

Kevin's Review - 85 NCLEX Practice Questions

1. Following a complex gastrointestinal surgery to remove a malignant tumor, a patient is transferred to a post-operative care unit for recovery and monitoring. On the third post-operative day, during a wound care session, the patient inquires about the intricacies of the healing process after a clot has formed over their surgical wound. The nurse takes this opportunity to educate the patient about the sequential phases that ensue post-clot formation to ensure proper healing and prevent infection. Which of the following statements encapsulates the comprehensive process of healing following the formation of a blood clot?

- A. Clot retraction
- B. Repair of the damaged vessel by fibroblasts
- C. Repair of the wound by division of epithelial cells
- D. Clot dissolution
- E. All of these

Correct Answer: E. All of these

After a clot has formed, it begins to condense into a more compact structure by a process known as clot retraction. Retraction of the clot pulls the edges of the damaged blood vessel together, helping to stop the flow of blood, reducing the probability of infection, and enhancing healing. The damaged vessel is repaired by the movement of fibroblasts into the damaged area and the formation of new connective tissue. In addition, epithelial cells around the wound divide and fill in the torn area. Clots are dissolved by a process called fibrinolysis.

- **Option A:** Clot retraction: Following the formation of a clot, clot retraction occurs wherein the clot begins to contract and pull the edges of the broken vessel together. This phase is essential as it reduces the size of the wound and aids in drawing together the torn areas of the tissue.
- **Option B:** Repair of the damaged vessel by fibroblasts: Fibroblasts play a vital role in the repair process. They migrate to the wound site, proliferate, and synthesize extracellular matrix proteins, including collagen, to replace the provisional matrix, aiding in the repair and strength of the damaged vessel.
- **Option C:** Repair of the wound by division of epithelial cells: The division and migration of epithelial cells across the wound are fundamental for the re-epithelialization phase, where the wound is covered with new epithelium, providing a barrier against microbial invasion and fluid loss.
- **Option D:** Clot dissolution: As the wound heals, it's imperative that the clot be dissolved to restore normal tissue structure and function. This process, known as fibrinolysis, involves the breakdown of the fibrin clot into soluble fragments, which are then removed from the bloodstream.

2. A client has a positive reaction to the PPD test. The nurse correctly interprets this reaction to mean that the client has:

- A. Active TB
- B. Had contact with Mycobacterium tuberculosis.
- C. Developed a resistance to tubercle bacilli.
- D. Developed passive immunity to TB.

Correct Answer: B. Had contact with Mycobacterium tuberculosis.

A positive PPD test indicates that the client has been exposed to tubercle bacilli. Exposure does not necessarily mean that active disease exists. If the infection risk is very high, the PPD test need not be repeated. The positive PPD test is usually followed by TB symptom assessment, physical exam, and chest radiograph. If there are no TB symptoms and no evidence of active tuberculosis infection on physical exam and chest radiograph, the patient most likely has latent TB. The treatment of latent TB should be encouraged once detected.

- **Option A:** A person with active infection usually presents with symptoms of the part affected and constitutional symptoms such as unexplained weight loss, fever, fatigue, loss of appetite, and night sweats. The latent TB, however, is asymptomatic and non-infectious. Early diagnosis of active TB is crucial to managing the disease in time and preventing its spread. The latent TB infection is non-infectious and asymptomatic, with a significant worldwide prevalence (33%).
- **Option C:** The benefit to the PPD test is the rapid identification of the presence of TB infection and, thus, the rapid diagnosis of TB. Although sometimes the infection may not be active, the detection of latent TB allows for treatment and decreases the risk of progression to active TB. It is a very simple and inexpensive skin test (not routinely recommended).
- **Option D:** Some individual's ability to react to tuberculin antigen wanes over time, which results in a false-negative reaction. In individuals with very old tuberculosis infection (many years), sensitization to tuberculin is weak, and the PPD test may be a false negative. However, if a subsequent test is administered, the tuberculin PPD may stimulate the immune system.

3. Skin reactions are common in radiation therapy. Nursing responsibilities on promoting skin integrity should be promoted apart from:

- A. Avoiding the use of ointments, powders and lotion to the area
- B. Using soft cotton fabrics for clothing
- C. Washing the area with a bar of scented soap and water and patting it dry not rubbing it
- D. Avoiding direct sunshine or cold.

Correct Answer: C. Washing the area with a bar of scented soap and water and patting it dry not rubbing it

- **Option C:** A mild unscented soap should only be used on the skin of the client undergoing radiation to decrease the occurrence of skin reactions.
- **Options A, and B:** Soap and irritants may cause dryness of the patient's skin.
- **Option D:** Since the skin that is receiving radiation therapy may be burned from the treatment, avoiding direct sunlight is helpful to prevent further damage.

