

Kevin's Review - 35 NCLEX Practice Questions

1. What position should the nurse place the head of the bed in to obtain the most accurate reading of jugular vein distention?

- A. High-Fowler's
- B. Raised 10 degrees
- C. Raised 30 degrees
- D. Supine position

Correct Answer: C. Raised 30 degrees

Jugular venous pressure is measured with a centimeter ruler to obtain the vertical distance between the sternal angle and the point of highest pulsation with the head of the bed inclined between 15 and 30 degrees.

- **Option A:** In high-Fowler's position, the veins would be barely discernible above the clavicle.
- **Option B:** Inclined pressure can't be seen when the head of the bed is raised 10 degrees because the point that marks the pressure level is above the jaw (therefore, not visible).
- **Option D:** Inclined pressure cannot be seen when the client is in a supine position because the point that marks the pressure level is above the jaw.

2. Which of the following blood components is decreased in anemia?

- A. Erythrocytes
- B. Granulocytes
- C. Leukocytes
- D. Platelets

Correct Answer: A. Erythrocytes

Anemia is defined as a decreased number of erythrocytes (red blood cells). RBC are produced in the bone marrow and released into circulation. Approximately 1% of RBC are removed from circulation per day. Imbalance in production to removal or destruction of RBC leads to anemia.

- **Option B:** Granulocytopenia is a decreased number of granulocytes (a type of white blood cells). Granulocytopenia is a marked decrease in the number of granulocytes. Granulocytes are a type of white blood cell filled with microscopic granules that are little sacs containing enzymes that digest microorganisms. Granulocytes are part of the innate, somewhat non specific infection-fighting immune system.
- **Option C:** Leukopenia is a decreased number of leukocytes (white blood cells). Leukopenia is a condition where a person has a reduced number of white blood cells. This increases their risk of infections. A person's blood is made up of many different types of blood cells. White blood cells, also known as leukocytes, help to fight off infection. Leukocytes are a vital part of the immune system.
- **Option D:** Thrombocytopenia is a decreased number of platelets. Thrombocytopenia is a condition in which there is a low blood platelet count. Platelets (thrombocytes) are colorless blood cells that help blood clot. Platelets stop bleeding by clumping and forming plugs in blood vessel injuries.

3. A client went to a health care facility to ask for instructions regarding how to administer ophthalmic medications. The nurse correctly instructs the client to?

- A. Gently allow the tip of the optic bottle to touch with the conjunctival sac.
- B. Apply gentle pressure with a clean tissue to the nasolacrimal duct for 30 seconds after the administration.
- C. Blink quickly to stimulate tearing after the administration.
- D. Blow the nose to stimulate faster absorption.

Correct Answer: B. Apply gentle pressure with a clean tissue to the nasolacrimal duct for 30 seconds after the administration.

Occluding the nasolacrimal duct with a tissue over the inner canthus for 30-60 seconds will minimize the systemic absorption of the medication.

- **Option A:** Allowing the tip to be touched with the conjunctival sac will contaminate the medication.
- **Option C:** Blinking quickly will prevent the maximum absorption of the medication.
- **Option D:** Blowing the nose is not related to the administration of the optic drops.

4. All of the following nursing interventions are correct when using the Z-track method of drug injection except:

- A. Prepare the injection site with alcohol.
- B. Use a needle that's at least 1" long.
- C. Aspirate for blood before injection.
- D. Rub the site vigorously after the injection to promote absorption.

Correct Answer: D. Rub the site vigorously after the injection to promote absorption

The Z-track method is an I.M. injection technique in which the patient's skin is pulled in such a way that the needle track is sealed off after the injection. This procedure seals medication deep into the muscle, thereby minimizing skin staining and irritation. Rubbing the injection site is contraindicated because it may cause the medication to extravasate into the skin.

- **Option A:** Clean the injection site with an alcohol pad to minimize the possibility of infection. Allow the area to air dry for a few minutes. The Z-track method is not often recommended but can be particularly useful with medication that must be absorbed by muscles to work. It also helps to prevent the medication from seeping into the subcutaneous tissue and ensures a full dosage.
- **Option B:** In an adult, the most commonly used needles are one inch or one and a half inches long, and 22 to 25 gauge thick. Smaller needles are typically used when injecting a child. Some medications are dark-colored and can cause staining of the skin. If this is a side effect of the medication you will be taking, the doctor may recommend using this technique to prevent injection site discoloration or lesions.
- **Option C:** Use one hand to pull downward on your skin and fatty tissue. Hold it firmly about an inch away (2.54 cm) from the muscle. On the other hand, hold the needle at a 90-degree angle and insert it quickly and deeply enough to penetrate your muscle. If there is no blood in the syringe, push on the plunger to inject the medication slowly into the muscle.

5. The newly hired nurse at Nurseslabs Medical Center is assessing a client who abuses barbiturates and benzodiazepine. The nurse would observe for evidence of which withdrawal symptoms?

- A. Respiratory depression, stupor, and bradycardia
- B. Anxiety, tremors, and tachycardia
- C. Muscle aches, cramps, and lacrimation
- D. Paranoia, depression, and agitation

Correct Answer: B. Anxiety, tremors, and tachycardia

Barbiturates and benzodiazepine are CNS depressants; therefore, withdrawal symptoms are related to CNS stimulation caused by the rebounding of neurotransmitters (norepinephrine). Symptoms include increased anxiety, tremors, and vital sign changes (such as tachycardia and hypertension). Chronic abusers can develop severe withdrawal symptoms within 8 to 15 hours of cessation. Symptoms include restlessness, tremors, hyperthermia, sweating, insomnia, anxiety, seizures, circulatory failure, and potentially death.

