

# Kevin's Review - 100 NCLEX Practice Questions

**1. An African American female comes to the outpatient clinic. The physician suspects vitamin B12 deficiency anemia. Because jaundice is often a clinical manifestation of this type of anemia, what body part would be the best indicator?**

- A. Conjunctiva of the eye
- B. Soles of the feet
- C. Roof of the mouth
- D. Shins

**Correct Answer: C. Roof of the mouth**

The oral mucosa and hard palate (roof of the mouth) are the best indicators of jaundice in dark-skinned persons.

- **Option A:** The conjunctiva can have normal deposits of fat, which give a yellowish hue.
- **Option B:** The soles of the feet can be yellow if they are calloused.
- **Option D:** The shins would be an area of darker pigment.

**2. The hospital administrator had undergone percutaneous transhepatic cholangiography. Which assessment finding indicates complication after the operation?**

- A. Fever and chills
- B. Hypertension
- C. Bradycardia
- D. Nausea and diarrhea

**Correct Answer: A. Fever and chills**

Septicemia is a common complication after a percutaneous transhepatic cholangiography. Evidence of fever and chills, possibly indicative of septicemia, is important. Although PTC may be performed to treat the obstruction that is the cause of sepsis, PTC itself may also cause sepsis. Antibiotics, IV fluids, oxygen, and vasopressors in the setting of an intensive care unit should be considered.

- **Option B:** Hypotension, not hypertension, is associated with septicemia. The Society of Interventional Radiology (SIR) has published complication rates for PTC and PBD. The rate of major complications is around 2% to 10%. Major complications include inducing sepsis, other severe infections (such as an abscess), bile leak/biloma, hemorrhage (subcapsular hematoma, pseudoaneurysm), pneumothorax, and death.
- **Option C:** Tachycardia, not bradycardia, is most likely to occur. Transgression of blood vessels during PTC is to be expected. Coagulation usually occurs successfully, and hemorrhage ceases entirely within 2 to 3 days. Bleeding through the catheter can occur if a catheter side hole is left in communication with a hepatic vessel or if a pseudoaneurysm develops.
- **Option D:** Nausea and diarrhea may occur but are not classic signs of sepsis. If electrolyte depletion occurs due to high-output external drainage, then the electrolytes should be replaced and considerations should be made on converting the catheter to internal drainage as soon as possible.

**3. The nurse is reviewing the record of a female client with Crohn's disease. Which stool characteristics should the nurse expect to note documented in the client's record?**

- A. Diarrhea
- B. Chronic constipation
- C. Constipation alternating with diarrhea
- D. Stools constantly oozing from the rectum

**Correct Answer: A. Diarrhea**

Crohn's disease is characterized by non-bloody diarrhea of usually not more than four to five stools daily. Over time, the diarrhea episodes increase in frequency, duration, and severity. In CD, the inflammation extends through the entire thickness of the bowel wall from the mucosa to the serosa. The disease runs a relapsing and remitting course. The other options are not associated with diarrhea.

- **Option B:** Patients with flare-ups of Crohn's disease typically present with abdominal pain (right lower quadrant), flatulence/bloating, diarrhea (can include mucus and blood), fever, weight loss, anemia. In severe cases, perianal abscess, perianal Crohn's disease, and cutaneous fistulas can be seen.
- **Option C:** When the small bowel is involved, it may present with diarrhea, malabsorption, weight loss, abdominal pain, and anorexia. Enterovesical fistulae may present with pneumaturia, recurrent urinary tract infections, and feculent vaginal discharge.
- **Option D:** Granuloma formation is very common in Crohn's disease but their absence does not exclude the diagnosis. The ongoing inflammation and scarring lead to bowel obstruction and stricture formation. Crohn's disease is also associated with enterovesical, enteroenteral, enterocutaneous and enterovaginal fistulas.

**4. During recovery from a cerebrovascular accident (CVA), a female client is given nothing by mouth, to help prevent aspiration. To determine when the client is ready for a liquid diet, the nurse assesses the client's swallowing ability once each shift. This assessment evaluates:**

- A. Cranial nerves I and II.
- B. Cranial nerves III and V.
- C. Cranial nerves VI and VIII.
- D. Cranial nerves IX and X.

**Correct Answer: D. Cranial nerves IX and X.**

Swallowing is a motor function of cranial nerves IX and X. Cranial nerve IX (glossopharyngeal nerve), is responsible for motor (SVE) innervation of the stylopharyngeus and the pharyngeal constrictor muscles by the nucleus ambiguus. Damage to the recurrent laryngeal branch of the vagus nerve can result in vocal hoarseness or acute dyspnea with bilateral avulsion.

- **Option A:** Cranial nerves I, II, and VIII don't possess motor functions. Cranial nerve I, the olfactory nerve, is composed of special visceral afferents (SVA). Chemo-sensory receptors in the olfactory mucosal lining bind to odorant molecules and conduct a signal through the nerves traveling through the cribriform plate of the ethmoid bone to synapse on the neurons of the olfactory bulb within the

cranial vault. Cranial nerve II, the optic nerve, conveys special somatic afferent (SSA) visual sensory information from the rods and cones retinal sensory receptors to the thalamus, especially the lateral geniculate nucleus (LGN), and the superior colliculus (SC). Cranial nerve III innervates most of the eye muscles, by splitting into a superior and an inferior branch to innervate the remaining three recti muscles, the inferior oblique, and the skeletal muscle component of levator palpebrae superiors.

- **Option B:** The motor functions of cranial nerve III include extraocular eye movement, eyelid elevation, and pupil constriction. Cranial nerve III innervates most of the eye muscles, by splitting into a superior and an inferior branch to innervate the remaining three recti muscles, the inferior oblique, and the skeletal muscle component of levator palpebrae superioris. While no autonomic fibers travel with the fifth cranial nerve as it exits the pons, parasympathetic fibers from the other mixed cranial nerves will join with peripheral branches of cranial nerve V to innervate their respective target structures, such as the lacrimal, parotid, submandibular, and sublingual glands.
- **Option C:** The motor function of cranial nerve V is chewing. Cranial nerve VI controls lateral eye movement. The abducens nerve innervates the lateral rectus muscles only; thereby this nerve can be tested by evaluating the abduction of the eye gaze. Cranial nerve VIII, the vestibulocochlear nerve, is responsible for the auditory sense and the vestibular sense of orientation of the head.

### **5. What is a characteristic of metasynthesis?**

- A. It is useful for triangulating research.
- B. It synthesizes critical masses of qualitative findings.
- C. It leads to higher reliability of research findings.
- D. It cannot be conducted on historical or case study findings.

**Correct Answer: B. It synthesizes critical masses of qualitative findings.**

Qualitative synthesis refers to a collection of different methods for systematically reviewing and integrating findings from qualitative studies. The aims of such methods are to capture the increasing volume of qualitative research, to facilitate the transfer of knowledge to improve healthcare and to bring together a broad range of participants and descriptions.

- **Option A:** Qualitative synthesis requires not only a systematic approach to collecting, analyzing, and interpreting results across multiple studies, but also to develop overarching interpretation emerging from the joint interpretation of the primary studies included in the synthesis.
- **Option C:** It involves going beyond the findings of any individual study to make the “whole into something more than the parts alone imply” They have been shown to be particularly useful to identify research gaps, to inform the development of primary studies, and to provide evidence for the development, implementation, and evaluation of health interventions
- **Option D:** Qualitative research sheds new light on scientific questions by emphasizing the participants’ subjective understanding and experience. Metasynthesis proposes a third level of comprehension and interpretation that brings original insights.

### **6. Match the acid-base status of the following blood samples to the disorders in the given choices. (PaCO<sub>2</sub> values are in mm Hg and bicarbonate values in mmol/l). pH 7.39, PaCO<sub>2</sub> 44, HCO<sub>3</sub><sup>-</sup> 26**

- A. Respiratory Acidosis

- B. Metabolic Acidosis
- C. Respiratory Alkalosis
- D. Metabolic Alkalosis
- E. Normal

**Correct Answer: E. Normal**

- Based on the given ABG values, pH is 7.39. For pH, the normal range is 7.35 to 7.45. So it is NORMAL.
- PaCO<sub>2</sub> is 44. The normal range for PaCO<sub>2</sub> is from 35 to 45. It is also NORMAL.
- HCO<sub>3</sub><sup>-</sup> is 26. The normal range for HCO<sub>3</sub> is from 22 to 26. It is also NORMAL.
- For these ABG values, pH, PaCO<sub>2</sub>, and HCO<sub>3</sub> are NORMAL. Therefore, this group of ABG values is considered NORMAL.

**7. The nurse is aware that the most common assessment finding in a child with ulcerative colitis is:**

- A. Intense abdominal cramps
- B. Profuse diarrhea
- C. Anal fissures
- D. Abdominal distention

**Correct Answer: B. Profuse diarrhea**

The most common assessment finding in a child with ulcerative colitis is profuse diarrhea. The main symptom of ulcerative colitis is bloody diarrhea, with or without mucus. Other symptoms include blood in the toilet, on toilet paper, or in the stool. Characteristically, it involves inflammation restricted to the mucosa and submucosa of the colon. Typically, the disease starts in the rectum and extends proximally in a continuous manner.

- **Option A:** Ulcerative colitis causes intense abdominal cramps. Associated symptoms also include urgency or tenesmus, abdominal pain, malaise, weight loss, and fever, depending on the extent and severity of the disease. The onset of the disease is typically gradual, and patients will likely experience periods of spontaneous remission and subsequent relapses.
- **Option C:** Ulcerative colitis causes anal fissures. There are some extraintestinal manifestations (EIMs) that are also present in 10% to 30% of patients with ulcerative colitis. Extraintestinal manifestations associated with disease activity include episcleritis, scleritis, and uveitis, peripheral arthropathies, erythema nodosum, and pyoderma gangrenosum.
- **Option D:** Abdominal distensions are more common in Crohn's disease. Patients with flare-ups of Crohn's disease typically present with abdominal pain (right lower quadrant), flatulence/bloating, diarrhea (can include mucus and blood), fever, weight loss, anemia. In severe cases, perianal abscess, perianal Crohn's disease, and cutaneous fistulas can be seen.

**8. A patient has returned to his room after femoral arteriography. All of the following are appropriate nursing interventions except:**

- A. Assess femoral, popliteal, and pedal pulses every 15 minutes for 2 hours.

- B. Check the pressure dressing for sanguineous drainage.
- C. Assess vital signs every 15 minutes for 2 hours.
- D. Order a hemoglobin and hematocrit count 1 hour after the arteriography.

**Correct Answer: D. Order a hemoglobin and hematocrit count 1 hour after the arteriography**

A hemoglobin and hematocrit count would be ordered by the physician if bleeding were suspected. Arterial puncture occurs at the start of angiography and interventional radiology, and is a very important factor determining the success or failure of successive procedures. Recently, this procedure has been performed by a range of approaches depending on the type of surgery, e.g, through the radial artery.

- **Option A:** The methods of hemostasis for the femoral artery include manual compression, which is the removal of the sheath and compression with the hands, and methods that apply compression devices<sup>1</sup>). Of these, manual compression requires absolute bed rest for a few hours. On the other hand, the level of patient discomfort is increased due to lengthy bed rest and the restriction of walking.
- **Option B:** Moreover, hematoma in the punctured area of blood vessels, formation of a pseudoaneurysm, and vascular occlusions develop in approximately 1–5% of cases). A variety of hemostasis devices have been developed to treat these complications that allow for rapid recovery of patients from bed rest. These include Angio-seal device (collagen sponge and copolymer anchor) and percutaneous placement of a device (Prostar) that utilizes two nonabsorbable sutures (Perclose, Redwood City, CA, USA).
- **Option C:** The other answers are appropriate nursing interventions for a patient who has undergone femoral arteriography. The Angio-seal device uses a method of adsorption with a collagen sponge placed within the blood vessels. The Prostar device uses a method in which the blood vessels are sutured. These hemostasis devices can reduce the discomfort and the time to hemostasis (clotting time) in the puncture area when used in patients, who cannot lie down in bed for a long time or in patients with low platelet values who have received anticoagulation treatments.

***9. Which factor is least significant during assessment when gathering information about cultural practices?***

- A. Language, timing
- B. Touch, eye contact
- C. Biocultural needs
- D. Pain perception, management expectations

**Correct Answer: C. Biocultural needs**

Cultural practices do not influence biocultural needs because they are inborn risks that are related to a biological need and not a learned cultural belief or practice. Culturally competent healthcare professionals learn about different groups and the values that drive them. They develop nonjudgmental acceptance of cultural and noncultural differences in patients and coworkers, using diversity as a strength that empowers them to achieve mutually acceptable healthcare goals.

- **Option A:** When a patient doesn't speak English and there is no interpreter, spend more time visiting to allay patients' anxiety. Learn key phrases from the family and use flashcards to enhance communication. When all else fails, sign language does work. Remember that making the effort shows the patient that you care. You are using the language of the heart and building trust.

- **Option B:** Both the clinician and the interpreter must pay particular attention to nonverbal feedback during communication with the patient to ensure understanding of the patient's concerns and desires. During the exchange, the clinician and the interpreter must be able to convey caring and support to gain patients' confidence and trust, particularly when they are revealing sensitive information.
- **Option D:** Culture influences patients' perceptions of illness, pain, and healing. These perceptions may conflict with clinicians' views based on the medical model. Keep an open mind and listen actively to what patients say about their illness.

**10. A male client recently admitted to the hospital with sharp, substernal chest pain suddenly complains of palpitations. Nurse Ryan notes a rise in the client's arterial blood pressure and a heart rate of 144 beats/minute. On further questioning, the client admits to having used cocaine recently after previously denying use of the drug. The nurse concludes that the client is at high risk for which complication of cocaine use?**

- A. Coronary artery spasm
- B. Bradyarrhythmias
- C. Neurobehavioral deficits
- D. Panic disorder

**Correct Answer: A. Coronary artery spasm**

Cocaine use may cause such cardiac complications as coronary artery spasm, myocardial infarction, dilated cardiomyopathy, acute heart failure, endocarditis, and sudden death. Cocaine blocks reuptake of norepinephrine, epinephrine, and dopamine, causing an excess of these neurotransmitters at postsynaptic receptor sites. Cocaine and its metabolites may cause arterial vasoconstriction hours after use. Epicardial coronary arteries are especially vulnerable to these effects, leading to a decreased myocardial oxygen supply.

- **Option B:** Consequently, the drug is more likely to cause tachyarrhythmias than bradyarrhythmias. Cocaine-induced central sympathetic stimulation and direct cardiac effects may lead to tachycardia, hypertension, and coronary or cerebral artery vasoconstriction leading to myocardial infarction and stroke.
- **Option C:** Although neurobehavioral deficits are common in neonates born to cocaine users, they are rare in adults. CNS reactions may be more excitatory than depressant. In its mild form, the patient may display anxiety, restlessness, and excitement. Full-body tonic-clonic seizures may result from moderate to severe CNS stimulation. These seizures are often followed by CNS depression, with death resulting from respiratory failure and/or asphyxiation if concomitant emesis is present.
- **Option D:** As craving for the drug increases, a person who's addicted to cocaine typically experiences euphoria followed by depression, not panic disorder. Cardiovascular toxicity and agitation are best-treated first-line with benzodiazepines to decrease CNS sympathetic outflow. However, there is a risk of over-sedation and respiratory depression with escalating and numerous doses of benzodiazepines, which is often necessary. Non-dihydropyridine calcium channel blockers such as diltiazem and verapamil have shown the ability to reduce hypertension reliably, but not tachycardia.

**11. You are conducting a comprehensive assessment of a 38-year-old female patient in the outpatient psychiatric clinic. She mentions that she has been struggling with both depression and an anxiety disorder for several years. She hints at being on medication but doesn't remember the name. As you review her medication list, you notice a drug that is commonly prescribed for such conditions. Based on her described symptoms, which of the following medications on her list would she most likely be taking for her depression and anxiety?**

- A. Amitriptyline (Elavil)
- B. Calcitonin
- C. Pergolide mesylate (Permax)
- D. Verapamil (Calan)

**Correct Answer: A. Amitriptyline (Elavil)**

Amitriptyline (Elavil) is a tricyclic antidepressant and used to treat symptoms of depression.

- **Option B:** Calcitonin is used to treat osteoporosis in women who have been in menopause. Calcitonin is a hormone that is produced in humans by the parafollicular cells (commonly known as C-cells) of the thyroid gland. Calcitonin is involved in helping to regulate levels of calcium and phosphate in the blood, opposing the action of the parathyroid hormone.
- **Option C:** Permax (pergolide mesylate) is indicated as adjunctive treatment to levodopa/carbidopa in the management of the signs and symptoms of Parkinson's disease.
- **Option D:** Verapamil is used to treat high blood pressure and to control angina (chest pain). The immediate-release tablets are also used alone or with other medications to prevent and treat irregular heartbeats. Verapamil is in a class of medications called calcium-channel blockers. It works by relaxing the blood vessels so the heart does not have to pump as hard. It also increases the supply of blood and oxygen to the heart and slows electrical activity in the heart to control the heart rate.

**12. The nurse is reviewing the medication record of a female client with acute gastritis. Which medication, if noted on the client's record, would the nurse question?**

- A. Digoxin (Lanoxin)
- B. Furosemide (Lasix)
- C. Indomethacin (Indocin)
- D. Propranolol hydrochloride (Inderal)

**Correct Answer: C. Indomethacin (Indocin)**

Indomethacin (Indocin) is a nonsteroidal anti-inflammatory drug and can cause ulceration of the esophagus, stomach, or small intestine. Indomethacin is contraindicated in a client with gastrointestinal disorders. Nonsteroidal anti-inflammatory drugs (NSAIDs) such as indomethacin are capable of producing injury to gastrointestinal mucosa in experimental animals and humans, and their use is associated with a significant risk of hemorrhage, erosions, and perforation of both gastric and intestinal ulcers.

