

Kevin's Review - 85 NCLEX Practice Questions

1. A client with diverticulitis is admitted with nausea, vomiting, and dehydration. Which finding suggests a complication of diverticulitis?

- A. Abdominal distention
- B. Pain in the left lower quadrant
- C. Board-like abdomen
- D. Low-grade fever

Correct Answer: C. Board-like abdomen

- Option C: A rigid or boardlike abdomen is suggestive of peritonitis, which is a complication of diverticulitis.
- Options A, B, and D: Abdominal distention, left lower quadrant pain, and fever are common findings in diverticulitis.

2. The nurse is assessing a child diagnosed with a brain tumor. Which of the following signs and symptoms would the nurse expect the child to demonstrate? Select all that apply.

- A. Head tilt
- B. Vomiting
- C. Polydipsia
- D. Lethargy
- E. Increased appetite
- F. Increased pulse

Correct Answer: A, B, & D.

Head tilt, vomiting, and lethargy are classic signs assessed in a child with a brain tumor. Clinical manifestations are the result of the location and size of the tumor. Pediatric brain tumors are the most common type of solid childhood cancer and are only second to leukemia as a cause of pediatric malignancies.

- **Option A:** A brain tumor at the back of the head can cause the child to have a stiff neck. They may develop a head tilt. This is where the child holds their head or neck in an unusual way, such as at an awkward angle or in a twisted position. The child may develop what is called a 'wry neck'.
- **Option B:** As a brain tumor grows larger, it takes up more and more space within the skull, thereby increasing intracranial pressure. This increased pressure can lead to feelings of nausea. Nausea and vomiting also can occur when a tumor develops in a particular area of the brain. The cerebellum, for instance, is the part of the brain that controls balance, so if a brain tumor presses against the cerebellum, the person could end up feeling dizzy and nauseated.
- **Option C:** Primary polydipsia can be categorized into two types. They are psychogenic polydipsia and dipsogenic polydipsia. Psychogenic polydipsia is a condition seen usually in patients with psychiatric diseases. Dipsogenic polydipsia is seen in patients with hypothalamic conditions and in otherwise healthy individuals who are drinking excessive amounts of fluids in today's context of a healthier lifestyle.

- **Option D:** In neonates and older children, the clinical presentation depends on the site of tumor involvement. Supratentorial tumors may present with limb weakness, convulsions, and an altered level of consciousness.
- **Option E:** The location of the tumor can make it difficult for the patient to eat, or cause symptoms that disturb the appetite. For instance, tumors located in the base of the skull can lead to swallowing difficulties. And depression and anxiety, common in people with spinal cord and brain tumors, can affect the diet, too.
- **Option F:** Sinus bradycardia (sinus rhythm of less than 60 bpm), which can be a normal phenomenon, has been only sporadically documented in the literature as the first signs of a brain tumor.

3. Nurse Amanda is caring for a client with severe blood loss who is prescribed multiple transfusions of blood. Nurse Amanda obtains which most essential piece of equipment to prevent the risk of cardiac dysrhythmias?

- A. Cardiac monitor
- B. Blood warmer
- C. ECG machine
- D. Infusion pump

Correct Answer: B. Blood warmer

Rapid transfusion of cool blood puts the client at risk for cardiac dysrhythmias. Modern methods of very rapid transfusion in resuscitation would cause clinically dangerous hypothermia if unmodified, ice-cold blood were to be so transfused. These needs must be reconciled in the interest of adequate patient care—hence the need for blood warming. Countercurrent in-line blood warmers and the method of rapid warm saline admixture can both be used successfully for rapid, massive transfusions.

- **Option A:** Cardiac monitor is used to assess for any blood transfusion-related complication, but they do not prevent the occurrence of cardiac dysrhythmia. During the blood transfusion process, patients' vital signs (heart rate, blood pressure, temperature, and respiration rate) should be monitored throughout the procedure and recorded. Follow the organization's policy on how often the vital signs should be measured.
- **Option C:** ECG machine is used to assess for any blood transfusion-related complication, but they do not prevent the occurrence of cardiac dysrhythmia. Many severe reactions occur within the first 30 minutes of commencing a transfusion of a blood component unit (SHOT 2008). Close observation during this period is essential.
- **Option D:** Infusion pump is not beneficial in this case since the infusion must be given rapidly. SHOT 2008 recommends that patients be observed during the subsequent 24 hours because, on occasion, transfusion reactions can occur many hours after transfusion is completed.

4. A woman who is at 36 weeks of gestation is having a nonstress test. Which statement indicates her correct understanding of the test?

- A. "I will need to have a full bladder for the test to be done accurately."
- B. "I should have my husband drive me home after the test because I may be nauseated."
- C. "This test will help to determine whether the baby has Down syndrome or a neural tube defect."

D. "This test observes for fetal activity and an acceleration of the fetal heart rate to determine the well-being of the baby."

Correct Answer: D. "This test observes for fetal activity and an acceleration of the fetal heart rate to determine the well-being of the baby."

The nonstress test is one of the most widely used techniques to determine fetal well-being and is accomplished by monitoring fetal heart rate in conjunction with fetal activity and movements.

- **Option A:** An ultrasound requires a full bladder. A full bladder creates a reservoir fluid that enhances the movement of sound waves through the abdominal cavity. This creates a clearer view of the structures that need to be observed.
- **Option B:** An amniocentesis is a test after which a pregnant woman should be driven home.
- **Option C:** A maternal serum alpha-fetoprotein test is used in conjunction with unconjugated estriol levels and human chorionic gonadotropin helps to detect Down syndrome.

5. During a prenatal visit at 4 months gestation, a pregnant client asks whether tests can be done to identify fetal abnormalities. Between 18 and 40 weeks gestation, which procedure is used to detect fetal anomalies?

- A. Amniocentesis
- B. Chorionic villi sampling
- C. Fetoscopy
- D. Ultrasound

Correct Answer: D. Ultrasound

Ultrasound is used between 18 and 40 weeks' gestation to identify normal fetal growth and detect fetal anomalies and other problems.

- **Option A:** Amniocentesis is done during the third trimester to determine fetal lung maturity.
- **Option B:** Chorionic villi sampling is performed at 8 to 12 weeks' gestation to detect genetic disease.
- **Option C:** Fetoscopy is done at approximately 18 weeks' gestation to observe the fetus directly and obtain a skin or blood sample.

6. A patient who smokes tells the nurse, "I want to have a yearly chest x-ray so that if I get cancer, it will be detected early." Which response by the nurse is most appropriate?

- A. "Insurance companies do not authorize yearly x-rays just to detect early lung cancer."
- B. "Annual x-rays will increase your risk for cancer because of exposure to radiation."
- C. "Chest x-rays do not detect cancer until tumors are already at least a half-inch in size."
- D. "Frequent x-rays damage the lungs and make them more susceptible to cancer."

Correct Answer: C. "Chest x-rays do not detect cancer until tumors are already at least a half-inch in size."

- **Option C:** A tumor must be at least 1 cm large before it is detectable by an x-ray and may already have metastasized by that time.
- **Option A:** Insurance companies do not usually authorize x-rays for this purpose, but it would not be appropriate for the nurse to give this as the reason for not doing an x-ray.
- **Options B and D:** Radiographs have low doses of radiation, and an annual x-ray alone is not likely to increase lung cancer risk.

7. Which of the following is an important nursing action for the administration of a benzodiazepine as a sedative-hypnotic agent?

- A. Use IM dosage forms for longer duration.
- B. Administer safely with other CNS depressants for insomnia.
- C. Monitor geriatric patients for the common occurrence of paradoxical reactions.
- D. Evaluate for physical dependence that occurs within 48 hours of beginning the drug.

Correct Answer: C. Monitor geriatric patients for the common occurrence of paradoxical reactions.

Careful monitoring of all vitals, especially blood pressure and respiratory rate, should be performed after the administration of benzodiazepines. Waveform capnography, if available, should be seriously considered to monitor respiratory status.

- **Option A:** Benzodiazepine administration can be performed by providing small doses of the medication until the desired effect (i.e., sedation, cessation of seizure activity, anxiolysis) has been achieved. It should be noted that with intravenous administration, it may take 3 to 5 minutes to achieve a CNS drug concentration adequate to produce the desired effect.
- **Option B:** The FDA strongly reminds providers that extreme care should be taken when administering benzodiazepines with other central nervous system depressants such as alcohol, barbiturates, and opioids.
- **Option D:** Though the therapeutic index of benzodiazepines is high, monitoring of respiratory depression is critical. Respiratory arrest has been noted to occur with rapid injection of benzodiazepines via the intravenous route.

8. Which of the following is the nurse's role in health promotion?

- A. Health risk appraisal
- B. Teach client to be effective health consumer
- C. Worksite wellness
- D. None of the above

Correct Answer: B. Teach client to be effective health consumer

Nurses play a huge role in illness prevention and health promotion. Nurses assume the role of ambassadors of wellness. The World Health Organization (WHO) defines health promotion as a process of enabling people to increase control over and to improve their health (WHO, 1986). Nurses are best qualified to take on the job of health promoter due to their expertise. There are few health care occupations that have the high level of health education knowledge, skills, theory, and research to be

able to focus on prevention because it is considered part of their professional development focus.

- **Option A:** An HRA may be a simple questionnaire eliciting self-reported information on risk factors, behaviors, or diagnoses. Questionnaires may be supplemented with clinical examinations to obtain data on variables such as height, weight, body mass index (BMI), heart rate, or blood pressure. Some HRAs may include performance tests such as grip strength, timed-up-and-go, chair rise, or four-meter walk test.
- **Option C:** Studies show that employees are more likely to be on the job and performing well when they are in optimal health. Benefits of implementing a wellness program include: improved disease management and prevention, and a healthier workforce in general, both of which contribute to lower health care costs.
- **Option D:** One of the most critical roles that nurses have in health promotion and disease preventions is that of an educator. Nurses spend the most time with the patients and provide anticipatory guidance about immunizations, nutrition, dietary, medications, and safety.

9. Nurse Walter should expect a 3-year-old child to be able to perform which action?

- A. Ride a tricycle
- B. Tie the shoelaces
- C. Roller-skates
- D. Jump rope

Correct Answer: A. Ride a tricycle

At age 3, gross motor development and refinement in eye-hand coordination enable a child to ride a tricycle. Most 3-year-olds are able to walk a line, balance on a low balance beam, skip or gallop, and walk backward. They can usually pedal a tricycle, catch a large ball, and jump with two feet.

- **Option B:** The fine motor skills required to tie shoelaces develop around age 5. By age 3, kids can usually wash and dry their hands, dress themselves with a little assistance, and turn pages in a book. Most preschoolers can hold a writing instrument with their fingers, not their fists.
- **Option C:** The gross motor skills required for roller-skating develop around age 5. Most children by age 3 develop more large muscle movements (gross motor skills). These generally include running, climbing, jumping in place, kicking a ball, and bending over easily.
- **Option D:** The gross motor skills required for jumping rope develop around age 5. Give the child time outdoors. Let them run and play. Climbing in and out of boxes is a favorite game. Remember to watch them closely when outside—they can move pretty fast when they want to.

10. The nurse is preparing to admit a patient from the emergency department. The transferring nurse reports that the patient with chronic lung disease has a 30+ year history of tobacco use. The nurse used to smoke a pack of cigarettes a day at one time and worked very hard to quit smoking. She immediately thinks to herself, "I know I tend to feel negative about people who use tobacco, especially when they have a serious lung condition; I figure if I can stop smoking, they should be able to. I must remember how physically and psychologically difficult that is, and be very careful not to let it be judgmental of

this patient.” This best illustrates:

- A. Theoretical knowledge
- B. Self-knowledge
- C. Using reliable resources
- D. Use of the nursing process

Correct Answer: B. Self-knowledge

Personal knowledge is self-understanding—awareness of one’s beliefs, values, biases, and so on. That best describes the nurse’s awareness that her bias can affect her patient care. Self-knowledge refers to knowledge of one’s own mental states, processes, and dispositions. Most agree it involves a capacity for understanding the representational properties of mental states and their role in shaping behavior.

- **Option A:** Theoretical knowledge consists of information, facts, principles, and theories in nursing and related disciplines; it consists of research findings and rationally constructed explanations of phenomena. Theoretical knowledge is a knowledge of why something is true. A set of true affirmations (factual knowledge) does not necessarily explain anything. In order to explain something, it is necessary to state why these truths are true. An explanation is required.
- **Option C:** Using reliable resources is a critical thinking skill. Critical thinking is, in short, self-directed, self-disciplined, self-monitored, and self-corrective thinking. It presupposes assent to rigorous standards of excellence and mindful command of their use. It entails effective communication and problem-solving abilities and a commitment to overcome our native egocentrism and sociocentrism.
- **Option D:** The nursing process is a problem-solving process consisting of the steps of assessing, diagnosing, planning outcomes, planning interventions, implementing, and evaluating. The nurse has not yet met this patient, so she could not have begun the nursing process.

11. When developing a discharge plan to manage the care of a client with COPD, the nurse should anticipate that the client will do which of the following?

- A. Develop infections easily.
- B. Maintain current status.
- C. Require less supplemental oxygen.
- D. Show permanent improvement.

Correct Answer: A. Develop infections easily.

A client with COPD is at high risk for development of respiratory infections. In emphysema, an irritant (e.g., smoking) causes an inflammatory response. Neutrophils and macrophages are recruited and release multiple inflammatory mediators. Oxidants and excess proteases leading to the destruction of the air sacs. The protease-mediated destruction of elastin leads to a loss of elastic recoil and results in airway collapse during exhalation.

- **Option B:** COPD is slowly progressive; therefore, maintaining current status is an unrealistic expectation. COPD is an inflammatory condition involving the airways, lung parenchyma, and pulmonary vasculature. The process is thought to involve oxidative stress and protease-antiprotease imbalances. Emphysema describes one of the structural changes seen in COPD where there is destruction of the alveolar air sacs (gas-exchanging surfaces of the lungs)

leading to obstructive physiology.

- **Option C:** This is an unrealistic expectation. The prognosis of COPD is variable based on adherence to treatment including smoking cessation and avoidance of other harmful gases. Patients with other comorbidities (e.g., pulmonary hypertension, cardiovascular disease, lung cancer) typically have a poorer prognosis. The airflow limitation and dyspnea are usually progressive.
- **Option D:** Treatment may slow progression of the disease, but permanent improvement is highly unlikely. As the disease progresses, impairment of gas exchange is often seen. The reduction in ventilation or increase in physiologic dead space leads to CO₂ retention. Pulmonary hypertension may occur due to diffuse vasoconstriction from hypoxemia.

12. A client who is taking Methotrexate (Trexall) asks the nurse on what is the appropriate activity while taking the medication. The nurse advised the client to play which activity?

- A. Basketball
- B. Ice hockey
- C. Football
- D. Tennis

Correct Answer: D. Tennis

Avoid contact sports or other situations where bruising or injury could occur because the medication can lower the number of platelets, which are necessary for proper blood clotting.

- **Options A, B, and C:** Basketball, ice hockey, and football are all contact sports.

13. Nurse Mary is caring for a wheelchair-bound client. Which piece of equipment impedes circulation to the area it's meant to protect?