- **Option A:** Respiratory depression, stupor, and bradycardia are typically associated with an overdose—not withdrawal—of barbiturates or benzodiazepine. Symptoms of barbiturate toxicity vary from case to case, but commonly include difficulty thinking, decreased level of consciousness, bradycardia or rapid and weak pulse, poor coordination, vertigo, nausea, muscle weakness, thirst, oliguria, decreased temperature, and dilated or contracted pupils. Fatal cases are marked by coma, hypotension (low blood pressure), and respiratory depression (decreased efforts to breathe) evidenced by cyanosis and hypotension
- **Option C:** Muscle aches, cramps, and lacrimation are most commonly associated with withdrawal from opiates. According to Diagnostic and Statistical Manual of Mental Disorders (DSM–5) criteria, signs and symptoms of opioid withdrawal include lacrimation or rhinorrhea, piloerection “goose flesh,” myalgia, diarrhea, nausea/vomiting, pupillary dilation and photophobia, insomnia, autonomic hyperactivity (tachypnea, hyperreflexia, tachycardia, sweating, hypertension, hyperthermia), and yawning.
- **Option D:** Paranoia, depression, and agitation are usually associated with withdrawal from CNS stimulants, such as amphetamines or cocaine. Central nervous system (CNS) stimulants like cocaine and amphetamine can also produce withdrawal symptoms. Like opioids, the withdrawal symptoms are mild and not life-threatening. Often the individual will develop marked depression, excessive sleep, hunger, dysphoria, and severe psychomotor retardation but all vital functions are well preserved. Recovery is usually slow, and depression can last for several weeks.

6. In the management of bulimic patients, the following nursing interventions will promote a therapeutic relationship except:

- A. Establish an atmosphere of trust.
- B. Discuss their eating behavior.
- C. Help patients identify feelings associated with binge-purge behavior.
- D. Teach the patient about bulimia nervosa.

Correct Answer: B. Discuss their eating behavior.

The client is often ashamed of her eating behavior. Discussion should focus on feelings. Promote self-concept without moral judgment. Patient sees herself as weak-willed, even though part of a person may feel a sense of power and control (dieting, weight loss). Let the patient know that it is acceptable to be different from family, particularly mother. Developing a sense of identity separate from family and maintaining a sense of control in other ways besides dieting and weight loss is a desirable goal of therapy and program.

- **Option A:** Establish a therapeutic nurse-patient relationship. Within a helping relationship, the patient can begin to trust and try out new thinking and behaviors. State rules clearly regarding weighing schedule, remaining in sight during medication and eating times, and consequences of not following the rules. Without undue comment, be consistent in carrying out rules. Consistency is important in establishing trust. As part of the behavior modification program, the patient knows risks involved in not following established rules (decrease in privileges). Failure to follow rules is viewed as a patient's choice and accepted by staff in a matter-of-fact manner so as not to provide reinforcement for undesirable behavior.
- **Option C:** Respond (confront) with reality when a patient makes unrealistic statements. The patient may be denying the psychological aspects of their own situation and are often expressing a sense of inadequacy and depression. Encourage the patient to express anger and acknowledge when it is verbalized. Important to know that anger is part of self and as such is acceptable. Expressing anger may need to be taught to the patient because anger is generally considered unacceptable in the family, and therefore the patient does not express it.
- **Option D:** Determine the level of knowledge and readiness to learn. Learning is easier when it begins where the learner is. Provide written information for the patient and SO(s); these are helpful as a reminder of and reinforcement for learning. Discuss the consequences of behavior. Sudden death can occur because of electrolyte imbalances; suppression of the immune system and liver damage may result from protein deficiency, or gastric rupture may follow binge-eating and vomiting.

7. Rho (D) immune globulin (RhoGAM) is prescribed for a woman following delivery of a newborn infant and the nurse provides information to the woman about the purpose of the medication. The nurse determines that the woman understands the purpose of the medication if the woman states that it will protect her next baby from which of the following?

- A. Being affected by Rh incompatibility.
- B. Having Rh-positive blood.
- C. Developing a rubella infection.
- D. Developing physiological jaundice.

Correct Answer: A. Being affected by Rh incompatibility.

Rh incompatibility can occur when an Rh-negative mom becomes sensitized to the Rh antigen. Sensitization may develop when an Rh-negative woman becomes pregnant with a fetus who is Rh-positive. Administration of Rho(D) immune globulin prevents the woman from developing antibodies against Rh-positive blood by providing passive antibody protection against the Rh antigen.

- **Option B:** During pregnancy and at delivery, some of the baby's Rh-positive blood can enter the maternal circulation, causing the woman's immune system to form antibodies against Rh-positive blood.
- **Option C:** Rubella can be prevented with MMR vaccine. This protects against three diseases: measles, mumps, and rubella. CDC recommends children get two doses of MMR vaccine, starting

with the first dose at 12 through 15 months of age, and the second dose at 4 through 6 years of age. Teens and adults also should be up to date on their MMR vaccination.

- **Option D:** The best preventive of infant jaundice is adequate feeding. Breast-fed infants should have eight to 12 feedings a day for the first several days of life. Formula-fed infants usually should have 1 to 2 ounces (about 30 to 60 milliliters) of formula every two to three hours for the first week.

8. Which of the following treatments is a suitable surgical intervention for a client with unstable angina?

- A. Cardiac catheterization
- B. Echocardiogram
- C. Nitroglycerin
- D. Percutaneous transluminal coronary angioplasty (PTCA)

Correct Answer: D. Percutaneous transluminal coronary angioplasty (PTCA)

PTCA can alleviate the blockage and restore blood flow and oxygenation.

- **Option A:** Cardiac catheterization is a diagnostic tool – not a treatment. It is a procedure used to diagnose and treat certain cardiovascular conditions.
- **Option B:** An echocardiogram is a non-invasive diagnostic test. It is a graphic outline of the heart's movement.
- **Option C:** Nitroglycerin is an oral sublingual medication. It is a vasodilatory drug used primarily to provide relief from anginal chest pain.

9. A nurse would question an order to irrigate the ear canal in which of the following circumstances?

- A. Ear pain
- B. Hearing loss
- C. Otitis externa
- D. Perforated tympanic membrane

Correct Answer: D. Perforated tympanic membrane.

Irrigation of the ear canal is contraindicated with perforation of the tympanic membrane because the solution entering the inner ear may cause dizziness, nausea, vomiting, and infection. Tympanic membrane perforation is when there is a tear in the tympanic membrane leading to a connection between the external auditory canal and the middle ear. This can be caused by infection, trauma, or rapid changes in pressure leading to sudden otalgia, otorrhea, tinnitus, and vertigo.