- **Option A:** Digoxin is a cardiac medication. The molecular basis for the gastrointestinal toxicity of NSAIDs is widely believed to be their inhibitory activity against cyclooxygenase, which causes them to block the production of prostaglandins and their therapeutic actions.
- **Option B:** Furosemide (Lasix) is a loop diuretic. Furosemide is not contraindicated in clients with gastric disorders. Suppression of prostaglandin synthesis in NSAIDs is associated with reduction of gastric mucosal blood flow, disturbance of microcirculation, decrease in mucus secretion, lipid peroxidation, and neutrophil activation, which are involved in the pathogenesis of gastrointestinal mucosal disorders
- **Option D:** Propranolol (Inderal) is a  $\beta$ -adrenergic blocker. While the presence of acid in the lumen of the stomach may not be a primary factor in the pathogenesis of NSAID-induced gastropathy, it can make an important contribution to the severity of these lesions by impairing the restitution process, interfering with hemostasis, and inactivating several growth factors that are important in mucosal defense and repair.

**13. Matt is a 49 y.o. with a hiatal hernia that you are about to counsel. Health care counseling for Matt should include which of the following instructions?**

- A. Restrict intake of high-carbohydrate foods.
- B. Increase fluid intake with meals.
- C. Increase fat intake.
- D. Eat three regular meals a day.

**Correct Answer: B. Increase fluid intake with meals.**

Increasing fluids help empty the stomach. A hiatal hernia is a condition in which the upper part of the stomach or other internal organ bulges through the hiatus of the diaphragm. When there is laxity in this hiatus, gastric content can back up into the esophagus and is the leading cause of gastroesophageal reflux disease (GERD).

- **Option A:** A high-carb diet isn't restricted. Non- or low-acidic foods will reduce the likelihood and severity of hiatal hernia symptoms. The best food choices for people with hiatal hernias are non-acidic, minimally processed, and contain dietary fiber.
- **Option C:** Fat intake shouldn't be increased. Fermented or cultured foods that are rich in probiotics (acid-neutralizing stomach bacteria) may also help reduce hiatal hernia symptoms.
- **Option D:** Diet plays a significant role in the development, severity, and length of hiatal hernia symptoms. But aside from causing inflammation and irritation, researchers are not sure how and why certain foods cause a hiatal hernia to develop.

**14. Referencing the image below, what is the name of the structure marked #4.**

- A. Cortical blood vessels
- B. Portal artery
- C. Portal vein
- D. Renal pyramid
- E. Renal calyx



- G. Minor calyx
- H. Major calyx
- I. Renal artery
- J. Renal vein

**Correct answer: #4 is Option J. Renal vein**

The renal vein is a blood vessel that carries deoxygenated blood from the kidney to the inferior vena cava. There is one renal vein for each kidney. The renal veins are formed by the confluence of the interlobar veins of one kidney. They enter the kidney at the hilum, which is the indented area on the medial side of the kidney. The renal veins then drain into the inferior vena cava, which is a large vein that carries blood directly to the heart.

**15. When monitoring a client who is taking benzodiazepines, the nurse should be alert for which CNS side effects?**

- A. Blurred vision, anorexia, dysarthria
- B. Seizures, tremors, diaphoresis
- C. Ataxia, sedation, dizziness
- D. Libido changes, edema, dystonia

**Correct Answer: C. Ataxia, sedation, dizziness**

These are common side effects. CNS and neuromuscular adverse effects may include euphoria, hallucination, ataxia, dizziness, seizure-like activity, and paresthesia.

- **Option A:** Anorexia is a GI effect. Gastrointestinal reactions may include retching, nausea/vomiting, and excess salivation.
- **Option B:** These are side effects of acute withdrawal. Doses of 0.05 mg may be recommended, as a withdrawal from opioids may precipitate vomiting. This becomes an issue in the sedated benzodiazepine overdosed patient, as they may be unable to protect their airway.
- **Option D:** Libido and edema are not CNS-related side effects. In neonates, less than 1% of patients treated with benzodiazepines experience laryngospasm and/or bronchospasm. They may also experience ventricular arrhythmias including ventricular bigeminy or premature ventricular contractions, vasovagal syncope, bradycardia, or tachycardia.

**16. The LPN is reviewing the lab results of an elderly client when she notes a urine specific gravity of 1.006. The nurse recognizes that:**

- A. The client has impaired renal function
- B. The client has a normal specific gravity
- C. The client has mild dehydration
- D. The client has low sodium level in the blood

**Correct Answer: B. The client has a normal specific gravity**

- Option B: Urine specific gravity is a laboratory test that shows the density of urine compared with water. The normal specific gravity is 1.005-1.030.
- Option C: A specific gravity of 1.010 can indicate mild dehydration.
- Options A and D: Impaired renal function and hyponatremia will indicate decreased urine specific gravity.

**17. In an individual with Sjögren’s syndrome, nursing care should focus on:**

- A. Moisture replacement.
- B. Electrolyte balance.
- C. Nutritional supplementation.
- D. Arrhythmia management.

**Correct Answer: A. Moisture replacement.**

Sjogren’s syndrome is an autoimmune disorder leading to progressive loss of lubrication of the skin, GI tract, ears, nose, and vagina. Moisture replacement is the mainstay of therapy.

- **Option B:** Electrolyte balance is not the priority problem in Sjögren’s syndrome. Electrolyte abnormalities, particularly hypokalemia, must be considered in patients presenting with generalized weakness.
- **Option C:** Though malnutrition may occur as a result of Sjogren’s syndrome effect on the GI tract, it isn’t the predominant problem. An estimated 90% of people with Sjogren’s syndrome have problems related to eating, enough to cause malnutrition.
- **Option D:** Arrhythmias aren’t a problem associated with Sjogren’s syndrome. However, there is a new study that showed a significantly increased risk of heart attack in patients with Sjogren’s syndrome, particularly in the first year following diagnosis.

**18. Methergine or Pitocin is prescribed for a woman to treat PP hemorrhage. Before administration of these medications, the priority nursing assessment is to check the:**

- A. Amount of lochia
- B. Blood pressure
- C. Deep tendon reflexes
- D. Uterine tone

**Correct Answer: B. Blood pressure**

Methergine and Pitocin are agents that are used to prevent or control postpartum hemorrhage by contracting the uterus. They cause continuous uterine contractions and may elevate blood pressure. A priority nursing intervention is to check blood pressure. The physician should be notified if hypertension is present. Methergine is in a group of drugs called ergot alkaloids. It affects the smooth muscle of a woman’s uterus, improving the muscle tone as well as the strength and timing of uterine contractions. Methergine is used just after a baby is born, to help deliver the placenta (also called the “afterbirth”).

- **Option A:** Methergine is administered in the postpartum period to help deliver the placenta and to help control bleeding and other uterine problems after childbirth. It is indicated following delivery of

the placenta, for routine management of uterine atony, hemorrhage, and subinvolution of the uterus. For control of uterine hemorrhage in the second stage of labor following delivery of the anterior shoulder.

- **Option C:** Methergine (methylergonovine maleate) acts directly on the smooth muscle of the uterus and increases the tone, rate, and amplitude of rhythmic contractions. Thus, it induces a rapid and sustained titanic uterotonic effect which shortens the third stage of labor and reduces blood loss.
- **Option D:** Caution should be exercised in the presence of sepsis, obliterative vascular disease. Also, use caution during the second stage of labor. The necessity for manual removal of a retained placenta should occur only rarely with proper technique and adequate allowance of time for its spontaneous separation.

**19. Which statement represents the best rationale for using noninvasive and non-pharmacologic pain-control measures in conjunction with other measures?**

- A. These measures are more effective than analgesics.
- B. These measures decrease input to large fibers.
- C. These measures potentiate the effects of analgesics.
- D. These measures block transmission of type C fiber impulses.

**Correct Answer: C. These measures potentiate the effects of analgesics.**

Noninvasive measures may result in the release of endogenous molecular neuropeptides with analgesic properties. They potentiate the effect of analgesics. The role of non-pharmacological approaches to pain management is evolving, and some non-pharmacological and complementary therapies have an increasingly important contribution to make to holistic patient care alongside analgesics.

- **Option A:** No evidence indicates that noninvasive and nonpharmacologic measures are more effective than analgesics in relieving pain. Exercise, multidisciplinary rehabilitation, acupuncture, CBT, mindfulness practices, massage, and mind-body practices most consistently improve function and/or pain beyond the course of therapy for specific chronic pain conditions.
- **Option B:** Decreased input over large fibers allows more pain impulses to reach the central nervous system. When deciding the most effective non-pharmacological technique, take into consideration the patient's age, developmental level, medical history and prior experiences, the current degree of pain, and/or anticipated pain. The advantage of non-pharmacological treatments is that they are relatively inexpensive and safe.
- **Option D:** There is no connection between type C fiber impulses and noninvasive and nonpharmacologic pain-control measures. Non-pharmacological pain therapy refers to interventions that do not involve the use of medications to treat pain. The goals of non-pharmacological interventions are to decrease fear, distress, and anxiety, and reduce pain and provide patients with a sense of control.

**20. A clinical feature that distinguishes a hypoglycemic reaction from a ketoacidosis reaction is:**

- A. Blurred vision
- B. Diaphoresis

- C. Nausea
- D. Weakness

**Correct Answer: B. Diaphoresis**

A hypoglycemic reaction activates a fight-or-flight response in the body which then triggers the release of epinephrine and norepinephrine resulting in diaphoresis. Low blood sugars can affect activity in the autonomic nervous system (ANS), which is responsible for reactions that people cannot control, such as sweating and digestion. The cholinergic system is a part of the ANS, and it regulates the production of sweat and other secretions. Activation of this system can lead to sweating.

- **Option A:** High levels of blood sugar resulting from diabetes can affect your ability to see by causing the lens inside the eye to swell, which can result in temporary blurring of eyesight. Blurring of vision may also occur as a result of very low blood sugar levels.
- **Option C:** Diabetic ketoacidosis occurs when blood sugar levels become very high, and ketones build up to dangerous levels in the blood. One common symptom of diabetic ketoacidosis is severe nausea. Both hyperglycemia and hypoglycemia can make a person feel nauseated.
- **Option D:** Hypoglycemia can lead to symptoms such as dizziness, weakness, and, in severe cases, a loss of consciousness. Symptoms of hyperglycemia in DKA are common, including polyuria, polydipsia, and sometimes more severe presentations include unintentional weight loss, vomiting, weakness, and mentation changes.

**21. Which of the following clinical conditions exacerbates electrolyte excretion?**

- A. Nasogastric feedings
- B. Use of surgical drains
- C. Immobility from fractures
- D. Chronic water drinking

**Correct Answer: B. Use of surgical drains**

Surgical drains will cause fluid loss, and electrolytes are eliminated along with the fluid. The role of the potassium ion is ordinarily not a consideration in postoperative fluid management. It becomes a consideration in the presence of a large amount of drainage from wounds or abscess cavities, nasogastric suction, or intestinal fistulae. It also must be given attention in cases in which parenteral administration of fluids is necessary for a prolonged period.

- **Option A:** Gastrointestinal losses, from diarrhea, vomiting, or nasogastric suctioning, also are common causes of hypokalemia. Vomiting leads to hypokalemia via a complex pathogenesis. Gastric fluid itself contains little potassium, approximately 10 mEq/L.
- **Option C:** Although the concept of “hyponatremia” is seemingly straightforward for many clinicians, some challenges remain regarding the diagnostic thresholds, the distinction between real and pseudohyponatremia, and its relation to human pathologies, including bone fractures.
- **Option D:** Electrolytes (sodium, potassium, magnesium, chloride and calcium) need to be in balance in order to maintain healthy blood, heart rhythm, muscle function, and other important functions. Drinking too much water can cause the electrolyte levels in the body to get out of whack and cause sodium levels plummet.

**22. What is the most common cause of an abdominal aortic aneurysm?**

- A. Atherosclerosis
- B. DM
- C. HPN
- D. Syphilis

**Correct Answer: A. Atherosclerosis**

Atherosclerosis accounts for 75% of all abdominal aortic aneurysms. Plaques build up on the wall of the vessel and weaken it, causing an aneurysm. AAA is thought to be a degenerative process of the aorta, the cause of which remains unclear. It is often attributed to atherosclerosis because these changes are observed in the aneurysm at the time of surgery.

- **Option B:** Diabetes mellitus does not directly cause an abdominal aortic aneurysm. Patients at greatest risk for AAA are men who are older than 65 years and have peripheral atherosclerotic vascular disease. A history of smoking often is elicited.
- **Option C:** Hypertension accounts for 1-15% of cases of an abdominal aneurysm. A Swedish study showed that instances of AAA in elderly men have been decreasing, a phenomenon that can be attributed to a nationwide decline in smoking for the past 30 years, as well as the significantly improved longevity of the elderly population.
- **Option D:** Syphilis is not related to AAA. Syphilis is a bacterial infection usually spread by sexual contact. The disease starts as a painless sore — typically on your genitals, rectum, or mouth. Syphilis spreads from person to person via skin or mucous membrane contact with these sores.

**23. Nurse Stephanie is assessing a client who has an acute respiratory infection that puts her at risk for hypoxemia. Which of the following findings are early indications that should alert the nurse that the client is developing hypoxemia? Select all that apply.**

- A. Restlessness
- B. Tachypnea
- C. Bradycardia
- D. Confusion
- E. Cyanosis

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

Restlessness, tachypnea, and pallor are early manifestations of hypoxemia, along with tachycardia, elevated blood pressure, use of accessory muscles, nasal flaring, tracheal tugging, and adventitious lung sounds. Bradycardia and confusion are late manifestations of hypoxemia, along with stupor, cyanotic skin and mucous membranes, bradypnea, hypotension, and cardiac dysrhythmias. Hypoxemia is defined as a decrease in the partial pressure of oxygen in the blood whereas hypoxia is defined by reduced level of tissue oxygenation. It can be due to either defective delivery or defective utilization of oxygen by the tissues.

- **Option A:** When oxygen delivery is severely compromised, organ function will start to deteriorate. Neurologic manifestations include restlessness, headache, and confusion with moderate hypoxia. In severe cases, altered mentation and coma can occur, and if not corrected quickly may lead to death.

- **Option B:** The chronic presentation is usually less dramatic, with dyspnea on exertion as the most common complaint. Symptoms of the underlying condition that induced the hypoxia can help in narrowing the differential diagnosis. The physical exam may show tachypnea and low oxygen saturation. Fever may point to infection as the cause of hypoxia.
- **Option C:** Bradycardia is a late manifestation of hypoxemia. Increase in cardiac output with exercise results in accelerated blood flow through alveoli, reducing the time available for gas exchange. In case of the abnormal pulmonary interstitium, gas exchange time becomes insufficient, and hypoxemia ensues.
- **Option D:** Both confusion and somnolence may occur in respiratory failure. Myoclonus and seizures may occur with severe hypoxemia. Polycythemia is a complication of long-standing hypoxemia.
- **Option E:** Cyanosis, a bluish color of skin and mucous membranes, indicates hypoxemia. Visible cyanosis typically is present when the concentration of deoxygenated hemoglobin in the capillaries of tissues is at least 5 g/dL.

**24. In teaching a female client who is HIV-positive about pregnancy, the nurse would know more teaching is necessary when the client says:**

- A. The baby can get the virus from my placenta.”
- B. “I’m planning on starting on birth control pills.”
- C. “Not everyone who has the virus gives birth to a baby who has the virus.”
- D. “I’ll need to have a C-section if I become pregnant and have a baby.”

**Correct Answer: D. “I’ll need to have a C-section if I become pregnant and have a baby.”**

A Cesarean section delivery isn’t necessary when the mother is HIV-positive.

- **Option A:** The human immunodeficiency virus (HIV) is transmitted from mother to child via the transplacental route.
- **Option B:** The use of birth control will prevent the conception of a child who might have HIV.
- **Option C:** It’s true that a mother whose HIV positive can give birth to a baby who’s HIV negative.

**25. Forty-eight hours after delivery, the nurse in charge plans discharge teaching for the client about infant care. By this time, the nurse expects that the phase of postpartum psychological adaptation that the client would be in would be termed which of the following?**

- A. Taking in
- B. Letting go
- C. Taking hold
- D. Resolution

**Correct Answer: C. Taking hold**

Beginning after completion of the taking-in phase, the taking-hold phase lasts about 10 days. During this phase, the client is concerned with her need to resume control of all facets of her life in a

competent manner. At this time, she is ready to learn self-care and infant care skills.

- **Option A:** The taking-in phase usually sets 1 to 2 days after delivery. The woman prefers to talk about her experiences during labor and birth and also her pregnancy. The taking-in phase provides time for the woman to regain her physical strength and organize her rambling thoughts about her new role.
- **Option B:** During the letting go phase, the woman finally accepts her new role and gives up her old roles like being a childless woman or just mother of one child.
- **Option D:** The resolution phase or ending phase is the final stage of the nurse-client relationship. After the client's problems or issues are addressed, the relationship needs to be completed before it can be terminated.

**26. Which of the following is a bulk-forming agent?**

- A. Glycerin
- B. FiberCon
- C. Lactulose
- D. Milk of Magnesia

**Correct Answer: B. FiberCon**

FiberCon is the bulk-forming agent. Polycarbophil is used to treat constipation. It is known as a bulk-forming laxative. It increases the bulk in the stool, an effect that helps to cause movement of the intestines. It also works by increasing the amount of water in the stool, making the stool softer and easier to pass. Choices A and C are incorrect because they are hyperosmotic agents.

- **Option A:** This medication is used as a moisturizer to treat or prevent dry, rough, scaly, itchy skin and minor skin irritations (e.g., diaper rash, skin burns from radiation therapy). Emollients are substances that soften and moisturize the skin and decrease itching and flaking.
- **Option C:** Lactulose is used in preventing and treating clinical portal-systemic encephalopathy; first used in clinical practice in 1966. Its chief mechanism of action is by decreasing the intestinal production and absorption of ammonia. Lactulose, also known as 1,4 beta galactoside-fructose, is a non-absorbable synthetic disaccharide made up of galactose and fructose. The human small intestinal mucosa does not have the enzymes to split lactulose, and hence lactulose reaches the large bowel unchanged. Lactulose is metabolized in the colon by colonic bacteria to monosaccharides, and then to volatile fatty acids, hydrogen, and methane.
- **Option D:** Milk of Magnesia is a saline laxative. This medication is used for a short time to treat occasional constipation. It is a laxative (osmotic-type) that is thought to work by drawing water into the intestines, an effect that helps to cause movement of the intestines. This medication is also used to treat symptoms caused by too much stomach acid such as heartburn, upset stomach, or indigestion. It is an antacid that works by lowering the amount of acid in the stomach.

