

# Kevin's Review - 85 NCLEX Practice Questions

**1. For a client having an episode of acute narrow-angle glaucoma, a nurse expects to give which of the following medications?**

- A. Acetazolamide (Diamox)
- B. Atropine
- C. Furosemide (Lasix)
- D. Urokinase (Abbokinase)

**Correct Answer: A. Acetazolamide (Diamox)**

Acetazolamide, a carbonic anhydrase inhibitor, decreases intraocular pressure (IOP) by decreasing the secretion of aqueous humor. Acetazolamide is a classic treatment option for glaucoma as it causes a reduction in aqueous humor. As well, it is useful for the treatment of altitude sickness, because of its underlying mechanism of action.

- **Option B:** Atropine dilates the pupil and decreases the outflow of aqueous humor, causing a further increase in IOP. Ophthalmic atropine is used before eye examinations to dilate (open) the pupil, the black part of the eye through which you see. It is also used to relieve pain caused by swelling and inflammation of the eye.
- **Option C:** Lasix is a loop diuretic. Furosemide inhibits tubular reabsorption of sodium and chloride in the proximal and distal tubules and the thick ascending loop of Henle by inhibiting the sodium-chloride cotransport system resulting in excessive excretion of water along with sodium, chloride, magnesium, and calcium.
- **Option D:** Urokinase is a thrombolytic agent; they aren't used for the treatment of glaucoma. Thrombolytics or fibrinolytics are a group of medications used in the management and treatment of dissolving intravascular clots. They are in the plasminogen activator class of drugs.

**2. The client with glaucoma asks the nurse if complete vision will return. The most appropriate response is:**

- A. "Although some vision has been lost and cannot be restored, a further loss may be prevented by adhering to the treatment plan."
- B. "Your vision will return as soon as the medications begin to work."
- C. "Your vision will never return to normal."
- D. "Your vision loss is temporary and will return in about 3-4 weeks."

**Correct Answer: A. "Although some vision has been lost and cannot be restored, a further loss may be prevented by adhering to the treatment plan."**

Vision loss to glaucoma is irreparable. The client should be reassured that although some vision has been lost and cannot be restored, a further loss may be prevented by adhering to the treatment plan. Glaucoma management is tailored to the specific type and severity. However, there is no treatment at this time that can reverse any of the vision loss that has occurred, it can only help to prevent further damage and vision loss.

- **Option B:** Angle-closure is an emergency and must be treated as such. This is because pressures can be high enough to cause glaucomatous optic nerve damage, ischemic nerve damage, or retinal vascular occlusion. Patients can take medication to reduce eye pressure as quickly as possible but usually require a laser procedure called laser peripheral iridotomy.

- **Option C:** This does not provide reassurance to the client. Glaucoma is a chronic and serious disease that can result in permanent vision loss if not taken care of properly. To reduce the morbidity of the disorder, the condition is best managed by an interprofessional team that is dedicated to the management of patients with vision problems. The key to treatment is patient education.
- **Option D:** Currently, glaucoma cannot be prevented or cured, but progression can be controlled to help prevent further vision loss either through medication, glaucoma laser treatment, or incisional glaucoma surgeries.

**3. The physician has ordered Dilantin (phenytoin) for a client with generalized seizures. When planning the client's care, the nurse should:**

- A. Maintain strict intake and output
- B. Check the pulse before giving the medication
- C. Continue breastfeeding as instructed
- D. Provide oral hygiene and gum care every shift

**Correct Answer: D. Provide oral hygiene and gum care every shift**

- Option D: Gingival hyperplasia is a side effect of Dilantin; therefore, the nurse should provide oral hygiene and gum care every shift.
- Options A and B: They do not apply to the medication.
- Option C: Infant breastfeeding is not advisable for women taking this drug since the medication can be secreted in minimal concentrations in human milk.

**5. The client has an order for a trough to be drawn on the client receiving Vancomycin. The nurse is aware that the nurse should contact the lab for them to collect the blood:**

- A. 15 minutes after the infusion
- B. 30 minutes before the infusion
- C. 1 hour after the infusion
- D. 2 hours after the infusion

**Correct Answer: B. 30 minutes before the infusion**

A trough level should be drawn 30 minutes before the third or fourth dose. Draw trough specimens immediately before (?30 min) the next dose. Do not draw specimens until a steady state is achieved (ie, before the fourth dose). Draw peak specimens 1-2 hours after completion of intravenous dosage.

- **Option A:** Vancomycin is a glycopeptide antibiotic first isolated in 1953. It is a naturally occurring antimicrobial synthesized by soil bacterium *Amycolatopsis Orientalis*. Generic vancomycin became available and approved for use in 1958 and quickly became a common antibiotic in treating rapidly growing penicillin-resistant *Staphylococcus* species.
- **Option C:** The emergence of pseudomembranous enterocolitis, coupled with the spread of methicillin-resistant *Staphylococcus aureus* (MRSA), led to a resurgence in the use of vancomycin. It is used to treat serious, life-threatening infections by gram-positive bacteria that are resistant to

less-toxic agents.

- **Option D:** General indications for measuring vancomycin trough levels include risk of nephrotoxicity and inadequate therapeutic response. Monitor at regular intervals. Specifically, trough levels should be measured in patients at risk for nephrotoxicity.

**6. A male client has just been diagnosed with hepatitis A. On assessment, the nurse expects to note:**

- A. Severe abdominal pain radiating to the shoulder.
- B. Anorexia, nausea, and vomiting.
- C. Eructation and constipation.
- D. Abdominal ascites.

**Correct Answer: B. Anorexia, nausea, and vomiting.**

Hallmark signs and symptoms of hepatitis A include anorexia, nausea, vomiting, fatigue, and weakness. Acute hepatitis usually presents as a self-limited illness; development of fulminant hepatitis is rare. Typical symptoms of acute infection include nausea, vomiting, abdominal pain, fatigue, malaise, poor appetite, and fever; management is with supportive care.

- **Option A:** Abdominal pain may occur but doesn't radiate to the shoulder. Extrahepatic manifestations rarely occur but may include pancreatitis, rash, acute kidney injury with interstitial nephritis or glomerulonephritis, pneumonitis, pericarditis, hemolysis, and acute cholecystitis.
- **Option C:** Eructation and constipation are common in gallbladder disease, not hepatitis A. Patients may develop dark urine and pale stools within a week, followed by jaundice, icteric (yellow-tinted) sclera, and pruritus. Patients usually have elevated levels of serum alanine aminotransferase, aspartate aminotransferase, bilirubin, alkaline phosphatase, and lambda-glutamyl transpeptidase.
- **Option D:** Abdominal ascites is a sign of advanced hepatic disease, not an early sign of hepatitis A. Ascites is the pathologic accumulation of fluid within the peritoneal cavity. It is the most common complication of cirrhosis and occurs in about 50% of patients with decompensated cirrhosis in 10 years. The development of ascites denotes the transition from compensated to decompensated cirrhosis.

**7. Which of the following would the nurse most likely expect to find when assessing a pregnant client with abruption placenta?**

- A. Excessive vaginal bleeding
- B. Rigid, board-like abdomen
- C. Tetanic uterine contractions
- D. Premature rupture of membranes

**Correct Answer: B. Rigid, board-like abdomen**

The most common assessment finding in a client with abruption placenta is a rigid or boardlike abdomen. Pain, usually reported as a sharp stabbing sensation high in the uterine fundus with the initial separation, also is common.

- **Option A:** It's possible for the blood to become trapped inside the uterus, so even with a severe placental abruption, there might be no visible bleeding.
- **Option C:** Uterine contractions are a common finding with placental abruption. Contractions progress as the abruption expands, and uterine hypertonus may be noted. Contractions are painful and palpable.
- **Option D:** Increased frequency of placental abruption was found in patients with early rupture of membranes. The incidence was 50% and 44% when rupture of the membranes occurred before 20 weeks or between 20-24 weeks of pregnancy, respectively.

**8. He wants to influence the customary way of thinking and behaving that is shared by the members of the department. Which of the following terms refer to this?**

- A. Organizational chart
- B. Cultural network
- C. Organizational structure
- D. Organizational culture

**Correct Answer: D. Organizational culture**

Organizational culture refers to the way the members of the organization think together and do things around them together. It's their way of life in that organization. An organization's culture defines the proper way to behave within the organization. This culture consists of shared beliefs and values established by leaders and then communicated and reinforced through various methods, ultimately shaping employee perceptions, behaviors, and understanding.

- **Option A:** An organizational chart is a diagram that visually conveys a company's internal structure by detailing the roles, responsibilities, and relationships between individuals within an entity. Organizational charts are alternatively referred to as "org charts" or "organization charts."
- **Option B:** A cultural network hierarchy is presented which classifies these tools according to the CEO's personal involvement with each element. Guidelines are presented for using the tools of cultural communication to change or maintain the culture at both the managerial level and the operational level of the organization.
- **Option C:** An organizational structure is a system that outlines how certain activities are directed in order to achieve the goals of an organization. These activities can include rules, roles, and responsibilities. The organizational structure also determines how information flows between levels within the company.

**9. A nurse calls a physician with the concern that a patient has developed a pulmonary embolism. Which of the following symptoms has the nurse most likely observed?**

- A. The patient is somnolent with decreased response to the family.
- B. The patient suddenly complains of chest pain and shortness of breath.
- C. The patient has developed a wet cough and the nurse hears crackles on auscultation of the lungs.
- D. The patient has a fever, chills, and loss of appetite.

**Correct Answer: B. The patient suddenly complains of chest pain and shortness of breath.**

Typical symptoms of pulmonary embolism include chest pain, shortness of breath, and severe anxiety. The physician should be notified immediately. Pulmonary embolism (PE) occurs when there is a disruption to the flow of blood in the pulmonary artery or its branches by a thrombus that originated somewhere else. Chest pain is a frequent symptom and is usually caused by pleural irritation due to distal emboli causing pulmonary infarction. In central PE, chest pain may be from underlying right ventricular (RV) ischemia and needs to be differentiated from an acute coronary syndrome or aortic dissection.

- **Option A:** The most common symptoms of PE include the following: dyspnea, pleuritic chest pain, cough, hemoptysis, presyncope, or syncope. Dyspnea may be acute and severe in central PE, whereas it is often mild and transient in small peripheral PE.
- **Option C:** A patient with pulmonary embolism will not be sleepy or have a cough with crackles on exam. On examination, patients with PE might have tachypnea and tachycardia, which are common but nonspecific findings. Other examination findings include calf swelling, tenderness, erythema, palpable cords, pedal edema, rales, decreased breath sounds, signs of pulmonary hypertension such as elevated neck veins, loud P2 component of second heart sound, a right-sided gallop, and a right ventricular parasternal lift might be present on examination.
- **Option D:** A patient with fever, chills, and loss of appetite may be developing pneumonia. A massive PE leads to an acute right ventricular failure, which presents as jugular venous distension, parasternal lift, third heart sound, cyanosis, and shock. If a patient with PE who has tachycardia on presentation develops sudden bradycardia or develops a new broad complex tachycardia (with right bundle branch block), providers should look for signs of right ventricular strain and possible impending shock. PE should be suspected in anyone who has hypotension with jugular venous distension wherein acute myocardial infarction, pericardial tamponade, or tension pneumothorax has been ruled out.

**10. A client is admitted for treatment of the syndrome of inappropriate antidiuretic hormone (SIADH). Which nursing intervention is appropriate?**

- A. Infusing I.V. fluids rapidly as ordered.
- B. Encouraging increased oral intake.
- C. Restricting fluids.
- D. Administering glucose-containing I.V. fluids as ordered.

**Correct Answer: C. Restricting fluids.**

To reduce water retention in a client with SIADH, the nurse should restrict fluids.

- **Option A:** Rapid infusion of IV fluids would further increase the client's overload.
- **Option B:** The client should be instructed to restrict his fluid intake. It is also important to restrict sodium intake because higher correction rates have been associated with osmotic demyelination.
- **Option D:** Administering fluids by any route would further increase the client's already heightened fluid load.

**11. Richard with agoraphobia has been symptom-free for 4 months. Classic signs and symptoms of phobias include:**

- A. Insomnia and an inability to concentrate.
- B. Severe anxiety and fear.
- C. Depression and weight loss.
- D. Withdrawal and failure to distinguish reality from fantasy.

**Correct Answer: B. Severe anxiety and fear.**

Phobias cause severe anxiety (such as a panic attack) that is out of proportion to the threat of the feared object or situation. Physical signs and symptoms of phobias include profuse sweating, poor motor control, tachycardia, and elevated blood pressure. Patients with a specific phobia experience high levels of anxiety and panic attacks along with excessive and unreasonable fear due to either exposure or anticipation of exposure to a feared stimulus. As a result, these patients will try to avoid the anxiety-provoking stimulus to any extent possible.

- **Option A:** Symptoms include excessive, unreasonable, persistent feelings of fear or anxiety that are triggered by a particular object, activity or situation. Feelings are either irrational or out of proportion to any actual threat. For example, while anyone may be afraid of an unrestrained, menacing dog, most people do not run away from a calm, quiet animal on a leash.
- **Option C:** Insomnia, an inability to concentrate, and weight loss are common in depression. Anxiety-related physical symptoms. These can include tremors, palpitations, sweating, shortness of breath, dizziness, nausea or other symptoms that reflect the body's "fight or flight" response to danger. (Symptoms such as these may lead to a diagnosis of panic disorder.)
- **Option D:** Withdrawal and failure to distinguish reality from fantasy occur in schizophrenia. Avoidance of the object, activity, or situation that triggers the phobia. Because people who have phobias recognize that their fears are exaggerated, they are often ashamed or embarrassed about their symptoms. To prevent anxiety symptoms or embarrassment, they avoid the triggers for the phobia.