4. A client receiving chemotherapy for breast cancer has an order for Zofran (ondansetron) 8 mg PO to be given 30 minutes before induction of the chemotherapy. The purpose of the medication is to:

- A. Prevent anemia
- B. Promote relaxation
- C. Prevent nausea
- D. Increase neutrophil counts

Correct Answer: C. Prevent nausea

- Option C: Zofran is an antiemetic given before chemotherapy to prevent nausea and vomiting.
- Option A: Drugs that can prevent anemia include ferrous sulfate, folic acid, and erythropoietin.
- Option A: Drugs that promote relaxation include diazepam, alprazolam, and chlordiazepoxide.
- Option D: Drugs that may increase neutrophil count include allopurinol, epinephrine, heparin, and corticosteroids.

5. A 73-year-old man, recently diagnosed with osteoporosis, is in the radiology department awaiting his scheduled dual-energy X-ray absorptiometry (DXA) scan. Appearing anxious, he turns to the attending nurse and inquires about the rationale behind this particular test. How should the nurse best address his concerns?

- A. "The DXA scan is primarily used to quantify the density of your bones, helping us understand the severity of your osteoporosis."
 - B. "This scan is designed to meticulously assess the blood circulation within your bones."
 - C. "The main objective of the DXA scan is to gauge the efficiency and function of your muscle groups."
 - D. "The test is primarily aimed at identifying any irregularities or deformities in your joints."
- **Option A:** A DXA scan is a diagnostic test used to measure bone mineral density and assess the risk of fractures. It helps diagnose osteoporosis and monitor treatment effectiveness.
 - **Options B, C, and D:** These statements are unrelated to the purpose of a DXA scan.

6. Nurse Mackey is monitoring a patient for adverse reactions during barbiturate therapy. What is the major disadvantage of barbiturate use?

- A. Prolonged half-life
- B. Poor absorption
- C. Potential for drug dependence
- D. Potential for hepatotoxicity

Correct Answer: C. Potential for drug dependence

Patients can become dependent on barbiturates, especially with prolonged use. Due to the abuse potential of barbiturates, restricted access started with the passage of the Federal Comprehensive Drug Abuse and Control Act of 1970. Barbiturates classify as Schedule II-IV based on their abuse potential.

- **Option A:** Because of the rapid distribution of some barbiturates, no correlation exists between duration of action and half-life. The elimination half-life for thiopental is about 5 hours. In children, a shorter elimination half-time occurs due to greater hepatic clearance.
- **Option B:** Barbiturates are absorbed well. Age-related changes have been demonstrated in pharmacokinetics due to slower intercompartmental clearance in the elderly, resulting in higher serum concentrations with smaller drug doses.

- **Option D:** They do not cause hepatotoxicity, although existing hepatic damage does require cautious use of the drug because barbiturates are metabolized in the liver.

7. For questions #50-55: Situation: Ryan, a 14-year-old male was admitted to a medical ward due to bronchial asthma after learning that his mother was leaving soon for U.K. to work as a nurse. The client has which of the following developmental focus:

- A. Establishing a relationship with the opposite sex and career planning.
- B. Parental and societal responsibilities.
- C. Establishing one's sense of competence in school.
- D. Developing initial commitments and collaboration in work.

Correct Answer: A. Establishing relationship with the opposite sex and career planning.

The client belongs to the adolescent stage. The adolescent establishes his sense of identity by making decisions regarding familial, occupational, and social roles. The adolescent emancipates himself from the family and decides what career to pursue, what set of friends to have, and what value system to uphold. Our personal identity gives each of us an integrated and cohesive sense of self that endures through our lives. Our sense of personal identity is shaped by our experiences and interactions with others, and it is this identity that helps guide our actions, beliefs, and behaviors as we age.

- **Option B:** This refers to the middle adulthood stage concerned with transmitting his values to the next generation to ensure his immortality through the perpetuation of his culture. Adults need to create or nurture things that will outlast them, often by having children or creating a positive change that benefits other people. Success leads to feelings of usefulness and accomplishment, while failure results in shallow involvement in the world.
- **Option C:** This reflects school age which is concerned with the pursuit of knowledge and skills to deal with the environment both in the present and in the future. Successfully finding a balance at this stage of psychosocial development leads to the strength known as competence, in which children develop a belief in their abilities to handle the tasks set before them.
- **Option D:** The stage of young adulthood is concerned with the development of an intimate relationship with the opposite sex, the establishment of a safe and congenial family environment and building of one's lifework. Young adults need to form intimate, loving relationships with other people. Success leads to strong relationships, while failure results in loneliness and isolation. This stage covers the period of early adulthood when people are exploring personal relationships.

8. Immediately before expulsion, which of the following cardinal movements occur?

- A. Descent
- B. Flexion
- C. Extension
- D. External rotation

Correct Answer: D. External rotation

Immediately before expulsion or birth of the rest of the body, the cardinal movement of external rotation occurs. During this pause, the baby must rotate so that his/her face moves from face-down to facing either of the laboring woman's inner thighs. This movement, also called restitution, is necessary as the shoulders must fit around and under the pubic arch.