**27. A client is to be on bed rest for 24 hours and the affected extremity is to be kept straight during this time. Which of the following procedures would require a client to do the above?**

- A. Varicose vein surgery.
- B. Myelogram.

- C. Abdominal aneurysm resection.
- D. Arterial Vascular Grafting.

**Correct Answer: D. Arterial Vascular Grafting.**

To promote graft patency after the procedure, bedrest is maintained for the first 24 hours and the affected extremity is kept straight. The pathophysiology of vein graft failure has been attributed to acute thrombosis within the first month, intimal hyperplasia up to 1 year, and atherosclerosis beyond 1 year.

- **Option A:** After treatment of large varicose veins by any method, a 30- to 40-mm Hg gradient compression stocking is applied, and patients are instructed to maintain or increase their normal activity levels. Most practitioners also recommend the use of gradient compression stockings even after treatment of spider veins and smaller tributary veins.
- **Option B:** The client may need to sit or lay down for several hours after the procedure to reduce the risk of developing a CSF (cerebral spinal fluid) leak. Most patients are asked to lie down for two hours after the procedure. If the client needs to urinate, he may need to do so in a bedpan or urinal during the time that he needs to stay flat.
- **Option C:** Avoid strenuous activities that may put stress on the incision, such as bicycle riding, jogging, weight lifting, or aerobic exercise, for 6 weeks or until the doctor says it is okay. For 6 weeks, avoid lifting anything that would make a strain. This may include a child, heavy grocery bags and milk containers, a heavy briefcase or backpack, cat litter or dog food bags, or a vacuum cleaner.

**28. Amid a hazardous material incident in the city, a young woman is rushed to the hospital following exposure to a potentially lethal toxin. Upon arrival, her vitals are stable, but the medical team is aware of the time-sensitive nature of the toxin's effect. The medical toxicologist recommends the administration of antiserum containing specific pre-formed immunoglobulins to neutralize the toxin. A medical student observing the case is then quizzed by his professor about the type of immunity being utilized in this clinical scenario to provide the patient with immediate, temporary protection against the toxin. Which term best describes this form of immunity?**

- A. Active Natural Immunity
- B. Active Artificial Immunity
- C. Passive Natural Immunity
- D. Passive Artificial Immunity

**Correct Answer: D. Passive Artificial Immunity**

Passive artificial immunity is acquired through the administration of pre-formed antibodies or immunoglobulins to provide immediate protection against a specific pathogen or toxin. In this clinical scenario, the patient is being given an antiserum containing pre-formed immunoglobulins to neutralize the toxin, representing an application of passive artificial immunity.

- **Option A:** Active natural immunity arises when an individual encounters a live pathogen naturally, and the body's immune system responds by generating a specific immune response including the production of antibodies. This scenario does not describe active natural immunity as the patient is being given pre-formed antibodies rather than generating her own.



- **Option B:** Active artificial immunity is acquired through vaccination where an individual is exposed to a weakened or inactivated form of the pathogen, or a part of the pathogen, and the body responds by generating a specific immune response. This is not the form of immunity being utilized in this clinical scenario as the patient is not being vaccinated but is receiving pre-formed antibodies.
- **Option C:** Passive natural immunity refers to the transmission of antibodies from mother to infant, either through the placenta during pregnancy or through breast milk postnatally. This type of immunity is naturally acquired and temporary. This scenario does not describe passive natural immunity as the patient is receiving antibodies through medical intervention, not from a maternal source.

**29. When considering the pharmacotherapeutic effects of drugs administered to clients, the nurse considers which property of most importance:**

- A. Efficacy.
- B. Interaction with other drugs.
- C. Potency.
- D. Toxicity.

**Correct Answer: A. Efficacy**

In pharmacology, efficacy is the maximum response achievable from a drug. Efficacy is the capacity to produce an effect (eg, lower blood pressure). Efficacy can be assessed accurately only in ideal conditions (ie, when patients are selected by proper criteria and strictly adhere to the dosing schedule). Thus, efficacy is measured under expert supervision in a group of patients most likely to have a response to a drug, such as in a controlled clinical trial.

- **Option B:** Drug-drug interactions occur when two or more drugs react with each other. This drug-drug interaction may cause you to experience an unexpected side effect. For example, mixing a drug you take to help you sleep (a sedative) and a drug you take for allergies (an antihistamine) can slow your reactions and make driving a car or operating machinery dangerous.
- **Option C:** Potency is an expression of the activity of a drug in terms of the concentration or amount of the drug required to produce a defined effect.
- **Option D:** Toxicity refers to how poisonous or harmful a substance can be. In the context of pharmacology, drug toxicity occurs when a person has accumulated too much of a drug in his bloodstream, leading to adverse effects on the body.

**30. A nurse is caring for a combative client who is ordered to have a nutritional therapy using parenteral nutrition (PN). The nurse should plan which of the following measures to prevent the client from injury?**

- A. Monitor blood glucose twice a day.
- B. Instruct the relative to stay with the nurse.
- C. Measure 24-hour intake and output.
- D. Secure all connections in the parenteral system.

**Correct Answer: D. Secure all connections in the parenteral system.**

The nurse should plan to secure all connections in the tubing. This will prevent the client from pulling the connections apart. An air embolism may occur if IV tubing disconnects and is open to air, or if part of the catheter system is open or removed without being clamped. Symptoms include sudden respiratory distress, decreased oxygen saturation levels, shortness of breath, coughing, chest pain, and decreased blood pressure.

- **Option A:** The nurse may monitor the blood glucose but it is unrelated to the situation. Many fatal instances of air emboli in patients with central venous catheters have been reported in the literature. They frequently occur when the tubing becomes tangled while a patient is getting out of bed, causing the catheter to disconnect. Although less common, cracks in the catheter hub can also allow air to enter the venous system.
- **Option B:** The relative may stay with the patient when necessary. Central venous catheters are also used in applications other than TPN. These include central venous pressure monitoring, rapid infusion of fluids, pulmonary arterial pressure monitoring using Swan-Ganz catheters, and hemodialysis. Also, a central venous catheter is often placed in the right atrium during surgery to remove air that might be introduced elsewhere in the venous system. It is possible for an air embolism to develop during all of these central venous applications.
- **Option C:** Measuring the I&O; of the patient is not related to the situation. An air embolism can develop when the right side of the heart is open to outside air through a disconnected catheter and a negative intrathoracic pressure is present, such as during inspiration. The right side of the heart is open to outside air when the catheter is first inserted and during catheter changes.

**31. A client has been receiving chlorpromazine (Thorazine), an antipsychotic, to treat his psychosis. Which findings should alert the nurse that the client is experiencing pseudoparkinsonism?**

- A. Restlessness, difficulty sitting still, and pacing
- B. Involuntary rolling of the eyes
- C. Tremors, shuffling gait, and masklike face
- D. Extremity and neck spasms, facial grimacing, and jerky movements

**Correct Answer: C. Tremors, shuffling gait, and mask-like face**

Pseudoparkinsonism may appear 1 to 5 days after starting an antipsychotic and may also include drooling, rigidity, and “pill-rolling.” Despite being a low-potency drug, chlorpromazine can still cause extrapyramidal side effects (EPS) such as acute dystonia, akathisia, parkinsonism, and tardive dyskinesia (TD). The evolution of EPS side effects can occur through hours to days. Acute dystonia refers to muscle stiffness or spasm of the head, neck, and eye muscles that can start hours after starting the medication. Akathisia includes restlessness and fast pacing. Parkinsonism includes bradykinesia, “cogwheel” rigidity, and shuffling gait.

- **Option A:** Akathisia may occur several weeks after starting antipsychotic therapy and consists of restlessness, difficulty sitting still, and fidgeting. Patients are at risk of developing neuroleptic malignant syndrome (NMS), which is a life-threatening manifestation, where the patient presents with “lead-pipe” muscle rigidity, autonomous instability, hyperpyrexia more than 40 degrees Celsius, altered mental status, leukocytosis, and elevated serum creatinine kinase.
- **Option B:** An oculogyric crisis is recognized by uncontrollable rolling back of the eyes and, along with dystonia, should be considered an emergency. Chlorpromazine use also requires caution in patients with cerebrovascular and cardiovascular diseases. Patients should start on a low dose of chlorpromazine as an initial dosage, and the increase in subsequent dosing should be gradual.

However, treatment should be discontinued if the patient develops agranulocytosis.

- **Option D:** Dystonia may occur minutes to hours after receiving an antipsychotic and may include extremity and neck spasms, jerky muscle movements, and facial grimacing. Chlorpromazine belongs to the category of typical antipsychotics or neuroleptics, also known as first-generation antipsychotics (FGAs). It produces its antipsychotic effect by the post-synaptic blockade at the D2 receptors in the mesolimbic pathway. However, the blockade of D2 receptors in the nigrostriatal pathway is responsible for its extrapyramidal side effects.

**32. Which statements by the mother of a toddler would lead the nurse to suspect that the child has iron-deficiency anemia? Select all that apply.**

- A. "He drinks over 3 cups of milk per day."
- B. "I can't keep enough apple juice in the house; he must drink over 10 ounces per day."
- C. "He refuses to eat more than 2 different kinds of vegetables."
- D. "He doesn't like meat, but he will eat small amounts of it."
- E. "He sleeps 12 hours every night and takes a 2-hour nap."

**Correct Answers: A & B**

Toddlers should have between 2 and 3 cups of milk per day and 8 ounces of juice per day. If they have more than that, then they are probably not eating enough other foods, including iron-rich foods that have the needed nutrients.

- **Option A:** A serving of iron-fortified cereals typically has 100 percent of the daily value for iron in just one serving. The exact amount will vary, so be sure to check the label. Dry cereals, like Cheerios, are usually fortified as well.
- **Option B:** The body absorbs iron better when the child consumes it with a source of vitamin C. To enable the body to absorb more iron, serve iron-rich foods alongside foods rich in vitamin C.
- **Option C:** The body doesn't absorb nonheme iron as easily as heme iron. This is true for both toddlers and adults. If the child eats a vegetarian or mostly vegetarian diet, aim for twice as much iron as the recommended amount.
- **Option D:** Meat and poultry contain large amounts of heme iron, which is easy for the body to digest. Beef, organ meats, and liver in particular have a lot of iron. A 3-ounce serving of beef liver, for example, contains 5 mg of iron.
- **Option E:** Peirano et al. reported that relative to controls, children with IDA showed: a) longer duration of REM sleep episodes in the first third and shorter in the last third; b) more REM sleep episodes in the first third and fewer in the second third; and c) shorter latency to the first REM sleep episode and shorter NREM stage 2. So, their results show that IDA is associated with long-lasting alterations in the temporal organization of sleep patterns.

**33. During a hypertensive crisis, the nurse makes sure which of this medicine is readily available?**

- A. Phentolamine
- B. Diazepam
- C. Lithium citrate

D. Phenobarbital sodium

**Correct Answer: A. Phentolamine**

In a hypertensive emergency, the first goal is to bring down the blood pressure as quickly as possible with intravenous (IV) blood pressure medications to prevent further organ damage. Phentolamine Mesylate (phentolamine mesylate) is used as an antidote for a hypertensive crisis.

- **Option B:** Diazepam is a benzodiazepines.
- **Option C:** Lithium citrate is a mood stabilizer.
- **Option D:** Phenobarbital sodium is a barbiturate and sedative-hypnotics.

**34. Which signs cause the nurse to suspect cardiac tamponade after a client has cardiac surgery? Select all that apply.**

- A. Tachycardia
- B. Hypertension
- C. Increased CVP
- D. Decreased urine output
- E. Jugular vein distention

**Correct Answers: A, C, & D**

Cardiac tamponade is a medical or traumatic emergency that happens when enough fluid accumulates in the pericardial sac compressing the heart and leading to a decrease in cardiac output and shock. The diagnosis of cardiac tamponade is a clinical diagnosis that requires prompt recognition and treatment to prevent cardiovascular collapse and cardiac arrest.

- **Option A:** Blood in the pericardial sac compresses the heart so the ventricles cannot fill; this leads to a rapid thready pulse. Normally, a small, physiologic amount of fluid surrounds the heart within the pericardium. When the volume of fluid builds up fast enough, the chambers of the heart are compressed, and tamponade physiology develops rapidly with much smaller volumes.
- **Option B:** Tamponade causes hypotension and a narrowed pulse pressure. The fluid may be hemorrhagic, serosanguineous, or chylous. The underlying pathology behind cardiac tamponade is a decrease in the diastolic filling, which leads to a decreased cardiac output. One of the first compensatory signs is tachycardia to overcome the reduced output.
- **Option C:** As the tamponade increases, pressure on the heart interferes with the ejection of blood from the left ventricle, resulting in increased pressure on the right side of the heart, and systemic circulation. Patients with cardiac tamponade present similar to patients with other forms of cardiogenic or obstructive shock. They may endorse vague symptoms of chest pain, palpitations, shortness of breath, or in more severe cases, dizziness, syncope, and altered mental status.
- **Option D:** As the heart is more inefficient, there is a decrease in kidney perfusion and therefore urine output. When fluid compresses the heart and impairs filling, the interventricular septum bows toward the left ventricle during inspiration due to increased venous return to the right side of the heart. This further decreases the left ventricle leading to decreased left ventricular preload and stroke volume.
- **Option E:** The increased venous pressure caused JVD. The JVP tracing may reveal an absent 'y' descent due to the elevated intrapericardial pressure that prevents the filling of the ventricles. The classic physical findings in cardiac tamponade included in Beck's triad are hypotension, jugular

venous distension, and muffled heart sounds.

**35. A laboring client has external electronic fetal monitoring in place. Which of the following assessment data can be determined by examining the fetal heart rate strip produced by the external electronic fetal monitor?**

- A. Gender of the fetus
- B. Fetal position
- C. Labor progress
- D. Oxygenation

**Correct Answer: D. Oxygenation**

Oxygenation of the fetus may be indirectly assessed through fetal monitoring by closely examining the fetal heart rate strip. Accelerations in the fetal heart rate strip indicate good oxygenation, while decelerations in the fetal heart rate sometimes indicate poor fetal oxygenation.

- **Option A:** In the second and third trimesters of pregnancy, ultrasound imaging scans the genital anatomy of the fetus to identify its gender. In the early studies conducted on the use of ultrasound results for identifying the fetal gender, a male fetus was demonstrated by the presence of a scrotum and a penis, and a female fetus by the absence of these organs.
- **Option B:** Ultrasonography is noninvasive and has been found to be more accurate for assessing position of the fetal head, during labor. Recent studies by Sherer et al., Chou et al., Dupuis et al., and Zahalka et al. have shown that ultrasound scanning is a quick and efficient way of increasing the accuracy of the assessment of fetal head position during the second stage of labor.
- **Option C:** Recently, intrapartum transperineal ultrasound for the assessment of fetal head descent has been introduced to assess labor progress in the first stage of labor in a more objective and non-invasive way.

**36. The nurse is preparing to administer cyclopentolate (Cyclogyl) who will undergo a corneal surgery. The nurse administers the medication, knowing that the purpose of this eye drop is to?**

- A. Dilate the pupil of the operative eye.
- B. Constrict the pupil of the operative eye.
- C. Reduces intraocular pressure.
- D. Lubricate the operative eye.

**Correct Answer: A. Dilate the pupil of the operative eye.**

- **Option A:** Cyclopentolate is a mydriatic and cycloplegic medication that works by temporarily widening (dilating) the pupil of the eye and relaxing the muscles of the eye.
- **Options B, C, and D:** These are not related to the medication.

**37. Which of the following classes of drugs is most widely used in the treatment of cardiomyopathy?**

- A. Antihypertensives
- B. Beta-adrenergic blockers
- C. Calcium channel blockers
- D. Nitrates

**Correct Answer: B. Beta-adrenergic blockers**

By decreasing the heart rate and contractility, beta-blockers improve myocardial filling and cardiac output, which are primary goals in the treatment of cardiomyopathy. Therefore, the chronotropic and inotropic effects on the heart undergo inhibition, and the heart rate slows down as a result.

Beta-blockers also decrease blood pressure via several mechanisms, including decreased renin and reduced cardiac output.

- **Option A:** Antihypertensives aren't usually indicated because they would decrease cardiac output in clients who are already hypotensive. Lowering blood pressure does reduce cardiovascular risks, maintaining systolic blood pressure less than 130 mm Hg has shown to prevent complications in patients with heart failure, diabetes, coronary artery disease, stroke, and other cardiovascular diseases.
- **Option C:** Calcium channel blockers are sometimes used for the same reasons as beta-blockers; however, they aren't as effective as beta-blockers and cause increased hypotension. Dihydropyridines are more potent as vasodilators and used more for HTN treatment. They have less effect on heart contractility and conduction. For this, they are used more for the management of HTN. Nifedipine and amlodipine are the most used medications in this group.
- **Option D:** Nitrates aren't used because of their dilating effects, which would further compromise the myocardium. The venodilation increases the venous capacitance and lowers the preload; this subsequently lowers the left ventricular end-diastolic pressure, resulting in a reduction in myocardium workload, which decreases the oxygen demand of the heart.

**38. To establish an open and trusting relationship with a female client who has been hospitalized with severe anxiety, the nurse in charge should?**

- A. Encourage the staff to have frequent interaction with the client.
- B. Share an activity with the client.
- C. Give client feedback on behavior.
- D. Respect client's need for personal space.

**Correct Answer: D. Respect client's need for personal space**

Moving to a client's personal space increases the feeling of threat, which increases anxiety. Lessen sensory stimuli by keeping a quiet and peaceful environment; keep "threatening" equipment out of sight. Anxiety may intensify to a panic state with excessive conversation, noise, and equipment around the patient. Increasing anxiety may become frightening to the patient and others.