- **Option A:** Otalgia is ear pain and breaks down into two categories of primary otalgia and secondary otalgia. Primary otalgia is pain coming directly from the ear where secondary otalgia is referred to pain from somewhere outside the ear. Infections cause most primary otalgia and are treated with antibiotics, while mechanical ones receive treatment with decongestants, nasal steroids, or myringotomy.
- **Option B:** Management of conductive hearing loss focuses on the treatment of the underlying disease. Conservative methods such as removal of the foreign body, micro-suction of the cerumen,

or discharge in the ear canal are necessary if the ear canal is blocked. Conservative treatment of sensorineural hearing involves the use of assistive listening devices and amplification. Hearing aids are devices designed to improve audition up to 40 to 60 dB with good results.

- **Option C:** The mainstay of uncomplicated otitis externa treatment usually involves topical antibiotic drops and pain control. Pain can be intense and severe; therefore, it should be managed appropriately. Acetaminophen or nonsteroidal anti-inflammatory drugs have been proven to be adequate for mild to moderate pain.

10. For a female client newly diagnosed with radiation-induced thrombocytopenia, the nurse should include which intervention in the plan of care?

- A. Inspecting the skin for petechiae once every shift
- B. Placing the client in strict isolation
- C. Providing for frequent rest periods
- D. Administering aspirin if the temperature exceeds 102° F (38.8°C)

Correct Answer: A. Inspecting the skin for petechiae once every shift

- **Option A:** Because thrombocytopenia impairs blood clotting, the nurse should inspect the client regularly for signs of bleeding, such as petechiae, purpura, epistaxis, and bleeding gums.
- **Option B:** Strict isolation is indicated only for clients who have highly contagious or virulent infections that are spread by air or physical contact.
- **Option C:** Frequent rest periods are indicated for clients with anemia, not thrombocytopenia.
- **Option D:** The nurse should avoid administering aspirin because it may increase the risk of bleeding.

11. A client with chronic pain reports to you, the charge nurse, that the nurse has not been responding to requests for pain medication. What is your initial action?

- A. Check the MARs and nurses' notes for the past several days.
- B. Ask the nurse educator to give an in-service about pain management.
- C. Perform a complete pain assessment and history on the client.
- D. Have a conference with the nurses responsible for the care of this client.

Correct Answer: D. Have a conference with the nurses responsible for the care of this client.

As a charge nurse, you must assess the performance and attitude of the staff in relation to this client. Handling conflicts in an efficient and effective manner results in improved quality, patient safety, and staff morale, and limits work stress for the caregiver. The nurse manager must approach this challenge thoughtfully because it involves working relationships that are critical for the unit to function effectively.

- **Option A:** After gathering data from the nurses, additional information from the records and the client can be obtained as necessary. Effective resolution and management of a conflict require clear communication and a level of understanding of the perceived areas of disagreement. Conflict resolution is an essential element of a healthy work environment because a breakdown in

communication and collaboration can lead to increased patient errors.

- **Option B:** The educator may be of assistance if knowledge deficit or need for performance improvement is the problem. The American Association of Critical-Care Nurses standards for healthy work environments recognizes the importance of proficiency in communication skills and The Joint Commission's revised leadership standards place a mandate on healthcare leadership to manage disruptive behavior that can impact patient safety.
- **Option C:** Nursing leaders need to assess how nurses deal with conflict in the healthcare environment in an effort to develop and implement conflict management training and processes that can assist them in dealing with difficult situations.

12. Francis who is addicted to cocaine withdraws from the drug. Nurse Ron should expect to observe:

- A. Hyperactivity
- B. Depression
- C. Suspicion
- D. Delirium

Correct Answer: B. Depression

There is no set of symptoms associated with cocaine withdrawal, only the depression that follows the high caused by the drug. When cocaine use is stopped or when a binge ends, a crash follows almost right away. The cocaine user has a strong craving for more cocaine during a crash. Other symptoms include fatigue, lack of pleasure, anxiety, irritability, sleepiness, and sometimes agitation or extreme suspicion or paranoia. Cocaine withdrawal often has no visible physical symptoms, such as the vomiting and shaking that accompany withdrawal from heroin or alcohol.

- **Option A:** The craving and depression can last for months after stopping long-term heavy use. Withdrawal symptoms may also be associated with suicidal thoughts in some people. During withdrawal, there can be powerful, intense cravings for cocaine. The "high" associated with ongoing use may become less and less pleasant. It can produce fear and extreme suspicion rather than euphoria. Even so, the cravings may remain powerful.
- **Option C:** Feeling depressed, anxious, or irritable is a normal part of cocaine withdrawal. Although these feelings are often intense during cocaine withdrawal, they tend to pass once the withdrawal stage is over. Feeling very tired is a normal part of cocaine withdrawal. In addition to the exhaustion that you naturally feel after the stimulating effects of cocaine, you may have tired yourself out through lack of sleep and energetic activity while you were high on cocaine.
- **Option D:** One of the frustrations that people can have during cocaine withdrawal is difficulty sleeping. Despite the tiredness, cocaine withdrawal often causes sleep problems, such as vivid and unpleasant dreams, insomnia (having trouble getting to sleep or staying asleep) or hypersomnia (too much sleep). Increased appetite is a recognized aspect of cocaine withdrawal, and may be exacerbated by not eating properly while you were high on cocaine. However, it is important to support your recovery through eating a healthy diet, and small, manageable amounts, rather than bingeing.

13. The newly hired nurse is in his first week on the job in the ED. He used to be a traveling nurse for 5 years. Which area in his present job is the most appropriate assignment for him?

- A. Fast-track clinic
- B. Pediatric medicine team
- C. Trauma team
- D. Triage

Correct Answer: A. Fast-track clinic

The ambulatory or fast-track clinic deals with relatively stable clients. The decision of whether or not to delegate or assign is based upon the RN's judgment concerning the condition of the patient, the competence of all members of the nursing team and the degree of supervision that will be required of the RN if a task is delegated.