- **Option A:** The baby's head moves deep into the pelvic cavity and is commonly called lightening. The baby's head becomes markedly molded when these distances are closely the same. When the occiput is at the level of the ischial spines, it can be assumed that the biparietal diameter is engaged and then descends into the pelvic inlet.
- **Option B:** Flexion occurs during descent and is brought about by the resistance felt by the baby's head against the soft tissues of the pelvis. The resistance brings about a flexion in the baby's head so that the chin meets the chest. The smallest diameter of the baby's head (or suboccipitobregmatic plane) presents into the pelvis.
- **Option C:** After internal rotation is complete and the head passes through the pelvis at the nape of the neck, a rest occurs as the neck is under the pubic arch. Extension occurs as the head, face, and chin are born.

9. 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.

10. The nurse is caring for a client with a burn wound on the left knee and an autograft and skin grafting was performed. Which of the following activities will be prescribed for the client post-op?

- A. Elevation and immobilization of the affected leg.
- B. Placing the affected leg in a dependent position.
- C. Dangling of legs.
- D. Bathroom privileges.

Correct Answer: A. Elevation and immobilization of the affected leg.

Autograft placed on the lower extremity requires elevation and immobilization for at least 3-7 days. This period of immobilization allows the autograft time to adhere to the wound bed. Clinically, skin grafts are secured into place and often bolstered until postoperative day 5 to 7 to allow the skin graft to go through the above steps, ensuring the best skin graft take.

- **Option B:** Do not place the affected leg in a dependent position. Any buildup of fluid between the split-thickness skin graft and wound bed will jeopardize skin graft take, including seroma, hematoma, and infection. Shear or traction injury also disrupts skin graft healing.
- **Option C:** Dangling of legs puts the affected site into a dependent position, which can cause a build-up of fluid that jeopardizes the skin graft. The graft can have incomplete (less than 100%) take or complete nontake.
- **Option D:** Split-thickness skin grafts typically become adherent to the recipient wound bed 5 to 7 days following skin graft placement. The dressings placed intraoperatively are kept in place until 5 to 7 days postoperatively to minimize shear and traction to the healing skin graft.

11. A nurse is performing an assessment of a client who is scheduled for cesarean delivery. Which assessment finding would indicate a need to contact the physician?

- A. Fetal heart rate of 180 beats per minute.
- B. White blood cell count of 12,000.
- C. Maternal pulse rate of 85 beats per minute.
- D. Hemoglobin of 11.0 g/dL.

Correct Answer: A. Fetal heart rate of 180 beats per minute.

A normal fetal heart rate is 120-160 beats per minute. A count of 180 beats per minute could indicate fetal distress and would warrant physician notification.

- **Option B:** WBC count increases to 6 to 16 million/mL and can be as high as 20 million/mL during and shortly after labor.
- **Option C:** Initially, the increase in cardiac output is due to an increase in stroke volume. As the stroke volume decreases towards the end of the third trimester, an increase in heart rate acts to maintain the increased cardiac output.
- **Option D:** By full-term, a normal maternal hemoglobin range is 11-13 g/dL as a result of the hemodilution caused by an increase in plasma volume during pregnancy.

12. When the fetal head is at the level of the ischial spine, it is said that the station of the head is

- A. Station -1
- B. Station "0"
- C. Station +1
- D. Station +2

Correct Answer: B. Station "0"

Determining is defined as the relationship of the fetal head and the level of the ischial spine. At the level of the ischial spine, the station is "0". Above the ischial spine it is considered (-) station and below the ischial spine it is (+) station.

- **Option A:** By 6 cm of dilation, the median station was 0 (95% CI ?2 to 1) for nulliparous and ?1 (95% CI ?3 to 0) for multiparous women. At 8 cm, 95% of nulliparous women were at ?1 station or lower.
- **Option C:** The fetal head is already engaged in station +1. The difference between numbers in the score is equivalent to the length in centimeters. Moving from +1 to +2 is a movement of about 1 centimeter.
- **Option D:** +2 to +3 station is crowning and beginning to emerge from the birth canal.

13. Glenda has cholelithiasis (gallstones). You expect her to complain of:

- A. Pain in the right upper quadrant, radiating to the shoulder.
- B. Pain in the right lower quadrant, with rebound tenderness.
- C. Pain in the left upper quadrant, with shortness of breath.
- D. Pain in the left lower quadrant, with mild cramping.

Correct Answer: A. Pain in the right upper quadrant, radiating to the shoulder.

The gallbladder is located in the RUQ and a frequent sign of gallstones is pain radiating to the shoulder. Patients with gallstone disease typically present with symptoms of biliary colic (intermittent episodes of constant, sharp, right upper quadrant (RUQ) abdominal pain often associated with nausea and vomiting), normal physical examination findings, and normal laboratory test results.