- **Option A:** Interact with the patient in a peaceful manner. The nurse or health care provider can transmit his or her own anxiety to the hypersensitive patient. The patient's feeling of stability increases in a calm and non-threatening environment. Help the patient determine precipitants of anxiety that may indicate interventions. Obtaining insight allows the patient to reevaluate the threat or identify new ways to deal with it.

- **Option B:** Allow the patient to talk about anxious feelings and examine anxiety-provoking situations if they are identifiable. Talking about anxiety-producing situations and anxious feelings can help the patient perceive the situation realistically and recognize factors leading to the anxious feelings.
- **Option C:** If the situational response is rational, use empathy to encourage the patient to interpret the anxiety symptoms as normal. Anxiety is a normal response to actual or perceived danger. Avoid unnecessary reassurance; this may increase undue worry. Reassurance is not helpful for the anxious individual.

**39. The nurse provides wound care for a client 48 hours after a burn injury. To achieve the desired outcome of the procedure, which nursing action will be carried out first?**

- A. Applies silver sulfadiazine (Silvadene) ointment
- B. Covers the area with an elastic wrap
- C. Places a synthetic dressing over the area
- D. Removes loose nonviable tissue

**Correct Answer: D. Removes loose nonviable tissue**

The first step in this process is removing exudates and necrotic tissue. Burn patients are at high risk for infection, especially drug-resistant infection, which often results in significantly longer hospital stays, delayed wound healing, higher costs, and higher mortality

- **Option A:** Since the adoption of topical antibiotics, such as mafenide in the 1960s and silver sulfadiazine in the 1970s, and of early excision and grafting in the 1970s and thereafter, systemic infections and mortality have consistently decreased. However, Gram-positive and Gram-negative bacterial infections still remain one of the most common causes of mortality following burn injury.
- **Option B:** While many factors must be considered in dressing selection, the goals in selecting the most appropriate dressing should include providing protection from contamination (bacterial or otherwise) and from physical damage, allowing gas exchange and moisture retention, and providing comfort to enhance functional recovery.
- **Option C:** The selection of an appropriate dressing depends on several factors, including depth of burn, condition of the wound bed, wound location, desired moisture retention and drainage, required frequency of dressing changes, and cost.

**40. After the physician performs an amniotomy, the nurse's first action should be to assess the:**

- A. Degree of cervical dilation
- B. Fetal heart tones
- C. Client's vital signs
- D. Client's level of discomfort

**Correct Answer: B. Fetal heart tones**

When the membranes rupture, there is often a transient drop in the fetal heart tones. The heart tones should return to baseline quickly. Any alteration in fetal heart tones, such as bradycardia or tachycardia,

should be reported. The nurse plays a vital role during the procedure in monitoring the mother as well as the fetus, she also notes the color of the draining amniotic fluid and documents the findings in the medical chart.

- **Option A:** Amniotomy is easily performed with the use of specially designed hooks intended to grab and tear the amniotic membrane. The two most commonly used devices are (1) an approximately 10-inch rod with a hook on the end of the rod or (2) a finger cot with a hook on the end of the cot. With either device, the practitioner assesses cervical dilation through the performance of a sterile digital exam.
- **Option C:** After the procedure, she assesses the maternal temperature every two hours and watches out for any signs of infection. The nurse also monitors the fetal heart rate via continuous electronic fetal monitoring and communicates the findings to the provider.
- **Option D:** After the fetal heart tones are assessed, the nurse should evaluate the cervical dilation, vital signs, and level of discomfort. The nurse needs to frequently change underpads. One of the most crucial roles of the nurse is to educate the woman about the amniotomy procedure and address the patient's concerns at all times.

**41. A nurse is caring for a client who has diarrhea for the past four days. When assessing a client, the nurse should expect which of the following findings? Select all that apply.**

- A. Bradycardia
- B. Hypotension
- C. Fever
- D. Poor skin turgor
- E. Peripheral edema

**Correct Answer: B, C, and D**

Diarrhea is described as three or more loose or watery stools a day. Infection commonly causes acute diarrhea. Noninfectious etiologies are more common as the duration of diarrhea becomes chronic. Treatment and management are based on the duration and specific etiology. Rehydration therapy is an important aspect of the management of any patient with diarrhea. Prevention of infectious diarrhea includes proper handwashing to prevent the spread of infection.

- **Option A:** Prolonged diarrhea is more likely to cause tachycardia than bradycardia. Diarrhea is the result of reduced water absorption by the bowel or increased water secretion. A majority of acute diarrheal cases are due to infectious etiology. Chronic diarrhea is commonly categorized into three groups; watery, fatty (malabsorption), or infectious.
- **Option B:** Prolonged diarrhea leads to dehydration, which causes a decrease in blood pressure. In bacterial and viral diarrhea, the watery stool is the result of injury to the gut epithelium. Epithelial cells line the intestinal tract and facilitate the absorption of water, electrolytes, and other solutes. Infectious etiologies cause damage to the epithelial cells which leads to increased intestinal permeability. The damaged epithelial cells are unable to absorb water from the intestinal lumen leading to loose stool.
- **Option C:** Prolonged diarrhea leads to dehydration, which causes fever. History should include the duration of symptoms, accompanying symptoms, travel history, and exposures to medications and food. It is important to ask about the stool frequency, type, volume, and presence of blood or mucus. Patients with diarrhea may also complain of abdominal pain or cramping, vomit, bloating,



flatulence, fever, and bloody or mucoid stools.

Option D: Prolonged diarrhea is more likely to cause a fluid deficit. An important aspect of diarrhea management is replenishing fluid and electrolyte loss. Patients should be encouraged to drink diluted fruit juice, Pedialyte or Gatorade. In more severe cases of diarrhea, IV fluid rehydration may become necessary.

Option E: Peripheral edema results from a fluid overload. Important aspects of the physical exam include the patient's vital signs, volume status, and abdominal exam. Dry mucous membranes, poor skin turgor, and delayed capillary refill are signs of dehydration. A thorough history and physical exam are important to determine the proper diagnostic workup.

**42. The effectiveness of monoamine oxidase (MAO) inhibitor drug therapy in clients with posttraumatic stress disorder can be demonstrated by which of the following client self-reports?**

- A. "I'm sleeping better and don't have nightmares".
- B. "I'm not losing my temper as much".
- C. "I've lost my craving for alcohol".
- D. "I've lost my phobia for water".

**Correct Answer: A. "I'm sleeping better and don't have nightmares"**

MAO inhibitors are used to treat sleep problems, nightmares, and intrusive daytime thoughts in individuals with posttraumatic stress disorder. An examination of the available literature supports the efficacy of monoamine oxidase inhibitors (MAOIs) in treating posttraumatic stress disorder (PTSD). This effect may or may not be independent of the response of symptoms of major depression; there is suggestive but inconclusive evidence supporting both.

- **Option B:** Monoamine oxidase inhibitors (MAOIs) were first introduced in the 1950s. They are a separate class from other antidepressants, treating different forms of depression as well as other nervous system disorders such as panic disorder, social phobia, and depression with atypical features.
- **Option C:** Furthermore, examples of neurological disorders that can benefit from MAOIs are patients with Parkinson disease as well as those diagnosed with multiple system atrophy. Multiple system atrophy is a neurodegenerative disease that includes symptoms affecting movement as well as blood pressure.
- **Option D:** MAO inhibitors aren't used to help control flashbacks or phobias or to decrease the craving for alcohol. Monoamine oxidase inhibitors are responsible for blocking the monoamine oxidase enzyme. The monoamine oxidase enzyme breaks down different types of neurotransmitters from the brain: norepinephrine, serotonin, dopamine, as well as tyramine. MAOIs inhibit the breakdown of these neurotransmitters thus, increasing their levels and allowing them to continue to influence the cells that have been affected by depression.

**43. A client with Meniere's disease is experiencing severe vertigo. Which instruction would the nurse give to the client to assist in controlling vertigo?**

- A. Increase fluid intake to 3000 ml a day.
- B. Avoid sudden head movements.
- C. Lie still and watch the television.

D. Increase sodium in the diet.

**Correct Answer: B. Avoid sudden head movements.**

The nurse instructs the client to make slow head movements to prevent the worsening of vertigo. Meniere disease is an inner ear disorder characterized by tinnitus, vertigo, and hearing loss. This is thought to occur due to the accumulation of endolymphatic fluid in the cochlea and the vestibular organ.

- **Option A:** Dietary changes such as salt and fluid restrictions that reduce the amount of endolymphatic fluid sometimes are prescribed. Studies of the temporal bone revealed endolymphatic accumulation in the cochlea and the vestibular organ in patients with Meniere disease. Current research links endolymphatic hydrops to a hearing loss of >40dB.
- **Option C:** Lying still and watching television will not control vertigo. If Meniere disease is suspected, the patient should be questioned about the character of vertigo, hearing loss, and earlier episodes. A full otologic history is part of the clinical investigation.
- **Option D:** A sodium restriction diet may be recommended. Low-level evidence suggests that restricting sodium intake may help to prevent Meniere's attacks. If Meniere disease is suspected, one should perform a full otologic examination, facial nerve testing, and assessment of nystagmus with Frenzel goggles, Rinne, and Weber tests.

**44. While in a skilled nursing facility, a male client contracted scabies, which is diagnosed the day after discharge. The client is living at her daughter's home, where six other persons are living. During her visit to the clinic, she asks a staff nurse, "What should my family do?" The most accurate response from the nurse is:**

- A. "All family members will need to be treated."
- B. "If someone develops symptoms, tell him to see a physician right away."
- C. "Just be careful not to share linens and towels with family members."
- D. "After you're treated, family members won't be at risk for contracting scabies."

**Correct Answer: A. "All family members will need to be treated."**

When someone in a group of persons sharing a home contracts scabies, each individual in the home needs prompt treatment whether he's symptomatic or not. Scabies is a contagious skin condition caused by the mite *Sarcoptes scabiei* which burrows into the skin and causes severe itching. Scabies is transmitted by direct skin-to-skin contact or indirectly by contact with contaminated material (fomites).

- **Option B:** Skin-to-skin contact transmits the infectious organism therefore, family members and skin contact relationships create the highest risk. Scabies was declared a neglected skin disease by the World Health Organization (WHO) in 2009 and is a significant health concern in many developing countries.
- **Option C:** Towels and linens should be washed in hot water. The classic form of scabies may have a population of mites on an individual that range between 10 to 15 organisms. It typically takes ten minutes of skin-to-skin contact for mites to transmit to another human host, in cases of classic scabies. Transmission of the disease can also occur by fomite transmission via clothing or bed sheets.
- **Option D:** Scabies can be transmitted from one person to another before symptoms develop. Infested individuals require identification and prompt treatment because a misdiagnosis can lead to outbreaks, morbidity, and an increased economic burden. Adult female mites dig burrow tunnels 1

to 10 millimeters long within the superficial layers of the epidermis and lay 2 to 3 eggs daily. The mites die 30 to 60 days later, and the eggs hatch after approximately 2 to 3 weeks. It merits mentioning that not all treatment options can penetrate the eggs stored within the skin.

**45. A primiparous woman is in the taking-in stage of psychosocial recovery and adjustment following birth. The nurse, recognizing the needs of women during this stage, should:**

- A. Foster an active role in the baby's care.
- B. Provide time for the mother to reflect on the events of and her behavior during childbirth.
- C. Recognize the woman's limited attention span by giving her written materials to read when she gets home rather than doing a teaching session now.
- D. Promote maternal independence by encouraging her to meet her own hygiene and comfort needs.

**Correct Answer: B. Provide time for the mother to reflect on the events of and her behavior during childbirth.**

The focus of the taking-in stage is nurturing the new mother by meeting her dependency needs for rest, comfort, hygiene, and nutrition. Women express a need to review their childbirth experience and evaluate their performance. This dependence is mainly due to her physical discomfort from hemorrhoids or the after pains, from the uncertainty of how she could care for the newborn, and also from the extreme tiredness she feels that follows childbirth. Encouraging the woman to talk about her experiences during labor and birth would greatly help her adjust and let her incorporate it into her new life.

- **Option A:** Once they are met, she is more able to take an active role, not only in her own care but also the care of her newborn. The taking hold phase starts 2 to 4 days after delivery. The woman starts to initiate actions on her own and makes decisions without relying on others. Demonstrate newborn care to the mother and watch her do a return demonstration of every procedure.
- **Option C:** Short teaching sessions, using written materials to reinforce the content presented, are a more effective approach. The woman still needs positive reinforcements despite the independence that she is already showing because she might still feel insecure about the care of her child. Allow the woman to settle in gradually into her new role while still at the hospital or healthcare facility because making decisions about the child's welfare is a difficult part of motherhood.
- **Option D:** This is the time of reflection for the woman because, within the 2 to 3 day period, the woman is passive. The woman becomes dependent on her healthcare provider or support person with some of the daily tasks and decision-making. The taking-in phase provides time for the woman to regain her physical strength and organize her rambling thoughts about her new role.

**46. An insulin-dependent diabetic delivered a 10-pound male. When the baby is brought to the nursery, the priority of care is to:**

- A. clean the umbilical cord with Betadine to prevent infection
- B. give the baby a bath
- C. call the laboratory to collect a PKU screening test
- D. check the baby's serum glucose level and administer glucose if < 40 mg/dL

**Correct Answer: D. check the baby's serum glucose level and administer glucose if < 40 mg/dL.**

- **Option D:** Because the mother has diabetes, the baby is at risk for problems. The newborn baby may be large in size (macrosomia). Big babies are more likely to get hurt during delivery. These include shoulder injuries. The baby may also have low blood sugar (hypoglycemia), low blood calcium, low blood iron, and high levels of red blood cells and thickened blood. Hypoglycemia occurs if the mother's blood glucose levels have been consistently high, causing the fetus to have a high level of insulin in its circulation. The baby's blood glucose level is checked after birth, and if the level is too low, it may be necessary to give the baby glucose intravenously.

**47. A client being treated with sodium warfarin has a Protime of 120 seconds. Which intervention would be most important to include in the nursing care plan?**

- A. Assess for signs of abnormal bleeding
- B. Anticipate an increase in the Coumadin dosage
- C. Instruct the client regarding the drug therapy
- D. Increase the frequency of neurological assessments

**Correct Answer: A. Assess for signs of abnormal bleeding**

The normal Protime is 12–20 seconds. A Protime of 120 seconds indicates an extremely prolonged Protime and can result in a spontaneous bleeding episode. Patients receiving treatment with warfarin should have close monitoring to ensure the safety and efficacy of the medication. Periodic blood testing is the recommendation to assess the patient's prothrombin time (PT) and the international normalized ratio (INR).

- **Option B:** The laboratory parameter utilized to monitor warfarin therapy is the PT/INR. The PT is the number of seconds it takes the blood to clot, and the INR allows for the standardization of the PT measurement depending on the thromboplastin reagent used by a laboratory. Therefore, monitoring a patient's INR while on warfarin is strongly preferable over PT because it allows for a standardized measurement without variations due to different laboratory sites.
- **Option C:** When managing warfarin toxicity, the initial step would be to discontinue warfarin and then administer vitamin K (phytonadione). The vitamin K may administration can be either via the oral, intravenous, or subcutaneous route. However, the initial administration of oral vitamin K is often preferable in patients without major bleeding or extremely elevated INR.
- **Option D:** Patients also require close monitoring for signs and symptoms of active bleeding throughout their treatment. Close monitoring for signs and symptoms of bleeding, such as dark tarry stools, nosebleeds, and hematomas, is necessary. The patient's hemoglobin and hematocrit level should undergo an assessment before initiating warfarin and approximately every six months while on therapy.

**48. A 40-year-old male patient suffered a burn injury in a household accident. The burns cover his face, neck, right upper arm, and upper trunk. The nurse is using the rule of nines to estimate the total body surface area (TBSA) affected by the burns to guide treatment planning. According to the rule of nines, which area has the largest percent of burns?**

- A. Face and neck

- B. Right upper arm and penis
- C. Right thigh and penis
- D. Upper trunk

**Correct Answer: D. Upper trunk**

The percentage designated for each burned part of the body using the rule of nines: Head and neck 9%; Right upper extremity 9%; Left upper extremity 9%; Anterior trunk 18%; Posterior trunk 18%; Right lower extremity 18%; Left lower extremity 18%; Perineum 1%.

- **Option A:** The face and neck is 9%.
- **Option B:** The right upper arm is 9% and the penis is only 1%.
- **Option C:** The right thigh is 9% and the penis is 1%.

**49. Veronica's parents were told that their daughter needs ribavirin (Virazole). This drug is used to treat which of the following?**

- A. Cystic fibrosis
- B. Otitis media
- C. Respiratory syncytial virus (RSV)
- D. Bronchitis

**Correct Answer: C. Respiratory syncytial virus (RSV)**

Ribavirin is an antiviral medication used for treating RSV infection and for children with RSV who are compromised (such as children with bronchopulmonary dysplasia or heart disease). There is a single antiviral medication approved for use against RSV in the United States, ribavirin. It is a nucleoside analog with application in several RNA viruses, and it shows in vitro activity against RSV and may be administered in aerosolized form.

- **Option A:** A new class of medications known as CFTR modulator therapies is designed to correct the dysfunction by improving production, intracellular processing, or function of the CFTR protein caused by the mutated gene. Each medication is targeted at a specific dysfunction caused by a specific gene mutation. Ivacaftor is used in the treatment of class 3 dysfunctions, where a mutation at G551D is the primary aberration. This was the first medication to directly impact the protein channel rather than treating the effects of CF.
- **Option B:** Once the diagnosis of acute otitis media is established, the goal of treatment is to control pain and to treat the infectious process with antibiotics. Non-steroidal anti-inflammatory drugs (NSAIDs), such as acetaminophen, can be used to achieve pain control. When a bacterial etiology is suspected, the antibiotic of choice is high-dose amoxicillin for ten days in both children and adult patients who are not allergic to penicillin.
- **Option D:** Antitussive agents like dextromethorphan, codeine, and guaifenesin are frequently used in clinical practice to suppress cough based on their effectiveness in chronic bronchitis and studies on cough in the common cold. Beta-agonists are routinely used in acute bronchitis patients with wheezing. Analgesic and antipyretic agents may be used to treat associated malaise, myalgia, and fever.