- **Option B:** Few places are more hectic than a pediatric ward. Clearly, delegating important nursing tasks is the only plausible way for short-staffed emergency rooms to meet the challenges of providing quality patient care. All decisions related to delegation and assignment are based on the fundamental principles of protection of the health, safety, and welfare of the public.
- **Option C:** This area should be filled with nurses who are experienced with hospital routines and policies and have the ability to locate equipment immediately. There is both individual accountability and organizational accountability for delegation. Organizational accountability for delegation relates to providing sufficient resources, including sufficient staffing with an appropriate staff mix.
- **Option D:** The RN delegates only those tasks for which he or she believes the other health care worker has the knowledge and skill to perform, taking into consideration training, cultural competence, experience and facility/agency policies and procedures.

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

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

Correct Answer: D. Sarcoma

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

15. A patient is in her last trimester of pregnancy. Nurse Vickie should instruct her to notify her primary health care provider immediately if she notices:

- A. Blurred vision

- B. Hemorrhoids
- C. Increased vaginal mucus
- D. Shortness of breath on exertion

Correct Answer: A. Blurred vision

Blurred vision or other visual disturbance, excessive weight gain, edema, and increased blood pressure may signal severe preeclampsia. This condition may lead to eclampsia, which has potentially serious consequences for both the patient and fetus.

- **Option B:** Although hemorrhoids may be a problem during pregnancy, they do not require immediate attention. Hemorrhoids occur when the external hemorrhoidal veins become varicose (enlarged and swollen), which causes itching, burning, painful swellings at the anus, dyschezia (painful bowel movements), and bleeding.
- **Option C:** Almost all women have more vaginal discharge in pregnancy. This is normal, and helps prevent any infections travelling up from the vagina to the womb. Towards the end of pregnancy, the amount of discharge increases further. In the last week or so of pregnancy, it may contain streaks of sticky, jelly-like pink mucus.
- **Option D:** Dyspnea can begin before any upward displacement of the diaphragm, suggesting that factors other than mechanical pressure may be involved. It probably results from the subjective awareness of hyperventilation that is universally present in pregnancy. Hyperventilation in pregnancy is predominantly due to an increase in the depth of the tidal volume, with little change in the respiratory rate

16. When a female client with an indwelling urinary (Foley) catheter insists on walking to the hospital lobby to visit with family members, nurse Rose teaches how to do this without compromising the catheter. Which client action indicates an accurate understanding of this information?

- A. The client sets the drainage bag on the floor while sitting down.
- B. The client keeps the drainage bag below the bladder at all times.
- C. The client clamps the catheter drainage tubing while visiting with the family.
- D. The client loops the drainage tubing below its point of entry into the drainage bag.

Correct Answer: B. The client keeps the drainage bag below the bladder at all times.

To maintain effective drainage, the client should keep the drainage bag below the bladder; this allows the urine to flow by gravity from the bladder to the drainage bag. Make sure that the patient maintains a generous fluid intake. This helps prevent infection and irrigates the catheter naturally by increasing urinary output.

- **Option A:** The client shouldn't lay the drainage bag on the floor because it could become grossly contaminated. Teach the patient the importance of personal hygiene, especially the importance of careful cleaning after having bowel movements and thorough washing of hands frequently.
- **Option C:** The client shouldn't clamp the catheter drainage tubing because this impedes the flow of urine. Plan to change indwelling catheters only as necessary. The usual length of time between catheter changes varies and can be anywhere from 5 days to 2 weeks. The less often a catheter is changed, the less the likelihood that an infection will develop.

- **Option D:** To promote drainage, the client may loop the drainage tubing above — not below — its point of entry into the drainage bag. Report any signs of infection promptly. These include a burning sensation and irritation at the meatus, cloudy urine, a strong odor to the urine, an elevated temperature, and chills.

17. You're a pediatric nurse working with a family who has recently adopted a 2-year-old child named Mia. This is the family's first time adopting, and they are particularly concerned about ensuring they provide the right environment for her developmental needs. Mia is an active toddler who loves exploring but has had minor falls. During your nursing education session, you emphasized the importance of balancing safety, exploration, and skill development at this stage of Mia's life. Which of the following statements made by Mia's mother indicates that she has a clear understanding of her daughter's developmental needs at this age?

- A. "I want to protect my child from any falls."
- B. "I will set limits on exploring the house."
- C. "I understand the need to use those new skills."
- D. "I intend to keep control over our child."

Correct Answer: C. "I understand the need to use those new skills."

Erikson describes the stage of the toddler as being the time when there is normally an increase in autonomy. The child must use motor skills to explore the environment and develop autonomy.

- **Option A:** The statement in Option A is correct but pertains to the risks associated with a toddler.
- **Option B:** Setting limits on a toddler may cause frustration instead of independence.
- **Option D:** Controlling the child may harm her development as toddlers should develop autonomy at this stage.

18. A client who's taking antipsychotic medication develops a very high temperature, severe muscle rigidity, tachycardia, and rapid deterioration in mental status. The nurse suspects what complication of antipsychotic therapy?

- A. Agranulocytosis
- B. Extrapyramidal effects
- C. Anticholinergic effects
- D. Neuroleptic malignant syndrome (NMS)

Correct Answer: D. Neuroleptic malignant syndrome (NMS)

A rare but potentially fatal condition of antipsychotic medication is called NMS. It generally starts with an elevated temperature and severe extrapyramidal effects. Neuroleptic malignant syndrome (NMS) is a life-threatening syndrome associated with the use of dopamine-receptor antagonist medications or with rapid withdrawal of dopaminergic medications. NMS has been associated with virtually every neuroleptic agent but is more commonly reported with the typical antipsychotics like haloperidol and fluphenazine. Classic clinical characteristics include mental status changes, fever, muscle rigidity, and

autonomic instability.