- A. Polyurethane foam mattress
- B. Ring or donut
- C. Gel flotation pad
- D. Waterbed

Correct Answer: B. Ring or donut

Rings or donuts aren't to be used because they restrict circulation. Selection of a device may depend on factors such as mobility of the individual, the results of skin assessment, the level of and site at risk, weight, staff availability and skill plus the general health and condition of the individual. It is also important that any device is able to be cleaned and decontaminated effectively. It is accepted that these devices should be used in conjunction with other preventative strategies such as repositioning.

- **Option A:** Foam mattresses evenly distribute pressure. All studies showed a clinical benefit of higher specification foam mattresses (cubed foam mattress, soft foam mattress, pressure redistributing foam mattress), in reducing the incidence of pressure ulcers when compared to standard hospital mattresses.

- **Option C:** Gel pads redistribute with the client's weight. A gel-filled pad and a pressure-reducing cushion (designed to improve tissue tolerance in sitting by providing more surface area and reducing peak pressure) were clinically beneficial compared to foam cushions for reducing the incidence of pressure ulcers in people who use a wheelchair.
- **Option D:** The water bed also distributes pressure over the entire surface. Both a bead-filled mattress and a water-filled mattress showed a clinical benefit for reducing the incidence of pressure ulcers when compared to standard hospital mattresses (type not specified).

14. Nurse Bennet is a community nurse practicing primary prevention for psychiatric disorders in children. On which of the following risk factors would he focus?

- A. Being raised in a single-parent home
- B. Family history of mental illness
- C. Lack of peer friendship
- D. Family culture

Correct Answer: B. Family history of mental illness

Abnormal genes and family history of mental illness have been implicated in many psychiatric disorders occurring in children and adolescents. Genes associated with mental health disorders have been reported to show high expression throughout the lifespan, beginning in the 2nd trimester and impacting neurodevelopmental processes, which may explain the early ages of onset.

- **Option A:** There is no evidence that being raised in a single-parent home will increase a child's risk of developing a psychiatric disorder. Like adults, children and adolescents vary in temperament. Some are shy and reticent; others are socially exuberant. Some are methodical and cautious; others are impulsive and careless. Whether a child is behaving like a typical child or has a disorder is determined by the presence of impairment and the degree of distress related to the symptoms.
- **Option C:** Children who have problems with peers and withdraw from social interaction may have a psychiatric disorder; however, the nurse noting this problem would be practicing secondary, not primary, prevention. Children also exist in the context of environmental stressors such as the COVID-19 pandemic and military conflict. The resultant disruption of critical routines and isolation from extended family, peers, teachers, and cultural and religious groups have a significant impact, especially on the most vulnerable groups.
- **Option D:** Family culture is not a risk factor unless the parental behavior is dramatically atypical from the surrounding culture. Children exist in the context of a family system, and that system has a profound effect on children's symptoms and behaviors; normal children living in a family troubled by domestic violence and substance abuse may superficially appear to have one or more mental disorders.

15. Tina with a histrionic personality disorder is melodramatic and responds to others and situations in an exaggerated manner. Nurse Trish would recommend which of the following activities for Tina?

- A. Baking class
- B. Role-playing

C. Scrapbook making

D. Music group

Correct Answer: B. Role-playing

The nurse would use role-playing to teach the client appropriate responses to others and in various situations. This client dramatizes events, drawn attention to self, and is unaware of and does not deal with feelings. The nurse works to help the client clarify true feelings & learn to express them appropriately.

- **Option A:** A baking class would not work well with a histrionic client. Histrionic personality disorder, or dramatic personality disorder, is a psychiatric disorder distinguished by a pattern of exaggerated emotionality and attention-seeking behaviors. Histrionic personality disorder falls within the “Cluster B” of personality disorders. Cluster B personality disorders include conditions such as narcissistic personality disorder, borderline personality disorder, and antisocial personality disorder. These personality disorders are commonly described as dramatic, excitable, erratic, or volatile. Specifically, people with histrionic personality disorder typically present as flirtatious, seductive, charming, manipulative, impulsive, and lively.
- **Option C:** People with histrionic personality disorder may feel underappreciated or disregarded when they are not the center of attention. These people are typically the life of the party and have a “larger than life” presence. They may be vibrant, enchanting, overly seductive, or inappropriately sexual with most of the people they meet, even when they are not sexually attracted to them.
- **Option D:** People presenting with histrionic personality disorder may demonstrate rapidly shifting and shallow emotions that others may perceive as insincere. Physical appearance may be used to draw attention to oneself by wearing bright-colored clothing or revealing garments. Those with histrionic personality disorder may speak in a vague style that lacks in detail. Furthermore, they may be dramatic and extremely emotionally expressive, even embarrassing friends and family with public displays of emotions.

16. Which of the following cells is the precursor to the red blood cell (RBC)?

A. B cell

B. Macrophage

C. Stem cell

D. T cell

Correct Answer: C. Stem cell

The precursor to the RBC is the stem cell. B cells, macrophages, and T cells, and lymphocytes, not RBC precursors. Precursor cells are known as the intermediate cell before they become differentiated after being a stem cell. Usually, a precursor cell is a stem cell with the capacity to differentiate into only one cell type. Sometimes, precursor cells are used as an alternative term for unipotent stem cells.

- **Option A:** B cells are at the center of the adaptive humoral immune system and are responsible for mediating the production of antigen-specific immunoglobulin (Ig) directed against invasive pathogens (typically known as antibodies).
- **Option B:** Macrophages are specialized cells involved in the detection, phagocytosis, and destruction of bacteria and other harmful organisms. In addition, they can also present antigens to T cells and initiate inflammation by releasing molecules (known as cytokines) that activate other cells.

- **Option D:** T cells are so-called because they are predominantly produced in the thymus. They recognize foreign particles (antigen) by a surface-expressed, highly variable, T cell receptor (TCR).

17. Which of the following statement is correct?

- A. "Consent for medical treatment can be given by a minor with a sexually transmitted disease (STD)."
- B. "A second-trimester abortion can be given without state involvement."
- C. "Student nurses cannot be sued for malpractice while in a nursing clinical class."
- D. "Nurses who get sick and leave during a shift are not abandoning clients if they call their supervisor and leave a message about their emergency illness."

Correct Answer: A. "Consent for medical treatment can be given by a minor with a sexually transmitted disease (STD)."

Anyone, at any age, can be treated without parental permission for an STD infection. The client is "advised" to contact sexual partners but is not "required" to give names. Permission from parents is not needed, based upon current privacy laws. According to the CDC, as of 2020, all jurisdictions have laws that explicitly allow a minor of a particular age (as defined by each state) to give informed consent to receive STD diagnosis and treatment services. In some jurisdictions, a minor might be legally allowed to give informed consent to receive specific STD or HIV services, including PrEP, even if the law is silent on those disease-related services.

- **Option B:** Abortion is legal throughout the United States and its territories, although restrictions and accessibility vary from state to state. Abortion is a controversial and divisive issue in the society, culture, and politics of the U.S., and various anti-abortion laws have been in force in each state since at least 1900.
- **Option C:** One very important point is that student nurses are personally responsible for their own negligent acts. Student nurses are responsible for providing care to their patients, and students are held to the same standards as a licensed professional nurses when performing the duties of a nurse (Pozgar, 2016).
- **Option D:** North Dakota Board of Nursing defines "abandonment" as accepting the client assignment and disengaging the nurse and client relationship without giving notice to a qualified person. Behavior that demonstrates professional misconduct includes abandoning a client who is in need of or receiving nursing care and may be grounds for disciplinary action.

18. Which outcome indicates that treatment of a male client with diabetes insipidus has been effective?

- A. Fluid intake is less than 2,500 ml/day.
- B. Urine output measures more than 200 ml/hour.
- C. Blood pressure is 90/50 mm Hg.
- D. The heart rate is 126 beats/minute.

Correct Answer: A. Fluid intake is less than 2,500 ml/day.

Diabetes insipidus is characterized by polyuria (up to 8 L/day), constant thirst, and an unusually high oral intake of fluids. Treatment with the appropriate drug should decrease both oral fluid intake and urine output. It is essential to replete fluid losses in diabetes insipidus, as some patients may have thirst

impairment and will not respond adequately to water intake.

- **Option B:** A urine output of 200 ml/hour indicates continuing polyuria. The preferred therapy is DDAVP. Typically, therapy is maintained for the duration of central diabetes insipidus, which varies depending on the cause. The minimum dose should be administered to control polyuria adequately.
- **Option C:** A blood pressure of 90/50 mm Hg and a heart rate of 126 beats/minute indicate compensation for the continued fluid deficit, suggesting that treatment hasn't been effective. The prognosis for most patients with DI is excellent as long as the underlying primary cause can be treated. Lithium discontinuation can restore normal kidney function, but the nephrogenic DI may be permanent in some patients.
- **Option D:** It is important to monitor hyponatremia, as water retention can lead to sodium concentration changes that may cause brain injury. The patients and families should be educated to observe for symptoms of nausea, vomiting, lethargy, headaches, confusion, seizures, and coma.

19. An osmotic laxative will be prescribed for a client. The nurse understands which medications are osmotic laxative? Select all that apply

- A. senna (Senokot)
- B. mineral Oil (Kondremul)
- C. polyethylene glycol and electrolytes (GoLYTELY)
- D. sodium Phosphate (Fleet enema)
- E. bisacodyl (Dulcolax)

Correct Answer: C & D

Polyethylene glycol and sodium phosphate are osmotic laxatives that are used to attract water into the large intestines to produce bulk and stimulate peristalsis. Other osmotic are Magnesium hydroxide (Milk of Magnesia) and Magnesium citrate (Citrato of Magnesia).

- **Options A & E:** Senna and bisacodyl are stimulant laxatives.
- **Option B:** Mineral oil is a lubricant laxative.

20. Nurse Mandy is preparing a client for magnetic resonance imaging (MRI) to confirm or rule out a spinal cord lesion. During the MRI scan, which of the following would pose a threat to the client?

- A. The client lies still
- B. The client asks questions
- C. The client hears thumping sounds
- D. The client wears a watch and wedding band

Correct Answer: D. The client wears a watch and wedding band

During an MRI, the client should wear no metal objects, such as jewelry, because the strong magnetic field can pull on them, causing injury to the client and (if they fly off) to others.

- **Option A:** The client must lie still during the MRI. When clients move during an MRI, they create motion artifacts in magnetic resonance images that often appear as ghosting artifacts, obscuring

clinical information.

- **Option B:** The client may talk to those performing the test by way of the microphone inside the scanner tunnel.
- **Option C:** The client should hear thumping sounds, which are caused by the sound waves thumping on the magnetic field.

21. A nurse is caring for a pregnant client with severe preeclampsia who is receiving IV magnesium sulfate. Select all nursing interventions that apply in the care for the client.

- A. Monitor maternal vital signs every 2 hours.
- B. Notify the physician if respirations are less than 18 per minute.
- C. Monitor renal function and cardiac function closely.
- D. Keep calcium gluconate on hand in case of a magnesium sulfate overdose.
- E. Monitor deep tendon reflexes hourly.
- F. Monitor I and O's hourly.
- G. Notify the physician if urinary output is less than 30 ml per hour.

Correct Answer: C, D, E, F, and G.

- **Option A:** BP should be assessed with the goal of maintaining the diastolic BP at less than 110 mm Hg with administration of antihypertensive medications as needed (eg, hydralazine, labetalol, nifedipine).
- **Option B:** When caring for a client receiving magnesium sulfate therapy, the nurse would monitor maternal vital signs, especially respirations, every 30-60 minutes and notify the physician if respirations are less than 12, because this would indicate respiratory depression.
- **Option C:** Cardiac and renal function are monitored closely. Eclampsia-associated renal abnormalities can include decreases in glomerular filtration rate, renal plasma flow, and uric acid clearance as well as proteinuria. Eclampsia is associated with cardiovascular derangements such as generalized vasospasm, increased peripheral vascular resistance, and increased left ventricular stroke work index. Pulmonary capillary wedge pressure (PCWP) may vary from low to elevated. Importantly, central venous pressure (CVP) may not correlate with PCWP in patients with severe preeclampsia or eclampsia.
- **Option D:** Calcium gluconate is kept on hand in case of magnesium sulfate overdose because calcium gluconate is the antidote for magnesium sulfate toxicity.
- **Option E:** Deep tendon reflexes are assessed hourly. Ankle clonus indicated hyperreflexia and may precede the onset of eclampsia. Although brisk or hyperactive reflexes are common during pregnancy, clonus is a sign of neuromuscular irritability that usually reflects severe preeclampsia.
- **Option F:** Monitor fluid intake and urine output, maternal respiratory rate, and oxygenation, as indicated, and continuously monitor fetal status. Pulmonary arterial pressure monitoring is rarely indicated but may be helpful in patients who have evidence of pulmonary edema or oliguria/anuria.
- **Option G:** The urine output should be maintained at 30 ml per hour because the medication is eliminated through the kidneys.

Source:

22. A female client with suspected renal dysfunction is scheduled for excretory urography. Nurse January reviews the history for conditions that may warrant changes in client preparation. Normally, a client should be mildly hypovolemic (fluid depleted) before excretory urography. Which history finding would call for the client to be well hydrated instead?

- A. Cystic fibrosis
- B. Multiple myeloma
- C. Gout
- D. Myasthenia gravis

Correct Answer: B. Multiple myeloma

Fluid depletion before excretory urography is contraindicated in clients with multiple myeloma, severe diabetes mellitus, and uric acid nephropathy — conditions that can seriously compromise renal function in fluid-depleted clients with reduced renal perfusion. If these clients must undergo excretory urography, they should be well hydrated before the test.

- **Option A:** Cystic fibrosis is not a contraindication for excretory urography. Intravenous pyelography (IVP), or intravenous urography, is a diagnostic test that involves the administration of intravenous contrast and X-ray imaging of the urinary tract. The iodinated contrast flows through the renal vasculature and filtered into the collecting system highlighting the anatomic structures on the X-ray image.
- **Option C:** Gout in a client undergoing excretory urography is not a contraindication. It is often useful for the evaluation of hematuria, and renal stone disease, and as a follow-up after the intervention. The urographic imaging sequence is designed to depict specific parts of the urinary tract optimally. Portions of the urinary system appear opaque when filled with contrast material.
- **Option D:** Myasthenia gravis don't necessitate changes in client preparation for excretory urography. The patient must empty the bladder before the procedure. Images should systematically be obtained to improve the visualization of stones and increase the soft-tissue contrast. Imaging shall include the area from the suprarenal region to below the pubic symphysis.

23. The nurse is teaching a female client with a leg ulcer about tissue repair and wound healing. Which of the following statements by the client indicates effective teaching?

- A. "To make the bandage tightly wrapped ."
- B. "My foot should feel cold."
- C. "I'll include fruits and vegetables in my meal plan."
- D. "I'll restrict my intake of protein."

Correct Answer: C. "I'll include fruits and vegetables in my meal plan."

The beneficial nutrients found in fruits and vegetables are essential in the wound healing process.

- **Option A:** The bandage should be secure but not too tight to impede circulation to the area (needed for tissue repair).
- **Option B:** If the client's foot feels cold, circulation is impaired, thus inhibiting wound healing.