- **Option B:** Clinical symptoms and signs suggestive of appendicitis include a history of central abdominal pain migrating to the right lower quadrant (RLQ), anorexia, fever, and nausea/vomiting. On examination, RLQ tenderness, along with "classical" signs of peritoneal irritation (e.g., rebound tenderness, guarding, rigidity, referred pain), may be present.
- **Option C:** LUQ pain can originate from the chest, abdomen, diaphragm/peritoneum, or from general 'medical' causes. Note that intra-abdominal organs may not localize pain accurately and diaphragmatic pain can be referred to the shoulder tip.
- **Option D:** Crampy pain may be due to gas, indigestion, inflammation, or infection, or it may result from menstrual cramps, endometriosis, or pelvic inflammatory disease in women. Severe pain that comes in waves may be caused by kidney stones. Trauma to the body wall, hernias, and shingles can also cause left lower quadrant pain.

14. Janae has a seizure disorder; which of the following would be the lowest priority when caring for her?

- A. Observing and taking down data on all seizures
- B. Assuring safety and protection from injuring
- C. Assessing for signs and symptoms of increased intracranial pressure (ICP)
- D. Educating the family about anticonvulsant therapy

Correct Answer: C. Assessing for signs and symptoms of increased intracranial pressure (ICP)

Signs and symptoms of increased intracranial pressure (ICP) are not associated with seizure activity and therefore would be the lowest priority. A sudden alteration in consciousness with associated motor movements is the common description of a convulsive seizure. For generalized seizures with associated motor movements, the convulsion typically has a stiffening or tonic phase followed by clonic movements – rhythmic phased motor movements.

- **Option A:** Careful observation and documentation of seizures provide valuable information to aid prevention and treatment. Frequently there will be a history of unresponsive spells that, in retrospect, might be seizures. Events leading up to the seizure are quite important, and friends, family, or coworkers may have crucial historical information.
- **Option B:** Safety is always a priority in the care of a child with seizure disorder because seizures may occur at any given time. An epileptic seizure is a transient occurrence with signs or symptoms due to abnormal excessive and synchronous neuronal activity in the brain.
- **Option D:** Improper administration of and incomplete compliance with anticonvulsant therapy can lead to status epilepticus; thus education is a priority. For the patient with known epilepsy, an obvious question would be to ask if there has been any irregularity with medication use.

15. Nurse Christine is planning a client education program for sickle cell disease (SCD) in children. Which of the following interventions would be included in the care plan?

- A. Health teaching to help reduce sickling crises
- B. Avoidance of the use of opioids
- C. Administration of an anticoagulant to prevent sickling
- D. Observation of the imposed fluid restriction

Correct Answer: A. Health teaching to help reduce sickling crisis.

Prevention is one of the principal goals of therapeutic management because there is no cure for sickle cell disease. Consequently, health education to help lessen the sickling crisis is key. Early detection and rapid initiation of appropriate treatment for several acute conditions including the vaso-occlusive crisis, aplastic crisis, sequestration crisis, and hemolytic crisis is needed. These crises, if not treated early, can result in mortality.

- **Option B:** Opioids usually are required for pain control. Most guidelines recommend early initiation of parenteral opioid analgesics, usually with morphine at 0.1 mg/kg IV or subcutaneously (SC) every 20 minutes, and maintaining this analgesia with morphine at doses of 0.05 to 0.1 mg/kg every 2 to 4 hrs (SC/IV or PO).

- **Option C:** Anticoagulants do not prevent sickling. Adjuvant therapy includes hydroxyurea, antihistamines, anxiolytics, and antiemetics. It is prudent to maintain adequate hydration and be vigilant in identifying other causes of pain that may need additional treatment.
- **Option D:** Fluids are encouraged to increase fluid volume and prevent sickling. The key is rapid hydration and pain control. In addition, oxygenation should be monitored. It is important to find and treat the trigger of the crisis to prevent a recurrent crisis.

16. A nurse is caring for a patient with a platelet count of 20,000/microliter. Which of the following is an important intervention?

- A. Observe for evidence of spontaneous bleeding.
- B. Limit visitors to family only.
- C. Give aspirin in case of headaches.
- D. Impose immune precautions.

Correct Answer: A. Observe for evidence of spontaneous bleeding.

Platelet counts under 30,000/microliter may cause spontaneous petechiae and bruising, particularly in the extremities. When the count falls below 15,000, spontaneous bleeding into the brain and internal organs may occur. The blood clotting cascade is an integral system requiring intrinsic and extrinsic factors. Derangements in any factors can affect clotting ability. These laboratory tests provide important information about the patient's coagulation status and bleeding potential. The specific laboratory values to be monitored will depend on the patient's specific clinical condition.

- **Option B:** There is no reason to limit visitors as long as any physical trauma is prevented. Educate the patient and family members about signs of bleeding that need to be reported to a health care provider. Early evaluation and treatment of bleeding by a health care provider reduce the risk for complications from blood loss.
- **Option C:** Headaches may be a sign and should be watched for. Aspirin disables platelets and should never be used in the presence of thrombocytopenia. Educate the patient about over-the-counter drugs and avoid products that contain aspirin or NSAIDs such as ibuprofen and naproxen. These drugs not only decrease normal platelet aggregation but also decrease the integrity of gastric mucosa through inhibition of cyclooxygenase (COX)-1 inhibitor and therefore increase the risk for gastrointestinal bleeding.
- **Option D:** Thrombocytopenia does not compromise immunity. Educate the at-risk patient about precautionary measures to prevent tissue trauma or disruption of the normal clotting mechanisms. Information about precautionary measures lessens the risk for bleeding. Use a soft-bristled toothbrush and nonabrasive toothpaste. Avoid the use of toothpicks and dental floss.