- **Option A:** Agranulocytosis is a blood disorder. Agranulocytosis is a condition in which the absolute neutrophil count (ANC) is less than 100 neutrophils per microlitre of blood. People with this condition are at a very high risk of severe infection. Broadly, it can be due to hereditary disease due to genetic mutation or acquired disease. Agranulocytosis can have various presentations, including fever, chills, sore throat, etc. It can be a life-threatening condition that requires prompt diagnosis and treatment.
- **Option B:** Symptoms of extrapyramidal effects include tremors, restlessness, muscle spasms, and pseudoparkinsonism. Extrapyramidal side effects (EPS), commonly referred to as drug-induced movement disorders are among the most common adverse drug effects patients experience from dopamine-receptor blocking agents. It was first described in 1952 after chlorpromazine-induced symptoms resembling Parkinson disease. A variety of movement phenotypes has since been described along the EPS spectrum, including dystonia, akathisia, and parkinsonism, which occur more acutely, as well as more chronic manifestations of tardive akathisia and tardive dyskinesia.
- **Option C:** Anticholinergic effects include blurred vision, drowsiness, and dry mouth. Anticholinergics are drugs that block the action of acetylcholine. Acetylcholine is a neurotransmitter, or a chemical messenger. It transfers signals between certain cells to affect how your body functions. They also help block involuntary muscle movements associated with certain diseases such as Parkinson's disease. Sometimes, they're used before surgery to help maintain body functions while a person is treated with anesthesia.

19. Which of the following conditions is most likely related to the development of renal calculi?

- A. Gout
- B. Pancreatitis
- C. Fractured femur
- D. Disc disease

Correct Answer: A. Gout

- Option A: Gout and renal calculi are the results of increased amounts of uric acid.
- Option B: Pancreatitis does not contribute to renal calculi.
- Options C and D: Fractured femur and disc disease can result from decreased calcium levels. Renal calculi are the result of excess calcium.

20. A child with β -thalassemia is undergoing a blood transfusion. To prevent organ damage from the excessive amount of iron, chelation therapy is prescribed. Which of the following medications will be added to this therapy?

- A. Dextromethorphan
- B. Desirudin
- C. Deferasirox
- D. Desipramine

Correct Answer: C. Deferasirox.

Chelation therapy with deferasirox (Exjade) or deferoxamine (Desferal) is prescribed to prevent organ damage from the presence of too much iron in the body as a result of the transfusion.

Transfusion-related iron overload occurs in patients that require frequent transfusions throughout their life. These patients include those affected by Thalassemia, Sickle cell disease, myelodysplastic syndromes, ineffective hematopoiesis, and other inherited anemia disorders.

- **Option A:** This is a cough suppressant. Dextromethorphan received FDA approval in 1958 for its use as a cough suppressant. It is one of the most common compounds found in most over-the-counter antitussives for the past 50 years.
- **Option B:** This is a thrombin inhibitor. Desirudin is used to prevent a type of blood clot called deep vein thrombosis (DVT), which can lead to blood clots in the lungs (pulmonary embolism).
- **Option D:** This is an antidepressant. Desipramine is a secondary amine tricyclic antidepressant that is FDA approved for the treatment of depression. This drug has off-label use to treat bulimia nervosa, irritable bowel syndrome, neuropathic pain, overactive bladder, post-herpetic neuralgia, and ADHD.

21. When uterine rupture occurs, which of the following would be the priority?

- A. Limiting hypovolemic shock.
- B. Obtaining blood specimens.
- C. Instituting complete bed rest.
- D. Inserting a urinary catheter.

Correct Answer: A. Limiting hypovolemic shock

With uterine rupture, the client is at risk for hypovolemic shock. Therefore, the priority is to prevent and limit hypovolemic shock. Immediate steps should include giving oxygen, replacing lost fluids, providing drug therapy as needed, evaluating fetal responses, and preparing for surgery.

- **Option B:** Obtaining blood specimens can be done once the client is already in a stable condition.
- **Option C:** Complete bed rest is applicable for the patient who has uterine rupture. A pregnant uterus after laparoscopic adenomyomectomy might rupture easily by rather weak and short uterine contractions. Furthermore, uterine contractions followed by uterine bleeding might be useful for the diagnosis of uterine rupture. When uterine contractions are followed by uterine bleeding in pregnant women that have had a prior adenomyomectomy, this must be considered a potential sign of uterine rupture.
- **Option D:** Inserting a urinary catheter is necessary for preparation for surgery to remedy the rupture.

22. The nurse is reviewing the chart of a client who is newly diagnosed with chronic lymphocytic leukemia. Which of the following laboratory values is expected to be seen?

- A. Elevated aspartate aminotransferase and alanine aminotransferase levels
- B. Thrombocytopenia and increased lymphocytes
- C. Elevated sedimentation rate

D. Uncontrolled proliferation of granulocytes

Correct Answer: B. Thrombocytopenia and increased lymphocytes

- **Option B:** Chronic lymphocytic leukemia shows a proliferation of small abnormal mature B lymphocytes and decreased antibody response. Thrombocytopenia also is often present.
- **Option A:** Chronic lymphocytic leukemia often does not cause abnormal liver function tests.
- **Option C:** An elevated ESR result is often seen with multiple myeloma and Waldenstrom's macroglobulinemia (a type of non-Hodgkin's lymphoma that is characterized by excessive production of white blood cells).
- **Option D:** Uncontrolled proliferation of granulocytes occurs in myelogenous leukemia.

23. You are making a home visit to a 50-year old patient who was recently hospitalized with a right leg deep vein thrombosis and a pulmonary embolism. The patient's only medication is enoxaparin (Lovenox) subcutaneously. Which assessment information will you need to communicate to the physician?

- A. The patient says that her right leg aches all night
- B. The right calf is warm to the touch and is larger than the left calf
- C. The patient is unable to remember her husband's first name
- D. There are multiple ecchymotic areas on the patient's arms

Correct Answer: C. The patient is unable to remember her husband's first name

Confusion in a patient this age is unusual and may be an indication of intracerebral bleeding associated with enoxaparin use. Because of the reduced effectiveness of the antidote (e.g., protamine), bleeding complications can be severe and life-threatening.