- **Option D:** For effective tissue healing, adequate intake of protein is needed.

24. Sterile technique is used whenever:

- A. Strict isolation is required
- B. Terminal disinfection is performed
- C. Invasive procedures are performed
- D. Protective isolation is necessary

Correct Answer: C. Invasive procedures are performed

All invasive procedures, including surgery, catheter insertion, and administration of parenteral therapy, require a sterile technique to maintain a sterile environment. All equipment must be sterile, and the nurse and the physician must wear sterile gloves and maintain surgical asepsis. In the operating room, the nurse and physician are required to wear sterile gowns, gloves, masks, hair covers, and shoe covers for all invasive procedures.

- **Option A:** Strict isolation requires the use of clean gloves, masks, gowns, and equipment to prevent the transmission of highly communicable diseases by contact or by airborne routes. Strict isolation is used for diseases spread through the air and in some cases by contact. Patients must be placed in isolation to prevent the spread of infectious diseases. Those who are kept in strict isolation are often kept in a special room at the facility designed for that purpose.
- **Option B:** Terminal disinfection is the disinfection of all contaminated supplies and equipment after a patient has been discharged to prepare them for reuse by another patient. Terminal disinfection has the objective of preparing complete rooms or areas for subsequent patients or residents for them to be treated or cared for without the risk of acquiring an infection. This disinfection measure is applied in rooms and areas where an infected or colonized patient/resident has been cared for or treated. Depending on the existing disease or type of pathogen all near-patient surfaces/objects or all accessible surfaces (e.g. also floors or walls) are to be disinfected.
- **Option D:** The purpose of protective (reverse)isolation is to prevent a person with seriously impaired resistance from coming into contact with potentially pathogenic organisms. Protective Isolation aims to protect an immunocompromised patient who is at high risk of acquiring micro-organisms from either the environment or from other patients, staff, or visitors.

25. The nurse is reviewing the healthcare record of a male client scheduled to be seen at the health care clinic. The nurse determines that which of the following individuals is at the greatest risk for the development of an integumentary disorder?

- A. An adolescent
- B. An older female
- C. A physical education teacher
- D. An outdoor construction worker

Correct Answer: D. An outdoor construction worker

Prolonged exposure to the sun, unusual cold, or other conditions can damage the skin. The outdoor construction worker would fit into a high-risk category for the development of an integumentary

disorder.

- **Option A:** An adolescent may be prone to the development of acne, but this does not occur in all adolescents.
- **Option B:** Immobility and lack of nutrition would increase the older person's risk but the older client is not at as high a risk as to the outdoor construction worker.
- **Option C:** The physical education teacher is at low or no risk of developing an integumentary problem.

26. Joey who has a chronic user of cocaine reports that he feels like he has cockroaches crawling under his skin. His arms are red because of scratching. The nurse in charge interprets these findings as possibly indicating which of the following?

- A. Delusion
- B. Formication
- C. Flashback
- D. Confusion

Correct Answer: B. Formication

The feeling of bugs crawling under the skin is termed as formication, and is associated with cocaine use. Formication is the sensation that resembles that of small insects crawling on (or under) the skin when there is nothing there. It is one specific form of a set of sensations known as paresthesias, which also include the more common prickling, tingling sensation known as "pins and needles".

- **Option A:** Delusions are defined as fixed, false beliefs that conflict with reality. Despite contrary evidence, a person in a delusional state can't let go of their convictions. Delusions are often reinforced by the misinterpretation of events. Many delusions also involve some level of paranoia. For example, someone might contend that the government is controlling our every move via radio waves despite evidence to the contrary.
- **Option C:** Flashbacks are psychological phenomena during which a person relives a past event or fragments of a past experience. They generally occur involuntarily, abruptly entering an individual's awareness without the aid of premeditation or conscious attempts to recall the memory, and they may be intense.
- **Option D:** A mental disturbance characterized by bewilderment, inability to think clearly or act decisively, and disorientation for time, place, and person. Also called mental confusion.

27. Which focus is the nurse most likely to teach for a client with a flaccid bladder?

- A. Habit training: attempt voiding at specific time periods.
- B. Bladder training: delay voiding according to a pre-schedule timetable.
- C. Crede's maneuver: apply gentle manual pressure to the lower abdomen.
- D. Kegel exercises: contract the pelvic muscles.

Correct Answer: C. Crede's maneuver: apply gentle manual pressure to the lower abdomen.

Because the bladder muscles will not contract to increase the intra-bladder pressure to promote urination, the process is initiated manually. The Credé maneuver is a technique used to void urine from the bladder of an individual who, due to disease, cannot do so without aid. The Credé maneuver is executed by exerting manual pressure on the abdomen at the location of the bladder, just below the navel. Options one, two, and four: to promote continence bladder contractions are required for habit training, bladder training, and increasing the tone of the pelvic muscles.

- **Option A:** One type of toilet training is habit training. Habit training is the process of teaching a child to eliminate on the toilet at routine times. Habit training involves teaching children to eliminate on the toilet by developing a toileting routine/habit.
- **Option B:** Bladder training is an important form of behavior therapy that can be effective in treating urinary incontinence. The goals are to increase the amount of time between emptying your bladder and the amount of fluids your bladder can hold. It also can diminish leakage and the sense of urgency associated with the problem.
- **Option D:** Kegel exercises can help make the muscles under the uterus, bladder, and bowel (large intestine) stronger. They can help both men and women who have problems with urine leakage or bowel control.

28. When the nurse described the client as “that nasty old man in room 201,” the nurse is exhibiting which ethical dilemma?

- A. Gender bias and ageism
- B. HIPAA violation
- C. Beneficence
- D. Code of ethics violation

Correct Answer: A. Gender bias and ageism

Stereotyping an “old man” as “nasty” is a gender bias and an ageism issue. The nurse is verbalizing a negative descriptor about the client. Anyone who lives long enough is at risk of experiencing ageism. In Western, industrialized countries, older people are often perceived as unproductive and as using too much of society’s resources (Gullette 2004). As countries’ demographics shift toward larger percentages of older citizens (due to declines in birth rates and increases in longevity), aging is often framed in public policy debates as a social problem, and the hyperbolic language that is frequently used (e.g., “the gray tsunami”) to describe shifting demographics contributes to ageism.

- **Option B:** The Health Insurance Portability and Accountability Act of 1996 is a landmark piece of legislation that was introduced to simplify the administration of healthcare, eliminate wastage, prevent healthcare fraud, and ensure that employees could maintain healthcare coverage when between jobs. A HIPAA violation is a failure to comply with any aspect of HIPAA standards and provisions detailed in 45 CFR Parts 160, 162, and 164.
- **Option C:** Beneficence is defined as an act of charity, mercy, and kindness with a strong connotation of doing good to others including moral obligation. All professionals have the foundational moral imperative of doing right.
- **Option D:** Serious ethical violations are acts that not only disregard codes of medical ethics, but also risk directly harming patients and subjecting the wrongdoer to criminal, tort, or medical board actions.

29. The nurse observes a co-worker preparing to administer a solution of lidocaine and epinephrine to a client with multiple premature ventricular contractions. The appropriate action by the nurse is to:

- A. Offer to monitor the client's heart rhythm.
- B. Notify the supervisor of the error.
- C. Do nothing; the drug choice is correct.
- D. Prevent the administration and give a plain lidocaine solution.

Correct Answer: D. Prevent the administration and give a plain lidocaine solution.

Solutions of lidocaine containing preservatives or epinephrine are intended for local anesthesia only, and must never be given IV for dysrhythmias. Cardiac dysrhythmias are common during anesthesia and surgery. An important precipitating factor of clinically relevant arrhythmias is the intraoperative use of epinephrine. Bradykinin acts as an endogenous cardioprotective substance because it suppresses ventricular dysrhythmias induced by ischemia.

- **Option A:** Epinephrine is a hormone that produces widespread effects. Certain effects need monitoring. Tachycardia and hypertension are expected effects when giving epinephrine intravenously, so it is important to titrate the drug carefully while monitoring hemodynamics.
- **Option B:** Epinephrine is also used with anesthetic agents to provide analgesia. In locations where extravasation of epinephrine has occurred, prevention and treatment of ischemia-induced necrosis are necessary. The infiltrated area should receive treatment with a 10 mL to 15 mL saline solution containing 5 mL to 10 mg of phentolamine, an alpha-adrenergic blocking agent.
- **Option C:** Another unique contraindication to be aware of is catecholaminergic polymorphic ventricular tachycardia. As is the case with prescribing any medication, all practitioners should use clinical judgment and evaluate the benefits versus risks with epinephrine.

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

- A. "I will need to dispose of my old clothing when I return home."
- B. "I should always cover my mouth and nose when sneezing."
- C. "It is important that I isolate myself from family when possible."
- D. "I should use paper tissues to cough in and dispose of them properly."
- E. "I can use regular plates and utensils whenever I eat."

Correct Answer: B, C, D, E

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

- **Option A:** Identify others at risk like household members, close associates, and friends. Those exposed may require a course of drug therapy to prevent spread or development of infection.

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

31. A 22-year-old lady is displaying facial grimaces during her treatment in the hospital due to burn trauma. Which nursing intervention should be included for reducing pain due to cellular injury?

- A. Administering anti-inflammatory agents as prescribed.
- B. Elevating the injured area to decrease venous return to the heart.
- C. Keeping the skin clean and dry.
- D. Applying warm packs initially to reduce edema.

Correct Answer: A. Administering anti-inflammatory agents as prescribed

Anti-inflammatory agents help reduce edema and relieve pressure on nerve endings, subsequently reducing pain. The burned patient may require around-the-clock medication and dose titration. IV method is often used initially to maximize drug effect.

- **Option B:** Elevating the injured area increases venous return to the heart. Elevation may be required initially to reduce edema formation; thereafter, changes in position and elevation reduce discomfort and risk of joint contractures.
- **Option C:** Maintaining clean, dry skin aids in preventing skin breakdown. Cover wounds as soon as possible unless an open-air exposure burn care method is required. Temperature changes and air movement can cause great pain to exposed nerve endings.
- **Option D:** Cool packs, not warm packs, should be used initially to cause vasoconstriction and reduce edema. Altered tissue perfusion and edema formation impair drug absorption. Injections into potential donor sites may render them unusable because of hematoma formation.

32. The most serious adverse effect of tricyclic antidepressant (TCA) overdose is:

- A. Hyperpyrexia
- B. Cardiac arrhythmias
- C. Seizures
- D. Metabolic acidosis

Correct Answer: B. Cardiac arrhythmias.

Excessive ingestion of TCAs results in life-threatening wide QRS complex tachycardia. Tricyclic antidepressants act on approximately five different neurotransmitter pathways to achieve their effects. They block the reuptake of serotonin and norepinephrine in presynaptic terminals, which leads to increased concentration of these neurotransmitters in the synaptic cleft. The increased concentrations of norepinephrine and serotonin in the synapse likely contribute to its antidepressant effect.

- **Option A:** TCAs do not cause an elevation in body temperature. TCAs have varying degrees of receptor affinities, leading to several adverse effects. The most common adverse effects include constipation, dizziness, and xerostomia. Due to its blockade of cholinergic receptors, it can lead to blurred vision, constipation, xerostomia, confusion, urinary retention, and tachycardia.
- **Option C:** TCA overdose can induce seizures, but they are typically not life-threatening. There is evidence of TCAs increasing the risk of seizures in those with epilepsy, and use requires caution in this population.
- **Option D:** TCAs do not cause metabolic acidosis. Due to the blockade of alpha-1 adrenergic receptors, it can cause orthostatic hypotension and dizziness. TCA-induced histamine blockade (H1) may lead to sedation, increased appetite, weight gain, and confusion.

33. When caring for a client with a central venous line, which of the following nursing actions should be implemented in the plan of care for chemotherapy administration? Select all that apply.

- A. Verify patency of the line by the presence of a blood return at regular intervals.
- B. Inspect the insertion site for swelling, erythema, or drainage.
- C. Administer a cytotoxic agent to keep the regimen on schedule even if blood return is not present.
- D. If unable to aspirate blood, reposition the client, and encourage the client to cough.
- E. Contact the health care provider about verifying placement if the status is questionable.

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

A major concern with the intravenous administration of cytotoxic agents is vessel irritation or extravasation. In order to avoid additional chemotherapy adverse effects, every effort should be made to minimize the complications of chemotherapy administration. All the oncology team members share the responsibility to ensure the safe administration of chemotherapy.

- **Option A:** The Oncology Nursing Society and hospital guidelines require frequent evaluation of blood return when administering vesicant or non-vesicant chemotherapy due to the risk of extravasation. These guidelines apply to peripheral and central venous lines.
- **Option B:** Chemotherapy extravasation is manifested by a wide range of symptoms that can be mild and can present as acute burning pain, swelling, at the infusion site. Symptoms vary according to the amount and concentration of extravasated drugs. Pain and erythema, induration, and skin discoloration progresses over a few days and weeks and may progress to blister formation. Unlike flare reaction and vessel irritation, extravasation is usually manifested with no or minimal blood return at the infusion site.
- **Option C:** In case of chemotherapy extravasation and as soon as the patient complains of pain or swelling, the first step should be an immediate cessation of the infusion while keeping the cannula or port needle in place. This is followed by attempts at the aspiration of the chemotherapeutic agent and removing the cannula or port needle.

- **Option D:** In addition, central venous lines may be long-term venous access devices. Thus, difficulty drawing or aspirating blood may indicate the line is against the vessel wall or may indicate the line has occlusion. Having the client cough or move position may change the status of the line if it is temporarily against a vessel wall.
- **Option E:** Occlusion warrants a more thorough evaluation via x-ray study to verify placement if the status is questionable and may require a declotting regimen. Any local incidence of extravasation should be reported. While documentation may differ among institutions, certain items remain essential and should be documented for every incident.

34. The human body functions optimally in a state of homeostasis.

- A. True
- B. False
- C. Maybe
- D. Homeostasis has nothing to do with metabolic balance.

Correct Answer: A. True

The maintenance of acid-base balance, which in one part of homeostasis, is evidenced by an arterial plasma pH value of 7.35-7.45. Many mechanisms in the body work together to achieve and maintain this delicate narrow range of pH that is essential for normal cell function.

35. Which of the following responses is most appropriate for a mother with diabetes who wants to breastfeed her infant but is concerned about the effects of breastfeeding on her health?

- A. Mothers with diabetes who breastfeed have a hard time controlling their insulin needs.
- B. Mothers with diabetes shouldn't breastfeed because of potential complications.
- C. Mothers with diabetes shouldn't breastfeed; insulin requirements are doubled.
- D. Mothers with diabetes may breastfeed; insulin requirements may decrease from breastfeeding.

Correct Answer: D. Mothers with diabetes may breastfeed; insulin requirements may decrease from breastfeeding.

Breastfeeding has an antidiabetogenic effect. Insulin needs are decreased because carbohydrates are used in milk production. Breastfeeding mothers are at a higher risk of hypoglycemia in the first PP days after birth because the glucose levels are lower. Mothers with diabetes should be encouraged to breastfeed.

