and objective. Subjective data involves verbal statements from the patient or caregiver. Objective data is measurable, tangible data such as vital signs, intake and output, and height and weight.
- **Option C:** In the planning outcomes phase, the nurse formulates goals and outcomes. The planning stage is where goals and outcomes are formulated that directly impact patient care based on EDP guidelines. These patient-specific goals and the attainment of such assist in ensuring a positive outcome. Nursing care plans are essential in this phase of goal setting. Care plans provide a course of direction for personalized care tailored to an individual's unique needs. Overall condition and comorbid conditions play a role in the construction of a care plan. Care plans enhance communication, documentation, reimbursement, and continuity of care across the healthcare continuum.
- **Option D:** In the evaluation phase, which occurs after implementing interventions, the nurse gathers data about the client's responses to nursing care to determine whether client outcomes were met. This final step of the nursing process is vital to a positive patient outcome. Whenever a healthcare provider intervenes or implements care, they must reassess or evaluate to ensure the desired outcome has been met. Reassessment may frequently be needed depending upon overall patient condition. The plan of care may be adapted based on new assessment data.

97. An activity appropriate for the client with mania is:

- A. Table tennis
- B. Painting
- C. Chess
- D. Cleaning

Correct Answer: D. Cleaning

The client's excess energy can be rechanneled through physical activities that are not competitive like cleaning. This is also a way to dissipate tension. Maintain a low level of stimuli in the client's environment (e.g., loud noises, bright light, low-temperature ventilation). Redirect violent behavior. Physical exercise can decrease tension and provide focus.

- **Option A:** Tennis is a competitive activity which can stimulate the client. When possible, provide an environment with minimum stimuli (e.g., quiet, soft music, dim lighting). Reduction in stimuli lessens distractibility.
- **Option B:** When less manic, the client might join one or two other clients in quiet, non-stimulating activities (e.g., drawing, board games, cards). As mania subsides, involvement in activities that provide a focus and social contact becomes more appropriate. Competitive games can stimulate aggression and can increase psychomotor activity.
- **Option C:** Solitary activities requiring short attention spans with mild physical exertion are best initially (e.g., writing, taking photos, painting, or walks with staff). Solitary activities minimize stimuli; mild physical activities release tension constructively.

98. Clinical Scenario: A 78-year-old male patient with advanced Parkinson's disease recently had a gastrostomy tube (G-tube) placed due to progressive dysphagia and risk of aspiration. His daughter, a primary caregiver, received

teaching from the home health nurse regarding the management of the G-tube and the administration of enteral nutrition at home. Two days later, during the follow-up visit, the nurse evaluates the daughter's understanding of the G-tube care and management to ensure the patient's safety and prevent complications. Which statement made by the family member caring for the client with a gastrostomy tube indicates an understanding of the nurse's teaching? Select all that apply.

- A. "I must flush the tube with water after feedings and clamp the tube."
- B. "I must check placement four times per day."
- C. "I will report to the doctor any signs of indigestion."
- D. "If my father is unable to swallow, I will discontinue the feeding and call the clinic."
- E. "I should administer the feeding at room temperature."
- F. "I can crush all medications and mix them with water for administration."
- G. "I need to keep the skin around the G-tube dry and clean to prevent infection."

Correct Answer: A, E, and G.

- **Option A:** Correct. Flushing the G-tube with water helps to maintain tube patency, and clamping the tube prevents leakage of gastric contents, showing an understanding of the basic care and maintenance of the G-tube.
- **Option E:** Correct. This statement reflects an understanding as administering feedings at room temperature can help to prevent cramping and discomfort.
- **Option G:** Correct. This statement indicates an understanding of basic infection prevention measures regarding G-tube care.
- **Option B:** Overdoing. While it's essential to check the tube placement, four times a day may be excessive unless specifically instructed by a healthcare provider based on individual patient needs.
- **Option C:** Helpful but vague. Reporting signs of indigestion is helpful, but it's not directly related to G-tube care and management. Additionally, "indigestion" is a vague term that may need further clarification.
- **Option D:** Misunderstanding. The G-tube bypasses the need for swallowing, so this statement indicates a misunderstanding of the purpose of the G-tube.
- **Option F:** Incorrect. Not all medications can be crushed or administered via a G-tube, as it might alter the medication's efficacy or cause harm, indicating a need for further education.

99. Which information should be given to the client taking Dilantin (phenytoin)?

- A. Taking the medication with meals will increase its effectiveness
- B. The medication decreases the effects of oral contraceptives
- C. The medication can cause sleep disturbances
- D. More frequent dental appointments will be needed for special gum care

Correct Answer: D. More frequent dental appointments will be needed for special gum care.

- Option D: Gingival hyperplasia is a side effect of phenytoin. The client will need more frequent dental visits.
- Options A, B, and C: These do not apply to the medication.

100. A female client who has just been diagnosed with hepatitis A asks, “How could I have gotten this disease?” What is the nurse’s best response?

- A. “You may have eaten contaminated restaurant food.”
- B. “You could have gotten it by using I.V. drugs.”
- C. “You must have received an infected blood transfusion.”
- D. “You probably got it by engaging in unprotected sex.”

Correct Answer: A. “You may have eaten contaminated restaurant food.”

Hepatitis A virus typically is transmitted by the oral-fecal route — commonly by consuming food contaminated by infected food handlers. The hepatitis A virus (HAV) is a common infectious etiology of acute hepatitis worldwide. HAV is most commonly transmitted through the oral-fecal route via exposure to contaminated food, water, or close physical contact with an infectious person. The virus isn’t transmitted by the I.V. route, blood transfusions, or unprotected sex.

- **Option B:** Hepatitis B can be transmitted by I.V. drug use. In the United States, estimates are about 2.2 million people have chronic hepatitis B virus infection. It is transmitted parenterally and sexually when individuals come in contact with mucous membranes or body fluids of infected individuals.
- **Option C:** Hepatitis B can be transmitted by blood transfusion. Transfusion of blood and blood products, injection drug use with shared needles, needlesticks, or wounds caused by other instruments in healthcare workers and hemodialysis are all examples of parenteral and percutaneous exposures, but parenteral mode remains the dominant mode of transmission both globally and in the United States.
- **Option D:** Hepatitis C can be transmitted by unprotected sex. Transmission can be parenteral, perinatal, and sexual, with the most common mode being the sharing of contaminated needles among IV drug users. Also, other high-risk groups include people who require frequent blood transfusions and organ transplantation of organs from infected donors.