**12. Referencing the image below, what is the name of the structure marked #13.**

- A. Minor calyx
- B. Major calyx
- C. Cortical blood vessels
- D. Interlobal blood vessels
- E. Arcuate blood vessels
- F. Renal vein
- G. Renal nerve
- H. Renal cortex
- I. Renal calyx
- J. Renal pyramid

**Correct answer: #13 is the renal cortex.**

The renal cortex is the outer layer of the kidney, situated just beneath the renal capsule and extending down between the renal pyramids of the medulla. It contains the renal corpuscles and the convoluted tubules of the nephrons, playing a central role in the filtration and initial processing of blood to form

urine.

**13. A client who is taking mycophenolate mofetil must follow which of the following instructions?**

- A. Take with food.
- B. Avoid use of corticosteroid.
- C. Monitor for adverse effects.
- D. Practice effective contraception.

**Correct Answer: D. Practice effective contraception.**

Effective contraception is essential because of the potential for teratogenic effects. The client must use acceptable birth control during her treatment, and for 6 weeks after she stops taking mycophenolate. The doctor will tell her which forms of birth control are acceptable for her to use. Mycophenolate may decrease the effectiveness of oral contraceptives (birth control pills), so it is especially important to use a second form of birth control along with this type of contraceptive.

- **Option A:** It is recommended that the drug be taken on an empty stomach. Mycophenolate comes as a capsule, a tablet, a delayed-release (releases the medication in the intestine) tablet, and a suspension (liquid) to take by mouth. It is usually taken twice a day on an empty stomach (1 hour before or 2 hours after eating or drinking, unless the doctor tells otherwise).
- **Option B:** The drug is often given with corticosteroids. Mycophenolate (CellCept) is used with other medications to help prevent transplant organ rejection (attack of the transplanted organ by the immune system of the person receiving the organ) in adults who have received heart and liver transplants and in adults and children 3 months of age and older who have received kidney transplants. Mycophenolate (Myfortic) is used with other medications to help prevent the body from rejecting kidney transplants. Mycophenolate is in a class of medications called immunosuppressive agents. It works by weakening the body's immune system so it will not attack and reject the transplanted organ.
- **Option C:** All medication should be monitored for side effects. Mycophenolate may cause side effects. Tell the doctor if any of these symptoms are severe or do not go away: constipation, stomach pain or swelling, nausea, vomiting, difficulty falling asleep or staying asleep, pain, especially in the back, muscles, or joints, headache, gas, prickling, tingling, or burning feeling on the skin muscle, stiffness or weakness.

**14. Which of the following clients is most likely to experience adverse effects from treatment with diuretics?**

- A. A 21-year-old student
- B. A 40-year-old unmarried man
- C. A 60-year-old widower
- D. A 75-year-old man

**Correct Answer: D. A 75-year-old man**

Elderly clients are more sensitive to the effects of diuretics. Diuretics are drugs that pharmacologically tilt the renal fluid regulation in favor of excretion of water and electrolytes. Thus, diuretics are

substances that increase the production and volume of urine.

- **Option A:** Diuretics, along with salt restriction, are also recommended as the first-line therapy in ascites due to liver cirrhosis. In cirrhotic ascites, spironolactone is the drug of choice for initial therapy (due to its antiandrogenic effect), although a loop diuretic may be added as an adjunct if the treatment fails or can be added at the outset in synergistic combination therapy.
- **Option B:** The most common adverse effect for any diuretic is mild hypovolemia, which can lead to transient dehydration and increased thirst. When there is an over-treatment with a diuretic, this could lead to severe hypovolemia, causing hypotension, dizziness, and syncope.
- **Option C:** More generalized side-effects of diuretic agents include headache, urinary frequency, restlessness, weakness, fatigue, and lethargy. GI disturbances like nausea, vomiting, constipation, diarrhea, anorexia, and abdominal pain can occur with loop diuretics and PSDs than any other diuretic group.

**15. The nurse is aware that the following ways in vascular dementia different from Alzheimer's disease is:**

- A. Vascular dementia has a more abrupt onset.
- B. The duration of vascular dementia is usually brief.
- C. Personality change is common in vascular dementia.
- D. The inability to perform motor activities occurs in vascular dementia.

**Correct Answer: A. Vascular dementia has a more abrupt onset.**

Vascular dementia differs from Alzheimer's disease in that it has a more abrupt onset and runs a highly variable course. VD is distinguished from other forms of dementia in that it results from brain ischemia, although the temporal relationship to the ischemic event may be subtle or go unnoticed. There are various subtypes and multiple terms to describe the vascular pathology and affected brain tissue, such as multi-infarct dementia, small vessel disease or Binswanger disease, strategic infarct dementia, hypoperfusion dementia, hemorrhagic dementia, hereditary vascular dementia, and AD with cardiovascular disease

- **Option B:** The duration of delirium is usually brief. Dementia is a syndrome of chronic progressive cognitive decline resulting in functional impairment. In the Diagnostic Manual of Mental Disorders, Fifth Edition (DSM-V), cognitive decline is quantified as deficits in one or more domains (e.g., memory, executive function, visuospatial, language, attention). Second, only to Alzheimer's disease (AD), vascular dementia (VD) is one of the most common causes of dementia affecting the elderly (aged greater than 65 years), with a variable presentation and unpredictable disease progression.
- **Option C:** Personality change is common in Alzheimer's disease. A thorough history should be obtained from the patient, focusing on cognitive and functional deficits, onset, and progression of symptoms. Interviewing family members and caregivers is important as patients with cognitive decline rarely have insight into their cognitive and functional limitations.
- **Option D:** The inability to carry out motor activities is common in Alzheimer's disease. Caregivers may report an abrupt or stepwise onset of cognitive decline, or the appearance of symptoms may be subtle without connection to an ischemic event. The functional assessment should evaluate for impairments in instrumental activities of daily living (IADLs), such as cooking, driving, and financial and medication management, and basic activities of daily living (ADLs), such as dressing, bathing, and toileting. Additionally, patient's past medical history, current medications, and surgical history should be obtained. Regarding physical examination, one should assess patients for focal

neurologic deficits.

**16. After reviewing the client's maternal history of magnesium sulfate during labor, which condition would the nurse anticipate as a potential problem in the neonate?**

- A. Hypoglycemia
- B. Jitteriness
- C. Respiratory depression
- D. Tachycardia

**Correct Answer: C. Respiratory depression.**

- **Option C:** Magnesium sulfate crosses the placenta and adverse neonatal effects are respiratory depression, hypotonia, and Bradycardia.

**17. A male client is diagnosed with a schizotypal personality disorder. Which signs would this client exhibit during a social situation?**

- A. Paranoid thoughts
- B. Emotional affect
- C. Independence need
- D. Aggressive behavior

**Correct Answer: A. Paranoid thoughts**

Clients with schizotypal personality disorder experience excessive social anxiety that can lead to paranoid thoughts. People with schizotypal personality disorder are often described as odd or eccentric and usually have few, if any, close relationships. They generally don't understand how relationships form or the impact of their behavior on others. They may also misinterpret others' motivations and behaviors and develop significant distrust of others. These problems may lead to severe anxiety and a tendency to avoid social situations, as the person with schizotypal personality disorder tends to hold peculiar beliefs and may have difficulty with responding appropriately to social cues.

- **Option B:** People with schizotypal personality disorder are loners who prefer to keep their distance from others and are uncomfortable being in relationships. They sometimes exhibit odd speech or behavior, and they have a limited or flat range of emotions. This pattern begins early in adulthood and continues throughout life. Those with this disorder also tend to have markedly illogical thinking, with unusual ideas or odd beliefs that are not consistent with prevailing ideas, for example, a strong belief in extrasensory perception (ESP). They may report unusual perceptions or strange body experiences.
- **Option C:** People with schizotypal personality disorder are loners who prefer to keep their distance from others and are uncomfortable being in relationships. They sometimes exhibit odd speech or behavior, and they have a limited or flat range of emotions. This pattern begins early in adulthood and continues throughout life.
- **Option D:** Many people with schizotypal personality disorder have subtle difficulties with memory, learning, and attention. They usually do not have the more severe and disabling psychotic symptoms, such as delusions and hallucinations that appear in schizophrenia. However, people

with a schizotypal personality disorder do sometimes develop schizophrenia.

**18. In a lecture on sexual functioning, the nurse plans to include the fact that ovulation occurs when the:**

- A. Oxytocin is too high.
- B. Blood level of LH is too high.
- C. Progesterone level is high.
- D. Endometrial wall is sloughed off.

**Correct Answer: B. Blood level of LH is too high.**

It is the surge of LH secretion in mid-cycle that is responsible for ovulation. LH is responsible for inducing ovulation, preparation for fertilized oocyte uterine implantation, and the ovarian production of progesterone through stimulation of theca cells and luteinized granulosa cells.

- **Option A:** Ovulation is the third phase within the larger Uterine Cycle (i.e. Menstrual Cycle). The follicular release follows the Follicular phase (i.e. dominant follicle development) and precedes the Luteal phase (i.e. maintenance of corpus luteum) that progresses to either endometrial shedding or implantation. Follicular release occurs around 14 days prior to menstruation in a cyclic pattern if the hypothalamic-pituitary-ovarian axis function is well regulated.
- **Option C:** Ovulation occurs around day 14 of a typical 28-day cycle. Estrogen levels rise as a result of increased estrogen production by hormonally active granulosa cells within the follicle. One of the estrogen levels reach a critical point and remain at the level for 2 days, estrogen transitions from a negative feedback modulator of GnRH to a positive feedback modulator on the hypothalamus.
- **Option D:** FSH and LH stimulate what remains of the mature follicle after ovulation to become the corpus luteum. The corpus luteum grows and secretes progesterone and some estrogen, which makes the endometrium more receptive to implantation. If fertilization does not occur, progesterone/estrogen levels fall, and the corpus luteum dies forming the corpus Albicans. These falling hormone levels stimulate FSH to begin recruiting follicles for the next cycle.

**19. When instructing the female client diagnosed with hyperparathyroidism about diet, nurse Gina should stress the importance of which of the following?**

- A. Restricting fluids
- B. Restricting sodium
- C. Forcing fluids
- D. Restricting potassium

**Correct Answer: C. Forcing fluids**

The client should be encouraged to force fluids to prevent renal calculi formation. Drink enough fluids, mostly water, to produce nearly clear urine to lessen the risk of kidney stones. Avoid calcium-raising drugs. Certain medications, including some diuretics and lithium, can raise calcium levels. If taking such drugs, ask the doctor whether another medication may be appropriate.

- **Option A:** Drink plenty of water to prevent kidney stones associated with hyperparathyroidism. Treatment of mild primary hyperparathyroidism includes preventive measures and regular visits to

the health care professional to monitor the client's condition.

- **Option B:** Sodium should be encouraged to replace losses in urine. Sodium and calcium homeostasis are tightly regulated by endocrine systems. Of particular importance are effects of the renin–angiotensin–aldosterone system (RAAS) on sodium and of parathyroid hormone (PTH) and vitamin D on calcium homeostasis.
- **Option D:** Restricting potassium isn't necessary in hyperparathyroidism. Monitor how much calcium and vitamin D is in the diet. Restricting dietary calcium intake isn't advised for people with hyperparathyroidism. The daily recommended amount of calcium for adults ages 19 to 50 and men ages 51 to 70 is 1,000 milligrams (mg) of calcium a day. That calcium recommendation increases to 1,200 mg a day for women age 51 and older and men age 71 and older.

**20. The nurse is teaching a 17-year old client and the client's family about what to expect with high-dose chemotherapy and the effects of neutropenia. What should the nurse teach as the most reliable early indicator of infection in a neutropenic client?**

- A. Dyspnea
- B. Fever
- C. Tachycardia
- D. Chills

**Correct Answer: B. Fever**

- **Option B:** A patient with neutropenia has a decreased number of neutrophils. These cells are responsible for fighting off bacteria once they enter the body. A complication of neutropenia is infection. An early sign is a fever that requires clinical intervention to identify potential causes.
- **Options A and D:** Chills and dyspnea may or may not be observed.
- **Option C:** Tachycardia can be an indicator in a variety of clinical situations when associated with infection; it usually occurs in response to an elevated temperature or change in cardiac function.

**21. The adolescent patient has symptoms of meningitis: nuchal rigidity, fever, vomiting, and lethargy. The nurse knows to prepare for the following test:**

- A. blood culture.
- B. throat and ear culture.
- C. CAT scan.
- D. lumbar puncture.

**Correct Answer: D. Lumbar puncture.**

Meningitis is an infection of the meninges, the outer membrane of the brain. Since it is surrounded by cerebrospinal fluid, a lumbar puncture will help to identify the organism involved. The CSF findings expected in bacterial, viral, and fungal meningitis are listed in the chart: Expected CSF findings in bacterial versus viral versus fungal meningitis.

- **Option A:** Blood work should include blood culture, serum electrolytes as the syndrome of inappropriate antidiuretic hormone secretion (SIADH) is not uncommon, serum glucose, renal and

liver function, and testing for HIV.

- **Option B:** Ideally, the CSF sample should be obtained before initiating antimicrobials. However, when the diagnosis of bacterial meningitis is seriously considered, and the patient is severely ill, antibiotics should be initiated before performing the LP.
- **Option C:** It is important to note that a normal head CT does not preclude increased intracranial pressure or impending brain herniation. If the clinical symptoms are consistent with impending herniation, regardless of whether or not the CT head is normal, avoid the LP and start treatment.