- **Option A:** The right leg symptoms are consistent with a resolving deep vein thrombosis. Around half of people who have had a DVT will experience some degree of chronic discomfort and around 15% of people will experience moderate to severe chronic pain and swelling. This is called post-thrombotic syndrome (PTS) and is caused partly by damage or leftover scar tissue inside the vein.
- **Option B:** The patient may need teaching about keeping the right leg elevated above the heart to reduce swelling and pain. The client may also wear graduated compression stockings. These specially fitted stockings are tight at the feet and become gradually loosened up on the leg, creating gentle pressure that keeps blood from pooling and clotting.
- **Option D:** The presence of ecchymoses may point to a need to do more patient teaching about avoiding injury while taking anticoagulants but does not indicate that the physician needs to be called.

24. A private nurse visits a client who is taking Humulin NPH insulin daily. The client asks the nurse how the storage of the unopened vials of insulin. The nurse tells the client to:

- A. Store it at room temperature
- B. Store it in the freezer

- C. Store it in the refrigerator
- D. Keep the insulin in a sunlight, dry place

Correct Answer: C. Store it in the refrigerator

- **Option C:** Unopened insulin is stored in the refrigerator until the expiry date.
- **Option A:** Only opened vials are stored at room temperature and it will only last for 28 days.
- **Option B:** It should never be stored in the freezer.
- **Option D:** Insulin is sensitive to light.

25. 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.

26. A nurse is talking with a client who reports constipation. When the nurse discusses dietary changes that can help prevent constipation, which of the following foods should the nurse recommend?

- A. Macaroni and cheese
- B. Fresh fruit and whole-wheat toast
- C. Rice pudding and ripe bananas
- D. Roast chicken and white rice

Correct Answer: B. Fresh fruit and whole-wheat toast.

A high fiber diet promotes normal bowel elimination. The choice of fruit and toast is the highest-fiber option. Most Americans consume only half the levels of recommended fiber per day, which is almost 15 grams per day. All existing definitions recognize fiber as "carbohydrate or lignin which bypasses digestion in the small intestine and is partially or completely fermented in the large intestine or colon."

- **Option A:** Macaroni and cheese is a low residue option that could actually worsen and constipate. Insoluble fiber maintains bowel movements. They absorb water and soften the stool. Soft stool is easier to pass, thus preventing constipation. They also add bulk to the stools hence prevent the formation of loose stools.

- **Option C:** Rice pudding and ripe bananas are low residue options that could actually worsen constipation. High fiber diet prevents the formation or worsening of hemorrhoids, and of diverticular disease, which presents as outpouchings in the walls of the colon.
- **Option D:** Roast chicken and white rice are low residue options that could actually worsen constipation. They are water-soluble and derived from the inner flesh of plants such as pectin, gums, and mucilage. They form a viscous gel and are usually fermented by bacteria in the colon into gases and by-products such as short-chain fatty acids. They alter the blood glucose and cholesterol concentrations.

27. In which of the following types of cardiomyopathy does cardiac output remain normal?

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

Correct Answer: D. Hypertrophic

Hypertrophic cardiomyopathy (HCM) is a condition in which there is severe ventricular hypertrophy and poor diastolic filling. It is an autosomal dominant condition wherein the heart muscles asymmetrically increase in size and mass along the septum. The increase in the thickness of heart muscles reduces the size of the cavities of the ventricles, causing them to take a longer time to relax after systole. Cardiac output isn't affected by hypertrophic cardiomyopathy because the ventricle's size remains relatively unchanged.

- **Options A and B:** Restrictive cardiomyopathy (RCM) is wherein the heart walls are rigid, causing a restrictive stretching and filling of blood properly. Restrictive and obliterative cardiomyopathy are the same.
- **Option C:** Dilated cardiomyopathy (DCM) is when the left ventricle is enlarged and weakened, causing a decrease in the ability to pump blood (decreased cardiac output). It is the most common type of cardiomyopathy and commonly leads to progressive heart failure. The cause of DCM can be idiopathic, or it can result from inflammatory processes like myocarditis or cytotoxic agents like alcohol and certain neoplastic drugs.

28. Your patient is complaining of abdominal pain during assessment. What is your priority?

- A. Auscultate to determine changes in bowel sounds.
- B. Observe the contour of the abdomen.
- C. Palpate the abdomen for a mass.
- D. Percuss the abdomen to determine if fluid is present.

Correct Answer: B. Observe the contour of the abdomen.

The first step in assessing the abdomen is to observe its shape and contour, then auscultate, palpate, and then percuss. It is important to begin with the general examination of the abdomen with the patient in a completely supine position. The presence of any of the following signs may indicate specific

disorders. Distension of the abdomen could be present due to small bowel obstruction, masses, tumors, cancer, hepatomegaly, splenomegaly, constipation, abdominal aortic aneurysm, and pregnancy.

- **Option A:** The last step of the abdominal examination is auscultation with a stethoscope. The diaphragm of the stethoscope should be placed on the right side of the umbilicus to listen to the bowel sounds, and their rate should be calculated after listening for at least two minutes. Normal bowel sounds are low-pitched and gurgling, and the rate is normally 2-5/min.
- **Option C:** The examiner should begin with superficial or light palpation from the area furthest from the point of maximal pain and move systematically through the nine regions of the abdomen. It is important to press slowly as pressing too fast may trap a gas pocket within the intestinal lumen and distend the wall resulting in false-positive tenderness.
- **Option D:** A proper technique of percussion is necessary to gain maximum information regarding abdominal pathology. While percussing, it is important to appreciate tympany over air-filled structures such as the stomach and dullness to percussion which may be present due to an underlying mass or organomegaly (for example, hepatomegaly or splenomegaly).

29. A patient on the cardiac telemetry unit unexpectedly goes into ventricular fibrillation. The advanced cardiac life support team prepares to defibrillate. Which of the following choices indicates the correct placement of the conductive gel pads?

- A. The left clavicle and right lower sternum.
- B. Right of midline below the bottom rib and the left shoulder.
- C. The upper and lower halves of the sternum.
- D. The right side of the sternum just below the clavicle and left of the precordium.

Correct Answer: D. The right side of the sternum just below the clavicle and left of the precordium.