**50. On review of the patient's record, the nurse notes the admission was voluntary. Based on this information, the nurse anticipates which patient's behavior?**

- A. Fearfulness regarding treatment measures.
- B. Anger and aggressiveness directed toward others.
- C. An understanding of the pathology and symptoms of the diagnosis.
- D. A willingness to participate in the planning of the care and treatment plan.

**Correct Answer: D. A willingness to participate in the planning of the care and treatment plan.**

In general, patients seek voluntary admission. If a patient seeks voluntary admission, the most likely expectation is the patient will participate in the treatment program since they are actively seeking help. Voluntary admission to an acute inpatient psychiatric hospital occurs when a person goes for psychiatric evaluation and the evaluating mental health provider and patient agree that the patient would benefit from hospitalization and meets criteria for hospitalization.

- **Option A:** Fearfulness is characteristic of involuntary admission. Involuntary admission to an acute inpatient psychiatric hospital occurs when the patient does not agree to hospitalization on a locked inpatient psychiatric unit, but a mental health professional evaluates the patient and believes that, as a result of mental illness, the patient is at risk of harming self or others, or is unable to care for self.
- **Option B:** The remaining option is not characteristic of this type of admission. Anger and aggressiveness are more characteristic of involuntary admission. Involuntary admissions to psychiatric hospitals, regardless of their beneficial effects, violate the patients' autonomy. To keep such measures at a minimum and develop less restricting and coercive alternatives, a better understanding of the psychiatric emergency situations which end up in involuntary admissions is needed.
- **Option C:** Voluntary admission does not guarantee a patient's understanding of their illness, only of their desire for help. A mental health professional will evaluate an individual who goes to one of the above facilities and will determine whether the patient is appropriate for an inpatient psychiatric unit.

**51. Chuck is a 20-year-old student diagnosed with obsessive-compulsive behavior. A psychiatrist prescribes clomipramine (Anafranil) to treat his condition. Nurse Nicolette understands the rationale for this treatment is that the clomipramine:**

- A. Increases dopamine levels
- B. Increases serotonin levels
- C. Decreases norepinephrine levels
- D. Decreases GABA levels

**Correct Answer: B. Increases serotonin levels**

According to the psychobiological theory, dysregulation of the neurotransmitter serotonin is thought to contribute to obsessive-compulsive behavior. Clomipramine (Anafranil) is used to increase serotonin levels, thereby decreasing the need for obsessive-compulsive behaviors. The only FDA-approved use

for clomipramine is for the treatment of the obsessive-compulsive disorder (OCD) in ages 10 and older. Clomipramine was the first FDA-approved medication for OCD in 1989. For the treatment of OCD, a meta-analysis found clomipramine was more effective than sertraline, fluoxetine, and fluvoxamine.

- **Option A:** Clomipramine is a tertiary amine belonging to the class of medications known as tricyclic antidepressants (TCA). It is a dibenzazepine TCA. Clomipramine is a serotonin reuptake inhibitor (S-RI) with a stronger affinity for the serotonin transporter (SERT), compared to other TCAs and S-RIs. The resulting action of clomipramine increases serotonergic and noradrenergic transmission.
- **Option C:** Metabolism of clomipramine is primarily through the liver via oxidation by CYP450 2D6. The half-life of clomipramine is 17 to 28 hours. Clomipramine is then metabolized to the steady-state active metabolite desmethyl clomipramine by CYP450 1A2. Desmethyl clomipramine has more noradrenergic activity than serotonergic.
- **Option D:** Experts often use fluvoxamine, a CYP450 1A2 inhibitor, with clomipramine in treatment-resistant OCD. By adding the CYP450 1A2 inhibitor, the conversion from clomipramine to desmethyl clomipramine is blocked, resulting in increased serotonergic activity. The onset of action of clomipramine is usually between 6 to 12 weeks for OCD; it may treat anxiety or insomnia immediately. If the patient achieves OCD remission with clomipramine, treatment should continue indefinitely.

**52. Francis tells the nurse that her coworkers are sabotaging the computer. When the nurse asks questions, the client becomes argumentative. This behavior shows personality traits associated with which of the following personality disorders?**

- A. Antisocial
- B. Histrionic
- C. Paranoid
- D. Schizotypal

**Correct Answer: C. Paranoid**

Because of their suspiciousness, paranoid personalities ascribe malevolent activities to others and tend to be defensive, becoming quarrelsome and argumentative. Paranoid personality disorder (PPD) is one of a group of conditions called “Cluster A” personality disorders which involve odd or eccentric ways of thinking. People with PPD also suffer from paranoia, an unrelenting mistrust and suspicion of others, even when there is no reason to be suspicious.

- **Option A:** Clients with antisocial personality disorder can also be antagonistic and argumentative but are less suspicious than paranoid personalities. Antisocial personality disorder (ASPD) is a deeply ingrained and rigid dysfunctional thought process that focuses on social irresponsibility with exploitive, delinquent, and criminal behavior with no remorse. Disregard for and the violation of others’ rights are common manifestations of this personality disorder, which displays symptoms that include failure to conform to the law, inability to sustain consistent employment, deception, manipulation for personal gain, and incapacity to form stable relationships.
- **Option B:** Clients with histrionic personality disorder are dramatic, not suspicious and argumentative. 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.

- **Option D:** Clients with schizoid personality disorder are usually detached from others and tend to have eccentric behavior. The schizoid personality type was made official in DSM III in 1980, to describe persons experiencing significant ineptitude in forming meaningful social relationships. Isolation is a salient feature in the history of a schizoid patient. Rarely do they have close relationships, and often they will choose to participate in occupations that are solitary in nature. They infrequently experience strong emotion, express little to no desire for sexual activity with a partner, and tend to be ambivalent to criticism or praise.

**53. 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.

**54. A nurse is monitoring a pregnant client with pregnancy induced hypertension who is at risk for Preeclampsia. The nurse checks the client for which specific signs of Preeclampsia? Select all that apply.**

- A. Elevated blood pressure



- B. Negative urinary protein
- C. Facial edema
- D. Increased respirations

**Correct Answer: A & C.**

The three classic signs of preeclampsia are hypertension, generalized edema, and proteinuria. Increased respirations are not a sign of preeclampsia. Preeclampsia is a hypertensive disorder in pregnancy-related to 2% to 8% of pregnancy-related complications worldwide. It results in 9% to 26% of maternal deaths in low-income countries and 16% in high-income countries. Preeclampsia is defined as new-onset hypertension.

- **Option A:** The parameters for initial identification of preeclampsia are specifically defined as a systolic blood pressure of 140 mm Hg or more or diastolic blood pressure of 90 mm Hg or more on two occasions at least 4 hours apart; or shorter interval timing of systolic blood pressure of 160 mm Hg or more or diastolic blood pressure of 110 mm Hg or more, all of which must be identified after 20 weeks of gestation.
- **Option B:** Although elevated blood pressure with accompanying proteinuria is typically thought to be required for the diagnosis of preeclampsia, it may not be present in several cases. In such cases, where the absence of proteinuria and new-onset hypertension is discovered, other new-onset symptoms such as thrombocytopenia, renal insufficiency, pulmonary edema, impaired liver function, or new-onset headache with or without visual disturbance may be used for diagnosis.
- **Option C:** Overall evaluation for edema should also be completed, specifically evaluating areas of dependent (gravity-related) edema like the lower extremities or independent edema, such as in the face or hands.
- **Option D:** Shortness of breath and a perceived increase in swelling, both worsening from baseline pregnancy-related symptoms, may also be reported. Suppose patients present with shortness of breath, auscultation, and percussion of lungs should be undertaken to examine for pulmonary disturbances.

**55. Which client factors should alert the nurse to potential increased complications with a burn injury?**

- A. The client is a 26-year-old male.
- B. The client has had a burn injury in the past.
- C. The burned areas include the hands and perineum.
- D. The burn took place in an open field and ignited the client's clothing.

**Correct Answer: C. The burned areas include the hands and perineum.**

Burns of the perineum increase the risk for sepsis. Burns of the hands require special attention to ensure the best functional outcome. Complications are related to the extension of the burn. Burns to the genitalia and perineum are severe conditions that all urologists should be familiar with and know how to manage. Fluid resuscitation is the initial step in treating these patients and is followed by topical dressings in the case of superficial burns.

- **Option A:** Irrespective of the type of burn injury, the aged population shows slower recoveries and suffers more complications. Age-associated immune dysfunction, immunosenescence, may predispose the elderly burn patients to more infections, slower healing, and/or to other complications.

- **Option B:** Accordingly, patients with burn injury cannot be considered recovered when the wounds have healed; instead, burn injury leads to long-term profound alterations that must be addressed to optimize quality of life.
- **Option D:** Burns to the genitals correspond to approximately 2% of all burn patients in North American case series. The majority of those cases are associated with greater burned body surface areas, in which direct fire and scalding are the most frequent causes. Burn management begins with opportune diagnosis and entails making the correct classification, depending on the depth of the lesion.

**56. A nurse is providing instructions to a client receiving baclofen (Lioresal). Which of the following would be included in the teaching plan?**

- A. Limit fluid intake.
- B. Hold the medication if diarrhea occurs.
- C. Restrict alcohol intake.
- D. Notify the physician if weakness occurs.

**Correct Answer: C. Restrict alcohol intake.**

Baclofen is a skeletal muscle relaxant. The client should be cautioned against the use of alcohol and other central nervous system depressants because baclofen potentiates the depressant activity of these agents.

- **Option A:** Limiting fluid intake is not necessary, but the client should be warned that urinary retention occurs.
- **Option B:** Constipation rather than diarrhea is a side effect.
- **Option D:** Weakness is related to a CNS effect that is prevalent during the early phase of the treatment and diminishes with continued medication use.

**57. A child is admitted to the hospital with an uncontrolled seizure disorder. The admitting physician writes orders for actions to be taken in the event of a seizure. Which of the following actions would not be included?**

- A. Notify the physician.
- B. Restrain the patient's limbs.
- C. Position the patient on his/her side with the head flexed forward.
- D. Administer rectal diazepam.

**Correct Answer: B. Restrain the patient's limbs.**

During a witnessed seizure, nursing actions should focus on securing the patient's safety and curtailing the seizure. Restraining the limbs is not indicated because strong muscle contractions could cause injury. Use and pad side rails with the bed in lowest position, or place the bed up against the wall and pad floor if rails are not available or appropriate.

- **Option A:** The nurse should notify the physician in the event of a seizure so he could prescribe the correct medication. Ascertain knowledge of various stimuli that may precipitate seizure activity. Alcohol, various drugs, and other stimuli (loss of sleep, flashing lights, prolonged television viewing)

may increase brain activity, thereby increasing the potential for seizure activity.

- **Option C:** A side-lying position with head flexed forward allows for drainage of secretions and prevents the tongue from falling back, blocking the airway. Turn head to side and suction airway as indicated. Insert plastic bite blocks only if the jaw is relaxed. Helps maintain airway patency and reduces the risk of oral trauma but should not be “forced” or inserted when teeth are clenched because dental and soft-tissue damage may result. Note: Wooden tongue blades should not be used because they may splinter and break in the patient’s mouth.
- **Option D:** Rectal diazepam may be a treatment ordered by the physician, who should be notified of the seizure. Diazepam may be used alone (or in combination with phenobarbital) to suppress status seizure activity. Diastat, a gel, may be administered rectally, even in the home setting, to reduce the frequency of seizures and need for additional medical care.

**58. A 35-year-old female patient, presenting with a history of irregular menstrual cycles and recent abnormal vaginal discharge, receives an abnormal result on a Papanicolaou (Pap) smear test. After unintentionally viewing her chart, the patient inquires about the meaning of ‘dysplasia’ noted in her results. The nurse should provide which definition of dysplasia?**

- A. Presence of completely undifferentiated tumor cells that don’t resemble cells of the tissues of their origin.
- B. Increase in the number of normal cells in a normal arrangement in a tissue or an organ.
- C. Replacement of one type of fully differentiated cell by another in tissues where the second type normally isn’t found.
- D. Alteration in the size, shape, and organization of differentiated cells.

**Correct Answer: D. Alteration in the size, shape, and organization of differentiated cells**

Dysplasia refers to an alteration in the size, shape, and organization of differentiated cells.

- **Option A:** The presence of completely undifferentiated tumor cells that don’t resemble cells of the tissues of their origin is called anaplasia.
- **Option B:** An increase in the number of normal cells in a normal arrangement in a tissue or an organ is called hyperplasia.
- **Option C:** Replacement of one type of fully differentiated cell by another in tissues where the second type normally isn’t found is called metaplasia.

**59. A client with a fractured hip is being taught correct use of the walker. The nurse is aware that the correct use of the walker is achieved if the:**

- A. Palms rest lightly on the handles
- B. Elbows are flexed 0°
- C. Client walks to the front of the walker
- D. Client carries the walker

**Correct Answer: A. Palms rest lightly on the handles**

The client's palms should rest lightly on the handles. The elbows should be flexed no more than 30° but should not be extended. Once a model of the walker has been selected, the "fit" of the walker becomes important. When holding on to the walker, the elbows should be bent in a position that feels comfortable and natural. The top of the walker should be even with the crease on the underside of the wrist when the arms are relaxed at the side.

- **Option B:** A 0° is not a relaxed angle for the elbows and will not facilitate correct walker use. Walkers that are too low cause the client to stoop over while walking, which impedes proper body mechanics. If the walker is at the wrong height, the client will be prone to aches and pains.
- **Option C:** The client should walk to the middle of the walker, not to the front of the walker. To get started, the client should push the walker slightly ahead, then step into the walker. Keep that pattern going—walker slightly ahead, then step into the walker. The walker should never be too far ahead and the client should have excellent posture as he takes steps. Also, the client should not look at feet, rather in front of him.
- **Option D:** The client should be taught not to carry the walker because this would not provide stability. If there is trouble gripping the walker, platform walkers are available that may prove to be a better option. The platform allows the client to rest the elbow and forearm, taking stress off the hands.

### **60. The personality type of Ryan is:**

- A. Conforming
- B. Dependent
- C. Perfectionist
- D. Masochistic

#### **Correct Answer: B. Dependent**

A client with a dependent personality is predisposed to develop asthma. At the heart of dependent personality is a lack of self-efficacy. Individuals with dependent personality believe they are incapable of being independent and may feel unable to make even simple decisions without outside input. They often avoid expressing any type of disagreement for fear of losing their support.

- **Option A:** The conforming non-assertive client is predisposed to develop hypertension because of the tendency to repress rage. Conformity describes the adaptation of behavior that occurs in response to unspoken group pressure. It differs from compliance, which is adaptation of behavior resulting from overt pressure. Individuals conform to or comply with group behavior in an attempt to "fit in" or to follow the norms of the social group.
- **Option C:** The perfectionist and compulsive tend to develop a migraine. Perfectionism is often seen as a positive trait that increases the chances of success, but it can lead to self-defeating thoughts or behaviors that make it harder to achieve goals. It may also cause stress, anxiety, depression, and other mental health issues. People who strive for perfection out of feelings of inadequacy or failure may find it helpful to speak with a therapist; this can often help people manage excessive self-criticism.
- **Option D:** The masochistic, self-sacrificing type is prone to develop rheumatoid arthritis. Masochism may be a means of escaping from high-level awareness of self as a symbolically mediated, temporally extended identity. Such awareness is replaced by a focus on the immediate present and on bodily sensations, and sometimes by a low-level awareness of self as an object.

**61. A 32-year-old pregnant woman in her first trimester visits the antenatal clinic for her routine check-up. She mentions that during her last visit, her obstetrician recommended increasing her intake of folic acid to support the neural development of her baby. She is a vegetarian and is concerned about getting adequate folic acid from her diet. She asks the nurse for advice on food sources. Which of the following foods should the nurse recommend as containing the highest concentration of folic acid?**

- A. Green vegetables like spinach and broccoli, and liver for those who consume it.
- B. Yellow vegetables like bell peppers and red meat.
- C. Carrots, especially when consumed raw.
- D. Milk, preferably fortified.
- E. Citrus fruits like oranges and grapefruits.
- F. Whole grains and fortified cereals.

**Correct Answer: A. Green vegetables like spinach and broccoli, and liver for those who consume it.**

Folic acid, also known as vitamin B9, is essential for many body functions, including the synthesis of DNA and RNA, the metabolism of amino acids, and the formation of red and white blood cells. It's especially crucial during periods of rapid growth such as pregnancy. Green leafy vegetables like spinach and broccoli are rich sources of folic acid. Liver also contains a high concentration of folic acid, but it's important to note the patient's dietary preferences. The other options, while containing some amounts of folic acid or being beneficial in other ways, do not have as high a concentration as green vegetables and liver.

**62. Nursing interventions that can help the patient to relax and sleep restfully include all of the following except:**

- A. Have the patient take a 30- to 60-minute nap in the afternoon.
- B. Turn on the television in the patient's room.
- C. Provide quiet music and interesting reading material.
- D. Massage the patient's back with long strokes.

**Correct Answer: A. Have the patient take a 30- to 60-minute nap in the afternoon.**

Napping in the afternoon is not conducive to nighttime sleeping. There are few considerations about naps. For example, a short daytime nap of 15-30 minutes can be restorative for elders and will not interfere with nighttime sleep. On the other hand, insomniacs are cautioned to avoid naps. Quiet music, watching television, reading, and massage usually will relax the patient, helping him to fall asleep.

- **Option B:** For patients in the hospital, factors that can prevent sound sleep include staff noise during a shift, telephones and call lights, doors, paging systems, and even carts wheeled through corridors. Safety and comfort can be promoted by raising side rails, placing the bed in a low position, and using night-lights.
- **Option C:** For individuals who are unable to sleep, they must get out of bed and spend some time in another room. There, they can start some relaxing activities like reading and listening to soft

music. They should continue the activity till they feel drowsy.

- **Option D:** Rituals can be supported in institutionalized patients by assisting them with a hand and face wash, massage, pillow plumping, and even talking about today's accomplishments and enjoyable events. These can promote relaxation and peace of mind.