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

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

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

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

**23. The lower limit of viability for infants in terms of age of gestation is:**

- A. 21-24 weeks
- B. 25-27 weeks
- C. 28-30 weeks
- D. 38-40 weeks

**Correct Answer: A. 21-24 weeks**

Viability means the capability of the fetus to live/survive outside of the uterine environment. With the present technological and medical advances, 21 weeks AOG is considered as the minimum fetal age for viability.

- **Option B:** Fetal viability is a major issue that is dependent on the evolution and progress of modern neonatology (Beauthier, 2007). It is generally accepted that a 28-week-old fetus that doesn't need resuscitation is viable. However, according to WHO, fetal viability is possible after 20 weeks of fetal life (22 weeks of amenorrhea).
- **Option C:** A simple way to calculate fetal age (in lunar months) is to divide the fetal length (in cm) by 4 for fetuses less than 5 months' gestation. If it is less than 5 months' gestation the length (in cm) is divided by 5.

- **Option D:** Anthropometric measurements collected during examination of the fetus are used to estimate its age more accurately (Beauthier, 2011b). Three types of data can be gathered from radiologic investigations: direct fetal age estimation from measurement of the length of long bones; fetal age estimation from measurement of the long bones and calculation of fetal stature (crown–heel or crown-rump length); and a more difficult method involving the degree of deciduous teeth calcification; this method requires the conservation of dental crowns.

**24. Nurse Gretchen is discussing the use of cocaine as a local anesthetic with a nursing student. Which statement by the student indicates understanding of this agent?**

- A. "Anesthetic effects develop slowly and persist for several hours."
- B. "Cocaine is a local anesthetic administered by injection."
- C. "Vasoconstrictors should not be used as adjunct agents with this drug."
- D. "When abused, cocaine causes physical dependence."

**Correct Answer: C. "Vasoconstrictors should not be used as adjunct agents with this drug."**

Cocaine should not be combined with epinephrine or other vasoconstrictors, because it causes vasoconstriction itself, and the combination could precipitate severe hypertension. The principal action of cocaine on the mucosa is anesthesia and vasoconstriction, however significant systemic absorption may occur; this may adversely affect the cardiovascular system, after which alpha- and beta 1-adrenoceptor stimulation results in increased heart rate, systemic arterial pressure, and myocardial contractility, which are major determinants of myocardial oxygen demand.

- **Option A:** Cocaine has a rapid onset of effects, which last about 1 hour. 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:** It is used only topically for anesthesia. Topical cocaine has an anesthetic effect similar to local anesthetics (such as lidocaine) from sodium channel blockade and interference with action potential propagation. This Vaughn-Williams class IC effect also increases the risk of conduction disturbance and tachyarrhythmias.
- **Option D:** Although subject to widespread abuse with profound psychological dependence, it does not cause substantial physical dependence. The fatal dose of cocaine has been estimated to be 1.2 g, but there are reports of severe adverse effects from doses as low as 20 mg. The single-use vial contains four mL of a 40 mg/mL solution, thus 160 mg in total. There is also a multi-use vial containing 10 mL of 4% cocaine. As mucosal absorption is variable, the possibility of receiving the entire amount of cocaine is low, especially when delivered by cotton pledgets or gauze.

**25. Which of the following sleep disorders is the most prevalent?**

- A. Hypersomnia
- B. Insomnia
- C. Parasomnia
- D. Sleep-wake schedule disturbance.

**Correct Answer: B. Insomnia**

Approximately 1/3 of American adults have some type of sleep disorder, and insomnia is the most common. Insomnia is prevalent in 10% to 15% of the general population. Roughly 5.5 million office visits related to sleep disturbances were reported in the United States in 2010. Though it affects all age groups, it is more prevalent in women of perimenopausal and post-menopausal transitions and older adults.

- **Option A:** Hypersomnia is generally seen in adolescents or young adults. The patients with hypersomnia complain of disabling excessive daytime sleepiness. They find it difficult to maintain alertness during the major waking hours of the day with sleep occurring unintentionally or at inappropriate times that interfere with the daily routine.
- **Option C:** Sleepwalking is more common in children than in adults. Experts estimate that roughly 15% of children will experience at least one sleepwalking episode; however, by adolescence, most will outgrow this disorder, diminishing the prevalence to just 2 to 4%. Sleep terrors are much less common in the pediatric population, with estimations as low as 3%. Nightmare disorder affects up to 6% of the population.
- **Option D:** Advanced sleep phase syndrome is a circadian rhythm disorder characterized by an inability to stay awake in the evening (usually after 7 pm). These patients complain of early morning insomnia due to their early bedtime. Delayed sleep phase syndrome is also a circadian rhythm disorder in which the affected individuals generally go to bed and usually arise two or more hours late than the desired time. These patients often complain of sleep-onset insomnia and excessive morning sleepiness.

**26. Gregory is a 52-year-old man identified as high-risk for diabetes mellitus. Which laboratory test should a nurse anticipate a physician would order for him? Select all that apply.**

- A. Fasting Plasma Glucose (FPG)
- B. Two-hour Oral Glucose Tolerance Test (OGTT)
- C. Glycosylated hemoglobin (HbA1C)
- D. Fingertick glucose three times daily
- E. Urinalysis and urine culture

**Correct Answer: A & B.**

When an older person is identified as high-risk for diabetes, appropriate testing would include FPG and OGTT. An FPG greater than 140 mg/dL usually indicates diabetes. The OGTT is to determine how the body responds to the ingestion of carbohydrates in a meal.

- **Option A:** Current laboratory recommendations for plasma glucose measurement are to draw fasting blood samples in the morning rather than later in the day, as glucose levels tend to be higher in the morning than in the afternoon.
- **Option B:** The OGTT requires a fasting blood glucose measurement in the morning. After the measurement, the patient receives oral glucose (usually a glucose load of 75g anhydrous glucose dissolved in water) that the patient consumes. The plasma glucose levels are measured again at 1-hour and 2-hours to analyze the glucose level changes.
- **Option C:** HbA1C evaluates long-term glucose control. The hemoglobin A1c (glycated hemoglobin, glycosylated hemoglobin, HbA1c, or A1c) test is used to evaluate a person's level of glucose control. The test shows an average of the blood sugar level over the past 90 days and represents a percentage. The test can also be used to diagnose diabetes.

- **Option D:** A fingerstick glucose three times daily spot-checks blood glucose levels. The use of glucose meters is common in physician offices or by patients to monitor blood glucose levels and establish patterns of glucose fluctuations over time with regular use and recording.
- **Option E:** Urinalysis and urine cultures, in which bacteria from a urine sample are grown in a laboratory, are done to diagnose a urinary tract infection. Urine should be cultured in all men and all patients with diabetes mellitus, who are immunosuppressed, and women who are pregnant. Classic teaching on urine culture sets the gold standard for infected urine at greater than 10 colony forming units (CFU).

**27. Lab tests revealed that patient Z's [Na<sup>+</sup>] is 170 mEq/L. Which clinical manifestation would nurse Natty expect to assess?**

- A. Tented skin turgor and thirst
- B. Muscle twitching and tetany
- C. Fruity breath and Kussmaul's respirations
- D. Muscle weakness and paresthesia

**Correct Answer: A. Tented skin turgor and thirst**

Hypernatremia refers to elevated serum sodium levels, usually above 145 mEq/L. Typically, the client exhibits tented skin turgor and thirst in conjunction with dry, sticky mucous membranes, lethargy, and restlessness. Most patients present with symptoms suggestive of fluid loss and clinical signs of dehydration. Symptoms and signs of hypernatremia are secondary to central nervous system dysfunction and are seen when serum sodium rises rapidly or is greater than 160 meq/L.

- **Option B:** Muscle twitching and tetany may be seen with hypercalcemia or hyperphosphatemia. CNS features include delirium, coma, seizures, neuromuscular hyperexcitability, (Chvostek's sign and Trousseau's phenomenon), hyperreflexia, muscle cramping (e.g., carpopedal spasm), or tetany.
- **Option C:** Fruity breath and Kussmaul's respirations are associated with diabetic ketoacidosis. Kussmaul breathing, which is labored, deep, and tachypneic, may occur. Some providers may appreciate a fruity scent to the patient's breath, indicative of the presence of acetone. Patients may have signs of dehydration, including poor capillary refill, skin turgor, and dry mucous membranes.
- **Option D:** Muscle weakness and paresthesia are associated with hypokalemia. Significant muscle weakness occurs at serum potassium levels below 2.5 mmol/L but can occur at higher levels if the onset is acute. Similar to the weakness associated with hyperkalemia, the pattern is ascending in nature affecting the lower extremities, progressing to involve the trunk and upper extremities, and potentially advancing to paralysis.

**28. A female client comes into the emergency room complaining of SOB and pain in the lung area. She states that she started taking birth control pills 3 weeks ago and that she smokes. Her VS are: 140/80, P 110, R 40. The physician orders ABG's, results are as follows: pH: 7.50; PaCO<sub>2</sub> 29 mm Hg; PaO<sub>2</sub> 60 mm Hg; HCO<sub>3</sub><sup>-</sup> 24 mEq/L; SaO<sub>2</sub> 86%. Considering these results, the first intervention is to:**

- A. Begin mechanical ventilation.

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

**Correct Answer: B. Place the client on oxygen**

The pH (7.50) reflects alkalosis, and the low PaCO<sub>2</sub> indicates the lungs are involved. The client should immediately be placed on oxygen via mask so that the SaO<sub>2</sub> is brought up to 95%. Encourage slow, regular breathing to decrease the amount of CO<sub>2</sub> she is losing.

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

**29. When administering the methylxanthine theophylline, the nurse can expect:**

- A. Decreased pulmonary function
- B. Increased pulmonary function
- C. Increased residual volume
- D. Decreased tidal volume

**Correct Answer: B. Increased pulmonary function**

Theophylline will improve ventilation so there will be an overall improvement of pulmonary measurements. Theophylline is a drug derived from methylxanthine (a purine derivative) and has smooth muscle relaxant, bronchial dilation, diuretic, cardiac and central nervous system (CNS) stimulant activities. Other choices are the opposite of what will actually occur with theophylline administration.

- **Option A:** Theophylline relaxes the smooth muscles located in the bronchial airways and pulmonary blood vessels. It also reduces the airway responsiveness to histamine, adenosine, methacholine, and allergens.
- **Option C:** It acts as a competitive nonselective phosphodiesterase inhibitor (inhibiting type III and type IV phosphodiesterase), which increases the concentration of intracellular cAMP, activates protein kinase A, inhibits TNF-alpha and leukotriene synthesis, and also decreases inflammation and innate immunity.
- **Option D:** It is also a nonselective adenosine receptor antagonist. It acts on A<sub>1</sub>, A<sub>2</sub>, and A<sub>3</sub> receptors with almost the same affinity, and this possibly explains the cardiac effects of theophylline. Adenosine-mediated channels also increase the contraction force of diaphragmatic muscles by enhancing their calcium uptake.

**30. During a school health fair, a nurse is stationed at the vital signs booth. As students from various age groups approach, the nurse takes their vital signs. Later, while reviewing the recorded data, the nurse identifies one set of vital signs that seems abnormal for the age group. Which of the following vital signs taken during the health fair appears to be outside the typical range for the respective age group?**

- A. 11-year-old male athlete who just finished a sprint: 90 BPM, 22 RPM, 100/70 mmHg
- B. 13-year-old female who mentioned she was feeling a bit anxious about an upcoming exam: 105 BPM, 22 RPM, 105/50 mmHg
- C. 5-year-old male who was excitedly running around with friends before coming to the booth: 102 BPM, 24 RPM, 90/65 mmHg
- D. 6-year-old female who was calmly coloring a picture before her turn: 100 BPM, 26 RPM, 90/70 mmHg
- E. 14-year-old male who was resting and reading a book: 85 BPM, 20 RPM, 110/70 mmHg
- F. 12-year-old female who was practicing deep breathing exercises: 88 BPM, 18 RPM, 95/60 mmHg

**Correct Answer: B. 13-year-old female who mentioned she was feeling a bit anxious about an upcoming exam: 105 BPM, 22 RPM, 105/50 mmHg**

The normal range of vital signs for 11 to 14-year-olds: Heart rate: 60-105 BPM; Respiratory rate: 12-20 CPM; Blood pressure: Systolic-85-120, diastolic- 55-80 mmHg; Body temperature: 98.0 degrees Fahrenheit (36.6 degrees Celsius) to 98.6 degrees Fahrenheit (37 degrees Celsius). The client's diastolic pressure is lower than the normal range. Both her respiratory rate and heart rate are slightly increased.

**31. Which of the following is the priority nursing diagnosis for a client undergoing chemotherapy?**

- A. Altered nutrition
- B. Fear
- C. Decreased cardiac output
- D. Anxiety

**Correct Answer: C. Decreased cardiac output**

Decreased cardiac output is more important than the other choices because it can jeopardize the client's life. The goal of chemotherapy is to inhibit cell proliferation and tumor multiplication, thus avoiding invasion and metastasis. But this results in toxic effects of chemotherapy due to effect on normal cells as well. Inhibition of tumor growth can take place at several levels within the cell and its environment.