One gel pad should be placed to the right of the sternum, just below the clavicle and the other just left of the precordium, as indicated by the anatomic location of the heart. To defibrillate, the paddles are placed over the pads. According to the ILCOR guidelines, the sternal paddle should be placed 'just to the right of the upper sternal border below the clavicle' and the apical paddle 'to the left of the nipple with the centre of the electrode in the mid-axillary line'.

- **Option A:** During the gel pad placement study it was noticed that about 50% of doctors placed the rectangular apical paddle vertically upwards, pointing towards the left armpit. The other 50% placed it in a horizontal position across the chest. The present ILCOR guidelines do not specify which orientation should be used for defibrillation. It was hypothesized that, with the paddle method for defibrillation, it would be more difficult to get good skin contact across the curved chest wall with the horizontal orientation, and in a small study this proved to be the case.
- **Option B:** In theory, a paddle position that is too superomedial means that less current will traverse the myocardium. When 60 N (the median force used by defibrillator operators in clinical practice) is applied to both paddles, the resulting TTI is 5% greater with the horizontal orientation. Thus, if paddles are used, it is recommended to use a vertical orientation. It is expected that their flexibility will allow better electrode/skin contact across the curved chest wall; however, in the absence of any evidence to the contrary, it is advised to use vertical orientation for this method as well.

- **Option C:** Most healthcare workers are not achieving optimal TTI during defibrillation. There is now good evidence that the use of a coupling agent, chest hair removal, placement of the apical paddle in a vertical orientation lateral to the nipple in the mid-axillary line, and application of at least 80 N of force are all measures that help minimize the TTI.

30. A nurse is reviewing a patient's past medical history (PMH). The history indicates the patient has photosensitive reactions to medications. Which of the following drugs is associated with photosensitive reactions? Select all that apply.

- A. Ciprofloxacin (Cipro)
- B. Sulfonamide
- C. Norfloxacin (Noroxin)
- D. Sulfamethoxazole and Trimethoprim (Bactrim)
- E. Isotretinoin (Accutane)
- F. Nitro-Dur patch

Correct Answer: A, B, C, D, and E.

Photosensitivity is an extreme sensitivity to ultraviolet (UV) rays from the sun and other light sources. A type of photosensitivity called Phototoxic reactions are caused when medications in the body interact with UV rays from the sun. Anti-infectives are the most common cause of this type of reaction.

- **Option A:** Ciprofloxacin is used to treat a variety of bacterial infections. Ciprofloxacin belongs to a class of drugs called quinolone antibiotics. It works by stopping the growth of bacteria. This antibiotic treats only bacterial infections. It will not work for virus infections (such as common cold, flu). Unnecessary use or overuse of any antibiotic can lead to its decreased effectiveness.
- **Option B:** Sulfonamides are synthetic bacteriostatic antibiotics that competitively inhibit conversion of p-aminobenzoic acid to dihydropteroate, which bacteria need for folate synthesis and ultimately purine and DNA synthesis. Humans do not synthesize folate but acquire it in their diet, so their DNA synthesis is less affected.
- **Option C:** Norfloxacin is an antibiotic in a group of drugs called fluoroquinolones. Norfloxacin fights bacteria in the body. Norfloxacin is used to treat different bacterial infections of the prostate or urinary tract (bladder and kidneys). Norfloxacin is also used to treat gonorrhea.
- **Option D:** Sulfamethoxazole and trimethoprim combination is used to treat infections such as urinary tract infections, middle ear infections (otitis media), bronchitis, traveler's diarrhea, and shigellosis (bacillary dysentery). This medicine is also used to prevent or treat Pneumocystis jiroveci pneumonia or Pneumocystis carinii pneumonia (PCP), a very serious kind of pneumonia. Sulfamethoxazole and trimethoprim combination is an antibiotic. It works by eliminating the bacteria that cause many kinds of infections.
- **Option E:** Isotretinoin is a drug used to treat severe acne that hasn't responded to other treatments. It may be prescribed for other uses, including other skin problems and certain kinds of cancer. This drug is a vitamin A derivative (retinoid), so your body reacts to it in a similar way that it does to vitamin A.
- **Option F:** Nitro-Dur patch is used to prevent chest pain or angina. Its side effects are headache, lightheadedness, nausea, and flushing.

31. A client with a severe corneal ulcer has an order for Gentamicin gtt. q 4 hours and Neomycin 1 gtt q 4 hours. Which of the following schedules should be used when administering the drops?

- A. Allow 5 minutes between the two medications.
- B. The medications may be used together.
- C. The medications should be separated by a cycloplegic drug.
- D. The medications should not be used in the same client.

Correct Answer: A. Allow 5 minutes between the two medications.

When using eye drops, allow 5 minutes between the two medications. Antibiotic eye drops are prescribed by a doctor to treat bacterial eye infections. They work by killing the bacteria (microscopic organism) that entered the eye and caused the infection.

- **Option B:** Allow 5 minutes interval before administering the next eyedrops. Take the full course, don't stop early/without consulting your doctor, even if things seem better. Antibiotic eye drops usually help symptoms get better after three days. Call your doctor if your symptoms don't go away.
- **Option C:** It is not necessary to use a cycloplegic with these medications. Eye infections cause redness, tearing and drainage (yellow-green pus or watery), and can be highly contagious. A certain type of eye infection—a bacterial eye infection—may need treatment with a medicine called an antibiotic eye drop.
- **Option D:** These medications can be used by the same client. Don't use anyone else's prescription. Don't keep unused prescriptions around to use later. Ask your ophthalmologist or pharmacist if it's OK to keep the drops in the refrigerator. When the drops are cold it might be easier to feel the drop when it hits the eye, so you can tell where it has landed.

32. Antonietta is taking antitubercular, the most common adverse effect she may be experiencing is:

- A. Red-orange discoloration of urine
- B. Hypersensitivity
- C. Hepatotoxicity
- D. CHF

Correct Answer: C. Hepatotoxicity

Hepatotoxicity is the most common side effect associated with antitubercular agents. All first-line antitubercular medications, rifampin, isoniazid, pyrazinamide, and ethambutol can exert hepatotoxic effects. A continual rise in liver functions test should prompt discontinuation of treatment. Liver function tests should be monitored routinely as rifampin, isoniazid, pyrazinamide, and ethambutol all may exert hepatotoxic effects.