- **Option A:** Breastfeeding has a positive effect on a mother's insulin response. For Type 1 diabetic mothers this can decrease their need for insulin during the breastfeeding period. Mothers who have Type 2 diabetes may find they require less hypoglycemic medication while breastfeeding. Good control of your insulin levels is important while breastfeeding. The woman may need to do some additional monitoring and be in close contact with her health practitioner during the early weeks until her hormones and her milk productions stabilize.
- **Option B:** Planning ahead with the birth team to manage these potential events can be helpful so everyone is prepared and not making decisions in a stressful situation. If at all possible plan to breastfeed within the first hour after birth and at least once an hour until the baby's blood sugar

levels stabilize. Skin-to-skin contact has been found to decrease the risk of hypoglycemia in newborns and it helps trigger the hormones that drive breastfeeding.

- **Option C:** A mother who is diabetic or insulin-resistant may find that it takes a bit longer for her milk volume to increase after giving birth. Colostrum is providing all the nutrients, (vitamins, minerals, and fats) that baby needs through the early days. Frequent effective feedings will speed up the body's ability to increase the milk volume. In the event that supplementation is required during the first few days, human donor milk is the best option.

36. The nurse has conducted discharge teaching for a client who had a fenestration procedure for the treatment of otosclerosis. Which of the following, if stated by the client, would indicate that teaching was effective?

- A. "I should drink liquids through a straw for the next 2-3 weeks."
- B. "It's ok to take a shower and wash my hair."
- C. "I will take stool softeners as prescribed by my doctor."
- D. "I can resume my tennis lessons starting next week."

Correct Answer: C. "I will take stool softeners as prescribed by my doctor."

Following ear surgery, the client needs to avoid straining while having a bowel movement. The fenestration operation for improving the hearing in otosclerosis rests on a very simple principle: the creation of a new window into the labyrinth to take the place of the oval window which has become occluded by the otosclerotic bone proliferation.

- **Option A:** The client needs to be instructed to avoid drinking through a straw for 2-3 weeks, air travel, and coughing excessively. The first postoperative visit is usually scheduled after 2 weeks, which allows time for the tympanomeatal flap to heal in place. The canal may be débrided at this time.
- **Option B:** The client needs to avoid getting his or her hair wet, washing hair, showering for 1 week. The patient should be counseled as to the surgeon's specific postoperative instructions, including avoidance of nose blowing, sneezing, and allowance of water into the ear canal.
- **Option D:** The client should avoid rapidly moving the head, bouncing, and bending over for 3 weeks. Cotton balls are placed in the meatus 2-3 times per day to collect discharge from the canal over the first several days after the surgery. Postoperative audiometrics are typically performed 3-6 weeks after surgery.

37. Physiologically, the middle ear, containing the three ossicles, serves primarily to: Maintain balance.

- A. Maintain balance.
- B. Translate sound waves into nerve impulses.
- C. Amplify the energy of sound waves entering the ear.
- D. Communicate with the throat via the Eustachian tube.

Correct Answer: C. Amplify the energy of sound waves entering the ear.

The middle ear contains the three ossicles—malleus, incus, and stapes—which, along with the tympanic membrane and oval window, form an amplifying system. These bony structures are suspended by ligaments which make them suitable for transmission of vibrations into the inner ear. The vibrations that come into this part of the middle ear then get transmitted by the action of the stapes, into the inner ear.

- **Option A:** The inner ear is a space composed of the bony labyrinth and the membranous labyrinth, one inside the other. The bony labyrinth has a cavity filled with semicircular canals that are in charge of sensing equilibrium; this cavity is called the vestibule and is the place where the vestibular part of the VIII cranial nerve forms.
- **Option B:** The first transformation consists of the conversion of air vibrations into tympanic membrane vibrations. These vibrations then get transmitted into the middle ear and the ossicles. Then these vibrations transform into liquid vibrations in the inner ear and the cochlea, and these stimulate a region called the basilar membrane and the organ of Corti. Finally, these vibrations get transformed into nerve impulses, which travel to the nervous system.
- **Option D:** The Eustachian tube plays a role in equalization, oxygenation, and drainage of the tympanic cavity in the middle ear. More specifically, the Eustachian tube permits equalization of pressure in the middle ear with respect to ambient pressure. In doing so, the Eustachian tube allows for regulation of the pressure across the tympanic membrane.

38. You have just admitted a patient with bacterial meningitis to the medical-surgical unit. The patient complains of a severe headache with photophobia and has a temperature of 102.60 F orally. Which collaborative intervention must be accomplished first?

- A. Administer codeine 15 mg orally for the patient's headache.
- B. Infuse ceftriaxone (Rocephin) 2000 mg IV to treat the infection.
- C. Give acetaminophen (Tylenol) 650 mg orally to reduce the fever.
- D. Give furosemide (Lasix) 40 mg IV to decrease intracranial pressure.

Correct Answer: B. Infuse ceftriaxone (Rocephin) 2000 mg IV to treat the infection.

Untreated bacterial meningitis has a mortality rate approaching 100%, so rapid antibiotic treatment is essential.

- **Option A:** Pain medications may be given after treating the infection that is most probably causing it.
- **Option C:** Acetaminophen should be given to decrease the fever after administering the antibiotics first.
- **Option D:** Furosemide will help reduce CNS stimulation and irritation and should be implemented as soon as possible.

39. To prevent postoperative complications, Nurse Kim assists the client with coughing and deep breathing exercises. This is best accomplished by implementing which of the following?

- A. Coughing exercises one hour before meals and deep breathing one hour after meals.

- B. Forceful coughing as many times as tolerated.
- C. Huff coughing every two hours or as needed.
- D. Diaphragmatic and pursed lip breathing 5 to 10 times, four times a day.

Correct Answer: C. Huff coughing every two hours or as needed.

Huff coughing helps keep the airways open and secretions mobilized. Huff coughing is an alternative for clients who are unable to perform a normal forceful cough (such as postoperatively) deep breathing and coughing should be performed at the same time.

- **Option A:** Only at mealtimes is not sufficient. Deep breathing and coughing exercises can decrease the risk of lung complications following surgery. Not only can they prevent pneumonia, deep breathing helps to get more oxygen to the body's cells. These exercises can also be beneficial to individuals who are susceptible to pulmonary or respiratory problems. Coughing and deep breathing work to clear mucus and allow moist air to enter the airways.
- **Option B:** Extended forceful coughing fatigues the client, especially postoperatively. If you are lying in bed and need to cough, it may be more comfortable to bend your knees up. Lean forward when you cough, if you are sitting in a chair. Place a pillow over your surgical incision and apply pressure to the area while coughing. This can help to alleviate any discomfort you feel. It's more comfortable to sit upright if you can when doing coughing exercises.
- **Option D:** Diaphragmatic and pursed-lip breathing are techniques used for clients with obstructive airway disease. You can perform breathing exercises by relaxing your shoulders and upper chest. Take a deep breath in through your nose. Hold the breath for three seconds. Breathe out slowly through your mouth. Repeat three times. Taking too many breaths can make you dizzy or light-headed. Perform breathing exercises every hour.

40. He plans to use a Likert Scale to determine:

- A. Degree of agreement and disagreement
- B. Compliance to expected standards
- C. Level of satisfaction
- D. Degree of acceptance

Correct Answer: A. Degree of agreement and disagreement

Likert scale is a 5-point summated scale used to determine the degree of agreement or disagreement of the respondents to a statement in a study. The Likert scale question is a psychometric scale where questions based on this scale are used in a survey. It is one of the most widely used question types in a survey. In a Likert scale survey, respondents don't choose between 'yes/no,' there are specific choices based on 'agreeing' or 'disagreeing' on a particular survey question.

- **Option B:** A compliance survey captures statements of compliance on specific issues from various constituencies. Using an online survey to gather such declaration or representation makes the process extremely efficient.
- **Option C:** A numeric scale is a type of rating scale that requires the respondent to provide his or her feedback in terms of numerical values. This type of rating scale equates comparative survey response options to an ordered set of numerical values so that respondents can quantify their opinions.

- **Option D:** A multi-checkbox scale is a type of rating scale that lists different positive and negative attributes that describe a survey respondent's perception of a product, service, or experience. The multi-checkbox scale is often used to assess a brand's attitude, rate a user's experience, or determine the quality of a product.

41. A male client with type 1 diabetes mellitus has a highly elevated glycosylated hemoglobin (Hb) test result. In discussing the result with the client, nurse Sharmaine would be most accurate in stating:

- A. "The test needs to be repeated following a 12-hour fast."
- B. "It looks like you aren't following the prescribed diabetic diet."
- C. "It tells us about your sugar control for the last 3 months."
- D. "Your insulin regimen needs to be altered significantly."

Correct Answer: C. "It tells us about your sugar control for the last 3 months."

The glycosylated Hb test provides an objective measure of glycemic control over a 3-month period. The test helps identify trends or practices that impair glycemic control, and it doesn't require a fasting period before blood is drawn. The nurse can't conclude that the result occurs from poor dietary management or inadequate insulin coverage.

- **Option A:** The hemoglobin A1c (glycated hemoglobin, glycosylated hemoglobin, HbA1c, or A1c) test is used to evaluate a person's level of glucose control. The test shows an average of the blood sugar level over the past 90 days and represents a percentage. The test can also be used to diagnose diabetes.
- **Option B:** The venous sample A1c test may be used as a diagnostic tool in clinical practice when determining diabetes risk or onset. Due to the variability of capillary point of care testing, any A1c done by capillary sample should be confirmed with a venous sample before rendering the diagnosis.
- **Option D:** There are several conditions where the A1c test can produce inaccurate results. People diagnosed with sickle cell anemia, thalassemia, anemia, kidney failure, liver disease, or patients receiving blood transfusions can experience altered results due to the longevity of the red blood cell. A1c tests in these patients must be interpreted with caution and should be confirmed with plasma glucose samples to diagnose diabetes.

42. When action is taken on one's prejudices:

- A. Discrimination occurs.
- B. Sufficient comparative knowledge of diverse groups is obtained.
- C. Delivery of culturally congruent care is ensured.
- D. People think/know you are a dumbass for being prejudiced.

Correct Answer: A. Discrimination occurs.

Discrimination is defined as a showing of partiality or prejudice in treatment; action or policies directed against the welfare of minority groups. Discrimination in the health sector is disturbing as it violates the basic principles articulated by care providers. Discrimination can be direct or indirect. Given the impact of unintentional discrimination based upon attitudes and stereotyping, all nurses must examine their

biases and prejudices for indications of discriminatory actions.

- **Option B:** People in socially disadvantaged groups face a myriad of challenges to their health. Discrimination, based on group status such as gender, immigration generation, race/ethnicity, or religion, are a well-documented health challenge. Nurses must seek out and support nursing practice environments that embrace inclusive strategies and promote civility and mutual respect regarding patients, coworkers, and members of the community.
- **Option C:** Individuals who have experienced discrimination in the past may be more reluctant to seek health care, as they may perceive it as a setting of increased risk for discrimination (i.e., refusal of service or lower quality of care). This may be especially true for those who have experienced discrimination within the health care setting itself. Nurses must encourage all health care agencies to adopt and aggressively maintain policies, procedures, and practices that embrace inclusiveness, promote civility and mutual respect, contain methods for reporting violations, and require interventions to avoid recurrence.
- **Option D:** Nurses must engage in a period of self-reflection regarding their personal and professional values regarding civility, mutual respect, and inclusiveness, and resolve any potential conflicts in ways that ensure patient safety and promote the best interests of the patient (ANA, 2015).

43. Septal involvement occurs in which type of cardiomyopathy?

- A. Congestive
- B. Dilated
- C. Hypertrophic
- D. Restrictive

Correct Answer: C. Hypertrophic

In hypertrophic cardiomyopathy, hypertrophy of the ventricular septum – not the ventricle chambers – is apparent. Hypertrophic cardiomyopathy (HCM) is a genetic cardiovascular disease. It is defined by an increase in left ventricular wall thickness that is not solely explained by abnormal loading conditions. This disorder is caused by a mutation in cardiac sarcomere protein genes and is most frequently transmitted as an autosomal dominant trait.

- **Option A:** In congestive cardiomyopathy, the heart becomes stretched and weakened and is unable to pump effectively. Congestive cardiomyopathy is a clinical state in which an abnormality of ventricular myocardium results in impaired pump function and circulatory congestion.
- **Option B:** Dilated cardiomyopathy is also called congestive cardiomyopathy, which is a condition wherein the heart cannot pump effectively due to its weakening state. In dilated cardiomyopathy, the heart's ability to pump blood is decreased because the heart's main pumping chamber, the left ventricle, is enlarged, dilated and weak. At first, the chambers of the heart respond by stretching to hold more blood to pump through the body. This helps to strengthen the heart's contraction and keep the blood moving for a short while. With time, the heart muscle walls weaken and are not able to pump as strongly.
- **Option D:** Restrictive cardiomyopathy, the rarest form of cardiomyopathy, is a condition in which the walls of the lower chambers of the heart (the ventricles) are abnormally rigid and lack the flexibility to expand as the ventricles fill with blood.

44. For a female client with newly diagnosed cancer, the nurse formulates a nursing diagnosis of Anxiety related to the threat of death secondary to cancer diagnosis. Which expected outcome would be appropriate for this client?

- A. "Client stops seeking information."
- B. "Client uses any effective method to reduce tension."
- C. "Client doesn't guess at prognosis."
- D. "Client verbalizes feelings of anxiety."

Correct Answer: D. "Client verbalizes feelings of anxiety."

- **Option D:** Verbalizing feelings is the client's first step in coping with the situational crisis. It also helps the health care team gain insight into the client's feelings, helping guide psychosocial care.
- **Option A:** Seeking information can help a client with cancer gain a sense of control over the crisis.
- **Option B:** This is undesirable because some methods of reducing tension, such as illicit drug or alcohol use, may prevent the client from coming to terms with the threat of death as well as cause physiological harm.
- **Option C:** Suppressing speculation may prevent the client from coming to terms with the crisis and planning accordingly.

45. Mr. Richards, a 64-year-old retired pilot, has been living with gout for several years. During his last physician visit, he was prescribed probenecid to help manage his condition. Nurse Hamilton is preparing Mr. Richards for discharge and wants to ensure he understands how to take his new medication correctly. Which instructions should Nurse Hamilton emphasize to Mr. Richards regarding the use of probenecid? Select all that apply.

- A. "Increase your fluid intake to prevent kidney stone formation."
- B. "Take the medication on an empty stomach for optimal absorption."
- C. "Avoid consuming alcohol while taking this medication."
- D. "Expect an immediate reduction in pain and swelling."
- E. "Monitor your uric acid levels regularly."

Correct Answers: A, B, C, and E.

- **Option A:** Probenecid increases the excretion of uric acid in the urine, which can lead to the formation of uric acid stones in the kidneys. Increased fluid intake helps dilute the urine and decreases the risk of stone formation.
- **Option B:** This is correct but it can also be taken with food to decrease the risk of gastrointestinal symptoms.
- **Option C:** Alcohol can increase uric acid levels in the blood and reduce the effectiveness of probenecid, potentially triggering gout attacks.
- **Option E:** Monitoring uric acid levels helps assess the effectiveness of the medication and ensures levels are within a therapeutic range.

- **Option D:** Probenecid works by helping the kidneys remove extra uric acid from the body. It does not have direct anti-inflammatory effects and won't offer immediate pain relief.