- **Option A:** With traditional agents, cell death may be delayed as a proportion of the cells die as a result of a given treatment. So, the treatment may require repeating to achieve a response. The toxicity of cytotoxic drugs is greatest during the S phase, as it is the DNA synthetic phase of the cell cycle. Vinca alkaloids and Taxanes act in the M phase and block mitotic spindle formation.
- **Option B:** Traditional chemotherapy agents primarily affect either macromolecular synthesis and function of neoplastic cells by interfering DNA, RNA, or proteins synthesis or affecting the

appropriate functioning of the preformed molecule. When interference in macromolecular synthesis or function is sufficient, it leads to cell death either due to the chemotherapeutic agent's direct effect or by triggering apoptosis.

- **Option D:** Combination chemotherapy is a common choice to produce effective responses as well. They appear to prevent the development of resistant clones by promoting cytotoxicity in resting and dividing cells. Cellular mechanisms that promote or suppress cell proliferation and cell differentiation are intricate, involving several genes, receptors, and signal transduction. Investigations in cancer cell biology have led to significant insight into mechanisms of apoptosis, angiogenesis, metastasis, cell signal transduction, differentiation, and growth factor modulation.

**32. A client with a history of chest pain is admitted to irritable bowel syndrome. As a nurse, which of the following medicines will you least expect to be a part of the medical management?**

- A. alosetron (Lotronex)
- B. tegaserod (Zelnorm)
- C. lubiprostone (Amitiza)
- D. loperamide (Imodium)

**Correct Answer: B. Tegaserod (Zelnorm).**

The use of tegaserod is restricted to patients with IBS due to the serious cardiovascular adverse effect that may happen such as heart attack and stroke.

- **Option A:** Alosetron (Lotronex) is a selective 5-HT<sub>3</sub> receptor antagonist used specifically for women with irritable bowel syndromes.
- **Option B:** Tegaserod (Zelnorm) is a serotonin type 4 receptor partial agonist used for women below 65 years old who have irritable bowel syndrome with constipation.
- **Option C:** Lubiprostone (Amitiza) is a chloride channel activator used to treat irritable bowel syndrome with constipation among women 18 years of age and older.

**33. Ramsay is diagnosed with schizophrenia paranoid type and is admitted to the psychiatric unit of Nurseslabs Medical Center. Which of the following nursing interventions would be most appropriate?**

- A. Establishing a non-demanding relationship.
- B. Encouraging involvement in group activities.
- C. Spending more time with Ramsay.
- D. Waiting until Ramsay initiates interaction.

**Correct Answer: A. Establishing a non-demanding relationship**

A non-threatening, non-demanding relationship helps decrease the mistrust that is common in a client with paranoid schizophrenia. Use a non-judgemental, respectful, and neutral approach with the client. There is less chance for a suspicious client to misinterpret intent or meaning if content is neutral and approach is respectful and non-judgemental.

- **Option B:** Maintain a low level of stimuli and enhance a non-threatening environment (avoid groups). Noisy environments might be perceived as threatening. Initially, provide solitary, non-competitive activities that take some concentration. Later a game with one or more the client takes concentration (e.g., chess checkers, thoughtful card games such as ridge or rummy). If a client is suspicious of others, solitary activities are the best. Concentrating on environmental stimuli minimizes paranoid rumination.
- **Option C:** Spending more time with the client would be threatening for a client who is suspicious of other people's motives. Set limits in a clear matter-of-fact way, using a calm tone. "Giving threatening remarks to Jeremy is unacceptable. We can talk more about the proper ways in dealing with your feelings". A calm and neutral approach may diffuse the escalation of anger. Offer an alternative to verbal abuse by finding appropriate ways to deal with feelings.
- **Option D:** This client is unlikely to initiate interaction; the nurse is responsible for initiating a relationship with the client. Be honest and consistent with the client regarding expectations and enforcing rules. Suspicious people are quick to discern honesty. Honesty and consistency provide an atmosphere in which trust can grow.

**34. While caring for a client with cervical cancer, the nurse notes that the radioactive implant is lying in the bed. The nurse should:**

- A. Use tongs to pick up the implant and return it to a lead-lined container
- B. Place the implant in a biohazard bag and return it to the lab
- C. Give the client a pair of gloves and ask her to reinsert the implant
- D. Discard the implant in the commode and double-flush

**Correct Answer: A. Use tongs to pick up the implant and return it to a lead-lined container**

- Option A: The radioactive implant should be picked up with tongs and returned to the lead-lined container to avoid radiation exposure.
- Option B: Radioactive materials are placed in lead-lined containers, not plastic ones, and are returned to the radiation department, not the lab.
- Option C: The client should not touch the implant or try to reinsert it.
- Option D: The implant should not be placed in the commode for disposal.

**35. The client has experienced an electrical injury of the lower extremities. Which are the priority assessment data to obtain from this client?**

- A. Current range of motion in all extremities
- B. Heart rate and rhythm
- C. Respiratory rate and pulse oximetry reading
- D. Orientation to time, place, and person

**Correct Answer: B. Heart rate and rhythm.**

Electric current travels through the body from the entrance site to the exit site and can seriously damage all tissues between the two sites. Early cardiac damage from electrical injury includes irregular heart rate, rhythm, and ECG changes. It is also important to obtain the patient's cardiac history,

including any history of prior arrhythmias.

- **Option A:** Range of motion is also important. However, the priority is to make sure that the heart rate and rhythm are adequate to support perfusion to the brain and other vital organs.
- **Option C:** The airway is not at any particular risk with this injury. Therefore, respiratory rate and pulse oximetry are not priority assessments. Any patient that was in contact with a high voltage source should have continuous cardiac monitoring during evaluation.
- **Option D:** These patients are specifically at risk for cardiac damage if the path of the current traversed the heart. One may also consider CT imaging of the head if the patient has altered mental status or associated head trauma from a fall or being thrown in a blast.

**36. The nurse is aware the early indicator of hypoxia in the unconscious client is:**

- A. Cyanosis
- B. Increased respirations
- C. Hypertension
- D. Restlessness

**Correct Answer: D. Restlessness**

Restlessness is an early indicator of hypoxia. The nurse should suspect hypoxia in an unconscious client who suddenly becomes restless. 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 A:** Cyanosis is the bluish discoloration of the tissues that results from increased concentration of reduced hemoglobin. This may be a late indication of hypoxia. Sufficiently severe hypoxia can result in tachycardia to provide sufficient oxygen to the tissues. Some of the signs are very evident on physical exam; stridor can be heard once the patient arrives in cases of upper airway obstruction. Skin can be cyanotic, which might indicate severe hypoxia.
- **Option B:** Hypoxia induces a breathing pattern of rapid and shallow breaths with a relatively higher increase in respiratory rate than tidal volume. This is more noticeable in conscious patients. 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.
- **Option C:** Pulmonary hypoxic hypertension is associated with high pressure in the blood vessels of the lungs, caused by a shortage of oxygen in the body. This is a late sign of hypoxia. The 6-minute walk test is frequently used in the preoperative pulmonary evaluation, pulmonary hypertension treatment and assessment of supplemental oxygen need with exercise.

**37. The physician orders penicillin for a patient with streptococcal pharyngitis. The nurse administers the drug as ordered, and the patient has an allergic reaction. The nurse checks the medication order sheet and finds that the patient is allergic to penicillin. Legal responsibility for the error is:**

- A. Only the nurse's—she should have checked the allergies before administering the medication.

- B. Only the physician's—she gave the order, the nurse is obligated to follow it.
- C. Only the pharmacist's—he should alert the floor to possible allergic reactions.
- D. The pharmacist, physician, and nurse are all liable for the mistake.

**Correct Answer: D. The pharmacist, physician, and nurse are all liable for the mistake.**

The physician, nurse, and pharmacist all are licensed professionals and share responsibility for errors. The legal response to medical errors that do gain legal consideration is typically dominated by one or more of three goals: compensation, accountability, and retribution. These each feature, with greater or lesser emphasis, in different national, legal, and regulatory regimes

- **Option A:** The legal response to a serious accident is usually prolonged and expensive so it is important that it actually promotes future safety. In a criminal prosecution, the emphasis is placed on establishing the culpability or otherwise of an individual, and inquiry into the underlying causes of an event is often inhibited by the strict rules of the process.
- **Option B:** The legal response to error significantly depends on the outcome. Many drug errors are made in healthcare, but only those in which harm results tend to be punished. Punishment is imposed if there are consequences rather than because of any inherent culpability underlying error.
- **Option C:** The legal response tends to be proportionate to the actual consequences of the error, rather than to potential consequences or the moral culpability involved.

**38. 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.

**39. A 60-year-old male client comes into the emergency department with complaints of crushing chest pain that radiates to his shoulder and left arm. The admitting diagnosis is acute myocardial infarction. Immediate admission orders include oxygen by NC at 4L/minute, blood work, chest X-ray, an ECG, and two (2) mg of morphine given intravenously. The nurse should first:**

- A. Administer the morphine.
- B. Obtain a 12-lead ECG.
- C. Obtain the lab work.

D. Order the chest x-ray.

**Correct Answer: A. Administer the morphine.**

Although obtaining the ECG, chest x-ray, and blood work are all important, the nurse's priority action would be to relieve the crushing chest pain. Opioids may be used for pain control in addition to sublingual nitroglycerin if the blood pressure is adequate. All patients with STEMI and NSTEMI require immediately chewed aspirin 160 mg to 325 mg. Furthermore, the patient should have intravenous access and oxygen supplementation if oxygen saturation is less than 91%.

- **Option B:** The ECG is highly specific for MI (95% to 97%), yet not sensitive (approximately 30%). Right-sided, posterior lead placement, and repeat ECG testing can increase ECG sensitivity. For example, peaked T-waves on ECG, known as "hyperacute T waves," often indicate early ischemia and will progress to ST elevation.
- **Option C:** There are diagnostic guidelines that can assist the practitioner in determining whether further testing is useful in identifying patients with NSTEMI. Given the poor sensitivity of ECG for STEMI, troponins are almost universally used for patients with a suspicious clinical history.
- **Option D:** Cardiac angiography is used to perform percutaneous coronary intervention (PCI) or determine obstructions in the coronary vessels. An echocardiogram is used to assess wall motion, degree of valve abnormality, ischemic mitral regurgitation (MR), and presence of cardiac tamponade

**40. A client with an acute exacerbation of rheumatoid arthritis is admitted to the hospital for treatment. Which drug, used to treat clients with rheumatoid arthritis, has both an anti-inflammatory and immunosuppressive effect?**

- A. Gold sodium thiomalate (Myochrysine)
- B. Azathioprine (Imuran)
- C. Prednisone (Deltasone)
- D. Naproxen (Naprosyn)

**Correct Answer: C. Prednisone (Deltasone)**

Prednisone is used to treat persons with acute exacerbations of rheumatoid arthritis. This medication is given for its anti-inflammatory and immunosuppressive effects. Prednisone is in a class of medications called corticosteroids. It works to treat patients with low levels of corticosteroids by replacing steroids that are normally produced naturally by the body. It works to treat other conditions by reducing swelling and redness and by changing the way the immune system works.

- **Option A:** Gold sodium thiomalate is usually used in combination with aspirin and nonsteroidal anti-inflammatory drugs to relieve pain. Gold has an immunosuppressive effect. Gold sodium thiomalate is a form of gold that affects the process of inflammation in the body. Gold sodium thiomalate is used to treat rheumatoid arthritis in adults and children.
- **Option B:** Azathioprine is used for clients with life-threatening rheumatoid arthritis for its immunosuppressive effects. Azathioprine is in a class of medications called immunosuppressants. It works by decreasing the activity of the body's immune system so it will not attack the transplanted organ or the joints.
- **Option D:** Naproxen is a nonsteroidal anti-inflammatory drug. Immunosuppression does not occur. Naproxen is a nonsteroidal anti-inflammatory drug (NSAID). It works by reducing hormones that cause inflammation and pain in the body. Naproxen is used to treat pain or inflammation caused by

conditions such as arthritis, ankylosing spondylitis, tendinitis, bursitis, gout, or menstrual cramps. It can also be used to treat acute pain caused by other conditions not listed in this medication guide.

**41. Which of the following complications should the nurse carefully monitor a client with acute pancreatitis?**

- A. Myocardial Infarction
- B. Cirrhosis
- C. Peptic ulcer
- D. Pneumonia

**Correct Answer: D. Pneumonia**

A client with acute pancreatitis is prone to complications associated with the respiratory system. The relationship between *Mycoplasma pneumoniae* infection and acute pancreatitis has been debated in the literature. In 1973, Mardh et al. reported four adult cases of acute pancreatitis following pneumonia due to MP; in three of the patients, the pancreatitis occurred in the 3rd week after the onset of cough, by which time the respiratory tract symptoms had almost disappeared.

- **Option A:** Myocardial infarction is not a complication of pancreatitis. Acute pancreatitis may cause kidney failure, which can be treated with dialysis if the kidney failure is severe and persistent.
- **Option B:** Kidney failure, not liver failure, can be caused by acute pancreatitis. Acute pancreatitis may cause kidney failure, which can be treated with dialysis if the kidney failure is severe and persistent.
- **Option C:** Pancreatitis cannot cause peptic ulcer. It is most commonly caused by a bacteria called *H. pylori*. *H. pylorus* is a gram-negative bacillus that is found within the gastric epithelial cells. This bacterium is responsible for 90% of duodenal ulcers and 70% to 90% of gastric ulcers. *H. pylori* infection is more prevalent among those with lower socioeconomic status and is commonly acquired during childhood.

**42. You are supervising a nursing student who is providing care for a patient with thoracotomy with a chest tube. What findings would you clearly instruct the nursing student to notify you about immediately?**

- A. Chest tube drainage of 10 to 15 mL/hr.
- B. Continuous bubbling in the water seal chamber.
- C. Complaints of pain at the chest tube site.
- D. Chest tube dressing dated yesterday.