- **Option A:** Orange discoloration is a side effect of rifampin but not with antitubercular in general. Distribution of the drug is high throughout the body, and reaches effective concentrations in many organs and body fluids, including the cerebrospinal fluid. Since the substance itself is red, this high distribution is the reason for the orange-red color of the saliva, tears, sweat, urine, and feces.
- **Option B:** Adverse drug reaction to tuberculous chemotherapy is not an uncommon problem. Usually, it occurs with single drugs and can be treated easily with minimal intervention.

Immediate-type allergic reactions from antituberculosis drugs are not rare and not related to disease or treatment characteristics.

- **Option D:** Aminoglycoside induced nephrotoxicity is reversible when stopping the medication. Renal toxicity depends on the patient if any underlying renal disease is present, and on the dose of the medication being administered. Renal insufficiency is avoidable in most patients.

33. The nurse explains to a patient that a cough:

- A. Is a protective response to clear the respiratory tract of irritants.
- B. Is primarily a voluntary action.
- C. Is induced by the administration of an antitussive drug.
- D. Can be inhibited by “splinting” the abdomen.

Correct Answer: A. Is a protective response to clear the respiratory tract of irritants

Coughing, a protective response that clears the respiratory tract of irritants, usually is involuntary. A cough is an innate primitive reflex and acts as part of the body’s immune system to protect against foreign materials. This reflex is characterized with the closing of the glottis apparatus with subsequent increases in the intrathoracic pressure which often exceeds 300 mm Hg. This is followed by the forceful expulsion of the airway contents through the glottis into the pharyngeal space and out of the body.

- **Option B:** However, it can be voluntary as when a patient is taught to perform coughing exercises. Coughing is associated with a wide assortment of clinical associations and etiologies. Furthermore, there are no objective tools to measure or clinically quantify a cough. As such, evaluation of a cough is initially a subjective and highly variable assessment.
- **Option C:** An antitussive drug inhibits coughing. Cough suppressants may be used to lessen the cough by blunting the cough reflex, and expectorants may be used when excessive mucous secretions are determined to be the primary issue to increase mucus clearance. The most commonly used suppressant is dextromethorphan, and the most common suppressant is guaifenesin.
- **Option D:** Splinting the abdomen supports the abdominal muscles when a patient coughs. The reflex of coughing is initiated with a chemical irritation at peripheral nerve receptors within the trachea, main carina, branching points of large airways, and more distal smaller airways. They are also present in the pharynx. Laryngeal and tracheobronchial receptors respond to mechanical and chemical stimuli.

34. Which of the following substances is most likely to cause gastritis?

- A. Milk
- B. Bicarbonate of soda, or baking soda
- C. Enteric-coated aspirin
- D. Nonsteroidal anti-inflammatory drugs

Correct Answer: D. Nonsteroidal anti-inflammatory drugs

NSAIDs are a common cause of gastritis because they inhibit prostaglandin synthesis. When NSAIDs irritate the gastric mucosa, they weaken the resistance to acid, causing gastritis, ulcers, bleeding, or perforation. The damage ranges from superficial injury to single or multiple ulcers, some of which may

bleed. Suppression of prostaglandin synthesis can occur systemically with both oral and parenteral NSAID therapy. The antiplatelet activity of some NSAIDs in low doses may cause bleeding from preexisting ulcers

- **Option A:** Milk, once thought to help gastritis, has little effect on the stomach mucosa. Studies on certain ingredients found in high concentrations in milk, such as calcium and amino acids, have suggested that milk may be harmful to ulcer patients because of its potential to directly stimulate acid secretion. Therapeutic endeavors have therefore aimed at reducing gastric acid secretion or neutralizing its effect.
- **Option B:** Bicarbonate of soda, or baking soda, may be used to neutralize stomach acid, but it should be used cautiously because it may lead to metabolic acidosis. The Canadian Society of Intestinal Research reminds people that baking soda is a temporary solution to acid reflux. They advise people that sodium bicarbonate is available from a pharmacy in the form of tablets and effervescent powder.
- **Option C:** ASA with enteric coating shouldn't contribute significantly to gastritis because the coating limits the aspirin's effect on the gastric mucosa. Enteric-coated aspirin is designed to resist dissolving and being absorbed in the stomach. As such, enteric-coated aspirin passes into the small intestine, where it's absorbed into the bloodstream. The purported goal is to prevent stomach ulcers and bleeding that can sometimes occur with aspirin use.

35. An inborn error of metabolism that causes premature destruction of RBC?

- A. G6PD
- B. Homocystinuria
- C. Phenylketonuria
- D. Celiac Disease

Correct Answer: A. G6PD

Glucose-6-phosphate dehydrogenase deficiency (G6PD) is an X-linked recessive hereditary disease characterized by abnormally low levels of glucose-6-phosphate dehydrogenase (abbreviated G6PD or G6PDH), a metabolic enzyme involved in the pentose phosphate pathway, especially important in red blood cell metabolism.

- **Option B:** Homocystinuria is a disorder of methionine metabolism, leading to an abnormal accumulation of homocysteine and its metabolites (homocysteine, homocysteine-cysteine complex, and others) in blood and urine. Normally, these metabolites are not found in appreciable quantities in blood or urine.
- **Option C:** Phenylketonuria (PKU) is an inborn error of metabolism (IEM) most often caused by missense mutations in the gene encoding phenylalanine hydroxylase (PAH), which catalyzes the hydroxylation of phenylalanine (Phe) to generate tyrosine (Tyr). Elevated blood Phe levels and decreased Tyr levels characterize PKU. Newborns with PKU can appear normal at birth with the first signs appearing after several months.
- **Option D:** Celiac disease, also known as gluten-sensitive enteropathy, is an autoimmune disease of the small intestine. Celiac disease is a condition in which the body responds to gluten with an inappropriate immune response causing small intestinal inflammation and damage.