**63. Chris asks the nurse whether all donor blood products are cross-matched with the recipient to prevent a transfusion reaction. Which of the following always require cross-matching?**

- A. Granulocytes
- B. Platelets
- C. Plasma
- D. Packed red blood cells

**Correct Answer: D. Packed red blood cells.**

Red blood cells contain antigens and antibodies that must be matched between donor and recipient. The blood products in options 2-4 do not contain red cells. Thus, they require no cross-match. The hemoglobin in red blood cells binds oxygen and is the main source of oxygen delivery in the body. A single unit of packed red blood cells is roughly 350 mL in volume and contains about 250 mg of iron.

- **Option A:** Neutrophils, basophils, and eosinophils are all granulocytes. These cells also all have azurophilic granules (lysosomes) and specific granules that contain substances unique to each cell's function. Histologically, granulocytes can be distinguished from one another by the morphology of their nucleus, their size, and how their granules stain.
- **Option B:** Platelets maintain hemostasis by adhering to the vascular endothelium, aggregating with other platelets, and initiating the coagulation cascade, leading to the production of a fibrin mesh, which effectively prevents significant blood loss.
- **Option C:** Plasma, also known as blood plasma, appears light-yellowish or straw-colored. It serves as the liquid base for whole blood. Whole blood minus erythrocytes (RBCs), leukocytes (WBCs), and thrombocytes (platelets) make up the plasma. Serum, sometimes mistakenly considered synonymous with plasma, consists of plasma without fibrinogen. Plasma contains 91% to 92% of water and 8% to 9% of solids.

**64. A nurse is admitting a client with a possible diagnosis of chronic bronchitis. The nurse collects data from the client and notes which of the following signs supports this diagnosis? Select all that apply.**

- A. Scant mucus
- B. Early onset cough
- C. Marked weight loss
- D. Purulent mucus production
- E. Mild episodes of dyspnea

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

Key features of pulmonary emphysema include dyspnea that is often marked, late cough (after the onset of dyspnea), scant mucus production, and marked weight loss. By contrast, chronic bronchitis is characterized by an early onset of cough (before dyspnea), copious purulent mucus production, minimal weight loss, and milder severity of dyspnea.

- **Option A:** Most patients with emphysema present with very nonspecific symptoms of chronic shortness of breath and cough with or without sputum production. As the disease process advances, the shortness of breath and cough progressively get worse.
- **Option B:** The most common symptom of patients with chronic bronchitis is a cough. The history of a cough typical of chronic bronchitis is characterized to be present for most days in a month lasting for 3 months with at least 2 such episodes occurring for 2 years in a row. The characteristic cough of bronchitis is caused by the copious secretion of mucus in chronic bronchitis.
- **Option C:** As COPD advances, patients can lose significant body weight due to systemic inflammation and increased energy spent in the work of breathing. Also, there are frequent intermittent exacerbations as the obstruction of the airways increases.
- **Option D:** The airways become clogged by debris and this further increases the irritation. A productive cough with sputum is present in about 50% of patients. The sputum color may vary from clear, yellow, green, or at times blood-tinged. The color of the sputum may be dependent on the presence of secondary bacterial infection.
- **Option E:** During an acute exacerbation of chronic bronchitis, the bronchial mucous membrane becomes hyperemic and edematous with diminished bronchial mucociliary function. This, in turn, leads to airflow impediment because of luminal obstruction to small airways.

**65. Ricky with chronic schizophrenia takes neuroleptic medication and is admitted to the psychiatric unit. Nursing assessment reveals rigidity, fever, hypertension, and diaphoresis. These findings suggest which life-threatening reaction:**

- A. Tardive dyskinesia
- B. Dystonia
- C. Neuroleptic malignant syndrome
- D. Akathisia

**Correct Answer: C. Neuroleptic malignant syndrome**

The client's signs and symptoms suggest neuroleptic malignant syndrome, a life-threatening reaction to neuroleptic medication that requires immediate treatment. Neuroleptic malignant syndrome (NMS) is a life-threatening idiosyncratic reaction to antipsychotic drugs characterized by fever, altered mental status, muscle rigidity, and autonomic dysfunction. It has been associated with virtually all neuroleptics, including newer atypical antipsychotics, as well as a variety of other medications that affect central dopaminergic neurotransmission.

- **Option A:** Tardive dyskinesia causes involuntary movements of the tongue, mouth, facial muscles, and arm and leg muscles. Tardive dyskinesia (TD) is a syndrome which includes a group of iatrogenic movement disorders caused due to a blockade of dopamine receptors. The movement disorders include akathisia, dystonia, buccolingual stereotypy, myoclonus, chorea, tics, and other abnormal involuntary movements which are commonly caused by the long-term use of typical antipsychotics.

- **Option B:** Dystonia is characterized by cramps and rigidity of the tongue, face, neck, and back muscles. Dystonia is defined by involuntary maintained contraction of agonist and antagonist muscles yielding abnormal posturing, twisting, and repetitive movements or tremulous and can be initiated or worsened by attempted movement.
- **Option D:** Akathisia causes restlessness, anxiety, and jitteriness. Akathisia is defined as an inability to remain still. It is a neuropsychiatric syndrome that is associated with psychomotor restlessness. The individual with akathisia will generally experience an intense sensation of unease or an inner restlessness that usually involves the lower extremities. This results in a compulsion to move. In most cases the movement is repetitive. The individual may cross, uncross, swing, or shift from one foot to the other. To the observer, this may appear as a persistent fidget.

**66. A female client is admitted for treatment of chronic renal failure (CRF). Nurse Julian knows that this disorder increases the client's risk of:**

- A. Water and sodium retention secondary to a severe decrease in the glomerular filtration rate.
- B. A decreased serum phosphate level secondary to kidney failure.
- C. An increased serum calcium level secondary to kidney failure.
- D. Metabolic alkalosis secondary to retention of hydrogen ions.

**Correct Answer: A. Water and sodium retention secondary to a severe decrease in the glomerular filtration rate.**

A client with CRF is at risk for fluid imbalance — dehydration if the kidneys fail to concentrate urine, or fluid retention if the kidneys fail to produce urine. Chronic kidney disease (CKD) is defined as the presence of kidney damage or an estimated glomerular filtration rate (eGFR) less than 60 ml/min/1.73 mt<sup>2</sup>, persisting for 3 months or more, irrespective of the cause.

- **Option B:** The most common chronic tubulointerstitial disease is polycystic kidney disease (PKD). Other etiologies include nephrocalcinosis (most often due to hypercalcemia and hypercalciuria), sarcoidosis, Sjogren syndrome, reflux nephropathy in children and young adults.
- **Option C:** Electrolyte imbalances associated with this disorder result from the kidneys' inability to excrete phosphorus; such imbalances may lead to hyperphosphatemia with reciprocal hypocalcemia.
- **Option D:** CRF may cause metabolic acidosis, not metabolic alkalosis, secondary to the inability of the kidneys to excrete hydrogen ions. Chronic prerenal disease occurs in patients with chronic heart failure or cirrhosis with persistently decreased renal perfusion, which increases the propensity for multiple episodes of an intrinsic kidney injury, such as acute tubular necrosis (ATN). This leads to progressive loss of renal function over time.

**67. A stroke client who was initially on NGT feeding was able to tolerate a soft diet so the physician ordered the removal of it. The nurse would instruct the client to do which of the following before he removes the tube?**

- A. Inhale and exhale simultaneously.
- B. Take a long breath and hold it.
- C. Do a Valsalva maneuver.
- D. Blow the nose.



**Correct Answer: B. Take a long breath and hold it.**

Holding the breath closes the glottis hence it will be easier to withdraw the tube through the esophagus into the nose, and this method will also prevent aspiration. An NG tube should be removed if it is no longer required. The process of removal is usually very quick. Prior to removing an NG tube, verify physician orders. If the NG tube was ordered to remove gastric content, the physician's order may state to "trial" clamping the tube for a number of hours to see if the patient tolerates its removal. During the trial, the patient should not experience any nausea, vomiting, or abdominal distension.

- **Option A:** Instruct the patient to take a deep breath and hold it. This prevents aspiration; holding the breath closes the glottis. Kink the NG tube near the naris and gently pull out the tube in a swift, steady motion, wrapping it in your hand as it is being pulled out. Dispose of tube in garbage bag.
- **Option C:** The Valsalva maneuver is a breathing technique that can be used to unclog ears, restore heart rhythm or diagnose an autonomic nervous system (ANS). To perform the Valsalva maneuver, the patient should close his mouth, pinch the nose shut and press the air out like blowing up a balloon.
- **Option D:** Blowing the nose is a way of clearing out mucus that has collected debris and pollutants from the atmosphere. Most of the time, people blow their nose because of excess mucus production – a cold, nasal allergy, hay fever, or other conditions.

**68. A client was brought to the emergency room with complaints of slurring of speech, vomiting, dry mucosa, and dry skin turgor. Lab tests showing serum sodium 125 mEq/L and serum blood glucose of 350 mg/dL. Nurse Sophie will anticipate the physician to initially order which of the following intravenous solutions?**

- A. 10% dextrose in water (D10W)
- B. 0.9% normal saline solution
- C. 5% dextrose in water (D5W)
- D. 0.45% normal saline solution

**Correct Answer: B. 0.9% normal saline solution**

The client is experiencing diabetic ketoacidosis. Initial priority in the treatment is to restore the extracellular fluid volume through the intravenous administration of 0.9% normal saline at 15-20 ml/kg/h. Immediate fluid resuscitation is vital to correct hypovolemia, restore tissue perfusion, and to clear ketones. Hydration improves glycemic control independent of insulin.

- **Options A and C:** Intravenous solutions containing dextrose will be given once serum glucose reaches 250 mg/dL. When the plasma glucose reaches 200-250 mg/dl, and if the patient still has an anion gap, then dextrose-containing fluids should be initiated, and the insulin infusion rate may need to be reduced.
- **Option D:** 0.45% normal saline will be given once serum sodium stabilizes. In patients who have high serum sodium levels, 0.45% NaCl infused at 4–14 ml/kg/hour or 250–500 mL/hr is appropriate, and for patients with hyponatremia, 0.9% NaCl at a similar rate is preferred.

**69. A client who has been receiving heparin therapy also is started on warfarin sodium (coumadin). The client asks the nurse why both medications are being**

**administered. In formulating a response, the nurse incorporates the understanding that warfarin sodium:**

- A. Stimulates the breakdown of specific clotting factors by the liver, and it takes 2-3 days for this to exhibit an anticoagulant effect.
- B. Inhibits synthesis of specific clotting factors in the liver, and it takes 3 to 4 days for this medication to exert an anticoagulation effect.
- C. Stimulates production of the body's own thrombolytic substances, but it takes 2-4 days for it to begin.
- D. Has the same mechanism action of heparin, and the crossover time is needed for the serum level of warfarin sodium to be therapeutic.

**Correct Answer: B. Inhibits synthesis of specific clotting factors in the liver, and it takes 3 to 4 days for this medication to exert an anticoagulation effect.**

Warfarin sodium works in the liver and inhibits synthesis of four vitamin K-dependent clotting factors (X, IX, VII, and II), but it takes 3 to 4 days before the therapeutic effect of warfarin is exhibited. Heparin is generally continued for seven to ten days. During this time warfarin is generally begun, and it is important to continue the patient on warfarin for five to seven days while the patient is receiving intravenous heparin therapy. After stopping heparin, oral anticoagulation with warfarin should be continued for six weeks.

- **Option A:** Because of the delay in factor II (prothrombin) suppression, heparin is administered concurrently for four to five days to prevent thrombus propagation. Loading doses of warfarin are not warranted and may result in bleeding complications.
- **Option C:** Current recommendations for the initiation of warfarin therapy differ based on the urgency for achieving an anticoagulant effect. While warfarin is being initiated, patients who require rapid anticoagulation should also be given unfractionated heparin or low-molecular-weight heparin intravenously or subcutaneously in doses appropriate for the given indication.
- **Option D:** Heparin and warfarin therapies should overlap for approximately four to five days. The presence of a therapeutic INR does not confer protection from clot formation and expansion during the first few days of warfarin therapy because of the delay in the therapeutic inhibition of prothrombin.

**70. A 43-year-old music teacher is at the clinic for her annual physical examination. She mentions a history of recurrent sinus infections that tend to flare up, especially during the cold season. The infections sometimes impact her ability to sing and teach due to the associated nasal congestion and change in voice resonance. The nurse, aiming to provide comprehensive patient education, takes the opportunity to discuss the functions and significance of the paranasal sinuses. After giving an overview, the nurse challenges the patient with a question, "I've shared some facts about the paranasal sinuses. Can you identify which of the following statements is NOT true about them?"**

- A. They protect the nasal cavity by producing mucus.
- B. They act as resonating chamber for voice production.
- C. The paranasal sinuses are lined with ciliated epithelium.
- D. They increase the weight of the skull.

**Correct Answer: D. They increase the weight of the skull.**

Paranasal sinuses do not significantly increase the weight of the skull because they are composed of relatively lightweight, air-filled spaces within the bones of the skull. These sinuses are lined with mucous membranes and serve various functions, including lightening the skull, humidifying and filtering the air breathe, and enhancing voice resonance, without adding significant weight to the head.

- **Option A:** Paranasal sinuses help protect the nasal cavity by producing mucus. This mucus serves to humidify and moisten the incoming air, trap and remove dust and foreign particles, and prevent the nasal passages from drying out, which aids in maintaining a healthy respiratory environment.
- **Option B:** The sinuses serve as resonance chambers for voice production, helping to modify the quality of sound produced during speech.
- **Option C:** The paranasal sinuses are lined with ciliated epithelium, which helps to trap and remove foreign particles from the respiratory tract.

**71. Betty is a 9-year-old girl diagnosed with cystic fibrosis. Which of the following must Nurse Archie keep in mind when developing a care plan for the child?**

- A. Pulmonary secretions are abnormally thick.
- B. Elevated levels of potassium are found in sweat.
- C. CF is an autosomal dominant hereditary disorder.
- D. Obstruction of the endocrine glands occurs.

**Correct Answer: A. Pulmonary secretions are abnormally thick.**

CF is identified by abnormally thick pulmonary secretions. Researchers now know that cystic fibrosis is an autosomal recessive disorder of exocrine gland function most commonly affecting persons of Northern European descent at a rate of 1 in 3500. It is a chronic disease that frequently leads to chronic sinopulmonary infections and pancreatic insufficiency. The most common cause of death is end-stage lung disease.

- **Option B:** Diagnosis of CF is based on elevated chloride levels detected in sweat. High levels of salt in the sweat of patients with cystic fibrosis suggested an abnormality in electrolyte transport from the sweat gland. Quinton postulated that sweat ducts in these patients were impermeable to chloride.
- **Option C:** It is a chronic, inherited disorder, particularly an autosomal recessive hereditary disorder concerning the exocrine, not endocrine glands. In 1949, Lowe et al. postulated that cystic fibrosis must be caused by a genetic defect from the autosomal recessive pattern of inheritance of the disease.
- **Option D:** The thick mucus blocks the exocrine glands. Further studies led to the hypothesis that the faulty chloride channel must be situated in the apical membranes of the lung surface or glandular epithelium to explain the respiratory and systemic organ failure associated with cystic fibrosis.

**72. A client is frustrated and embarrassed by urinary incontinence. Which of the following measures should Nurse Ginny include in a bladder retraining program?**

- A. Establishing a predetermined fluid intake pattern for the client.
- B. Encouraging the client to increase the time between voidings.
- C. Restricting fluid intake to reduce the need to void.
- D. Assessing present elimination patterns.

**Correct Answer: D. Assessing present elimination patterns**

The guidelines for initiating bladder retraining include assessing the client's intake patterns, voiding patterns, and reasons for each accidental voiding. 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 the bladder and the amount of fluids the bladder can hold. It also can diminish leakage and the sense of urgency associated with the problem.

- **Option A:** Lowering the client's fluid intake won't reduce or prevent incontinence. The recommended amount of fluids consumed (all types) in 24 hours totals 6-8 glasses. The benefits of adequate fluid intake include prevention of dehydration, constipation, UTI, and kidney stone formation.
- **Option B:** A voiding schedule should be established after assessment. Bladder training requires following a fixed voiding schedule, whether or not the client feels the urge to urinate. If he feels an urge to urinate before the assigned interval, he should use urge suppression techniques — such as relaxation and Kegel exercises.
- **Option C:** The client should actually be encouraged to drink 1.5 to 2 L of water per day. Keeping a diary of the bladder activity is very important. This helps the health care provider determine the correct place to start the training and to monitor the progress throughout the program.

**73. Develop a teaching care plan for Angie who is about to undergo a liver biopsy. Which of the following points do you include?**

- A. "You'll need to lie on your stomach during the test."
- B. "You'll need to lie on your right side after the test."
- C. "During the biopsy, you'll be asked to exhale deeply and hold it."
- D. "The biopsy is performed under general anesthesia."

**Correct Answer: B. "You'll need to lie on your right side after the test."**

After a liver biopsy, the patient is placed on the right side to compress the liver and to reduce the risk of bleeding or bile leakage. The risk of fatal hemorrhage in patients without malignant disease is 0.04%, and the risk of nonfatal hemorrhage is 0.16%. In those with malignancy, the risk of nonfatal hemorrhage is 0.4% and 0.57% for nonfatal hemorrhage.

- **Option A:** The patient is usually kept in the right decubitus position. The duration of observation varies across centers ranging from 1 hour to 6 hours. The American Association for the Study of Liver Diseases guidelines recommends observation for 2 to 4 hours. The vital signs are monitored every 15 minutes for the first hour, every 30 minutes for the next hour, and hourly till discharge.
- **Option C:** The patients are made to lie in a comfortable supine position. The right hand is placed under the head in a neutral position. By percussion, the area of maximum dullness is identified over the right hemithorax. This is typically between the 6 and 9 intercostal spaces between the anterior and the midclavicular line.

- **Option D:** The skin is prepped and draped in a sterile fashion. The overlying skin is anesthetized using 1% lidocaine. The peritoneum is also anesthetized by inserting the needle along the upper border of the rib avoiding vascular structures.