46. Ms. Clark has hyperthyroidism and is scheduled for a thyroidectomy. The physician has ordered Lugol's solution for the client. The nurse understands that the primary reason for giving Lugol's solution preoperatively is to:

- A. Decrease the risk of agranulocytosis postoperatively.
- B. Prevent tetany while the client is under general anesthesia.
- C. Reduce the size and vascularity of the thyroid and prevent hemorrhage.
- D. Potentiate the effect of the other preoperative medication so less medicine can be given while the client is under anesthesia.

Correct Answer: C. Reduce the size and vascularity of the thyroid and prevent hemorrhage.

The client may receive an iodine solution (Lugol's solution) for 10 to 14 days before surgery to decrease vascularity of the thyroid and thus prevent excess bleeding. Plummer observed a 75% decrease in mortality associated with thyroidectomy when Lugol's solution was introduced. At that time metabolic rate decreased as well as symptoms.

- **Option A:** Doses of over 30 mg/day may increase the risk of agranulocytosis. In a recent randomized control trial in patients receiving Lugol's solution median blood losses (50 vs. 140 mL), and operative times (138 vs. 150 min), were also significantly less compared to controls. The reduced blood loss is associated with both a 60% reduction in systemic angiogenic factor (VEGF) and with 50% of interleukin-16. If other angiogenic mediators also are involved is unknown.
- **Option B:** Lugol's solution does not act to prevent tetany. Calcium is used to treat tetany. Lugol's solution is used both in combination with antithyroid drugs preoperatively in planned thyroidectomies in certain centers routinely, and alone as rescue therapy if severe side effects to antithyroid drugs have occurred.
- **Option D:** Lugol's solution does not potentiate any other preoperative medication. Lugol's solution and other iodide preparations seem to have a low frequency of adverse effects. In doses of 1000 times the normal nutritional need, side effects may include acne, loss of appetite, or upset stomach. More severe side effects are fever, weakness, unusual tiredness, swelling in the neck or throat, mouth sores, skin rash, nausea, vomiting, stomach pains, irregular heartbeat, numbness or tingling of the hands or feet, or a metallic taste in the mouth.

48. Hydrocortisone cream 1% is given to a child with eczema. The nurse gives instruction to the mother to apply the cream by?

- A. Apply a thin layer of cream and spread it into the area thoroughly.
- B. Avoid cleansing the area before the application.
- C. Apply a thick layer of the cream to affected areas only.
- D. Apply the cream to other areas to avoid occurrence.

Correct Answer: A. Apply a thin layer of cream and spread it into the area thoroughly.

Topical corticosteroids are administered sparingly and rubbed into the area thoroughly. Topical steroid creams and ointments should be applied in a thin layer and massaged into the affected area.

- **Option B:** The area should be cleaned first before administration. Because topical steroids can cause side effects, the spacing of intermittent applications should be discussed with a healthcare provider before proceeding.
- **Option C:** Different surfaces of the skin absorb topical steroids differently. Therefore the strength of the steroid should correspond to the type of skin where it is to be applied. The greater the steroid group number, the greater the risk of side effects.
- **Option D:** Rubbing it in other areas will likely lead to systemic absorption. Infants and young children have skin that absorbs topical steroids more readily, also requiring a low-potency steroid.

49. Which of the following are the most commonly assessed findings in cystitis?

- A. Frequency, urgency, dehydration, nausea, chills, and flank pain
- B. Nocturia, frequency, urgency dysuria, hematuria, fever, and suprapubic pain
- C. Dehydration, hypertension, dysuria, suprapubic pain, chills, and fever
- D. High fever, chills, flank pain nausea, vomiting, dysuria, and frequency

Correct Answer: B. Manifestations of cystitis include, frequency, urgency, dysuria, hematuria nocturia, fever, and suprapubic pain.

Dehydration, hypertension, and chills are not typically associated with cystitis. High fever chills, flank pain, nausea, vomiting, dysuria, and frequency are associated with pyelonephritis.

- **Option A:** Cystitis usually develops due to the colonization of the periurethral mucosa by bacteria from the fecal or vaginal flora and ascension of such pathogens to the urinary bladder. Uropathogens may have microbial virulence factors that allow them to escape host defenses and invade host tissues in the urinary tract.
- **Option C:** Acute cystitis often presents with urinary symptoms which include dysuria, urinary frequency urgency, suprapubic pain or tenderness, and occasionally hematuria. Based on a systematic review examining history and examination findings of women with uncomplicated UTI, the combination of dysuria and urinary frequency in the absence of vaginal discharge or irritation is highly predictive of uncomplicated cystitis.
- **Option D:** Cystitis may be differentiated from pyelonephritis by the absence of systemic findings such as fever, chills, or sepsis. Findings such as flank pain, costovertebral angle tenderness, nausea, and vomiting are also more indicative of upper UTI or pyelonephritis.

50. A full-term male has hypospadias. Which statement describes hypospadias?

- A. The urethral opening is absent.
- B. The urethra opens on the dorsal side of the penis.
- C. The penis is shorter than usual.
- D. The urethral meatus opens on the underside of the penis.

Correct Answer: D. The urethral meatus opens on the underside of the penis.

Hypospadias is a congenital abnormality in which the urethral meatus is on the underside of the penis. Hypospadias is an anatomical congenital malformation of the male external genitalia. It is characterized

by abnormal development of the urethral fold and the ventral foreskin of the penis that causes abnormal positioning of the urethral opening.

- **Option A:** Urethral agenesis is the absence of the urethral opening. Urethral atresia is a rare urethral malformation, which is not compatible with life unless the urachus open in the umbilicus, an alternative communication between the bladder and rectum exists in a form of congenital fistula, or a prenatal placement of a vesico-amniotic shunt established. Terminal renal failure and multiple reconstructive operations have to be expected in the course of the disease.
- **Option B:** The urethral opening is located ventrally, not dorsally, in hypospadias. In hypospadias, the external urethral meatus may present various degrees of malpositioning and may be found with associated penile curvature. Depending on the location of the defect, patients may have an additional genitourinary malformation.
- **Option C:** Penis shorter than usual is not a characteristic of a patient with hypospadias. Key features include a glandular groove and a dorsal hood of the foreskin but in almost all cases the prepuce is incomplete ventrally. In addition, the urethral meatus is usually in an abnormal location. If the infant has a complete foreskin, the hypospadias may become obvious after circumcision.

51. Nurse Cindy is caring for a client who has undergone a vaginal hysterectomy. The nurse avoids which of the following in the care of this client?

- A. Removal of antiembolism stockings twice daily
- B. Checking placement of pneumatic compression boots
- C. Elevating the knee gatch on the bed
- D. Assisting with range-of-motion leg exercises

Correct Answer: C. Elevating the knee gatch on the bed

- **Option C:** The nurse should avoid using the knee gatch in the bed, which inhibits venous return, thus placing the client more at risk for deep vein thrombosis or thrombophlebitis.
- **Options A, B, and D:** The client is at risk of deep vein thrombosis or thrombophlebitis after this surgery, as for any other major surgery. For this reason, the nurse implements measures that will prevent this complication. Range-of-motion exercises, anti-embolism stockings, and pneumatic compression boots are helpful.

52. A 32-year-old male patient is to undergo radiation therapy to the pelvic area for Hodgkin's lymphoma. He expresses concern to the nurse about the effect of chemotherapy on his sexual function. The best response by the nurse to the patient's concerns is

- A. "Radiation does not cause the problems with sexual functioning that occur with chemotherapy or surgical procedures used to treat cancer."
- B. "It is possible you may have some changes in your sexual function, and you may want to consider pretreatment harvesting of sperm if you want children."
- C. "The radiation will make you sterile, but your ability to have sexual intercourse will not be changed by the treatment."

D. "You may have some temporary impotence during the course of the radiation, but normal sexual function will return."

Correct Answer: B. "It is possible you may have some changes in your sexual function, and you may want to consider pretreatment harvesting of sperm if you want children."

- **Option B:** The impact on sperm count and erectile function depend on the patient's pretreatment status and on the amount of exposure to radiation. The patient should consider sperm donation before radiation.
- **Options A, C, and D:** Radiation (like chemotherapy or surgery) may affect both sexual function and fertility either temporarily or permanently.

53. When teaching a mother about introducing solid foods to her child, which of the following indicates the earliest age at which this should be done?

- A. 1 month
- B. 2 months
- C. 3 months
- D. 4 months

Correct Answer: D. 4 months

Solid foods are not recommended before age 4 to 6 months because of the sucking reflex and the immaturity of the gastrointestinal tract and immune system. Therefore, the earliest age at which to introduce foods is 4 months. Any time earlier would be inappropriate.

- **Option A:** 1-month old infants should stick to breast milk. Most doctors recommend waiting until at least 6 months before giving water. A 1-month-old may feed every 2-3 hours. The infant will know when to stop feeding by stopping, moving away from the breast, or falling asleep.
- **Option B:** At about 2 months of age, babies usually take 4 to 5 ounces per feeding every 3 to 4 hours.
- **Option C:** How much formula for a 3-month-old baby? Typically five ounces about six to eight times a day. How often should a 3-month-old nurse? Feedings are typically about every three or four hours at this age but each breastfed baby may be slightly different. To double-check that the baby's getting enough breast milk, check the diapers. How many wet diapers for a 3-month-old baby? About four or five very wet ones per day.

54. The following medications will likely be prescribed for the client except:

- A. Prozac
- B. Tofranil
- C. Parnate
- D. Zyprexa

Correct Answer: D. Zyprexa

This is an antipsychotic. Olanzapine is a second-generation (atypical) antipsychotic medication. Olanzapine also has approval for use with fluoxetine, a selective serotonin reuptake inhibitor (SSRI), in

patients with episodes of depression associated with bipolar disorder type 1 and treatment-resistant depression. It is important to note that olanzapine is not FDA approved for patients under the age of 13, and the combination of olanzapine with fluoxetine does not have approval for patients under the age of 10.

- **Option A:** Prozac is a SSRI antidepressant. Fluoxetine has FDA-approval for major depressive disorder (age eight and older), obsessive-compulsive disorder (age seven and older), panic disorder, bulimia, binge eating disorder, premenstrual dysphoric disorder, bipolar depression (as an adjunct with olanzapine also known as Symbyax), and treatment-resistant depression when used in combination with olanzapine.
- **Option B:** Tofranil antidepressant belongs to the Tricyclic group. Imipramine is a tertiary amine tricyclic antidepressant. Tricyclic antidepressants (TCAs) had been approved by the Food and Drug Administration (FDA) as antidepressants in the 1950s. Although it is FDA approved for the treatment of depression, it is a second-line treatment notably in severe depression with melancholic and atypical features, due to its undesirable side effects and due to its toxicity in overdose.
- **Option C:** Parnate is a MAOI antidepressant. The main FDA-approved indication of tranylcypromine is for major depressive disorder without melancholia. The non-FDA-approved indications for this medication include treatment-resistant depression, treatment-resistant social anxiety disorder, treatment-resistant panic disorder, and atypical depression. Atypical depression consists of hyperphagia, hypersomnia, rejection sensitivity, and leaden paralysis accompanying the depression.

55. What is the purpose of “Tunneling” (inserting the catheter 2-4 inches under the skin) when the surgeon inserts a Hickman central catheter device?

- A. Increases the patient’s comfort level.
- B. Decreases the risk of infection.
- C. Prevents the patient’s clothes from having contact with the catheter.
- D. Makes the catheter less visible to other people.

Correct Answer: B. Decreases the risk of infection.

The actual access to the subclavian vein is still just under the clavicle, but by tunneling the distal portion of the catheter several inches under the skin the risk of migratory infection is reduced compared to a catheter that enters the subclavian vein directly and is not tunneled. The catheter is tunneled to prevent infection.

- **Option A:** There are two types of central venous catheters: tunneled and non-tunneled. Tunneled CVC’s are placed under the skin and meant to be used for a longer duration of time. Non-tunneled catheters are designed to be temporary and may be put into a large vein near the neck, chest, or groin.
- **Option C:** Tunneled CVC have requirements that are unparalleled by other access devices: high blood flow rates at moderate pressure drops without obstruction, minimal trauma to the vein, resistance to occlusion by fibrous sheathing, prevention of infection, avoidance of clotting, biocompatibility, avoidance of lumen collapse and kinking and breaks, resistance to antiseptic agents, placement with minimal trauma, and radiopaque appearance on X-ray.
- **Option D:** Over 70% of patients initiating chronic hemodialysis in the United States have a tunneled central venous catheter (CVC) for dialysis as their first blood access device. The use of dual lumen CVC for removing and returning blood during dialysis is commonplace now but in the late 1970s, this concept revolutionized dialysis. Before the development of CVC for dialysis,

dialysis was possible only with arterial access, through an internal/external AV silicone shunt or through separate catheters placed into an artery and a vein and removed after each treatment.

56. Culture strongly influences pain expression and the need for pain medication. However, cultural pain:

- A. May be suffered by a client whose valued way of life is disregarded by practitioners.
- B. Is more intense, thus necessitating more medication.
- C. Is not expressed verbally or physically.
- D. Is expressed only to others of like culture.

Correct Answer: A. May be suffered by a client whose valued way of life is disregarded by practitioners.

Nurses need not assume that pain relief is equally valued across groups. Cultural pain may be suffered by a client whose valued way of life is disregarded by practitioners. The relationship between pain and ethnicity is shaped by experience, learning and culture. A cultural group's expectations and acceptance of pain as a normal part of life will determine whether pain is seen as a clinical problem that requires a clinical solution.

- **Option B:** Experience, learning and culture shape the relationship between pain and ethnicity rather than any fundamental neurological differences. The distinction between race and ethnicity is particularly important for pain research based on the biopsychosocial model. This model suggests the experience of pain is derived via the interaction of biological, psychological, and social factors.
- **Option C:** Chronic pain affects approximately 1 in 5 adults in Europe resulting in substantial healthcare costs. Evidence that cultural influences have an impact on pain is readily available from the UK where the pain is the most common symptom encountered by the medical profession.
- **Option D:** Mistaken beliefs about the nature of pain and disability, resistance to treatment-seeking, reluctance to comply with treatment, and failure to accept responsibility for the treatment outcome are not culturally or sub-culturally specific obstacles to pain management.

57. Stephanie is often seen interacting with the medical intern during coffee breaks and after duty hours. What type of organizational structure is this?

- A. Formal
- B. Informal
- C. Staff
- D. Line

Correct Answer: B. Informal

This is usually not published and oftentimes concealed. The informal organization is the interlocking social structure that governs how people work together in practice. It is the aggregate of behaviors, interactions, norms, and personal/professional connections through which work gets done and relationships are built among people. It consists of a dynamic set of personal relationships, social networks, communities of common interest, and emotional sources of motivation.

- **Option A:** The formal structure of a group or organization includes a fixed set of rules of procedures and structures, usually set out in writing, with a language of rules that ostensibly leave

little discretion for interpretation. In some societies and organizations, such rules may be strictly followed; in others, they may be little more than an empty formalism.