**Correct Answer: B. Continuous bubbling in the water seal chamber**

Continuous bubbling indicates an air leak that must be identified. With the physician's order you can apply a padded clamp to the drainage tubing close to the occlusive dressing. If the bubbling stops, the air leak may be at the chest tube insertion, which will require you to notify the physician. If the air bubbling does not stop when you apply the padded clamp, the air leak is between the clamp and the drainage system, and you must assess the system carefully to locate the leak.

- **Option A:** Chest tube drainage of 10 to 15 mL/hr is acceptable. Alert physician if drainage greater than 100 mL per hour in an adult and 3 mL/Kg/hour in a 3 hour period or 5 to 10 mL/Kg in any 1 hour period in pediatric patients.
- **Option C:** The patient's complaints of pain need to be assessed and treated. This is important but is not as urgent as investigating a chest tube leak. Severe pain during chest drain therapy significantly influences the well being of the patient and leads to severe pathophysiological disorders. Early mobilization, sufficient coughing to mobilize secretions, and effective deep breathing are only possible with adequate pain management.
- **Option D:** Chest tube dressings are not changed daily but may be reinforced. In adults, chest tube dressing should be changed every other day and prn. In pediatric patients, if it is an uncomplicated chest tube insertion site, the dressing should be left as is until it is soiled or lifting. Changed ONLY when necessary and with a physician present.

**43. Jordanne is a client with a fear of air travel. She is being treated in a mental institution for phobic disorder. The treatment method involves systematic desensitization. The nurse would consider the treatment successful if:**

- A. Jordanne plans a trip requiring air travel.
- B. Jordanne takes a short trip on an airplane.
- C. Jordanne recognizes the unrealistic nature of the fear of riding on airplanes.
- D. Jordanne verbalizes a decreased fear of air travel.

**Correct Answer: B. Jordanne takes a short trip on an airplane.**

Systematic desensitization is a behavioral technique in which the client with a specific phobia is gradually able to work through hierarchical fears until the most fearful situation is encountered. In this case, the most fearful is riding an airplane. Systematic desensitization (gradual systematic exposure of the client to the feared situation under controlled conditions) allows the client to begin to overcome the fear, become desensitized to the fear. Note: Implosion or flooding (continuous, rapid presentation of the phobic stimulus) may show quicker results than systematic desensitization, but relapse is more common, or the client may become terrified and withdraw from therapy.

- **Option A:** Explore client's perception of threat to physical integrity or threat to self-concept. It is important to understand the client's perception of the phobic object or situation in order to assist with the desensitization process. Present and discuss the reality of the situation with the client in order to recognize aspects that can be changed and those that cannot. The client must accept the reality of the situation before the work of reducing fear can progress.
- **Option C:** Encourage the client to explore underlying feelings that may be contributing to irrational fears. Help the client to understand how facing these feelings, rather than suppressing them, can result in more adaptive coping abilities. Verbalization of feelings in a non-threatening environment may help the client come to terms with unresolved issues.
- **Option D:** This response may occur earlier in treatment, but not indicative of success. Generally, a phobic individual recognizes that his fear is disproportionate to the things he fears. Explore things that may lower fear level and keep it manageable (e.g. singing while dressing, repeating a mantra, practicing positive self-talk while in a fearful situation). Provides the client with a sense of control over the fear. Distracts the client so that fear is not totally focused on and allowed to escalate.

**44. A 53 y.o. patient has undergone a partial gastrectomy for adenocarcinoma of the stomach. An NG tube is in place and is connected to low continuous suction. During the immediate postoperative period, you expect the gastric secretions to be which color?**

- A. Brown
- B. Clear
- C. Red
- D. Yellow

**Correct Answer: C. Red**

Normally, drainage is bloody for the first 24 hours after a partial gastrectomy; then it changes to brown-tinged and then to yellow or clear. Drainage will be bloody for the first 12 hours, and then should clear and turn greenish. Continued or recurrent bleeding suggests complications. A decline in output may reflect the return of GI function.

- **Option A:** This tube will be set to suction and will drain out brownish-colored stomach acid. When it runs from brown to light green to clear, this is an indication that things are moving through the stomach and feedings may be possible.
- **Option B:** Gastric aspirate is usually cloudy and green, tan or off-white, or brown. Intestinal aspirate is generally clear and yellow to bile-colored. Pleural fluid is pale yellow and serous; tracheobronchial secretions are usually tan or off-white mucus.
- **Option D:** Normal color of gastric drainage is light yellow to green in color due to the presence of bile. Bloody drainage may be expected after gastric surgery but must be monitored closely. The presence of coffee-ground type drainage may indicate bleeding.

**45. Which of the following white blood cell (WBC) counts clearly indicates leukocytosis?**

- A. 4,500/mm<sup>3</sup>
- B. 7,000/mm<sup>3</sup>
- C. 10,000/mm<sup>3</sup>
- D. 25,000/mm<sup>3</sup>

**Correct Answer: D. 25,000/mm<sup>3</sup>**

Leukocytosis is any transient increase in the number of white blood cells (leukocytes) in the blood. The normal number of WBCs in the blood is 4,500 to 11,000 WBCs per microliter (4.5 to 11.0 × 10<sup>9</sup>/L). Normal value ranges may vary slightly among different labs. Thus, a count of 25,000/mm<sup>3</sup> indicates leukocytosis.

- **Option A:** A WBC count is a blood test to measure the number of white blood cells (WBCs) in the blood. WBCs are also called leukocytes. They help fight infections. A higher than normal WBC count is called leukocytosis. Leukocytosis is the broad term for an elevated white blood cell (WBC) count, typically above 11.0×10<sup>9</sup>/L, on a peripheral blood smear collection. The exact value of WBC elevation can vary slightly between laboratories depending on their 'upper limits of normal' as identified by their reference ranges.

- **Option B:** The WBC value represents the sum-total of white blood cell subtypes, including neutrophils, eosinophils, lymphocytes, monocytes, atypical leukocytes that are not normally present on a peripheral blood smear (e.g., lymphoblasts), or any combination of these. The clinician should properly characterize the leukocytosis and determine if further evaluation and workup are indicated.
- **Option C:** Leukocytosis can occur acutely and often transiently or chronically, either in response to an inflammatory stressor/cytokine cascade or as part of an autonomous myeloproliferative neoplasm. Neutrophilia is the most common presentation, but clinicians should be aware of the other cell lines that can be involved in acute and chronic presentations. A detailed history, physical examination, medication reconciliation, full evaluation of a CBC with differential, and comparison to prior CBCs can help clinicians elucidate the underlying cause of leukocytosis and guide appropriate treatment.

**46. Mr. Lopez has a 7-year-old son with growth hormone (GH) deficiency. He shares to the nurse the desire of his son to play ball games. However, his wife feels the child will be in danger since he is smaller than the other children. In planning anticipatory guidance for these parents, the nurse should keep in mind which of the following?**

- A. The child should be allowed to play because doing so can foster healthy self-esteem.
- B. The risk for fractures is increased because a GH deficiency results in fragile bones.
- C. Activity could aggravate insulin sensitivity, causing hyperglycemia.
- D. Activity would aggravate the child's joints, already over tasked by obesity.

**Correct Answer: A. The child should be allowed to play because doing so can foster healthy self-esteem.**

Engaging in peer-group activities can aid foster a sense of belonging and a positive self-concept. T-ball is a good sport to choose because physical stature is not an important consideration in the ability to participate, unlike some other sports, such as basketball and football. Physical examination may not reveal any significant findings as the presentation is usually subtle.

- **Option B:** Hypopituitarism does not affect calcium and phosphorus homeostasis and demineralization of bone. So the risk for fractures is not increased. Clinical features of hypopituitarism may be subtle and ill-defined or severe with the acute presentation. Presenting signs and symptoms may be linked to those of a deficiency of the pituitary hormone, mass effects in the presence of pituitary tumors, and/or features of the causative disease.
- **Option C:** Although rare, physical activity without adequate carbohydrate intake can cause hypoglycemia. GH and/or cortisol deficiency more commonly cause hypoglycemia, which results from decreased gluconeogenesis and increased glucose utilization (owing to increased tissue sensitivity to insulin in the absence of GH and cortisol).
- **Option D:** Moderate physical activity increases caloric use and reduces weight without undue strain on weight-bearing joints. Reduced aerobic capacity is a prominent manifestation among patients with GH deficiency (GHD). Exercise training may improve the physiological capacity to undertake an aerobic activity.

**47. How should the nurse prepare an injection for a patient who takes both regular and NPH insulin?**

- A. Draw up the NPH insulin, then the regular insulin, in the same syringe.
- B. Draw up the regular insulin, then the NPH insulin, in the same syringe.
- C. Use two separate syringes.
- D. Check with the physician.

**Correct Answer: B. Draw up the regular insulin, then the NPH insulin, in the same syringe.**

Drugs that are compatible may be mixed together in one syringe. In the case of insulin, the shorter-acting, clear insulin (regular) should be drawn up before the longer-acting, cloudy insulin (NPH) to ensure accurate measurements.

- **Option A:** Insulin, regular when administered subcutaneously, it should be injected 30 to 40 minutes before each meal. Avoid cold injections. The injection is in the buttocks, thighs, arms, or abdomen; it is necessary to rotate injection sites to avoid lipodystrophy. Do not inject if the solution is viscous or cloudy; use only if clear and colorless.
- **Option C:** When administered intravenously, U-100 administration should be with close monitoring of serum potassium and blood glucose. Do not use if the solution is viscous or cloudy; administration should only take place if it is colorless and clear.
- **Option D:** For intravenous infusions, to minimize insulin adsorption to plastic IV tubing, flush the intravenous tube with priming infusion of 20 mL from a 100 mL-polyvinyl chloride bag insulin, every time a new intravenous tubing is added to the insulin infusion container.

**48. The nurse is carrying out his preoperative teachings for an older client who will have cataract surgery on the right eye. The nurse concludes that the client needs further understanding about the teachings if he says:**

- A. "I will sleep on my left side after the surgery."
- B. "I will wipe my nose gently if it is congested after surgery."
- C. "I will call my physician if I have sharp and sudden pain or a fever after surgery."
- D. "I will bend below my waist frequently to increase circulation after surgery."

**Correct Answer: D. I will bend below my waist frequently to increase circulation after surgery**

Immediately after the procedure, the client should avoid bending over, to prevent putting extra pressure on the eye. Immediately after the surgery, avoid bending over as it puts added pressure on the eye. Try not to sneeze for the same reasons. Don't do any strenuous activities for a few weeks. Avoid vigorous exercise and heavy lifting.

- **Option A:** Sleeping on the non-operative side is recommended to avoid increasing the pressure on the affected eye. As the eye heals, the client may need to stay out of swimming pools or hot tubs, at least for the first week. Furthermore, he should stay away from areas with dust and pollen for a few weeks to avoid getting these irritants in the eye.
- **Option B:** Blowing the nose is contraindicated because it increases the pressure on the operated eye. Immediately after the procedure, avoid bending over to prevent putting extra pressure on the eye. If at all possible, don't sneeze or vomit right after surgery.
- **Option C:** Germs that get in the eye during surgery can lead to an infection. The client might feel sensitive to light or have pain, redness, and vision problems. If this happens, the client should call the doctor right away.

**49. A primigravida, age 42, is 6 weeks pregnant. Based on the client's age, her infant is at risk for:**

- A. Down syndrome
- B. Respiratory distress syndrome
- C. Turner's syndrome
- D. Pathological jaundice

**Correct Answer: A. Down syndrome**

The client who is age 42 is at risk for fetal anomalies such as Down syndrome and other chromosomal aberrations. The risk of chromosome abnormalities is higher. Babies born to older mothers have a higher risk of certain chromosome problems, such as Down syndrome.

- **Option B:** Risk factors for respiratory distress syndrome include prematurity, maternal diabetes, cesarean delivery, and asphyxia. The mother will more likely have a low birth weight baby and a premature birth. Premature babies, especially those born earliest, often have complicated medical problems.
- **Option C:** Turner's syndrome is a genetic disorder. Turner syndrome results from a deletion or the non-functioning of one X chromosome in females. About half of the population with Turner syndrome have monosomy X (45,XO). The other 50% of the population has a mosaic chromosomal component (45,X with mosaicism).  
Option D: Premature infants are at most risk for pathological jaundice because they develop higher levels of bilirubin. The risk of pregnancy loss — by miscarriage and stillbirth — increases as you get older, perhaps due to pre-existing medical conditions or fetal chromosomal abnormalities. Research suggests that the decrease in the quality of your eggs, combined with an increased risk of chronic medical conditions such as high blood pressure and diabetes, could increase your risk of miscarriage. Ask your health care provider about monitoring your baby's well-being during the last weeks of pregnancy.

**50. The nursing assistant reports to you, the RN, that the patient with myasthenia gravis (MG) has an elevated temperature (102.20 °F or 39° C), heart rate of 120/minute, rise in blood pressure (158/94), and was incontinent of urine and stool. What is your best first action at this time?**

- A. Administer an acetaminophen suppository
- B. Notify the physician immediately
- C. Recheck vital signs in 1 hour
- D. Reschedule patient's physical therapy session

**Correct Answer: B. Notify the physician immediately.**

The changes that the nursing assistant is reporting are characteristics of myasthenia crisis, which often follows some type of infection. The patient is at risk for inadequate respiratory function. In addition to notifying the physician, the nurse should carefully monitor the patient's respiratory status. The patient may need intubation and mechanical ventilation.