**74. Which of the following laboratory results indicates hypoparathyroidism?**

- A. Serum potassium of 3.6 mEq/L.
- B. Serum calcium level of 4.3 mEq/L.
- C. Serum phosphorus level of 5.7 mg/dL.
- D. Serum magnesium level of 1.7 mg/dL.

**Correct Answer: C. Serum phosphorus level of 5.7 mg/dL.**

The parathyroid is responsible for the absorption of calcium and phosphorus. When a client has hypoparathyroidism, the serum calcium levels are low and the serum phosphorus levels are high. The normal phosphorus level is 2.7 to 4.5 mg/dL. Parathyroid hormone deficiency, also called hypoparathyroidism, results in hypocalcemia, hyperphosphatemia, and increased neuromuscular irritability. Patients may present with myalgias, muscle spasms, and in extreme cases tetany.

- **Option A:** Calcium is maintained within a fairly narrow range from 8.5 to 10.5 mg/dl (4.3 to 5.3 mEq/L or 2.2 to 2.7 mmol/L). Normal values and reference ranges may vary among laboratories as much as 0.5 mg/dl. Aldinger KA, et al., studied a large group of patients of normal renal function with hypercalcemia to determine the prevalence of hypokalemia and reported that 16.9% had hyperparathyroidism, and the degree and frequency of hypokalemia were greatest at the higher serum calcium levels.
- **Option B:** Parathyroid hormone activates the PTH receptor, another G-protein coupled receptor, increasing resorption of calcium and phosphorus from bone, enhancing the distal tubular reabsorption of calcium, and decreasing the renal tubular reabsorption of phosphorus. Deficient PTH results in hypocalcemia, hyperphosphatemia, while alkaline phosphatase, a marker of bone formation, is normal.
- **Option D:** The normal range for blood magnesium level is 1.7 to 2.2 mg/dL (0.85 to 1.10 mmol/L). Another common cause of hypoparathyroidism is abnormally low levels of magnesium (hypomagnesemia) in the blood. This is often called functional hypoparathyroidism because it resolves when magnesium is restored. Magnesium is a mineral that is very important in the function of the parathyroid glands.

**75. When performing a postpartum check, the nurse should:**

- A. Assist the woman into a lateral position with upper leg flexed forward to facilitate the examination of her perineum.
- B. Assist the woman into a supine position with her arms above her head and her legs extended for the examination of her abdomen.
- C. Instruct the woman to avoid urinating just before the examination since a full bladder will facilitate fundal palpation.
- D. Wash hands and put on sterile gloves before beginning the check.

**Correct Answer: A. Assist the woman into a lateral position with upper leg flexed forward to facilitate the examination of her perineum.**

While the supine position is best for examining the abdomen, the woman should keep her arms at her sides and slightly flex her knees in order to relax abdominal muscles and facilitate palpation of the fundus. The nurse must be well versed in postpartum assessment and be able to identify subtle changes that could indicate a woman's deteriorating condition. Components of care should be standardized regardless of whether the recovery is done in a post-anesthesia care unit (PACU), a labor and delivery room, or a postpartum room.

- **Option B:** According to the 2010 recommendations from the Association of Women's Health, Obstetric, and Neonatal Nurses (AWHONN), the nurse caring for the woman should not have any other patient or infant care responsibilities until an initial assessment is completed and documented, the repair of the episiotomy or perineal lacerations is complete and the woman is hemodynamically stable. Assessments during the immediate postpartum period start from the delivery of the placenta and continue for at least 2 hours or until stable. Assessments should be orderly and ongoing so that timely identification can be made of any abnormal changes in the woman's clinical condition.
- **Option C:** The bladder should be emptied before the check. A full bladder alters the position of the fundus and makes the findings inaccurate. Assist the woman to empty her bladder. Catheterize only if the woman is unable to void and the bladder is distended. Once the bladder is empty, reevaluate the fundal height. Note the overall appearance of the woman, including skin color, motor activity, facial expression, speech, mood, state of awareness, and interactions with others. Any variation from normal assessment parameters requires reassessment, communication, and early intervention as indicated to prevent potentially serious consequences.
- **Option D:** Although hands are washed before starting the check, clean (not sterile) gloves are put on just before the perineum and pad are assessed to protect from contact with blood and secretions. Involution is the process of the uterus returning to its prepregnant state. Uterine tone should be assessed at least as frequently as vital signs, every 15 minutes in the first 2 hours.<sup>4</sup> Amount of blood loss should be assessed on an ongoing basis during this time. Uterine atony is the most common cause of postpartum hemorrhage, which remains a major cause of maternal morbidity and mortality.

**76. An obstetrical client calls the clinic with complaints of morning sickness. The nurse should tell the client to:**

- A. Drink a glass of whole milk before going to sleep at night
- B. Keep a dry toast at the bedside for eating before she arises
- C. Skip breakfast but eat a larger lunch and dinner
- D. Drink a glass of orange juice after adding a couple of teaspoons of sugar

**Correct Answer: B. Keep a dry toast at the bedside for eating before she arises**

- Option B: Eating a carbohydrate source such as dry crackers or toast before arising helps alleviate symptoms of morning sickness.
- Option A: Additional fat might increase the client's nausea.
- Option C: It is more helpful to have small frequent meals instead of skipping meals.
- Option D: This is a treatment of hypoglycemia, not morning sickness.

**77. A 61-year-old woman who is 5 feet, 3 inches tall and weighs 125 pounds (57 kg) tells the nurse that she has a glass of wine two or three times a week. The**

***patient works for the post office and has a 5-mile mail-delivery route. This is her first contact with the health care system in 20 years. Which of these topics will the nurse plan to include in patient teaching about cancer? Select all that apply***

- A. Mammography
- B. Physical activity
- C. Body weight
- D. Colorectal screening
- E. Tobacco use
- F. Alcohol use
- G. Pap testing
- H. Sunscreen use

**Correct Answer: A, D, G, and H**

- **Options A, D, G, and H:** The patient's age, gender, and history indicate a need for teaching about or screening or both for colorectal cancer, mammography, Pap smears, and sunscreen.
- **Options B, C, E, and F:** The patient does not use excessive alcohol or tobacco, she is physically active, and her body weight is healthy.

***78. An anxious female client complains of chest tightness, tingling sensations, and palpitations. Deep, rapid breathing, and carpal spasms are noted. Which of the following priority action should the nurse do first?***

- A. Provide oxygen therapy
- B. Notify the physician immediately
- C. Administer anxiolytic medication as ordered
- D. Have the client breathe into a brown paper bag

**Correct Answer: D. Have the client breathe into a brown paper bag**

The client is suffering from hyperventilation secondary to anxiety, the initial action is to let the client breathe in a paper bag that will allow the rebreathing of carbon dioxide. The idea behind breathing into a paper bag or mask is that rebreathing exhaled air helps the body put CO<sub>2</sub> back into the blood.

- **Option A:** Acute anxiety may require treatment with a benzodiazepine. Chronic anxiety treatment consists of psychotherapy, pharmacotherapy, or a combination of both. 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 B:** Anxiety is one of the most common psychiatric disorders but the true prevalence is not known as many people do not seek help or clinicians fail to make the diagnosis. Anxiety is one of the most common psychiatric disorders in the general population. Specific phobia is the most common with a 12-month prevalence rate of 12.1%. Social anxiety disorder is the next most common, with a 12-month prevalence rate of 7.4%.
- **Option C:** Selective serotonin reuptake inhibitors (SSRIs), serotonin-norepinephrine reuptake inhibitors (SNRIs), benzodiazepines, tricyclic antidepressants, mild tranquilizers, and beta-blockers

treat anxiety disorders.

**79. A male client is color blind. The nurse understands that this client has a problem with:**

- A. Rods.
- B. Cones.
- C. Lens.
- D. Aqueous humor.

**Correct Answer: B. Cones.**

Cones provide daylight color vision, and their stimulation is interpreted as color. If one or more types of cones are absent or defective, color blindness occurs. Very few individuals are truly color blind, but instead, see a disrupted range of colors. The most common forms are protanopia and deuteranopia, conditions arising from loss of function of one of the cones, leading to dichromic vision.

- **Option A:** Rods are sensitive to low levels of illumination but can't discriminate color. Rods are the cells primarily responsible for scotopic vision, or low-light vision. Rods are the more abundant cell-type of the retina and reach their maximum density approximately 15 to 20 degrees from the fovea, a small depression in the retina of the eye where visual acuity is highest. There are approximately 90 million rod cells in the human retina.
- **Option C:** The lens is responsible for focusing images. The lens is the adjustable component of the refractive system: its shape is altered by the contraction or relaxation of the ciliary muscle to focus on objects that are near or far.
- **Option D:** Aqueous humor is a clear watery fluid and isn't involved in color perception. Aqueous humor is a low viscosity fluid secreted from plasma components by the ciliary body into the posterior chamber of the eye. The humor then travels to the anterior chamber and proceeds to drain into the systemic cardiovascular circulation by an incompletely understood mechanism. Aqueous humor circulation forms the basis of intraocular pressure (IOP), which is associated with glaucoma; this is how the synthesis, circulation, and drainage of aqueous humor become clinically significant.

**80. A male client has a reduced serum high-density lipoprotein (HDL) level and an elevated low-density lipoprotein (LDL) level. Which of the following dietary modifications is not appropriate for this client?**

- A. Fiber intake of 25 to 30 g daily.
- B. Less than 30% of calories from fat.
- C. Cholesterol intake of less than 300 mg daily.
- D. Less than 10% of calories from saturated fat.

**Correct Answer: B. Less than 30% of calories from fat**

A client with low serum HDL and high serum LDL levels should get less than 30% of daily calories from fat.

- **Option A:** Fiber intake should be adequate to aid in proper digestion.



- **Option C:** High cholesterol intake can cause fatty deposits in the blood vessels. Eventually, these deposits grow, making it difficult for enough blood to flow through the arteries.
- **Option D:** Saturated fat increases cholesterol and the risk for heart disease and stroke, therefore it should be reduced too.

**81. You're teaching Anthony how to use his new colostomy. How much skin should remain exposed between the stoma and the ring of the appliance?**

1/16"

1/4"

1/2"

1"

**Correct Answer: A. 1/16"**

Only a small amount of skin should be exposed and more than 1/16" of skin allows the excrement to irritate the skin. It is expected that the stoma will change its size (get smaller) for the first four to six weeks after surgery due to the swelling that occurs post-op.

- **Option B:** Cut the wafer slightly larger to accommodate the expansion. Doing this also helps to prevent the wafer from "strangulating" the stoma by putting too much pressure around it.
- **Option C:** Make sure that there's about a 1/16 – 1/8" (approx. 1.5 – 3mm) gap between the stoma and the edge of the hole. Remember, as wafers do swell, the patient may need to adjust this gap accordingly. If using a barrier ring or similar product, it is okay to cut the hole slightly larger
- **Option D:** The pouching system must be completely sealed to prevent leaking of the effluent and to protect the surrounding peristomal skin. The disposable pouching systems can be either a one-piece or a two-piece flexible system consisting of a plastic bag and a flange (skin barrier) that sit against the patient's skin. The flange may be flat or convex.

**82. The nurse is sure to implement strategies to reduce noise on the unit particularly on the \_\_\_\_\_ night of admission when the client is especially sensitive to hospital noises.**

A. 1st

B. 2nd

C. 3rd

D. 4th

**Correct Answer: A. 1st**

The client is most sensitive to noise in the hospital setting the first night because everything is new. This represents sensory overload, which interferes with sleep and decreases rapid eye movement (REM) as well as total sleep time. Place the client in a room away from any distractions or noise such as the nursing station. The nursing station is often the center of noise and activity.

- **Option B:** Eliminate any activities that are not important. This measure facilitates minimal interruption in sleep or rest. Render bedtime nursing care such as back rub and other relaxation techniques. These kinds of activities facilitate relaxation and promote the onset of sleep.

- **Option C:** Educate the client about their sleep requirements. Most people need at least six hours of sleep for normal memory and brain function. Attempt to allow for sleep cycles of at least 90 minutes. Research shows that 60 to 90 minutes are necessary to complete one sleep cycle and that completion of an entire sleep cycle is beneficial.
- **Option D:** Introduce relaxing activities such as a warm bath, calm music, reading a book, and relaxation exercises before bedtime. These activities provide relaxation and distraction to prepare the mind and body for sleep. Encourage daytime physical activities but instruct the patient to avoid strenuous activities before bedtime.

**83. A female client is undergoing a complete physical examination as a requirement for college. When checking the client's respiratory status, the nurse observes respiratory excursion to help assess:**

- A. Lung vibrations
- B. Vocal sounds
- C. Breath sounds
- D. Chest movements.

**Correct Answer: D. Chest movements**

The nurse observes respiratory excursion to help assess chest movements. Normally, thoracic expansion is symmetrical; unequal expansion may indicate pleural effusion, atelectasis, pulmonary embolism, or a rib or sternum fracture. During the inspection, the examiner should pay attention to the pattern of breathing: thoracic breathing, thoracoabdominal breathing, coastal markings, and use of accessory breathing muscles. The use of accessory breathing muscles (i.e., scalenes, sternocleidomastoid muscle, intercostal muscles) could point to excessive breathing effort caused by pathologies.

- **Option A:** After asking the client to say "99," the nurse palpates the vibrations transmitted from the bronchopulmonary system along the solid surfaces of the chest wall to the nurse's palms. An increase in the tactile fremitus points towards an increased intraparenchymal density and a decreased fremitus hints towards a pleural process that separates the pleura from the parenchyma (pleural effusion, pneumothorax).
- **Option B:** The nurse assesses vocal sounds to evaluate air flow when checking for tactile fremitus. Palpation should focus on detecting abnormalities like masses or bony crepitus. Of note, the fremitus can also be auscultated and can be referred to as vocal fremitus.
- **Option C:** The nurse assesses breath sounds during auscultation. The movement of air generates normal breath sounds through the large and small airways. Normal breath sounds have a frequency of approximately 100 Hz. The absence of breath sounds should prompt the health care provider to consider shallow breath, abnormal anatomy, or pathologic entities such as airway obstruction, bulla, hyperinflation, pneumothorax, pleural effusion or thickening, and obesity.

**84. What is the term used to describe an enlargement of the heart muscle?**

- A. Cardiomegaly
- B. Cardiomyopathy
- C. Myocarditis

#### D. Pericarditis

**Correct Answer: A. Cardiomegaly**

Cardiomegaly denotes an enlarged heart muscle. The most critical pathophysiological changes leading to cardiomegaly include dilated hypertrophy, fibrosis, and contractile malfunction. Contractile dysfunction and abnormal myocardial remodeling can lead to hypertrophic cardiomyopathy or dilated cardiomyopathy. Mechanical stretching, circulating neurohormones, and oxidative stress are significant stimuli for the signal transduction of inflammatory cytokines and MAP kinase in cardiomyocytes. Signal transduction leads to changes in structural proteins and proteins that regulate excitation-contraction. Dilated cardiomyopathy mutations result in a reduced force of the sarcomere contraction and a reduction in sarcomere content. Hypertrophic cardiomyopathy mutations result in a molecular phenotype of hyperdynamic contractility, poor relaxation, and increased energy consumption.

- **Option B:** Cardiomyopathy is a heart muscle disease of unknown origin. In cardiomyopathy, the heart muscle becomes enlarged, thick, or rigid. In rare cases, the muscle tissue in the heart is replaced with scar tissue.
- **Option C:** Myocarditis refers to inflammation of the heart muscle. It is an inflammatory disease of the myocardium with a wide range of clinical presentations, from subtle to devastating.
- **Option D:** Pericarditis is an inflammation of the pericardium. Pericarditis is usually acute – it develops suddenly and may last up to several months. The condition usually clears up after 3 months, but sometimes attacks can come and go for years. When a client has pericarditis, the membrane around the heart is red and swollen, like the skin around a cut that becomes inflamed. Sometimes there is extra fluid in the space between the pericardial layers, which is called pericardial effusion.

**85. When the shiny portion of the placenta comes out first is called which of the following mechanisms?**

- A. Marmets
- B. Ritgens
- C. Duncan
- D. Schultze

**Correct Answer: D. Schultze**

There are 2 mechanisms possible during the delivery of the placenta. If the shiny portion comes out first, it is called the Schultze mechanism; while if the meaty portion comes out first, it is called the Duncan mechanism.

- **Option A:** Developed by a mother who needed to express her milk over a long period of time for medical reasons, the Marmet technique mimics the actions of a breastfeeding baby and is the most recommended method of expressing breastmilk by hand.
- **Option B:** Ritgen's maneuver means that the fetal chin is reached between the anus and the coccyx and pulled anteriorly while using the fingers of the other hand on the fetal occiput to control the speed of delivery and keep flexion of the fetal neck.
- **Option C:** Duncan's mechanism is the expulsion of the placenta with the presentation of the maternal rough side first, rather than the usual fetal side of the placenta.

**86. Vasopressin is which of the following pituitary hormones?**

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

**Correct Answer: A. Antidiuretic hormone**

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

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

**87. Barbara with bipolar disorder is being treated with lithium for the first time. Nurse Clint should observe the client for which common adverse effect of lithium?**

- A. Polyuria
- B. Seizures
- C. Constipation
- D. Sexual dysfunction

**Correct Answer: A. Polyuria**

Polyuria commonly occurs early in the treatment with lithium and could result in fluid volume deficit. Before starting treatment with lithium, it is essential to get kidney function tests and thyroid function tests. Lithium is not recommended in patients with renal impairment. It is also not recommended in patients with cardiovascular disease. Avoid all diuretics. If the patient has severe renal dysfunction or failure, or severely altered mental status, then start with hemodialysis.

- **Option B:** Rarely, toxicity can cause pseudotumor cerebri and seizures. Lithium toxicity has no antidote. Treatment for lithium toxicity is primarily hydration and to stop the drug. Give hydration with normal saline, which will also enhance lithium excretion. 20 to 30 mg of propranolol given 2 to 3 times per day may help reduce tremors.
- **Option C:** It is also important to monitor patients for dehydration and lower the dose when there are signs of infection, excessive sweating, or diarrhea. Toxic levels are when the drug level is more than 2 mEq/L. Monitoring should be done every 1 to 2 weeks until reaching the desired therapeutic levels. Then, check lithium levels every 2 to 3 months for six months.
- **Option D:** Lithium has a very narrow therapeutic index, and toxic levels are when the drug is above 2 mEq/L, which is very close to its therapeutic range. Lithium toxicity can cause interstitial nephritis, arrhythmia, sick sinus syndrome, hypotension, T wave abnormalities, and bradycardia.