17. Nurse Cristina is caring for a client who experiences false sensory perceptions with no basis in reality. These perceptions are known as:

- A. Delusions
- B. Hallucinations
- C. Loose associations
- D. Neologisms

Correct Answer: B. Hallucinations

Hallucinations are visual, auditory, gustatory, tactile, or olfactory perceptions that have no basis in reality. The word “hallucination” comes from Latin and means “to wander mentally.” Hallucinations are defined as the “perception of a nonexistent object or event” and “sensory experiences that are not caused by stimulation of the relevant sensory organs.” Hallucinations occur frequently in people with psychiatric conditions, including schizophrenia and bipolar disorder, however, you don’t necessarily need to have a mental illness to experience hallucinations.

- **Option A:** Delusions are false beliefs, rather than perceptions, that the client accepts as real. Delusions are defined as fixed, false beliefs that conflict with reality. Despite contrary evidence, a person in a delusional state can’t let go of their convictions. Delusions are often reinforced by the misinterpretation of events. Many delusions also involve some level of paranoia. For example, someone might contend that the government is controlling our every move via radio waves despite evidence to the contrary.
- **Option C:** Loose associations are rapid shifts among unrelated ideas. A thought disturbance demonstrated by speech that is disconnected and fragmented, with the individual jumping from one idea to another unrelated or indirectly related idea. It is essentially equivalent to derailment.
- **Option D:** Neologisms are bizarre words that have meaning only to the client. A newly coined word or expression. In a neurological or psychopathological context, neologisms, whose origins and meanings are usually nonsensical and unrecognizable (e.g., klipno for watch), are typically associated with aphasia or schizophrenia.

18. An intubated patient is receiving continuous enteral feedings through a Salem pump tube at a rate of 60ml/hr. Gastric residuals have been 30-40ml when monitored Q4H. You check the gastric residual and aspirate 220ml. What is your first response to this finding?

- A. Notify the doctor immediately.
- B. Stop the feeding, and clamp the NG tube.
- C. Discard the 220ml and clamp the NG tube.
- D. Give a prescribed GI stimulant such as metoclopramide (Reglan).

Correct Answer: B. Stop the feeding, and clamp the NG tube.

A gastric residual greater than 2 hours worth of feeding or 100-150ml is considered too high. The feeding should be stopped; the NG tube clamped, and then allowed time for the stomach to empty before additional feeding is added. Gastric residual volume is the amount of liquid drained from a stomach following administration of enteral feed; this liquid consists mainly of infused nutritional formula or water, and secreted GI juice. Gastric residual volume is measured either by aspiration using a syringe, or by gravity drainage to a reservoir.

- **Option A:** It is unnecessary to notify the physician immediately. Monitoring GRV involves obtaining frequent GRV measurements and employing appropriate interventions in patients with large GRVs. Gastric residual volume monitoring (monitoring of residual volume of the enteral nutrients including digestive juices) is an essential component of EN patient care and aids in preventing complications due to EN.
- **Option C:** Administering additional enteral nutrients in patients with increased GRVs may cause aspiration and an increase in intra-abdominal pressure, which increases the risk of respiratory and circulatory failure, and intestinal necrosis. For this reason, it is particularly important to monitor

GRV in the early stages of administration of enteral nutrition, especially in critically ill patients.

- **Option D:** Frequency of GRV measurement (e.g. every six hours) and the intervention strategy for large GRVs (e.g. if GRV is above 500 mL, hold feeding for two hours and recheck GRV) is usually decided as per institution-specific protocols and needs of the inpatient population.

19. The client with a cervical fracture is placed in traction. Which type of traction will be utilized at the time of discharge?

- A. Russell's traction
- B. Buck's traction
- C. Halo traction
- D. Crutchfield tong traction

Correct Answer: C. Halo traction

Halo traction will be ordered for the client with a cervical fracture. Halo-gravity traction is a way to pull the head and spine upward carefully, applying a slow stretch to the spine. Doctors do this by attaching a halo (a metal ring that surrounds the head) to a pulley system. Over several weeks, weights are added to the pulley system to slowly pull the head upward. This pulling is called "traction." Kids stay in the hospital during halo-gravity traction.

- **Option A:** According to Oxford Reference, Russell traction is a type of skin traction used to stabilize and align the lower extremities. The patient's leg is suspended in a sling and attached to pulleys, strings and weights, which serve to gently draw the bones into alignment.
- **Option B:** An apparatus for applying longitudinal traction on the leg by contact between the skin and adhesive tape, for maintaining the proper alignment of a leg fracture; friction between the tape and skin permits application of force through a cord over a pulley, suspending a weight; elevation of the foot of the bed allows the body to act as a counterweight; a type of traction in which a non constricting boot with weights is worn by the Pt to maintain proper alignment.
- **Option D:** Crutchfield tongs are used while in the hospital and the client is immobile. A traction device whose pins are inserted into the skull to distract and/or immobilize the neck. Crutchfield tongs are used to stabilize fractures of the cervical spine.