- **Option C:** In the staff organization structure, the employees follow the directives of the managers. The line group as a whole is seen as a function that is essential to the business. Staff positions are those that indirectly support line functions in the organizations. Like line positions, staff positions also consist of managers and employees.
- **Option D:** Line organization structure is the oldest and simplest form of organization. In these organizations, a supervisor exercises direct supervision over a subordinate. Also, authority flows from the top-most person in the organization to the person in the lowest rung.

58. Which human element considered by the nurse in charge during assessment can affect drug administration?

- A. The patient's ability to recover
- B. The patient's occupational hazards
- C. The patient's socioeconomic status
- D. The patient's cognitive abilities

Correct Answer: D. The patient's cognitive abilities

The nurse must consider the patient's cognitive abilities to understand drug instructions. If not, the nurse must find a family member or significant other to take on the responsibility of administering medications in the home setting. The patient's ability to recover, occupational hazards, and socioeconomic status do not affect drug administration.

- **Option A:** Many drugs can be administered orally as liquids, capsules, tablets, or chewable tablets. Because the oral route is the most convenient and usually the safest and least expensive, it is the one most often used. However, it has limitations because of the way a drug typically moves through the digestive tract.
- **Option B:** For drugs administered orally, absorption may begin in the mouth and stomach. However, most drugs are usually absorbed from the small intestine. The drug passes through the intestinal wall and travels to the liver before being transported via the bloodstream to its target site. The intestinal wall and liver chemically alter (metabolize) many drugs, decreasing the amount of drug reaching the bloodstream. Consequently, these drugs are often given in smaller doses when injected intravenously to produce the same effect.
- **Option C:** When a drug is taken orally, food and other drugs in the digestive tract may affect how much of and how fast the drug is absorbed. Thus, some drugs should be taken on an empty stomach, others should be taken with food, others should not be taken with certain other drugs, and still others cannot be taken orally at all.

59. A nurse is giving discharge instructions to a client who is prescribed with isocarboxazid (Marplan). The nurse will tell the client to anticipate which of the following side effects of this medication?

- A. Weight loss
- B. Dry skin
- C. Dizziness

D. Fever

Correct Answer: C. Dizziness

Isocarboxazid is a monoamine oxidase (MAO) inhibitor. Dizziness, drowsiness, tiredness, weakness, problems sleeping, constipation, and dry mouth may occur while taking it.

- **Options A, B, and D:** Weight loss, dry skin, and fever are not related side effects of the medication.

60. Gracie, the mother of a 3-month-old infant calls the clinic and states that her child has a diaper rash. What should the nurse advise?

- A. "Leave the diaper off while the infant sleeps."
- B. "Use baby wipes with each diaper change."
- C. "Switch to cloth diapers until the rash is gone"
- D. "Offer extra fluids to the infant until the rash improves."

Correct Answer: A. "Leave the diaper off while the infant sleeps."

Leaving the diaper off while the infant sleeps helps to promote air circulation to the area, improving the condition. Air out the infant's skin by letting him or her go without a diaper and ointment for short periods of time, perhaps three times a day for 10 minutes each time, such as during naps.

- **Option B:** Baby wipes contain alcohol, which may worsen the condition. Moist washcloths, cotton balls, and baby wipes can aid in cleaning the skin, but be gentle. Don't use wipes with alcohol or fragrance.
- **Option C:** Switching to cloth diapers isn't necessary; in fact, that may make the rash worse. The best way to keep the infant's diaper area clean and dry is by changing diapers immediately after they are wet or soiled. Until the rash is better, this may mean getting up during the night to change the diaper.
- **Option D:** Extra fluids won't make the rash better. When possible, let the infant go without a diaper. Exposing skin to air is a natural and gentle way to let it dry. To avoid messy accidents, try laying the infant on a large towel and engage in some playtime while he or she is bare-bottomed.

61. Nurse Shey is educating a pregnant client who has gestational diabetes. Which of the following statements should the nurse make to the client? Select all that apply.

- A. Cakes, candies, cookies, and regular soft drinks should be avoided.
- B. Gestational diabetes increases the risk that the mother will develop diabetes later in life.
- C. Gestational diabetes usually resolves after the baby is born.
- D. Insulin injections may be necessary.
- E. The mother should strive to gain no more weight during pregnancy.
- F. The baby will likely be born with diabetes

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

Gestational diabetes can occur between the 16th and 28th week of pregnancy. If not responsive to diet and exercise, insulin injections may be necessary. Concentrated sugars should be avoided.

- **Option A:** Most carbohydrates are found in starchy or sugary foods. They include bread, rice, pasta, cereal, potatoes, peas, corn, fruit, fruit juice, milk, yogurt, cookies, candy, soda, and other sweets. Try to avoid eating simple carbohydrates, such as potatoes, french-fries, white rice, candy, soda, and other sweets. This is because they cause the blood sugar to rise quickly after eating such foods.
- **Option B:** Women with gestational diabetes (GDM) have an increased 35 to 60% risk of developing diabetes mellitus over 10 to 20 years after pregnancy. Gestational diabetes etiology is apparently related to 1) the pancreatic beta-cell dysfunction or the delayed response of the beta cells to the glycemic levels, and 2) the marked insulin resistance secondary to placental hormonal release.
- **Option C:** ADA and ACOG recommend repeating testing every 1 to 3 years for women who developed GDM and had normal postpartum screening results. At 4 to 12 weeks postpartum, the recommendation is to perform a 75g oral glucose tolerance test to rule out the possibility of the development of type 2 diabetes, impaired fasting glucose, or impaired glucose tolerance test.
- **Option D:** Insulin can help achieve an appropriate metabolic control, and it is added to the management if fasting blood glucose is greater or equal to 95 mg/dL, if 1-hour glucose level is greater or equal to 140 mg/dL, or if 2-hour glucose level is greater than 120 mg/dL.
- **Option E:** Weight gain should continue, but not in excessive amounts. The clinical features of gestational diabetes mellitus can be varied. The disproportionate weight gain, obesity, and elevated BMI can be suggestive features. The diagnosis is established by the laboratory screening method at the
- **Option F:** Usually, gestational diabetes disappears after the infant is born. However, diabetes can develop 5 to 10 years after pregnancy. The complications of developing gestational diabetes are categorized as maternal and fetal. The fetal complications include macrosomia, neonatal hypoglycemia, polycythemia, shoulder dystocia, hyperbilirubinemia, neonatal respiratory distress syndrome, increased perinatal mortality, and hypocalcemia.

62. A client comes to the outpatient clinic where you work complaining of abdominal pain, diarrhea, shortness of breath, and epistaxis. Which of the following actions would you take first?

- A. Screening clients for upper respiratory tract symptoms
- B. Call an ambulance to take the client immediately to the hospital
- C. Ask the client about any recent travel to Asia or the Middle East
- D. Determine whether the client has had recommended immunizations

Correct Answer: C. Ask the client about any recent travel to Asia or the Middle East.

The client's clinical manifestation suggests possible avian influenza (bird flu). If the client has traveled recently in Asia or the Middle East, where outbreaks of bird flu have occurred, you will need to institute airborne and contact precautions immediately. The other actions may also be appropriate but are not the initial action to take for this client, who may transmit the infection to other clients or staff members

- **Option A:** Most patients present with symptoms consistent with a flu-like viral illness. In these patients, especially during a known avian influenza outbreak, a thorough history is necessary to evaluate for clues that the illness is due to avian influenza.

- **Option B:** Whenever there is a possible outbreak of avian influenza, the essential way to reduce the severity and population impact is to reduce the spread of the virus. Since the human-to-human transmission is uncommon, the focus should be on reinforcing appropriate sanitation habits in the population, especially those that work around birds or that are involved in food preparation.
- **Option D:** There is currently an FDA-licensed vaccine for the H5N1 strain of avian influenza in the United States. In the case of an H5N1 outbreak in the United States, the CDC and public health officials may decide to vaccinate at-risk populations to reduce spread.

63. Teaching has been adequate when a client being treated with acetylsalicylic acid states: “I can crush the pills before I swallow them.”

- A. "I can crush the pills before I swallow them."
- B. "I should take the pills with antacids."
- C. "Taking the pills on an empty stomach will help absorption."
- D. "If the pills smell like vinegar, I should throw them out."

Correct Answer: D. “If the pills smell like vinegar, I should throw them out.”

Any aspirin should be discarded if a vinegar odor is noticed. Aspirin reacts slowly with water to give salicylic acid and acetic acid. The green line shows the ester bond that is broken during the hydrolysis reaction. So, when you open an old bottle of aspirin it is common to smell the vinegar. This means that at least some of the aspirin has degraded.

- **Option A:** Crushing is not recommended for sustained-release preparations. Aspirin absorption from the gastrointestinal (GI) tract depends on the formulation state. When consumed as a liquid preparation, it is rapidly absorbed as opposed to tablets. Its hydrolysis yields salicylic acid. Salicylic acid has a narrow therapeutic window. If maintained within that narrow range, it provides the appropriate anti-inflammatory effect.
- **Option B:** Antacids impair absorption. Aspirin's absorption is pH sensitive at the level of the small intestine. Absorption is higher through the small intestine than the stomach for the same pH range. At pH 3.5 or 6.5, aspirin's intestinal absorption is greater than the gastric absorption of the compound. The stomach does not absorb aspirin at pH 6.5.
- **Option C:** Taking the medication on an empty stomach will increase GI irritation. Aspirin increases the risk of GI bleeding in patients who already suffer from peptic ulcer disease or gastritis. The risk of bleeding is still present even without these conditions if there is concomitant consumption of alcohol or if the patient is on warfarin.

64. Which of the following assessment findings would the nurse expect if the client develops DVT?

- A. Mid Calf pain, tenderness, and redness along the vein.
- B. Chills, fever, malaise, occurring 2 weeks after delivery.
- C. Muscle pain, the presence of Homans sign, and swelling in the affected limb.
- D. Chills, fever, stiffness, and pain occurring 10 to 14 days after delivery.

Correct Answer: C. Muscle pain the presence of Homans sign, and swelling in the affected limb

Classic symptoms of DVT include muscle pain, the presence of Homans sign, and swelling of the affected limb.

- **Option A:** Midcalf pain, tenderness, and redness, along the vein reflect superficial thrombophlebitis. In the absence of a triggering event, neither venous stasis nor abnormal coagulability alone causes clinically important thrombosis, but vascular endothelial injury does reliably result in thrombus formation. The initiating injury triggers an inflammatory response that results in immediate platelet adhesion at the injury site. Further platelet aggregation is mediated by thromboxane A₂ (TxA₂) and by thrombin.
- **Option B:** Chills, fever, and malaise occurring 2 weeks after delivery reflect pelvic thrombophlebitis. The body naturally produces more clotting proteins during pregnancy. This ensures that the blood forms clots quickly after delivery to avoid excess bleeding. These natural changes are meant to protect you from complications during your pregnancy. But they also increase your risk of having a blood clot. Any medical procedure, including delivery of a baby, also carries a risk of infection. Septic pelvic vein thrombophlebitis is caused when a blood clot forms in the pelvic veins and becomes infected by bacteria present in the uterus.
- **Option D:** Chills, fever, stiffness, and pain occurring 10 to 14 days after delivery suggest femoral thrombophlebitis. The femoral vein runs along the inside of the legs from the groin area downward. Femoral vein thrombosis refers to a blood clot present in those veins. These veins are superficial, or close to the surface of the skin, and are often more prone to blood clots than deeper veins.

65. Exceeding which of the following serum cholesterol levels significantly increases the risk of coronary artery disease?

- A. 100 mg/dl
- B. 150 mg/dl
- C. 175 mg/dl
- D. 200 mg/dl

Correct Answer: D. 200 mg/dl

Cholesterol levels above 200 mg/dl are considered excessive. They require dietary restriction and perhaps medication. Exercise also helps reduce cholesterol levels. The other levels listed are all below the nationally accepted levels for cholesterol and carry a lesser risk for CAD. The normal level of serum cholesterol is within 125 to 200 mg/dl.

- **Option A:** 100mg/dl is an acceptable level of serum cholesterol. An elevated low-density lipoprotein cholesterol (LDL-C) level is a major risk factor for CAD, and several large, randomized, primary prevention trials have shown that lowering LDL-C levels with statins reduces the risk of major coronary events and coronary death.
- **Option B:** 150 mg/dl is within the normal level of serum cholesterol. LDL is the particle that is responsible for transporting cholesterol to tissues. Cholesterol transportation is achieved by binding of the LDL receptor and apoB.
- **Option C:** 175 mg/dl is still an acceptable level of serum cholesterol. HDL is a molecule that is antioxidant, antiinflammatory, antiapoptotic, and increases macrophage cholesterol excretion and endothelial healing. The removal of cholesterol from the body by the liver via HDL is called reverse cholesterol transport.

66. A 43-year-old male with a history of chronic obstructive pulmonary disease (COPD) presents to his primary care physician for a routine check-up. The patient is concerned about the potential acid-base imbalance due to his chronic respiratory condition. During the discussion, the physician explains the importance of maintaining a precise pH range in the blood for optimal physiological functioning. He then quizzes the medical student accompanying him about the normal pH range of blood. Which of the following ranges represents the typical pH of human blood, ensuring a balance conducive to the well-being of the organism?

- A. 7.30–7.40
- B. 7.35–7.45
- C. 7.20–7.30
- D. 7.45–7.55

Correct Answer: B. 7.35–7.45

The blood pH in humans is tightly regulated to stay within this range. This pH range ensures that the blood remains slightly alkaline, which is essential for the optimal functioning of various enzymatic reactions and physiological processes in the body.

- **Option A:** 7.30–7.40: Incorrect. While the lower end of this range is slightly below the accepted normal, the upper end is within the normal range. The precise control of blood pH is crucial for various physiological processes, and even minor deviations from the normal range can lead to significant physiological alterations. However, the universally accepted normal range of blood pH is slightly broader than this option.
- **Option C:** 7.20–7.30: Incorrect. This range is below the accepted normal range for blood pH. A blood pH below 7.35 is considered acidic and can lead to a condition known as acidosis, which can be detrimental if not corrected. It's essential to maintain the blood pH within the normal range to prevent pathological conditions like acidosis or alkalosis.
- **Option D:** 7.45–7.55: Incorrect. This range is above the accepted normal range for blood pH. A blood pH above 7.45 is considered alkaline and can lead to a condition known as alkalosis. The physiological systems in the body work to maintain the blood pH within the normal range to prevent such imbalances, which can be harmful.

67. When evaluating an arterial blood gas from a male client with a subdural hematoma, the nurse notes the $Paco_2$ is 30 mm Hg. Which of the following responses best describes the result?

- A. Appropriate; lowering carbon dioxide (CO_2) reduces intracranial pressure (ICP).
- B. Emergent; the client is poorly oxygenated.
- C. Normal.
- D. Significant; the client has alveolar hypoventilation.

Correct Answer: A. Appropriate; lowering carbon dioxide (CO_2) reduces intracranial pressure (ICP)

A normal Paco₂ value is 35 to 45 mm Hg CO₂ has vasodilating properties; therefore, lowering Paco₂ through hyperventilation will lower ICP caused by dilated cerebral vessels.