- **Option A:** The nurse would notify the physician before giving the suppository because there may be orders for cultures before giving acetaminophen.

- **Option C:** This patient's vital signs need to be re-checked sooner than 1 hour.
- **Option D:** Rescheduling the physical therapy can be delegated to the unit clerk and is not urgent.  
Focus: Prioritization

**51. During a clinical rotation in a renowned research hospital, medical students are engaged in a study focusing on a patient with Common Variable Immunodeficiency (CVID), a disorder characterized by impaired antibody responses. The patient's susceptibility to recurrent bacterial and viral infections underscores the quintessential role antibodies play in immune defense. The clinician leading the study elaborates on the molecular architecture of antibodies, their diverse isotypes, and how they mediate various effector functions to ward off pathogens. The case triggers a profound discussion on the biochemical and functional attributes of antibodies. With the clinical scenario of CVID in mind, which of the following statements is TRUE about antibody molecules?**

- A. have a constant region that binds to antigens
- B. have a variable region that can activate complement or attach to macrophages
- C. are large glycolipids
- D. are called gamma globulins or immunoglobulins

**Correct Answer: D. are called gamma globulins or immunoglobulins**

Antibodies are indeed referred to as gamma globulins due to their position in protein electrophoresis, or immunoglobulins, highlighting their role in the immune system.

- **Option A:** The constant region of an antibody molecule is involved in effector functions but does not bind to antigens. The antigen-binding site is located in the variable region of the antibody molecule.
- **Option B:** While it is true that antibodies can activate complement or interact with immune cells such as macrophages, these actions are mediated through the constant region, not the variable region which is primarily involved in antigen recognition.
- **Option C:** Antibodies are proteins, not glycolipids. They are composed of polypeptide chains and can have carbohydrate groups attached, making them glycoproteins.

**52. 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.

**53. Gold salt toxicity can be reversed using which medication?**

- A. Acetaminophen
- B. Dimercaprol
- C. Calcium salts
- D. Hydroxocobalamin

**Correct Answer: B. Dimercaprol**

Dimercaprol, a chelator, is used to treat arsenic, gold, or mercury poisoning.

- **Option A:** Acetaminophen is an analgesic/antipyretic.
- **Option C:** Calcium salt is the antidote for fluoride ingestion.
- **Option D:** Hydroxocobalamin is the antidote for cyanide poisoning.

**54. Soon after delivery, a neonate is admitted to the central nursery. The nursery nurse begins the initial assessment by:**

- A. auscultate bowel sounds.
- B. determining chest circumference.
- C. inspecting the posture, color, and respiratory effort.
- D. checking for identifying birthmarks.

**Correct Answer: C. inspecting the posture, color, and respiratory effort.**

- **Option C:** One of the first assessments is a baby's Apgar score. At one minute and five minutes after birth, infants are checked for heart and respiratory rates, muscle tone, reflexes, and color. This helps identify babies that have difficulty breathing or have other problems that need further care.

**55. Niklaus was born with hypospadias; which of the following should be avoided when a child has such condition?**

- A. Surgery
- B. Circumcision
- C. Intravenous pyelography (IVP)
- D. Catheterization

**Correct Answer: B. Circumcision**

Hypospadias refers to a condition in which the urethral opening is located below the glans penis or anywhere along the ventral surface (underside) of the penile shaft. The ventral foreskin is lacking, and the distal portion gives an appearance of a hood. Early recognition is important so that circumcision is avoided; the foreskin is used for surgical repair.

- **Option A:** Surgery is the procedure of choice to improve the child's ability to stand when urinating, improve the appearance of the penis, and preserve sexual adequacy. Patients diagnosed with hypospadias should be referred for surgical evaluation within the first weeks of life. If parents want circumcisions for their newborns, the presence of any penile abnormality should contraindicate the procedure, given that the foreskin is used in arthroplasties.
- **Option C:** IVP is contraindicated if the child has an allergy to iodine or shellfish. Intravenous pyelography (IVP), or intravenous urography, is a diagnostic test that involves the administration of intravenous contrast and X-ray imaging of the urinary tract.
- **Option D:** Catheterization may be used to ensure urinary elimination. Hypospadias is the most frequent anatomical variant of the penis and occurs during development when hormonal triggers malfunction and the urethra does not properly tubularize. The urethral meatus can be found anywhere along the glans, penile shaft, scrotum, or perineum, leading to a difficult catheterization.

**56. The physician has ordered cooling measures for a child with a fever who is likely to be discharged when the temperature comes down. Which task would be appropriate to delegate to a nursing assistant?**

- A. Prepare and administer a tepid sponge bath
- B. Explain the need for giving cool fluids
- C. Assist the child in removing outer clothing
- D. Advise the parent to use acetaminophen (Tylenol) instead of aspirin

**Correct Answer: C. Assist the child in removing outer clothing.**

The nursing assistant can help with the removal of outer clothing, which allows the heat to dissipate from the child's skin. The client is the center of care. The needs of the client must be competently met with the knowledge, skills and abilities of the staff to meet these needs. In other words, the nurse who delegates aspects of care to other members of the nursing team must balance the needs of the client with the abilities of those to which the nurse is delegating tasks and aspects of care, among other things such as the scopes of practice and the policies and procedures within the particular healthcare facility.

- **Option A:** Tepid baths are not usually given because of the possibility of shivering and rebound. Registered nurses who assign, delegate, and/or provide nursing care to clients and groups of

clients must report all significant changes that occur in terms of the client and their condition. For example, a significant change in a client's laboratory values requires that the registered nurse report this to the nurse's supervisor and doctor.

- **Option B:** Explaining is a teaching function only appropriate for a registered nurse. The staff members' levels of education, knowledge, past experiences, skills, abilities, and competencies are also evaluated and matched with the needs of all of the patients in the group of patients that will be cared for.
- **Option D:** Advising is a teaching function that is the responsibility of the registered nurse. Delegation should be done according to the differentiated practice for each of the staff members. A patient care technician, a certified nursing assistant, a licensed practical nurse, an associate degree registered nurse, and a bachelor's degree registered nurse should not be delegated to the same aspects of nursing care.

### **57. Hormones secreted by Islets of Langerhans**

- A. Progesterone
- B. Testosterone
- C. Insulin
- D. Hemoglobin

**Correct Answer: C. Insulin**

The Islets of Langerhans are the regions of the pancreas that contain its endocrine cells. Insulin is a peptide hormone secreted in the body by beta cells of islets of Langerhans of the pancreas and regulates blood glucose levels. Medical treatment with insulin is indicated when there is inadequate production or increased demands of insulin in the body.

- **Option A:** Progesterone (Choice A) is produced by the ovaries. Progesterone is an endogenous steroid hormone that is commonly produced by the adrenal cortex as well as the gonads, which consist of the ovaries and the testes. Progesterone is also secreted by the ovarian corpus luteum during the first ten weeks of pregnancy, followed by the placenta in the later phase of pregnancy.
- **Option B:** Testosterone (Choice B) is secreted by the testicles of males and ovaries of females. Testosterone is the primary male hormone responsible for regulating sex differentiation, producing male sex characteristics, spermatogenesis and fertility. Testosterone is responsible for the development of primary sexual development, which includes testicular descent, spermatogenesis, enlargement of the penis and testes, and increasing libido.
- **Option D:** Hemoglobin (Choice D) is a protein molecule in the red blood cells that carries oxygen from the lungs to the body's tissues and returns carbon dioxide. Hemoglobin is an oxygen-binding protein found in erythrocytes which transports oxygen from the lungs to tissues. Each hemoglobin molecule is a tetramer made of four polypeptide globin chains. Each globin subunit contains a heme moiety formed of an organic protoporphyrin ring and a central iron ion in the ferrous state (Fe<sup>2+</sup>). The iron molecule in each heme moiety can bind and unbind oxygen, allowing for oxygen transport in the body.

**58. A clinical instructor teaches a class for the public about diabetes mellitus. Which individual does the nurse assess as being at the highest risk for developing diabetes?**

- A. The 50-year-old client who does not get any physical exercise
- B. The 56-year-old client who drinks three glasses of wine each evening
- C. The 42-year-old client who is 50 pounds overweight
- D. The 38-year-old client who smokes one pack of cigarettes per day

**Correct Answer: C. The 42-year-old client who is 50 pounds overweight**

Obesity increases the likelihood of developing diabetes mellitus due to the overstimulation of the endocrine system. Obesity is believed to account for 80-85% of the risk of developing type 2 diabetes, while recent research suggests that obese people are up to 80 times more likely to develop type 2 diabetes than those with a BMI of less than 22.

- **Option A:** Exercise is important, but lack of exercise is not as big a risk factor as obesity. Scientists in the United States have found that not taking part in much physical activity could be the primary cause of chronic conditions, including diabetes, obesity, and fatty liver disease, and also that taking regular exercise may not actually help people who are sedentary.
- **Option B:** Consuming alcohol is associated with liver disease but is not as high a risk factor for diabetes as obesity. While moderate amounts of alcohol may cause blood sugar to rise, excess alcohol can actually decrease the blood sugar level — sometimes causing it to drop into dangerous levels, especially for people with type 1 diabetes. Beer and sweet wine contain carbohydrates and may raise blood sugar.
- **Option D:** Smoking is a serious health concern but is not a specific risk factor for diabetes. Smokers are 30 to 40 percent more likely to develop type 2 diabetes than nonsmokers. Smoking can also make managing the disease and regulating insulin levels more difficult because high levels of nicotine can lessen the effectiveness of insulin, causing smokers to need more insulin to regulate blood sugar levels.

**59. Drugs can cause adverse events in a patient. Bone marrow toxicity is one of the most frequent types of drug-induced toxicity. The most serious form of bone marrow toxicity is:**

- A. Aplastic anemia.
- B. Thrombocytosis.
- C. Leukocytosis.
- D. Granulocytosis.

**Correct Answer: A. Aplastic anemia.**

Aplastic anemia is the result of a hypersensitivity reaction and is often irreversible. It leads to pancytopenia, a severe decrease in all cell types: red blood cells, white blood cells, and platelets. A reduced number of red blood cells causes hemoglobin to drop. A reduced number of white blood cells make the patient susceptible to infection. And, a reduced number of platelets cause the blood not to clot as easily. Treatment for mild cases is supportive. Transfusions may be necessary. Severe cases require a bone marrow transplant.

- **Option B:** Thrombocytosis is a condition in which there is an excessive number of platelets in the blood. Platelets are blood cells in plasma that stop bleeding by sticking together to form a clot. Too many platelets can lead to certain conditions, including stroke, heart attack, or a clot in the blood vessels.

- **Option C:** Leukocytosis refers to an increase in the total number of white blood cells (WBCs) due to any cause. From a practical standpoint, leukocytosis is traditionally classified according to the component of white cells that contribute to an increase in the total number of WBCs. Therefore, leukocytosis may be caused by an increase in (1) neutrophil count (ie, neutrophilia), (2) lymphocyte count (ie, lymphocytosis), (3) monocyte count (ie, monocytosis), (4) eosinophilic granulocyte count (ie, eosinophilia), (5) basophilic granulocyte count (ie, basophilia), or (6) immature cells (eg, blasts). A combination of any of the above may be involved.
- **Option D:** Granulocytosis occurs when there are too many granulocytes in the blood. It's a condition that's closely related to chronic myelogenous leukemia (CML) and other bone marrow disorders. Granulocytes are white blood cells that have small granules or particles.

**60. Nurse Mary is inserting a urinary catheter into a client who is extremely anxious about the procedure. The nurse can facilitate the insertion by asking the client to:**

- A. Initiate a stream of urine.
- B. Breathe deeply.
- C. Turn to the side.
- D. Hold the labia or shaft of penis.

**Correct Answer: B. Breathe deeply.**

When inserting a urinary catheter, facilitate insertion by asking the client to breathe deeply. Doing this will relax the urinary sphincter. Deep breathing can all help create gentle pressure that will loosen the resistance against the catheter.

- **Option A:** Initiating a stream of urine isn't recommended during catheter insertion. Ask the patient to bear down gently (as if to void) and slowly insert catheter through urethral meatus. If urine does not appear in a female patient, the catheter may be in the patient's vagina. Leave the catheter in vagina as a landmark, and insert another sterile catheter.
- **Option C:** Positioning of the patient depends on gender. In a female patient: on back with knees flexed and thighs relaxed so that hips rotate to expose perineal area. On a male patient: Supine with legs extended and slightly apart. The patient should be comfortable, with the perineum or penis exposed, for ease and safety in completing the procedure.
- **Option D:** Holding the labia or penis won't ease insertion, and doing so may contaminate the sterile field. Using sterile technique and dominant hand, clean labia and urethral meatus from clitoris to anus, and from outside labia to inner labial folds and urethral meatus. Or, gently grasp penis at the shaft and hold it at right angle to the body throughout the procedure with a non-dominant hand (now contaminated and no longer sterile). This reduces the transmission of microorganisms.

**61. Colon cancer is most closely associated with which of the following conditions?**

- A. Appendicitis
- B. Hemorrhoids
- C. Hiatal hernia
- D. Ulcerative colitis

**Correct Answer: D. Ulcerative colitis**

Chronic ulcerative colitis, granulomas, and familial polyposis seem to increase a person's chance of developing colon cancer. Having ulcerative colitis can increase the risk for colorectal cancer. Recent research shows that colorectal cancer rates are dropping among people with inflammatory bowel diseases such as ulcerative colitis. People with ulcerative colitis should receive regular screenings for colorectal cancer. The other conditions listed have no known effect on colon cancer risk.