**88. A male client with a gunshot wound requires an emergency blood transfusion. His blood type is AB negative. Which blood type would be the safest for him to receive?**

- A. AB Rh-positive
- B. A Rh-positive
- C. A Rh-negative
- D. O Rh-positive

**Correct Answer: C. A Rh-negative**

Human blood can sometimes contain an inherited D antigen. Persons with the D antigen have Rh-positive blood type; those lacking the antigen have Rh-negative blood. It's important that a person with Rh-negative blood receives Rh-negative blood.

- **Option A:** A person with Rh-negative blood should also receive Rh-negative blood.
- **Option B:** If Rh-positive blood is administered to an Rh-negative person, the recipient develops anti-Rh agglutinins, and subsequent transfusions with Rh-positive blood may cause serious reactions with clumping and hemolysis of red blood cells.
- **Option D:** This blood type is still not compatible because it is Rh-positive.

**89. Which of the following heart muscle diseases is unrelated to other cardiovascular diseases?**

- A. Cardiomyopathy
- B. Coronary artery disease
- C. Myocardial infarction
- D. Pericardial effusion

**Correct Answer: A. Cardiomyopathy**

Cardiomyopathy isn't usually related to an underlying heart disease such as atherosclerosis. The etiology in most cases is unknown. Although most cases are idiopathic, a number of conditions (e.g. coronary artery disease, wet beriberi), infections (e.g., Coxsackie B virus, Chagas disease), and substances (e.g. heavy drinking, cocaine) have been identified as causes.

- **Option B:** The hallmark of the pathophysiology of CAD is the development of atherosclerotic plaque. Plaque is a build-up of fatty material that narrows the vessel lumen and impedes the blood flow. Growth factors released activate smooth muscles, which also take up oxidized LDL particles and collagen and deposit along with activated macrophages and increase the population of foam cells. This process leads to the formation of subendothelial plaque.
- **Option C:** MI is directly related to atherosclerosis. Smoking and abnormal apolipoprotein ratio showed the strongest association with acute myocardial infarction. The increased risk associated with diabetes and hypertension were found to be higher in women, and the protective effect of exercise and alcohol was also found to be higher in women.
- **Option D:** Pericardial effusion is the escape of fluid into the pericardial sac, a condition associated with pericarditis and advanced heart failure. The fluid accumulation increases pressure in the pericardial sac leading to the compression of the heart, especially the right heart due to a thinner wall. Impaired diastolic filling of the right heart causes venous congestion.

**90. Which client is at greater risk for respiratory depression while receiving opioids for analgesia?**

- A. An elderly chronic pain client with a hip fracture.
- B. A client with heroin addiction and back pain.
- C. A young female client with advanced multiple myeloma.
- D. A child with an arm fracture and cystic fibrosis.

**Correct Answer: D. A child with an arm fracture and cystic fibrosis.**

At greatest risk are elderly clients, opiate naïve clients, and those with underlying pulmonary disease. The child has two of the three risk factors. Many complications can occur with multiple different opioids, such as non-cardiogenic pulmonary edema, while many of the complications are unique to the opioid used as well as the route of administration.

- **Option A:** Pain in the elderly population is especially difficult given the myriad of physiological, pharmacological, and psychological aspects of caring for geriatric patient. Opiates are the mainstay of pain treatment throughout all age groups but special attention must be paid to the efficacy and side effects of these powerful drugs when prescribing to a population with impaired metabolism, excretion, and physical reserve.
- **Option B:** Prescription opioids and heroin are chemically similar and can produce a similar high. In some places, heroin is cheaper and easier to get than prescription opioids, so some people switch to using heroin instead. More recent data suggest that heroin is frequently the first opioid people use. In a study of those entering treatment for opioid use disorder, approximately one-third reported heroin as the first opioid they used regularly to get high.
- **Option C:** Bone pain is one of the most common presentations of multiple myeloma and nearly all patients have skeletal involvement in the course of the disease. Consequently, many patients require narcotics for symptom management at the time of diagnosis but the long-term impact of MM treatment on pain control remains uncertain.

**91. Nurse Dorothy is evaluating care of a client with schizophrenia; the nurse should keep which point in mind?**

- A. Frequent reassessment is needed and is based on the client's response to treatment.

- B. The family does not need to be included in the care because the client is an adult.
- C. The client is too ill to learn about his illness.
- D. Relapse is not an issue for a client with schizophrenia.

**Correct Answer: A. Frequent reassessment is needed and is based on the client's response to treatment.**

Because the client responds to treatment in different ways, the nurse must constantly evaluate the client and his potential. A premorbid adjustment must also be considered. Assess if incoherence in speech is chronic or if it is more sudden, as in an exacerbation of symptoms. Establishing a baseline facilitates the establishment of realistic goals, the foundation for planning effective care.

- **Option B:** Most clients with such conditions go home, so the family should be involved. Inform the client's family in clear, simple terms about psychopharmacologic therapy: dose, duration, indication, side effects, and toxic effects. Written information should be given to the client and family members as well. Understanding of the disease and the treatment of the disease encourages greater family support and client adherence.
- **Option C:** The client can learn about the illness if the information is provided gradually. Use simple, concrete, and literal explanations. Minimizes misunderstanding and/or incorporating those misunderstandings into delusional systems. Use therapeutic techniques (clarifying feelings when speech and thoughts are disorganized) to try to understand the client's concerns. Even if the words are hard to understand, try getting to the feelings behind them.
- **Option D:** Relapse is common in schizophrenia. Educating patients on the importance of modifying risk factors such as increasing exercise, healthier diets, and smoking cessation will decrease their risk of cardiovascular problems and reduce the mortality rate. Moreover, cognitive behavioral therapy has been shown to improve patient compliance and decrease future hospital admissions.

## ***92. Which information should be reported to the state Board of Nursing?***

- A. The facility fails to provide literature in both Spanish and English.
- B. The narcotic count has been incorrect on the unit for the past 3 days.
- C. The client fails to receive an itemized account of his bills and services received during his hospital stay.
- D. The nursing assistant assigned to the client with hepatitis fails to feed the client and give the bath.

**Correct Answer: B. The narcotic count has been incorrect on the unit for the past 3 days.**

General advice from the Department of Health is that stocks of controlled drugs should be kept to the minimum required to meet the clinical needs of patients. They should be stored securely in a locked cabinet or safe to prevent unauthorised access, with the keys held in a safe place.

- **Option A:** The Joint Commission conducts inspections with two main objectives: To evaluate the healthcare organization using TJC performance measures and standards. To educate and guide the organization's staff in "good practices" to help improve the organization's performance.
- **Option C:** The Joint Commission on Accreditation of Hospitals will probably be interested in the problem in answer A. The Joint Commission offers many benefits to their members. They help members organize and strengthen their patient improvement programs and safety efforts. They raise health care consumer and community confidence in the quality of the organization's care, services and treatment. This provides a competitive edge in the healthcare industry and a proven framework for organizational management. The Joint Commission helps to reduce risk

management, liability insurance, and employee turnover costs.

- **Option D:** The failure of the nursing assistant to care for the client with hepatitis might result in termination but is not of interest to the Joint Commission. The Joint Commission monitors and advocates for legislation that promotes better patient safety. When it comes to state legislation, The Joint Commission collaborates with patient safety authorities and state regulatory bodies to minimize unrealistic expectations and reform outdated rules. They push state regulatory bodies to rely more on private accreditation instead of mandatory state licensure inspections.

**93. Methylergonovine (Methergine) is prescribed to a patient who is having postpartum bleeding. Prior to giving the medication, the nurse contacts the physician who prescribed the medication if which of the following condition is documented in the patient's chart?**

- A. Hypotension
- B. Uterine atony
- C. Ischemic heart disease
- D. Acute Gastroenteritis

**Correct Answer: C. Ischemic heart disease.**

Methergine (methylergonovine maleate) is a semi-synthetic ergot alkaloid used for the prevention and control of postpartum hemorrhage. Ergot alkaloids are contraindicated in patients with cardiovascular diseases such as ischemic heart disease, stroke, peripheral vascular disease, rheumatic heart disease.

- **Options A, B, & D:** These are not contraindicated with the use of methergine.

**94. The client sustains a contusion of the eyeball following a traumatic injury with a blunt object. Which intervention is initiated immediately?**

- A. Notify the physician.
- B. Irrigate the eye with cold water.
- C. Apply ice to the affected eye.
- D. Accompany the client to the emergency room.

**Correct Answer: C. Apply ice to the affected eye.**

Treatment for contusion begins at the time of injury. Ice is applied immediately. The client then should be seen by a physician and receive a thorough eye examination to rule out the presence of other eye injuries. This injury is usually benign, but the patient should be assessed for more serious injury, such as a hyphema or basilar skull fracture. Symptoms usually include ecchymosis of the lids, which can make it very difficult to visualize the globe.

- **Option A:** If the globe appears intact, rule out orbital fracture and hyphema. If no obvious associated problems are identified, therapeutic interventions such as ice, head elevation, and reassurance are initiated. Resolution of uncomplicated periorbital ecchymosis usually occurs within 2 to 3 weeks.
- **Option B:** Do not instill eye drops before evaluation of ocular injury. Severe pain associated with ocular trauma can be minimized without medication by patching both eyes. When the patient



cannot blink, protect the cornea from drying with ophthalmic ointment or artificial tears.

- **Option D:** General principles pertaining to ocular examination are essentially the same for the patient with an eye injury; however, the patient's ABCs should be evaluated and stabilized before interventions for the ocular problem. Ocular injury often occurs in conjunction with head and facial trauma; therefore these patients should be carefully evaluated for an associated eye injury.

**95. The nurse is admitting a male client with laryngeal cancer to the nursing unit. The nurse assesses for which most common risk factor for this type of cancer?**

- A. Alcohol abuse
- B. Cigarette smoking
- C. Use of chewing tobacco
- D. Exposure to air pollutants

**Correct Answer: B. Cigarette smoking**

- **Option B:** Cigarette use is the most common risk factor for head and neck cancers such as laryngeal cancer. The smoke that comes from a cigarette contains harmful chemicals such as nicotine, carbon monoxide, ammonia, and hydrogen cyanide that passes through the larynx on its way to the lungs.
- **Options A and C:** Combined use of alcohol and tobacco enhances the risk.
- **Option D:** Another risk factor is exposure to environmental pollutants (e.g., paint fumes, wood dust, coal dust) but cigarette smoking remains the most common.

**96. A 45-year-old woman presents to the emergency department (ED) with complaints of fatigue, muscle weakness, and recent episodes of abdominal pain. On further inquiry, she also mentions frequent urination, bone pain, and having felt a palpable "stone" while urinating last week. The ED physician is concerned about the possibility of hyperparathyroidism, considering the symptoms described. Recognizing the link between the parathyroid hormone and its effect on serum electrolytes, the nurse anticipates specific laboratory investigations to confirm the diagnosis. Select all that apply**

- A. Sodium
- B. Calcium
- C. Chloride
- D. Potassium
- E. Phosphorus

**Correct Answer: B and E.**

Increased levels of PTH, as seen in hyperparathyroidism, lead to increased calcium levels in the blood (hypercalcemia). This occurs because PTH stimulates the release of calcium from bones, increases calcium absorption from the gut, and promotes calcium reabsorption in the kidneys. In hyperparathyroidism, there's an increase in PTH which leads to decreased phosphorus levels

(hypophosphatemia). This is because PTH decreases the reabsorption of phosphorus in the kidneys, leading to increased phosphorus excretion in the urine. Additionally, PTH reduces the absorption of phosphorus from the intestines.

- **Option A:** The parathyroid hormone (PTH) primarily regulates calcium and phosphorus balance in the body. PTH does not directly influence sodium levels, so sodium levels are not typically altered in hyperparathyroidism.
- **Option C:** Chloride levels are not directly affected by PTH. However, in some cases of hyperparathyroidism, a rise in chloride may be seen in association with a rise in serum calcium. Still, the primary electrolyte derangements in hyperparathyroidism are with calcium and phosphorus.
- **Option D:** PTH does not have a direct effect on potassium levels, so it's not typically altered in hyperparathyroidism.

**97. A client with heart failure has been told to maintain a low sodium diet. A nurse who is teaching this client about foods that are allowed includes which food item in a list provided to the client?**

- A. Pretzels
- B. Whole wheat bread
- C. Tomato juice canned
- D. Dried apricot

**Correct Answer: D. Dried apricot**

Foods that are lower in sodium include fruits and vegetables like dried apricot. Dried apricots are sodium-free. Dried apricots, as part of a low sodium diet, may reduce the risk of high blood pressure. Apricots contain numerous antioxidants, most notably flavonoids. They help protect the body from oxidative stress, which is linked to many chronic diseases.

- **Option A:** These classic snacks are high in sodium — almost 20 percent of the recommended daily intake is in one serving of pretzels. Too much sodium leads to increased water retention, which can lead to bloating and puffiness, and too much sodium over time can lead to heart disease.
- **Option B:** Sodium is finding its way into a lot of whole wheat bread brands in amounts that average 240 to 400 mg per slice. If your serving usually contains two slices, the sodium can add up quickly.
- **Option C:** Many tomato juice products contain added salt — which bumps up the sodium content. For example, a 1.4-cup (340-ml) serving of Campbell's 100% tomato juice contains 980 mg of sodium — which is 43% of the DV. Research shows that diets high in sodium may contribute to high blood pressure.

**98. Which of the following groups of symptoms indicates a ruptured abdominal aortic aneurysm?**

- A. Lower back pain, increased blood pressure, decreased red blood cell (RBC) count, increased white blood (WBC) count.
- B. Severe lower back pain, decreased blood pressure, decreased RBC count, increased WBC count.

C. Severe lower back pain, decreased blood pressure, decreased RBC count, decreased RBC count, decreased WBC count.

D. Intermittent lower back pain, decreased blood pressure, decreased RBC count, increased WBC count.

**Correct Answer: B. Severe lower back pain, decreased blood pressure, decreased RBC count, increased WBC count.**

Severe lower back pain indicates an aneurysm rupture, secondary to pressure being applied within the abdominal cavity. When rupture occurs, the pain is constant because it can't be alleviated until the aneurysm is repaired. Blood pressure decreases due to the loss of blood. After the aneurysm ruptures, the vasculature is interrupted and blood volume is lost, so blood pressure wouldn't increase. For the same reason, the RBC count has decreased – not increased. The WBC count increases as cells migrate to the site of injury.

- **Option A:** The pain is severe due to the ruptured aneurysm; the blood pressure is decreased due to blood loss.
- **Option C:** The increase in WBC count is due to the cells migrating to the site of the injury.
- **Option D:** The pain in a ruptured aneurysm is constant and can only be alleviated if the aneurysm is repaired.

**99. At 11 p.m., a male client is admitted to the emergency department. He has a respiratory rate of 44 breaths/minute. He's anxious, and wheezes are audible. The client is immediately given oxygen by face mask and methylprednisolone (Depo-medrol) I.V. At 11:30 p.m., the client's arterial blood oxygen saturation is 86% and he's still wheezing. The nurse should plan to administer:**

- A. alprazolam (Xanax)
- B. propranolol (Inderal)
- C. Morphine
- D. albuterol (Proventil)

**Correct Answer: D. albuterol (Proventil)**

The client is hypoxemic because of bronchoconstriction as evidenced by wheezes and a subnormal arterial oxygen saturation level. The client's greatest need is bronchodilation, which can be accomplished by administering bronchodilators. Albuterol is a beta2 adrenergic agonist, which causes dilation of the bronchioles. It's given by nebulization or metered-dose inhalation and may be given as often as every 30 to 60 minutes until relief is accomplished.

- **Option A:** Alprazolam is an anxiolytic and central nervous system depressant, which could suppress the client's breathing. Alprazolam, known by various trade names, is the most commonly prescribed psychotropic medication in the United States. Alprazolam is frequently prescribed to manage panic and anxiety disorders.
- **Option B:** Propranolol is contraindicated in a client who's wheezing because it's a beta2 adrenergic antagonist. Propranolol can be used to ameliorate the sympathetic response in angina, tachyarrhythmias, prevention of acute ischemic attacks, migraine prophylaxis, and restless leg syndrome. Propranolol can be used in almost all cases if the desired result is to slow contractility and decrease a patient's heart rate.

- **Option C:** Morphine is a respiratory center depressant and is contraindicated in this situation. Morphine can decrease the heart rate, blood pressure, and venous return. Morphine can also stimulate local histamine-mediated processes. In theory, the combination of these can reduce myocardial oxygen demand.

**100. Which of the following is a positive sign of pregnancy?**

- A. Fetal movement felt by mother
- B. Enlargement of the uterus
- C. (+) pregnancy test
- D. (+) ultrasound

**Correct Answer: D. (+) ultrasound**

A positive ultrasound will confirm that a woman is pregnant since the fetus in utero is directly visualized.

- **Option A:** The first fetal movements which are felt by the mother are called quickening. One function of these movements is to alert the pregnant woman that she has a fetus growing in her uterus. Quickening often occurs between the 16th to the 22nd week of pregnancy. This is called a presumptive sign of pregnancy as the other movements of the woman's body can mimic early fetal movements such as flatus, peristalsis, and abdominal muscle contractions.
- **Option B:** From conception to delivery, a woman's uterus can grow from the size of a pear to the size of a watermelon. But pregnancy isn't the only potential reason for an enlarged uterus. An enlarged uterus is common and can be a symptom of a variety of medical conditions, some of which require treatment.
- **Option C:** An elevated  $\beta$ -hCG in the absence of viable pregnancy can occur for multiple reasons and has a broad differential diagnosis including miscarriage, ectopic pregnancy, pituitary hCG production, trophoblastic disease, and phantom hCG.