- **Option B:** Oxygenation is evaluated through Pao₂ and oxygen saturation.
- **Option C:** The normal PaCO₂ level is between 35 to 45 mmHg. PaCO₂ or the partial pressure of carbon dioxide is the measure of carbon dioxide within arterial or venous blood.
- **Option D:** Alveolar hypoventilation would be reflected in an increased Paco₂. Alveolar hypoventilation is defined as insufficient ventilation leading to hypercapnia, which is an increase in the partial pressure of carbon dioxide as measured by arterial blood gas analysis.

68. A child has recently been diagnosed with Duchenne's muscular dystrophy. The parents are receiving genetic counseling prior to planning another pregnancy. Which of the following statements includes the most accurate information?

- A. Duchenne's is an X-linked recessive disorder, so daughters have a 50% chance of being carriers and sons a 50% chance of developing the disease.
- B. Duchenne's is an X-linked recessive disorder, so both daughters and sons have a 50% chance of developing the disease.
- C. Each child has a 1 in 4 (25%) chance of developing the disorder.
- D. Sons only have a 1 in 4 (25%) chance of developing the disorder.

Correct Answer: A. Duchenne's is an X-linked recessive disorder, so daughters have a 50% chance of being carriers and sons a 50% chance of developing the disease.

The recessive Duchenne gene is located on one of the two X chromosomes of a female carrier. DMD is a genetic disease due to the mutation of the dystrophin gene, located on chromosome Xp21. It is inherited as an X-linked recessive trait; however, approximately 30% of cases are due to new mutations. Carrier females show no evidence of muscular weakness; however, symptomatic female carriers have been described. About 2.5% to 20% of female carriers may be affected. This can be explained by the Lyon hypothesis in which the normal X chromosome becomes inactivated, and the X chromosome with the mutation is expressed.

- **Option B:** If her son receives the X bearing the gene he will be affected. Female carriers can become symptomatic if they are associated with Turner's syndrome (45X) or mosaic Turner karyotype, balanced X autosome translocations with breakpoints within the dystrophin gene and preferential inactivation of the normal X, and females with a normal karyotype but with nonrandom X chromosome inactivation with diminished expression of the normal dystrophin allele.
- **Option C:** Daughters are not affected, but 50% are carriers because they inherit one copy of the defective gene from the mother. Mutations in the dystrophin gene result in diseases known as dystrophinopathies, which encompass Duchenne muscular dystrophy, Becker muscular dystrophy, and an intermediate form.
- **Option D:** There is a 50% chance of a son being affected. Mutations result in a limited production of the dystrophin protein, which results in loss of the myofiber membrane integrity with repeated cycles of necrosis and regeneration. Fibrous connective tissue and fat progressively replace muscle leading to clinical features.

69. A 68-year-old male patient, with a history of esophageal cancer, has recently undergone a total esophagectomy and has a gastrostomy tube (G-tube) inserted for enteral nutrition. He has also been experiencing episodes of gastroesophageal reflux. The nurse is about to initiate a continuous tube feeding regimen per the healthcare provider's order. Before starting the continuous feeding, the nurse should place the client in which position to minimize the risk of aspiration and promote gastric emptying?

- A. Semi-Fowler's Position
- B. Supine Position
- C. Reverse Trendelenburg Position
- D. High Fowler's Position
- E. Prone Position
- F. Left Lateral Decubitus Position

Correct Answer: D. High Fowler's Position

The High Fowler's position is where the patient is seated in an upright position at 90 degrees. This position is the most appropriate for feeding through a gastrostomy tube as it helps to reduce the risk of aspiration and facilitates gastric emptying. The gravity assists in moving the feed down through the gastrointestinal tract and keeps it from coming back up the esophagus, which could lead to aspiration. In patients with gastroesophageal reflux or other risk factors for aspiration, this position is particularly important to adhere to during feeding.

- **Option A:** The Semi-Fowler's position involves the patient being placed on their back with the head of the bed elevated at about 30 to 45 degrees. While this position can help to some extent by allowing gravity to assist in reducing the risk of aspiration, it may not be elevated enough to significantly minimize the risk, especially during continuous feeding.
- **Option B:** In the supine position, the patient lies flat on their back. This position is not ideal for feeding through a gastrostomy tube as it can significantly increase the risk of aspiration, which could lead to aspiration pneumonia.
- **Option C:** In the Reverse Trendelenburg position, the patient lies on their back with the lower body flat or slightly declined and the upper body elevated. This position may help to some extent with gastric emptying, but it's not as effective as the High Fowler's position in preventing aspiration, especially during continuous feeding.
- **Option E:** Prone Position (lying flat on the stomach) can significantly increase the risk of aspiration and is not suitable for initiating a feeding regimen through a G-tube.
- **Option F:** Left Lateral Decubitus Position (lying on the left side) might assist with gastric emptying to some extent due to the anatomical position of the stomach, it is not as effective as the High Fowler's position in preventing aspiration.

70. A nurse is giving nothing per orem instructions to a malnourished client with diarrhea and frequent abdominal pain episodes who is about to receive a Total Parenteral Nutrition. Which statement made by the nurse is the most appropriate?

- A. "It will help in your weight loss".

- B. "It can assure you that you feel better after receiving TPN".
- C. "It will decrease your diarrhea and your bowel can rest".
- D. "It will give you less time in the hospital".

Correct Answer: C. "It will decrease your diarrhea, and your bowel can rest".

The priority in this kind of situation is to stop diarrhea and to provide fluids and electrolyte thru the use of TPN. The bowel is rested so that the abdominal cramping will also stop.

71. A male client with a solar burn of the chest, back, face, and arms is seen in urgent care. The nurse's primary concern should be:

- A. Fluid resuscitation
- B. Infection
- C. Body image
- D. Pain management

Correct Answer: D. Pain management

With a superficial partial-thickness burn such as a solar burn (sunburn), the nurse's main concern is pain management. Pain is nearly always present to some degree because of the varying severity of tissue involvement and destruction but is usually most severe during dressing changes and debridement. Changes in location, character, intensity of pain may indicate developing complications (limb ischemia) or herald improvement and/or return of nerve function and sensation.

- **Option A:** Fluid resuscitation becomes a concern if the burn extends to the dermal and subcutaneous skin layers. Fluid resuscitation replaces lost fluids and electrolytes and helps prevent complications (shock, acute tubular necrosis). Replacement formulas vary but are based on the extent of injury, amount of urinary output, and weight. Note: 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.
- **Option B:** Infection becomes a concern if the burn extends to the dermal and subcutaneous skin layers. Dependent 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 risk of cross-contamination and exposure to multiple bacterial flora.
- **Option C:** Body image disturbance is a concern that has lower priority than pain management. Traumatic episodes result in sudden, unanticipated changes, creating feelings of grief over actual or perceived losses. This necessitates support to work through to optimal resolution.

72. The nurse in charge must monitor a patient receiving chloramphenicol for adverse drug reaction. What is the most toxic reaction to chloramphenicol?

- A. Lethal arrhythmias
- B. Malignant hypertension
- C. Status epilepticus
- D. Bone marrow suppression

Correct Answer: D. Bone marrow suppression

The most toxic reaction to chloramphenicol is bone marrow suppression. Chloramphenicol is a synthetically manufactured broad-spectrum antibiotic. It was initially isolated from the bacteria *Streptomyces venezuelae* in 1948 and was the first bulk produced synthetic antibiotic. However, chloramphenicol is a rarely used drug in the United States because of its known severe adverse effects, such as bone marrow toxicity and grey baby syndrome. Chloramphenicol is not known to cause lethal arrhythmias, malignant hypertension, or status epilepticus.

- **Option A:** Chloramphenicol is associated with severe hematological side effects when administered systemically. Since 1982, chloramphenicol has reportedly caused fatal aplastic anemia, with possible increased risk when taken together with cimetidine. This adverse side effect can occur even with the topical administration of the drug, which is most likely due to the systemic absorption of the drug after topical application.
- **Option B:** Besides causing fatal aplastic anemia and bone marrow suppression, other side effects of chloramphenicol include ototoxicity with the use of topical ear drops, gastrointestinal reactions such as oesophagitis with oral use, neurotoxicity, and severe metabolic acidosis.
- **Option C:** Optic neuritis is the most commonly associated neurotoxic complication that can arise from chloramphenicol use. This adverse effect usually takes more than six weeks to manifest, presenting with either acute or subacute vision loss, with possible fundal changes. It may also present with peripheral neuropathy, which may present as numbness or tingling. If optic neuropathy occurs, the drug should be withdrawn immediately, which will usually lead to partial or complete recovery of vision.

73. A 72-year old male client is brought to the emergency room by his son. The client is extremely uncomfortable and has been unable to void for the past 12 hours. He has known for some time that he has an enlarged prostate but has wanted to avoid surgery. The best method for the nurse to use when assessing for bladder distention in a male client is to check for:

- A. A rounded swelling above the pubis.
- B. Dullness in the lower left quadrant.
- C. Rebound tenderness below the symphysis.
- D. Urine discharge from the urethral meatus.

Correct Answer: A. A rounded swelling above the pubis.

The best way to assess for a distended bladder in either a male or female client is to check for a rounded swelling above the pubis. The swelling represents the distended bladder rising above the pubis into the abdominal cavity. Determine the condition of the skin in the perianal area. In patients with chronic neurogenic bladder, the skin typically shows areas of chronic irritation manifested by areas of excoriation and redness, usually superseded by fungal infection.

- **Option B:** Dullness does not indicate a distended bladder. Physical examination of a patient for incontinence includes cognitive, neural, musculoskeletal, and pelvic assessment. This is because both voluntary and involuntary control of voiding involve the central and peripheral nervous systems as well as the renal and genitourinary systems.
- **Option C:** The client might experience tenderness or pressure above the symphysis. Determine the motor level of the lesion, including the completeness of the lesion in SCI patients. Ascertain the extent of the patient's hand function and ability to perform transfers and activities of daily living.

Hand function is especially important in SCI patients who are to perform self-catheterization.

- **Option D:** No urine discharge is expected; the urine flow is blocked by the enlarged prostate. Perform pelvic, genitourinary examinations on both male and female patients. For male patients, evaluate the status of the prostate, especially in men aged 60 years or older, as this can cause secondary urologic symptoms such as urinary retention. Perform pelvic, genitourinary examinations on both male and female patients. For male patients, evaluate the status of the prostate, especially in men aged 60 years or older, as this can cause secondary urologic symptoms such as urinary retention.

74. A client presents to the emergency room with dyspnea, chest pain, and syncope. The nurse assesses the client and notes that the following assessment cues: pale, diaphoretic, blood pressure of 90/60, respirations of 33. The client is also anxious and fearing death. Which action should the nurse take first?

- A. Administer pain medications
- B. Administer IV fluids
- C. Administer dopamine
- D. Administer oxygen via nasal cannula

Correct Answer: D. Administer oxygen via nasal cannula.

The promotion of adequate oxygenation is the most vital to life and therefore should be given the highest priority by the nurse. When the nurse needs to prioritize patients, Maslow's hierarchy of needs theory is used to decide which patient is to be seen first. A part of Maslow's hierarchy of needs is airway, breathing, and circulation (ABC), which are physiological elements that are needed for the body to survive and help determine one's level of health.

- **Option A:** The 2nd priority needs include MAAUAR which is mental status, acute pain, acute impaired urinary elimination, unresolved and unaddressed needs, abnormal diagnostic test results, and risks. The 3rd level priorities include all concerns and problems addressed with the 2nd level priority needs.
- **Option B:** Maslow's Hierarchy of Needs identifies the physiological or biological needs, including the ABCs, the safety/psychological/emotional needs, the need for love and belonging, the needs for self-esteem and the esteem by others and the self-actualization needs in that order of priority. Administering IV fluids belong in Maslow's physical and biological needs, but still after airway.
- **Option C:** Dopamine (DA) is a peripheral vaso stimulant used to treat low blood pressure, low heart rate, and cardiac arrest, especially in acute neonatal cases via a continuous intravenous drip. For stimulation of the sympathetic nervous system, the indication is for a continuous intravenous drip administration.

75. The nurse is evaluating a 63-year-old female patient who has been admitted with worsening heart failure. During the physical examination, the nurse uses a stethoscope to listen to the patient's lung fields. The patient presents with shortness of breath, a cough that worsens when lying down, and fatigue. Which type of breath sounds is the nurse most likely to auscultate that are typically associated with heart failure?

- A. Tracheal
- B. Fine crackles
- C. Coarse crackles
- D. Friction rubs
- E. Wheezes
- F. Stridor
- G. Pleural knock

Correct Answer: B. Fine crackles

This choice is the most consistent with fluid accumulation in the air spaces of the lungs, a common complication in patients with heart failure. Fine crackles are created by the opening of small airways and alveoli that are compromised by fluid, which is often present in heart failure due to the heart's reduced ability to pump effectively.

76. A patient is admitted to the same-day surgery unit for liver biopsy. Which of the following laboratory tests assesses coagulation? Select all that apply.

- A. Partial thromboplastin time.
- B. Prothrombin time.
- C. Platelet count.
- D. Hemoglobin
- E. Complete Blood Count
- F. White Blood Cell Count

Correct Answer: A, B, and C

Prothrombin time, partial thromboplastin time, and platelet count are all included in coagulation studies. The hemoglobin level, though important information prior to an invasive procedure like liver biopsy, does not assess coagulation.

- **Option A:** Partial thromboplastin time (PTT) is the time it takes for a patient's blood to form a clot as measured in seconds. It is used to measure the activity of the intrinsic pathway of the clotting cascade. PTT tests the function of all clotting factors except factor VII (tissue factor) and factor XIII (fibrin stabilizing factor).
- **Option B:** Prothrombin time (PT) is one of several blood tests routinely used in clinical practice to evaluate the coagulation status of patients. More specifically, PT is used to evaluate the extrinsic and common pathways of coagulation, which would detect deficiencies of factors II, V, VII, and X, and low fibrinogen concentrations.
- **Option C:** Platelet count is being assessed to determine the number of platelets in a sample of the blood as part of a health exam; to screen for, diagnose, or monitor conditions that affect the number of platelets, such as a bleeding disorder, a bone marrow disease, or other underlying conditions.
- **Option D:** Hemoglobin is used to evaluate the hemoglobin content of your blood as part of a general health checkup; to screen for and help diagnose conditions that affect red blood cells (RBCs); if there is anemia (low hemoglobin) or polycythemia (high hemoglobin), and to assess the severity of these conditions and to monitor response to treatment.

- **Option E:** The complete blood count (CBC) is a group of tests that evaluate the cells that circulate in blood, including red blood cells (RBCs), white blood cells (WBCs), and platelets (PLTs). The CBC can evaluate your overall health and detect a variety of diseases and conditions, such as infections, anemia and leukemia.
- **Option F:** WBC count is used to screen for or diagnose a variety of conditions that can affect the number of white blood cells (WBCs), such as an infection, inflammation or a disease that affects WBCs; to monitor treatment of a disorder or to monitor therapy that is known to affect WBCs

77. Immediately post-op after a prostatectomy, which complications require priority assessment of your patient?

- A. Pneumonia
- B. Hemorrhage
- C. Urine retention
- D. Deep vein thrombosis

Correct Answer: B. Hemorrhage

Hemorrhage is a potential complication. Postoperative hemorrhage is a rare but severe complication in LRP. Bleeding generally originates from injured venous vessels in the prostatectomy area, which is always self-limiting due to tissue compression in the pelvic space. However, it is not easy for slightly larger arteries to stop bleeding automatically.