- **Option A:** Appendicitis can be secondary to cecal pathology (polyp or cancer). Increasing age is a risk factor for malignancy coexisting with appendicitis. There is an increased coexistence of cancer post-appendectomy in patients aged 50-54 years. Patients aged 55 years or over who have undergone appendectomy should be offered colonoscopy to exclude coexistent cecal pathology.
- **Option B:** Hemorrhoids don't cause or increase the risk for colon or rectal cancer. However, the two conditions may be mistaken for one another because they can produce similar symptoms, such as rectal bleeding, itching, and pain.
- **Option C:** Abdominal wall hernias may develop not because of cancer itself but due to its consequences, for example, increased intra-abdominal pressure secondary to obstructive colon cancer or a large pelvic tumor may cause a herniation.

**62. A client is prescribed sertraline (Zoloft). To guarantee a safe administration of the medication, a nurse would administer the dose:**

- A. As needed only for depressions
- B. Early in the morning
- C. Take on an empty stomach
- D. At bedtime

**Correct Answer: D. At bedtime**

Sertraline (Zoloft) is a type of antidepressant known as a selective serotonin reuptake inhibitor (SSRI) used to treat depression, panic attacks, obsessive-compulsive disorder (OCD), social phobia, and post-traumatic stress disorder (PTSD). It may be administered in the morning or evening, but giving it in the evening is more favored since drowsiness is one of the side effects.

**63. A 4-month-old is brought to the well-baby clinic for immunization. In addition to the DPT and polio vaccines, the baby should receive:**

- A. HibTITER
- B. Mumps vaccine
- C. Hepatitis B vaccine
- D. MMR

**Correct Answer: A. HibTITER**

The Haemophilus influenzae vaccine is given at 4 months with the polio vaccine. It protects the child from Hib disease, which can cause lifelong disability and be deadly; protects the child from the most common type of Hib disease, meningitis (an infection of the lining covering the brain and spinal cord); and keeps the child from missing school or child care, and the parents from missing work.

- **Option B:** Mumps vaccine is the best way to decrease the risk of getting mumps. It is usually given as part of a combination vaccine that protects against three diseases: measles, mumps, and rubella (MMR). This vaccine is only licensed for use in children who are 12 months through 12 years of age.
- **Option C:** Hepatitis B vaccine is given immediately after birth and for children up to 18 years. Hepatitis B vaccine is usually given as 2, 3, or 4 shots. Infants should get their first dose of hepatitis B vaccine at birth and will usually complete the series at 6 months of age (sometimes it will take longer than 6 months to complete the series). Children and adolescents younger than 19 years of age who have not yet gotten the vaccine should also be vaccinated.
- **Option D:** MMR stands for measles, mumps and rubella vaccine, which is given at 9 months old. The MMR vaccine is safe and effective. Most children don't have any side effects from the vaccine. The side effects that do occur are usually very mild, such as a fever or rash. The first dose at 12 through 15 months of age, and the second dose at 4 through 6 years of age.

**64. An 18-year-old male client admitted with heat stroke begins to show signs of disseminated intravascular coagulation (DIC). Which of the following laboratory findings is most consistent with DIC?**

- A. Low platelet count
- B. Elevated fibrinogen levels
- C. Low levels of fibrin degradation products
- D. Reduced prothrombin time

**Correct Answer: A. Low platelet count**

In DIC, platelets and clotting factors are consumed, resulting in microthrombi and excessive bleeding. As clots form, fibrinogen levels decrease and the prothrombin time increases.

- **Option B:** Severe, rapidly evolving DIC is diagnosed by demonstrating thrombocytopenia, an elevated partial thromboplastin time and prothrombin time, increased levels of plasma D-dimers, and a decreasing plasma fibrinogen level.
- **Option C:** Fibrin degradation products increase as fibrinolysis takes place.
- **Option D:** Both PT and aPTT seem prolonged in about 50% of DIC cases which is attributed to the consumption of coagulation factors but can also be prolonged in impaired synthesis of coagulation factors and in massive bleeding.

**65. In reducing the risk of endocarditis, good dental care is an important measure. To promote good dental care in clients with endocarditis in a teaching plan should include proper use of?**

- A. Dental floss
- B. Electric toothbrush
- C. Manual toothbrush
- D. Irrigation device

**Correct Answer: C. Manual toothbrush**

The use of an electric toothbrush, irrigation device or dental floss may cause bleeding of gums, allowing bacteria to enter and increasing the risk of endocarditis. Maintaining good oral hygiene and infection control can decrease the incidence of endocarditis in the moderate-risk group of patients and can eliminate the necessity of antibiotic prophylaxis of endocarditis.

- **Option A:** Dental floss may injure the gums and cause bleeding that may lead to infection. The gums become inflamed (red and swollen) and often bleed during tooth brushing, flossing, or certain dental procedures involving manipulation of the gums. When gums bleed, the bacteria can enter the bloodstream and can infect other parts of the body.
- **Option B:** Electronic toothbrushes cause too much friction to the gums and cause an infection that can increase the risk of endocarditis. In very rare cases, bacteria in the mouth may trigger endocarditis in people at higher risk. Here's what happens: Bacteria found in tooth plaque may multiply and cause gingivitis (gum disease).
- **Option D:** An irrigation device uses a stream of pressurized, pulsating water to clean between teeth and below the gum line. The water's pressure may cause injury to sensitive gums and lead to bleeding or an infection. To prevent endocarditis, patients with certain heart conditions receive a single dose of an antibiotic. The patient receives it about one hour prior to certain dental treatments.

**66. The volume of SC medication must be no more than:**

- A. 0.5 mL.
- B. 1.0 mL.
- C. 1.5 mL.
- D. 3.0 mL.

**Correct Answer: B. 1.0 mL**

The maximum amount of fluid that can be injected into the SC space is 1.0 mL. A subcutaneous injection is a method of administering medication. Subcutaneous means under the skin.

- **Option A:** In this type of injection, a short needle is used to inject a drug into the tissue layer between the skin and the muscle. Medication given this way is usually absorbed more slowly than if injected into a vein, sometimes over a period of 24 hours.
- **Option C:** This type of injection is used when other methods of administration might be less effective. For example, some medications can't be given by mouth because acid and enzymes in the stomach would destroy them.
- **Option D:** For small amounts of delicate drugs, a subcutaneous injection can be a useful, safe, and convenient method of getting medication into the body.

**67. 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.

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

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

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

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

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

**69. When the nurse completes the patient's admission nursing database, the patient reports that he does not have any allergies. Which acceptable medical abbreviation can the nurse use to document this finding?**

- A. NA
- B. NDA
- C. NKA
- D. NPO

**Correct Answer: C. NKA**

The nurse can use the medical abbreviation NKA, which means no known allergies, to document this finding. NKA is the abbreviation for “no known allergies,” meaning no known allergies of any sort. By contrast, NKDA stands exclusively for “no known drug allergies.”

- **Option A:** NA is an abbreviation for not applicable.
- **Option B:** NDA is an abbreviation for no known drug allergies.
- **Option D:** NPO is an abbreviation that means nothing by mouth.

***70. In a specialized pediatric endocrine clinic, Nurse Adams engages with Mr. Lopez regarding the care and well-being of his 7-year-old son, diagnosed with Turner syndrome, a genetic condition primarily affecting females, marked by a missing or partially missing X chromosome. The boy exhibits characteristic features including short stature and delayed pubertal development. Mr. Lopez shared his son’s burgeoning interest in ball games and his own supportive stance toward this. However, his spouse has reservations, stemming from the palpable size disparity between their son and his age-matched peers, fearing potential endangerment in a sports setting. This family scenario prompts Nurse Adams to chart out anticipatory guidance meticulously to ensure a holistic approach balancing the child’s physical health, safety, and psychosocial well-being. In orchestrating an anticipatory guidance blueprint for Mr. and Mrs. Lopez, Nurse Adams should enunciate which of the following considerations?***

- A. Engaging in physical activity could potentially exacerbate insulin sensitivity, propelling a state of hyperglycemia.
- B. The exertion entailed in active play could burden the child's joints, already laboring under the strain imposed by obesity.
- C. The endorsement of playful engagements can be instrumental in cultivating a robust self-esteem and social integration for the child.
- D. The innate risk for fractures is amplified given the fragility of bones, a sequelae often associated with growth hormone (GH) deficiency.
- E. Exploration of suitable sports or activities that align with the child's physical capabilities and ensure safety.
- F. Facilitation of a growth hormone therapy consultation to ascertain the potential of augmenting the child's stature and bone strength.

**Correct Answer: C. The endorsement of playful engagements can be instrumental in cultivating a robust self-esteem and social integration for the child.**

Encouragement towards engaging in play and sports can significantly bolster self-esteem, social

interaction, and overall psychosocial well-being in children, including those with Turner Syndrome. This option resonates with a holistic and inclusive approach towards pediatric care, embracing not only physical but also emotional and social dimensions.

- **Option A:** The proposition regarding insulin sensitivity and hyperglycemia does not stand as a prevalent concern with Turner Syndrome and physical activity, thus this option may not be pertinent.
- **Option B:** Obesity is not a characteristic feature of Turner Syndrome, and hence the assertion about over-tasked joints due to obesity does not align with the child's diagnosis.
- **Option D:** While Growth Hormone Deficiency can indeed contribute to fragile bones, the scenario describes a case of Turner Syndrome. Although Growth Hormone therapy might be utilized in Turner Syndrome to address short stature, the direct correlation between GH deficiency, Turner Syndrome, and fragile bones may not be entirely accurate or relevant in this context.
- **Option E:** This choice promotes a tailored approach, enabling the child to engage in physical activity within a safe and suitable spectrum. However, it does not address the parents' immediate concern.
- **Option F:** While Growth Hormone therapy may be part of the management plan for Turner Syndrome to address short stature, it may not directly address the immediate concern of the parents regarding sports participation.

**71. A client with a peptic ulcer is scheduled for a vagotomy. The client asks the nurse about the purpose of this procedure. The nurse tells the client that the procedure:**

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

**Correct Answer: D. Reduces the stimulus to acid secretions.**

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

- **Option A:** The indications for vagotomy are few with the advancements of medical therapy. Generally, acid-reducing operations are reserved for complicated ulcer disease in a stable patient who has failed maximum medical therapy. The type of surgery performed depends on the type of ulcer (duodenal versus gastric), the complication of PUD (bleeding, perforation, obstruction, intractability), and the location of the ulcer (types I to V gastric ulcers as described by the Modified Johnson Classification system).
- **Option B:** The relevant physiology revolves around the mechanisms relating to stomach acid secretion. Intraluminal gastric acid is released by the parietal cells, mainly located in the body of the stomach. Parietal cells are stimulated via 3 mechanisms: gastrin, acetylcholine, and histamine. All 3 mechanisms activate the hydrogen-potassium ATPase-releasing hydrogen ion into the stomach lumen.

- **Option C:** Vagotomy was once commonly performed to treat and prevent PUD; however, with the availability of excellent acid secretion control with H<sub>2</sub>-receptor antagonists, proton pump inhibitors, and anti-*Helicobacter pylori* medications, the need for surgical management of this condition has greatly decreased.

**72. To evaluate a patient for hypoxia, the physician is most likely to order which laboratory test?**

- A. Red blood cell count
- B. Sputum culture
- C. Total hemoglobin
- D. Arterial blood gas (ABG) analysis

**Correct Answer: D. Arterial blood gas (ABG) analysis**

All of these tests help evaluate a patient with respiratory problems. However, ABG analysis is the only test that evaluates gas exchange in the lungs, providing information about a patient's oxygenation status. An acceptable normal range of ABG values of ABG components are the following,<sup>[5][6]</sup> noting that the range of normal values may vary among laboratories, and in different age groups from neonates to geriatrics: pH (7.35-7.45) PaO<sub>2</sub> (75-100 mmHg) PaCO<sub>2</sub> (35-45 mmHg).

- **Option A:** A red blood cell count is a blood test that the doctor uses to find out how many red blood cells (RBCs) a person has. It's also known as an erythrocyte count. The test is important because RBCs contain hemoglobin, which carries oxygen to the body's tissues. The number of RBCs one has can affect how much oxygen the tissues receive. The tissues need oxygen to function.
- **Option B:** A sputum culture is a test that checks for bacteria or another type of organism that may be causing an infection in the lungs or the airways leading to the lungs. Sputum, also known as phlegm, is a thick type of mucus made in the lungs.
- **Option C:** The normal range for hemoglobin is: For men, 13.5 to 17.5 grams per deciliter. For women, 12.0 to 15.5 grams per deciliter.

**73. 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.

**74. Nurse Mary is caring for a client with bulimia. Strict management of dietary intake is necessary. Which intervention is also important?**

- A. Fill out the client's menu and make sure she eats at least half of what is on her tray.
- B. Let the client eat her meals in private. Then engage her in social activities for at least 2 hours after each meal.
- C. Let the client choose her own food. If she eats everything she orders, then stay with her for 1 hour after each meal.
- D. Let the client eat food brought in by the family if she chooses, but she should keep a strict calorie count.

**Correct Answer: C. Let the client choose her own food. If she eats everything she orders, then stay with her for 1 hour after each meal**

Allowing the client to select her own food from the menu will help her feel some sense of control. Assisting patients to remain strong and adhere to treatment requires nurses to develop a relationship that is caring, empathetic and trusting, and in line with the person-centered approach to care. Patients affected by eating disorders require individualized support to better understand their condition, rediscover their identity, learn to accept themselves, enhance a positive body image and sense of self-worth, and achieve a balance in their lives so that they can move towards better health and wellbeing.