20. A female client with chronic renal failure (CRF) is receiving a hemodialysis treatment. After hemodialysis, nurse Sarah knows that the client is most likely to experience:

- A. Hematuria.
- B. Weight loss.
- C. Increased urine output.
- D. Increased blood pressure.

Correct Answer: B. Weight loss.

Because CRF causes loss of renal function, the client with this disorder retains fluid. Hemodialysis removes this fluid, causing weight loss. The client's normal weight without any extra fluid in the body is called "dry weight." Extra fluid can be dangerous and cause extra strain on the body, including the heart

and lungs. When the client has kidney failure, her body depends on dialysis to get rid of the extra fluid and wastes that build up in her body between treatments.

- **Option A:** Hematuria is unlikely to follow hemodialysis because the client with CRF usually forms little or no urine. Hematuria in hemodialysis patients may be a manifestation of the bleeding diathesis seen in renal failure. But it certainly needs further evaluation for structural causes specific to the genitourinary tract and to prevent massive bleeding.
- **Option C:** Hemodialysis doesn't increase urine output because it doesn't correct the loss of kidney function, which severely decreases urine production in this disorder. Dialysis, a procedure that uses a special machine to replace the kidneys in filtering waste from the bloodstream, may reduce the daily urine output that a person normally produces. This happens because as the blood is filtered during dialysis, fluid is removed, thus reducing the kidneys' traditional role.
- **Option D:** By removing fluids, hemodialysis decreases rather than increases the blood pressure. The most common side effect of hemodialysis is low blood pressure. It can occur when too much fluid is removed from the blood during hemodialysis. This causes pressure to drop, and nausea and dizziness can result.

21. Joko has recently been diagnosed with type 1 Diabetes Mellitus and asks nurse Jessica for help formulating a nutrition plan. Which of the following recommendations would the nurse make to help the client increase calorie consumption to offset absorption problems?

- A. Eat small meals with two or three snacks throughout the day to keep blood glucose levels steady
- B. Increase the consumption of simple carbohydrates
- C. Eating small meals with two or three snacks may be more helpful in maintaining blood glucose levels than three large meals.
- D. Skip meals to help lose weight

Correct Answer: C. Eating small meals with two or three snacks may be more helpful in maintaining blood glucose levels than three large meals.

Eating small meals with two or three snacks may be more helpful in maintaining blood glucose levels than three large meals. Complex carbohydrates (apples, broccoli, peas, dried beans, carrots, peas, oats) decrease glucose levels/insulin needs, reduce serum cholesterol levels, and promote satiation. Food intake is scheduled according to specific insulin characteristics and individual patient responses.

- **Option A:** A snack at bedtime of complex carbohydrates is significant (if insulin is given in divided doses) to prevent hypoglycemia during sleep and potential Somogyi response. A consistent amount of food and time interval between meals helps prevent hypoglycemic reactions and maintain overall blood glucose control.
- **Option B:** It is recommended that 60% of calories should be derived from carbohydrates. Carbohydrate foods have the greatest effect on the levels of blood glucose because they are digested more quickly as compared to other food sources. All carbohydrates should be taken in moderation to avoid postprandial blood glucose levels.
- **Option D:** If the patient's food preferences can be incorporated into the meal plan, cooperation with dietary requirements may be facilitated after discharge. A diet low in fat and high in fiber helps to control cholesterol and triglycerides. Three daily meals and an evening snack are recommended. Refined and simple sugars should be reduced, and complex carbohydrates, such as cereals, rice should be increased.

22. A child is admitted to the hospital with suspected rheumatic fever. Which of the following observations is not confirming the diagnosis?

- A. A reddened rash visible over the trunk and extremities.
- B. A history of sore throat that was self-limited in the past month.
- C. A negative antistreptolysin O titer.
- D. An unexplained fever.

Correct Answer: C. A negative antistreptolysin O titer.

Rheumatic fever is caused by an untreated group A B hemolytic Streptococcus infection in the previous 2-6 weeks, confirmed by a positive antistreptolysin O titer. ASO is a test used to detect streptococcal antibodies directed against streptococcal lysin O. An elevated titer is proof of a previous streptococcal infection. It is usually more elevated after a pharyngeal than skin infection, while the ADB is typically elevated regardless of the site of the infection.

- **Option A:** Rheumatic fever is characterized by a red rash over the trunk and extremities. The individual lesions of erythema marginatum are evanescent, moving over the skin in serpiginous patterns. Likened to smoke rings, they have a tendency to advance at the margins while clearing in the center.
- **Option B:** Although estimates vary, only 35%-60% of patients with rheumatic fever recall having any upper respiratory symptoms, most commonly, sore throat, in the preceding several weeks. Studies in developed countries have established that rheumatic fever followed only pharyngeal infections and that not all serotypes of group A streptococci cause rheumatic fever.
- **Option D:** Other symptoms of rheumatic fever include fever. The average duration of an untreated ARF attack is 3 months. Chronic rheumatic fever, generally defined as disease persisting for longer than 6 months, occurs in less than 5% of cases.