- **Option A:** Pneumonia may occur if the patient doesn't cough and deep breathe. Postoperative pneumonia is an important cause of morbidity and mortality and represents an important financial burden of \$10.5 billion per year. Patients undergoing surgery, especially complex procedures, are at a greater risk due to intubation, post-surgical atelectasis, and long hospital stays exposing them to hospital-acquired pathogens. It has been estimated that approximately one out of four deaths within six days of surgery is due to its complications.
- **Option C:** Urine retention isn't a problem soon after surgery because a catheter is in place. Although leaving a temporary indwelling catheter is standard practice after radical prostatectomy to allow anastomotic healing, urinary catheterization represents a source of infection, significant discomfort, and anxiety for the patient following radical prostatectomy.
- **Option D:** Thrombosis may occur later if the patient doesn't ambulate. Historically, the reported rate of symptomatic VTEs is low in open prostatectomy series, as well as robot-assisted radical prostatectomy (RARP) series. As a result, it is unclear which patients are at the highest risk of VTEs developing and who would benefit from medical prophylaxis, given the low incidence of VTEs and a possible increase in complications with the use of heparin.

78. Which of the following blood tests should be performed before a blood transfusion?

- A. Prothrombin and coagulation time
- B. Blood typing and cross-matching
- C. Bleeding and clotting time
- D. Complete blood count (CBC) and electrolyte levels

Correct Answer: B. Blood typing and cross-matching

Before a blood transfusion is performed, the blood of the donor and recipient must be checked for compatibility. This is done by blood typing (a test that determines a person's blood type) and cross-matching (a procedure that determines the compatibility of the donor's and recipient's blood after the blood types have been matched). If the blood specimens are incompatible, hemolysis and antigen-antibody reactions will occur. If the donor is eligible to donate, the donated blood is tested for blood type (ABO group) and Rh type (positive or negative). This is to make sure that patients receive blood that matches their blood type. Before transfusion, the donor and blood unit are also tested for certain proteins (antibodies) that may cause adverse reactions in a person receiving a blood transfusion.

- **Option A:** A prothrombin time (PT) is a test used to help detect and diagnose a bleeding disorder or excessive clotting disorder. A PT measures the number of seconds it takes for a clot to form in your sample of blood after substances (reagents) are added. The PT is often performed along with a partial thromboplastin time (PTT) and together they assess the amount and function of proteins called coagulation factors that are an important part of proper blood clot formation. The coagulation time is a measurement of the intrinsic power of the blood to convert fibrinogen to fibrin. It is an empirical test no matter how performed, and therefore in order to be reliable requires that the test be done on venous blood under strictly controlled conditions.
- **Option C:** Bleeding time is a laboratory test to assess platelet function and the body's ability to form a clot. The test involves making a puncture wound in a superficial area of the skin and monitoring the time needed for bleeding to stop (ie, the bleeding site turns "glassy"). The expected range for clotting time is 4-10 mins. This test measures the time taken for blood vessel constriction and platelet plug formation to occur. No clot is allowed to form, so that the arrest of bleeding depends exclusively on blood vessel constriction and platelet action.
- **Option D:** The complete blood count (CBC) is a group of tests that evaluate the cells that circulate in the blood, including red blood cells (RBCs), white blood cells (WBCs), and platelets (PLTs). The CBC can evaluate your overall health and detect a variety of diseases and conditions, such as infections, anemia, and leukemia.

79. Nurse Daya, a school nurse, is meeting with the school and health treatment team about a child who has been receiving methylphenidate (Ritalin) for two (2) months. The meeting is to evaluate the results of the child's medication use. Which behavior change noted by the teacher will help determine the medication's effectiveness.

- A. Decrease repetitive behaviors
- B. Decreased signs of anxiety
- C. Increased depressed mood
- D. Increased ability to concentrate on tasks

Correct Answer: D. Increased ability to concentrate on tasks

Methylphenidate (Ritalin) is used as a method of treatment of ADHD. Evidence of increased ability to concentrate on tasks while taking this medication would establish the drug's effectiveness. Children diagnosed with ADHD should be at least six years of age or older before being started on this medication.

- **Option A:** Those with OCD may present with evidence of their rituals, such as chapped hands from compensatory over-washing, or being underweight from food restrictions secondary to

contamination fears. The same must be inquired about compulsions or repetitive behaviors such as desires to tap, count, reorganize, or behave in any manner that might put their mind at ease.

- **Option B:** Anxiety disorders appear to be caused by an interaction of biopsychosocial factors. Genetic vulnerability interacts with situations that are stressful or traumatic to produce clinically significant syndromes.
- **Option C:** Hyperactive symptoms in ADHD include: fidgeting, feeling like an “internal motor” is always going, leaving their seat, climbing on things, being loud, blurting out answers, talking excessively or out of turn, having trouble waiting their turn, interrupts, or intrudes on others.

80. The client’s vision is tested with a Snellen chart. The results of the tests are documented as 20/60. The nurse interprets this as:

- A. The client can read at a distance of 60 feet what a client with normal vision can read at 20 feet.
- B. The client is legally blind.
- C. The client’s vision is normal.
- D. The client can read only at a distance of 20 feet what a client with normal vision can read at 60 feet.

Correct Answer: D. The client can read only at a distance of 20 feet what a client with normal vision can read at 60 feet.

Vision that is 20/20 is normal, that is, the client is able to read from 20 feet what a person with normal vision can read from 20 feet. A client with a visual acuity of 20/60 only can read at a distance of 20 feet of what a person with normal vision can read at 60 feet. The results of visual acuity are classically reported using 20/20 (6/6 when using meters) for standard vision. The numerator describes the distance from the chart, typically 20 ft (6 m). The denominator describes the distance that an individual with normal vision (20/20 vision) can read the same line on the chart.

- **Option A:** An individual with 20/60 vision would be able to distinguish the same optotype at 20 ft that another individual with normal (20/20) vision distinguishes at 60 ft. In the logMAR, visual acuity is reported as a single number where 0.0 is standard vision.
- **Option B:** The WHO describes individuals with low vision as having a best-corrected vision of 20/60 or worse, and blind as best corrected vision worse than 20/400, whereas legal blindness is identified as 20/200 in the United States.
- **Option C:** Although 20/20 visual acuity has been referred to as “perfect vision,” it is important to remember that this is only one aspect of vision and does not include other elements such as depth perception, peripheral vision, and colorblindness.

81. During a community visit, volunteer nurses teach stress management to the participants. The nurses will most likely advocate which belief as a method of coping with stressful life events?

- A. Avoidance of stress is an important goal for living.
- B. Control over one's response to stress is possible.
- C. Most people have no control over their level of stress.
- D. Significant others are important to provide care and concern.

Correct Answer: B. Control over one's response to stress is possible.

When learning to manage stress, clients find it helpful to believe that they have the ability to control their response to it. It is impossible to avoid stress, which is a normal life experience. With practice, individuals learn to process emotions, thoughts, and sensations as they arise. Individuals learn to modify their reflexive conditioning from automatically reacting or worrying about the future to a more adaptive, measured response with greater awareness of the present moment. The literature is replete with evidence suggesting that, with practice, individuals can become more mindful, increasing their capacity to fully process emotions, thoughts, and sensations as they arise.

- **Option A:** Stress can be positive and growth-enhancing as well as harmful. Effective techniques for stress management are varied. They typically include behaviors that improve physical health, such as nutrition and exercise, but may also incorporate strategies that improve cognitive and emotional functioning. The stress-reduction approach based on mindfulness practices has recently enjoyed an explosion of interest from a variety of healthcare and epidemiological researchers. The concept of mindfulness, which originates from practices of Buddhism, is defined as a focused awareness of one's experience, and a purposeful and non-judgmental focus on the present moment.
- **Option C:** The belief that one has some control is a significant factor in minimizing stress response. Paradoxically, positive changes seem especially likely to occur when one can let go of the struggle of trying to change or control the process. This perspective lies at the core of empirically validated acceptance-based intervention models. A focus on the present moment can potentially help decondition habitual reaction patterns and increase response flexibility. From a cognitive perspective, this suggests that viewing present circumstances as new and unique experiences increases one's capacity for generating multiple alternative response options.
- **Option D:** Novice mindfulness practitioners also engage in "informal" practice as they learn to observe their own thoughts and sensations and explore a new stance as a nonjudgmental observer of their own life. Attending one's own experience may set up a dynamic cognitive interaction that can facilitate a capacity to respond to ongoing experiences as if they are occurring for the first time, typically referred to as "beginner's mind." This interrupts the automatic processes of relying on previously conditioned stress reactions.

82. When developing a plan of care for the client with stress incontinence, the nurse should take into consideration that stress incontinence is best defined as the involuntary loss of urine associated with:

- A. A strong urge to urinate.
- B. Overdistention of the bladder.
- C. Activities that increase abdominal pressure.
- D. Obstruction of the urethra.

Correct Answer: C. Activities that increase abdominal pressure

Stress incontinence is the involuntary loss of urine during such activities as coughing, sneezing, laughing, or physical exertion. These activities increase abdominal and detrusor pressure. Precipitating activities include coughing, laughing, sneezing, straining, or exercising. The patient may initially present with urinary complaints of dysuria, frequency, and urgency.

- **Option A:** A strong urge to urinate is associated with urge incontinence. Urge incontinence is a type of urinary incontinence in adults, which involves sudden compelling urges to void and results in involuntary leakage of urine. This is a serious and debilitating condition and has a social stigma

attached to it. To avoid the huge socioeconomic burden and high morbidity associated with this condition, early diagnosis, treatment, and referral concepts must be widely practiced among clinicians.

- **Option B:** Overdistention of the bladder can lead to overflow incontinence. Overflow urinary incontinence is the involuntary leakage of urine from an overdistended bladder due to impaired detrusor contractility and/or bladder outlet obstruction. Neurologic diseases such as spinal cord injuries, multiple sclerosis, and diabetes can impair detrusor function.
- **Option D:** Obstruction of the urethra can lead to urinary retention. Obstructive uropathy is a disorder of the urinary tract that occurs due to obstructed urinary flow and can be either structural or functional. The back-up of urine into the unilateral or bilateral kidneys, depending on the location of the obstruction, causes hydronephrosis.

83. Which nursing diagnosis takes highest priority for a client with Parkinson's crisis?

- A. Imbalanced nutrition: Less than body requirements
- B. Ineffective airway clearance
- C. Impaired urinary elimination
- D. Risk for injury

Correct Answer: B. Ineffective airway clearance

In Parkinson's crisis, dopamine-related symptoms are severely exacerbated, virtually immobilizing the client. A client confined to bed during such a crisis is at risk for aspiration and pneumonia. Also, excessive drooling increases the risk of airway obstruction. Because of these concerns, the nursing diagnosis of Ineffective airway clearance takes highest priority. Although the other options also are appropriate, they aren't immediately life-threatening.

- **Option A:** Assess the patient's ability to eat. To provide information regarding factors associated with reduced intake of nutrients. Weigh the patient daily, on the same scale and same time if possible. Provides information about weight loss or gain. Provide an unhurried environment during meal time. Patients with PD may have difficulty maintaining their weight as eating becomes a very slow process, requiring concentration due to a dry mouth from medications and difficulty chewing and swallowing.
- **Option C:** Teach patient to sit in chairs with backs and armrests; use elevated toilet seats or sidebars in the bathroom. Help with rising from a sitting position and prevent falls. Provide warm baths and massages. Helps relax muscles and relieve painful muscle spasms that accompany rigidity.
- **Option D:** Assess ambulation and movement. Instruct the patient to swing arms and lift heels during ambulation. These actions assist gait and prevent falls. Teach the patient to turn in wide arcs. To prevent the crossing of one leg over the other, which could cause a fall. Remind the patient to maintain an upright posture and look up when walking. Stooped posture may cause the patient to collide with objects.

84. Which nursing diagnosis takes highest priority for a female client with hyperthyroidism?

- A. Risk for imbalanced nutrition: More than body requirements related to thyroid hormone excess.

- B. Risk for impaired skin integrity related to edema, skin fragility, and poor wound healing.
- C. Body image disturbance related to weight gain and edema.
- D. Imbalanced nutrition: Less than body requirements related to thyroid hormone excess.

Correct Answer: D. Imbalanced nutrition: Less than body requirements related to thyroid hormone excess

In the client with hyperthyroidism, excessive thyroid hormone production leads to hypermetabolism and increased nutrient metabolism. These conditions may result in a negative nitrogen balance, increased protein synthesis and breakdown, decreased glucose tolerance, and fat mobilization and depletion. This puts the client at risk for marked nutrient and calorie deficiency, making Imbalanced nutrition: Less than body requirements the most important nursing diagnosis. Options B and C may be appropriate for a client with hypothyroidism, which slows the metabolic rate.

- **Option A:** Monitor daily food intake. Weigh daily and report losses. Continued weight loss in the face of adequate caloric intake may indicate failure of antithyroid therapy. Encourage the patient to eat and increase the number of meals and snacks. Give or suggest high-calorie foods that are easily digested.
- **Option B:** Elevate the head of the bed and restrict salt intake if indicated. Decreases tissue edema when appropriate: HF, which can aggravate existing exophthalmos. Instruct the patient in extraocular muscle exercises if appropriate. Improves circulation and maintains mobility of the eyelids.
- **Option C:** Provide an opportunity for the patient to discuss feelings about altered appearance and measures to enhance self-image. Protruding eyes may be viewed as unattractive. Appearance can be enhanced with proper use of makeup, overall grooming, and use of shaded glasses.

85. The nurse is caring for a hospitalized female client with a diagnosis of ulcerative colitis. Which finding, if noted on assessment of the client, would the nurse report to the physician?

- A. Hypotension
- B. Bloody diarrhea
- C. Rebound tenderness
- D. A hemoglobin level of 12 mg/dL

Correct Answer: C. Rebound tenderness

Rebound tenderness may indicate peritonitis. During the physical exam, pertinent findings include fever and abdominal tenderness to palpation which usually is diffuse with wall rigidity in more septic presentations. Signs of peritonitis must be reported to the physician. It is important to conduct a thorough exam as certain thoracic or pelvic pathologies can mimic peritoneal irritation (empyema causing diaphragmatic irritation and cystitis/pyelonephritis causing peritoneum adjacent pain).

- **Option A:** Because of the blood loss, the client may be hypotensive. In ulcerative colitis, bleeding can arise from the lining of the rectum or large intestine, and this blood can be visible in the stool. The bleeding generally comes from the ulcers that have formed in the lining of the large intestine or rectum.
- **Option B:** Bloody diarrhea is expected to occur in ulcerative colitis. Ulcerative colitis's main symptom is bloody diarrhea, with or without mucus. Associated symptoms also include urgency or tenesmus, abdominal pain, malaise, weight loss, and fever, depending on the extent and severity of

the disease.

- **Option D:** Because of the blood loss, the client may be hypotensive and the hemoglobin level may be lower than normal. Signs of peritonitis must be reported to the physician. It may also be necessary to treat the loss of blood that has happened. If the client developed anemia from blood loss, he may need to supplement with iron, folic acid, or vitamin B12, depending on what your health provider says. In serious cases of blood loss, a blood transfusion might be required.