- **Option A:** She must then eat 100% of what she selected. During the early stages of treatment when patients are still new to recovery, they look to nurses to provide them with a highly structured environment, which sometimes involves nurses making food and behavioral decisions on their behalf. While this might not be an ongoing issue for primary care nurses, they may still be required to offer decisive advice on these areas. Here, it is imperative that nurses offer such advice with a clear message that patients have the power to make these decisions themselves.
- **Option B:** Remaining with the client for at least 1 hour after eating will prevent purging. As treatment progresses, patients eventually grow to appreciate nurses who act as role models and educate them on how to normalize their diet and involvement in social activities. Towards the end of treatment, nurses become more of a support system, encouraging the patient to move forward autonomously, while providing them with guidance on where to seek help if it is needed.
- **Option D:** Bulimic clients should only be allowed to eat food provided by the dietary department. From awareness of the eating disorder to recovery maintenance, the role of the primary care nurse evolves, but what doesn't change is the positive influence nurses can have on those with an eating disorder. With the skills of listening, empathy, adaptability, and communication, primary care nurses

can assist in identifying at-risk individuals and optimizing the delivery of a multidisciplinary and holistic approach to care.

**75. A nurse is providing teaching regarding the prevention of Lyme disease to a group of teenagers going on a hike in a wooded area. Which of the following points should the nurse include in the session? Select all that apply.**

- A. Tuck pant legs into socks.
- B. Wear closed shoes when hiking.
- C. Apply insect repellent containing DEET.
- D. Cover the ground with a blanket when sitting.
- E. Remove attached ticks by grasping with thumb and forefinger.
- F. Wear long sleeves and long pants in dark colors when in high-risk areas.

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

Lyme disease or Lyme borreliosis is the most commonly transmitted tick-borne infection in the United States and among the most frequently diagnosed tick-borne infections worldwide.

- **Options A, B, and F:** Measures to prevent tick bites focus on covering the body as completely as possible. Long sleeves and pants tucked into the socks along with closed shoes will offer some protection. Light-colored clothing should be worn so that ticks would be easily visible.
- **Option C:** Spraying insect repellent containing DEET on the skin and clothing can also prevent ticks. Permethrin can be used to treat boots, clothing, and camping gear and remain protective through several washings.
- **Option D:** Hikers should not sit directly on the ground and should cover the ground with an item such as a blanket. Ticks live in grassy, brushy, or wooded areas, or even on animals. Spending time outside walking the dog, camping, gardening, or hunting could bring in close contact with ticks.
- **Option E:** Ticks should be removed with tweezers. Use clean, fine-tipped tweezers to grasp the tick as close to the skin's surface as possible. Pull upward with steady, even pressure. Don't twist or jerk the tick; this can cause the mouth parts to break off and remain in the skin. If this happens, remove the mouth parts with tweezers.

**76. When preparing to administer the vitamin K injection to a neonate, the nurse would select which of the following sites as appropriate for the injection?**

- A. Deltoid muscle
- B. Anterior femoris muscle
- C. Vastus lateralis muscle
- D. Gluteus maximus muscle

**Correct Answer: C. Vastus lateralis muscle**

The middle third of the vastus lateralis is the preferred injection site for vitamin K administration because it is free of blood vessels and nerves and is large enough to absorb the medication.

- **Option A:** The deltoid muscle of a newborn is not large enough for a newborn IM injection. Injections into this muscle in a small child might cause damage to the radial nerve.
- **Option B:** The anterior femoris muscle is the next safest muscle to use in a newborn but is not the safest. The rectus femoris (the middle third of the rectus femoris) is no longer a recommended site because it may cause discomfort and pain. A previous study reported that one disadvantage of this site is that nerves and numerous blood vessels run very close to it
- **Option D:** Because of the proximity of the sciatic nerve, the gluteus maximus muscle should not be until the child has been walking 2 years.

**77. A male patient who had surgery 2 days ago for head and neck cancer is about to make his first attempt to ambulate outside his room. The nurse notes that he is steady on his feet and that his vision was unaffected by the surgery. Which of the following nursing interventions would be appropriate?**

- A. Encourage the patient to walk in the hall alone.
- B. Discourage the patient from walking in the hall for a few more days.
- C. Accompany the patient for his walk.
- D. Consult a physical therapist before allowing the patient to ambulate.

**Correct Answer: C. Accompany the patient for his walk.**

Accompanying him will offer moral support, enabling him to face the rest of the world. Ambulation stimulates circulation which can help stop the development of stroke-causing blood clots. Walking improves blood flow which aids in quicker wound healing. The gastrointestinal, genitourinary, pulmonary and urinary tract functions are all improved by walking.

- **Option A:** A hospitalized surgical patient leaving his room for the first time fears rejection and others staring at him, so he should not walk alone. Refusal to ambulate correlated with those that eventually developed a complication. Those that eventually developed a postoperative complication were more likely to be in the higher refusal group. Thorn et al. suggested that patient compliance may be a marker of underlying complications. If patients are not engaged in their recovery, there may be a physiologic reason for refusal (i.e., a developing abscess).
- **Option B:** Patients should begin ambulation as soon as possible after surgery to decrease complications and to regain strength and confidence. The multiple physiological benefits of patient ambulation have been documented including the prevention of muscular and cardiovascular deconditioning, reducing the risk of pulmonary and thromboembolic events, and stimulating gastrointestinal recovery through prokinetic effects
- **Option D:** Waiting to consult a physical therapist is unnecessary. Daily ambulation requires collaboration between hospital resources, patient education and available personnel. Second, aggressive non-opioid pain medication regimens are critical to maintain a low mLOS. The increasing use of narcotics especially with a PCA prolonged the LOS. Third, refusal of ambulation often predicted the development of a postoperative complication.

**78. A nurse caring for a client in one room is told by another nurse that a second client has developed severe pulmonary edema. On entering the 2nd client's room, the nurse would expect the client to be:**

- A. Slightly anxious
- B. Mildly anxious
- C. Moderately anxious
- D. Extremely anxious

**Correct Answer: D. Extremely anxious**

Pulmonary edema causes the client to be extremely agitated and anxious. The client may complain of a sense of drowning, suffocation, or smothering. People with severe anxiety typically score higher on scales of distress and lower on functioning. Symptoms of severe anxiety are frequent and persistent and may include increased heart rate, feelings of panic, and social withdrawal.

- **Option A:** Progressively worsening dyspnea, tachypnea, and rales (or crackles) on examination with associated hypoxia are the clinical features common to both cardiogenic and noncardiogenic pulmonary edema. Cough with pink frothy sputum noted due to hypoxemia from alveolar flooding and auscultation of an S3 gallop could suggest cardiogenic edema. Similarly, the presence of murmurs, elevated jugular venous pressure, peripheral edema may point towards a cardiac etiology.
- **Option B:** Although often described as sub-clinical or clinically non-significant, mild anxiety can impact emotional, social, and professional functioning. Mild anxiety symptoms may present as social anxiety or shyness and can be experienced in early childhood through to adulthood. If left unaddressed, mild anxiety can lead to maladaptive coping strategies or more severe mental conditions.
- **Option C:** People with moderate levels of anxiety have more frequent or persistent symptoms than those with mild anxiety, but still have better daily functioning than someone with severe anxiety or panic disorder. For example, people with moderate anxiety may report experiencing symptoms such as feeling on edge, being unable to control their worrying, or being unable to relax several days or the majority of days in a week, but not every day.

**79. A client with schizophrenia has been taking chlorpromazine (Thorazine) 200 mg four times a day. Which finding should be reported to the doctor immediately?**

- A. The client complains of thirst
- B. The client has gained 4 pounds in the past 2 months
- C. The client complains of a sore throat
- D. The client naps throughout the day

**Correct Answer: C. The client complains of a sore throat**

- Option C: The nurse should carefully monitor the client taking Thorazine for signs of infection such as sore throat that can quickly become overwhelming.
- Options A, B, and D: Dry mouth, weight gain, and tiredness are expected side effects of the medication.

**80. Five days after undergoing surgery, a client develops a small bowel obstruction. A Miller-Abbott tube is inserted for bowel decompression. Which**

***nursing diagnosis takes priority?***

- A. Imbalanced nutrition: Less than body requirements
- B. Acute pain
- C. Deficient fluid volume
- D. Excess fluid volume

**Correct Answer: C. Deficient fluid volume**

Fluid shifts to the site of the bowel obstruction, causing a fluid deficit in the intravascular spaces. Monitor I&O.; Note number, character, and amount of stools; estimate insensible fluid losses (diaphoresis). Measure urine specific gravity; observe for oliguria. This provides information about overall fluid balance, renal function, and bowel disease control, as well as guidelines for fluid replacement.

- **Option A:** If the obstruction isn't resolved immediately, the client may experience an imbalanced nutritional status (less than body requirements); however, deficient fluid volume takes priority. Avoid or limit foods that might cause or exacerbate abdominal cramping, flatulence (milk products, foods high in fiber or fat, alcohol, caffeinated beverages, chocolate, peppermint, tomatoes, orange juice). Individual tolerance varies, depending on the stage of disease and area of bowel affected.
- **Option B:** The client may also experience pain, but that nursing diagnosis is also of lower priority than deficient fluid volume. Encourage the patient to assume a position of comfort (knees flexed). This reduces abdominal tension and promotes a sense of control.
- **Option D:** Note possible conditions or processes that may lead to deficits such as fluid loss, limited intake, fluid shifts, environmental factors to assess causative and precipitating factors. Fluid loss may be an effect of diarrhea or vomiting).

***81. A laboring client complains of low back pain. The nurse replies that this pain occurs most when the position of the fetus is:***

- A. Breech
- B. Transverse
- C. Occiput anterior
- D. Occiput posterior

**Correct Answer: D. Occiput posterior**

A persistent occiput posterior position causes intense back pain because of fetal compression of the sacral nerves. Occiput anterior is the most common fetal position and does not cause back pain.

- **Option A:** Breech presentation is defined as a fetus in a longitudinal lie with the buttocks or feet closest to the cervix. This occurs in 3-4% of all deliveries. The percentage of breech deliveries decreases with advancing gestational age from 22-25% of births prior to 28 weeks' gestation to 7-15% of births at 32 weeks' gestation to 3-4% of births at term.
- **Option B:** The transverse lie position is where the baby's head is on one side of the mother's body and the feet on the other, rather than having the head close to the cervix or close to the heart. The baby can also be slightly at an angle, but still more sideways, than up or down.

- **Option C:** The left occiput anterior (LOA) position is the most common in labor. In this position, the baby's head is slightly off-center in the pelvis with the back of the head toward the mother's left thigh.

**82. The nurse manager is presenting education to her staff to promote consistency in the interventions used with lactating mothers. She emphasizes that the optimum time to initiate lactation is:**

- A. as soon as possible after the infant's birth.
- B. after the mother has rested for 4-6 hours.
- C. during the infant's second period of reactivity.
- D. after the infant has taken sterile water without complications.

**Correct Answer: A. as soon as possible after the infant's birth.**

- **Option A:** Early and uninterrupted skin-to-skin contact between mothers and infants should be facilitated and encouraged as soon as possible after birth. All mothers should be supported to initiate breastfeeding as soon as possible after birth, within the first hour after delivery.

**83. A client with acquired immunodeficiency syndrome is prescribed with zidovudine (Azidothymidine). Which of the following laboratory results should the nurse monitor while on this medication?**

- A. Throat swab gram stain.
- B. Complete blood count
- C. Random blood sugar
- D. Blood uric acid

**Correct Answer: B. Complete blood count**

Zidovudine is an antiretroviral medication used in the prevention and treatment of HIV/AIDS. It may decrease the number of a certain type of white blood cell in the blood and cause anemia and muscle disorders.

- **Options A, C, & D:** These are not related to the medication.

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

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

**Correct Answer: D. The patient's cognitive abilities**

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

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

**85. A patient's urine is cloudy, is amber, and has an unpleasant odor. What problem may this information indicate that requires the nurse to make a focused assessment?**

- A. Urinary retention
- B. Urinary tract infection
- C. Ketone bodies in the urine
- D. High urinary calcium level

**Correct Answer: B. Urinary tract infection**

The urine appears concentrated (amber) and cloudy because of the presence of bacteria, white blood cells, and red blood cells. The unpleasant odor is caused by pus in the urine (pyuria). Uncomplicated urinary tract infection (UTI) is a bacterial infection of the bladder and associated structures. These are patients with no structural abnormality and no comorbidities, such as diabetes, immunocompromised, or pregnancy. Uncomplicated UTI is also known as cystitis or lower UTI.

- **Option A:** These clinical manifestations do not reflect urinary retention. Urinary retention is evidenced by supra pubic distention and lack of voiding or small, frequent voiding (overflow incontinence). The mechanisms of acute urinary retention can include outflow obstruction, which can be mechanical such as from physical narrowing of the urethral channel. The other dynamic is from an increase in the muscle tone within and around the urethra as in benign prostatic hypertrophy and hyperplasia.
- **Option C:** These clinical manifestations do not reflect ketone bodies in the urine. A reagent strip dipped in urine will measure the presence of Ketone bodies. If the cells don't get enough glucose, the body burns fat for energy instead. This produces a substance called ketones, which can show up in the blood and urine.
- **Option D:** These clinical manifestations do not reflect excessive calcium in the urine. Urine calcium levels are measured by assessing a 24-hour urine specimen. If urine calcium levels are too high or

too low, it may mean that the client has a medical condition, such as kidney disease or kidney stones. Kidney stones are hard, pebble-like substances that can form in one or both kidneys when calcium or other minerals build up in the urine. Most kidney stones are formed from calcium.