23. A nurse is giving dietary instructions to a client receiving levodopa. Which of the following food items should be avoided by the client?

- A. Goat yogurt
- B. Whole grain cereal
- C. Asparagus
- D. Apples

Correct Answer: B. Whole grain cereal

When administering levodopa, the client should avoid excessive intake of foods rich in pyridoxine (vitamin B6) which has been found to reduce the effects of levodopa. Large amounts of pyridoxine are also contained in some foods such as bananas, egg yolks, lima beans, meats, peanuts, and whole-grain cereals.

- **Options A, C, & D:** These are foods low in vitamin B6.

24. Patrick who is hospitalized following a myocardial infarction asks the nurse why he is taking morphine. The nurse explains that morphine:

- A. Decrease anxiety and restlessness
- B. Prevents shock and relieves pain
- C. Dilates coronary blood vessels
- D. Helps prevent fibrillation of the heart

Correct Answer: B. Prevents shock and relieves pain

Morphine is a central nervous system depressant used to relieve the pain associated with myocardial infarction, it also decreases apprehension and prevents cardiogenic shock. FDA-approved usage of morphine sulfate includes moderate to severe pain that may be acute or chronic. Most commonly used in pain management, morphine provides major relief to patients afflicted with pain.

- **Option A:** Benzodiazepines decrease anxiety and restlessness. Indications for benzodiazepine administration include, but are not limited to, anxiety disorders, insomnia, acute status epilepticus, induction of amnesia, spastic disorders, seizure disorders, and agitation.
- **Option C:** Calcium channel blockers, such as nitroglycerin, dilate large coronary blood vessels. The dihydropyridines, in therapeutic dosing, have a little direct effect on the myocardium, and instead, are more often peripheral vasodilators, which is why they are useful for hypertension, post-intracranial hemorrhage associated vasospasm, and migraines.
- **Option D:** Antiplatelets and anticoagulants help prevent atrial fibrillation by preventing blood clot formation. Antiplatelet medications divide into oral and parenteral agents. Oral agents subdivide further based on the mechanism of action. Aspirin was the first antiplatelet medication and is a cyclooxygenase inhibitor.

25. The nurse is counseling a couple who has sought information about conceiving. The couple asks the nurse to explain when ovulation usually occurs. Which statement by the nurse is correct?

- A. Two weeks before menstruation.
- B. Immediately after menstruation.
- C. Immediately before menstruation.
- D. Three weeks before menstruation.

Correct Answer: A. Two weeks before menstruation

Ovulation occurs 14 days before the first day of the menstrual period (A). Although ovulation can occur in the middle of the cycle or 2 weeks after menstruation, this is only true for a woman who has a perfect 28-day cycle. For many women, the length of the menstrual cycle varies.

- **Option B:** After the follicle releases its egg, it changes into the corpus luteum. This structure releases hormones, mainly progesterone and some estrogen. The rise in hormones keeps the uterine lining thick and ready for a fertilized egg to implant. If the woman does get pregnant, her body will produce human chorionic gonadotropin (hCG). This is the hormone pregnancy tests detect. It helps maintain the corpus luteum and keeps the uterine lining thick. If the woman doesn't get pregnant, the corpus luteum will shrink away and be resorbed. This leads to decreased levels of estrogen and progesterone, which causes the onset of the period. The uterine lining will shed during this period.
- **Option C:** The menstrual phase is the first stage of the menstrual cycle. It's also when the woman gets her period. This phase starts when an egg from the previous cycle isn't fertilized. Because

pregnancy hasn't taken place, levels of the hormones estrogen and progesterone drop. The thickened lining of the uterus, which would support a pregnancy, is no longer needed, so it sheds through the vagina. During this period, there is a release of a combination of blood, mucus, and tissue from the uterus.

- **Option D:** During each menstrual cycle, an egg develops and is released from the ovaries. The lining of the uterus builds up. If a pregnancy doesn't happen, the uterine lining sheds during a menstrual period. Then the cycle starts again.

26. A patient who develops hives after receiving an antibiotic is exhibiting drug:

- A. Tolerance
- B. Idiosyncrasy
- C. Synergism
- D. Allergy

Correct Answer: D. Allergy

A drug-allergy is an adverse reaction resulting from an immunologic response following previous sensitizing exposure to the drug. The reaction can range from a rash or hives to anaphylactic shock.

- **Option A:** Tolerance to a drug means that the patient experiences a decreasing physiologic response to repeated administration of the drug in the same dosage.
- **Option B:** Idiosyncrasy is an individual's unique hypersensitivity to a drug, food, or other substance; it appears to be genetically determined.
- **Option C:** Synergism, is a drug interaction in which the sum of the drug's combined effects is greater than that of their separate effects.

27. A female child, age 6, is brought to the health clinic for a routine checkup. To assess the child's vision, the nurse should ask:

- A. "Do you have any problems seeing different colors?"
- B. "Do you have trouble seeing at night?"
- C. "Do you have problems with glare?"
- D. "How are you doing in school?"

Correct Answer: D. "How are you doing in school?"

A child's poor progress in school may indicate a visual disturbance. Most children do not have 20/20 vision until after six years of age, but at any age, visual acuity should be approximately equal between the eyes. The Multi-Ethnic Pediatric Eye Disease Study provided updated norms for visual acuity in children two and a half to six years of age.

- **Option A:** This option is more appropriate to ask when assessing vision in a geriatric patient. The American Academy of Ophthalmology recommends the use of an eye chart by three years of age. Picture charts (Lea or Allen) or matching charts (HOTV) can be used in preliterate children, and letter charts (Snellen) can be used in literate children.
- **Option B:** This option is more appropriate to ask when assessing vision in a geriatric patient. Vision screening in children is an ongoing process with different components occurring at each

well-child visit. It can reveal conditions commonly treated in primary care and can aid in the discussion of visual concerns with parents or caregivers.

- **Option C:** This option is more appropriate to ask when assessing vision in a geriatric patient. The American Academy of Family Physicians and the U.S. The Preventive Services Task Force recommends vision screening at least once in all children three to five years of age (B recommendation).

28. Which level is characteristic of the strength of the evidence provided by the results of a quasi-experimental study?

- A. Level I
- B. Level II
- C. Level III
- D. Level IV

Correct Answer: C. Level III

Evidence provided by quasi-experimental studies is level III. Evidence obtained from well-designed controlled trials without randomization (i.e. quasi-experimental). Levels of evidence (sometimes called hierarchy of evidence) are assigned to studies based on the methodological quality of their design, validity, and applicability to patient care. These decisions give the “grade (or strength) of recommendation.”

- **Option A:** Level I evidence is obtained from a systematic review of all randomized, controlled trials. Evidence is from a systematic review or meta-analysis of all relevant RCTs (randomized controlled trial) or evidence-based clinical practice guidelines based on systematic reviews of RCTs or three or more RCTs of good quality that have similar results.
- **Option B:** Level II evidence is obtained from at least one well-designed randomized, controlled trial. Evidence is obtained from at least one well-designed RCT (e.g. large multi-site RCT).
- **Option D:** Level IV evidence is obtained from nonexperimental studies. Evidence is from well-designed case-control or cohort studies. In level V, evidence is from systematic reviews of descriptive and qualitative studies (meta-synthesis). In level VI, evidence is from a single descriptive or qualitative study. Lastly, in level VII, evidence is from the opinion of authorities and/or reports of expert committees.

29. A female client is readmitted to the facility with a warm, tender, reddened area on her right calf. Which contributing factor would the nurse recognize as most important?

- A. A history of increased aspirin use.
- B. Recent pelvic surgery.
- C. An active daily walking program.
- D. A history of diabetes.

Correct Answer: B. Recent pelvic surgery

The client shows signs of deep vein thrombosis (DVT). The pelvic area is rich in blood supply, and thrombophlebitis of the deep vein is associated with pelvic surgery. Thrombosis is a protective mechanism that prevents the loss of blood and seals off damaged blood vessels. Fibrinolysis counteracts or stabilizes the thrombosis. The triggers of venous thrombosis are frequently multifactorial, with the different parts of the triad of Virchow contributing in varying degrees in each patient, but all result in early thrombus interaction with the endothelium. This then stimulates local cytokine production and causes leukocyte adhesion to the endothelium, both of which promote venous thrombosis.

- **Option A:** Aspirin, an antiplatelet agent, and an active walking program help decrease the client's risk of DVT. The use of thrombolytic therapy can result in an intracranial bleed, and hence, careful patient selection is vital. Recently endovascular interventions like catheter-directed extraction, stenting, or mechanical thrombectomy have been tried with moderate success.
- **Option C:** Treatment of DVT aims to prevent pulmonary embolism, reduce morbidity, and prevent or minimize the risk of developing post-thrombotic syndrome. The cornerstone of treatment is anticoagulation. NICE guidelines only recommend treating proximal DVT (not distal) and those with pulmonary emboli. In each patient, the risks of anticoagulation need to be weighed against the benefits.
- **Option D:** In general, diabetes is a contributing factor associated with peripheral vascular disease. In the hospital, the most commonly associated conditions are malignancy, congestive heart failure, obstructive airway disease, and patients undergoing surgery. In the hospital, the most commonly associated conditions are malignancy, congestive heart failure, obstructive airway disease, and patients undergoing surgery.

30. Which of the following symptoms is common in clients with TB?

- A. Weight loss
- B. Increased appetite
- C. Dyspnea on exertion
- D. Mental status changes

Correct Answer: A. Weight loss

TB typically produces anorexia and weight loss. Other signs and symptoms may include fatigue, low-grade fever, and night sweats. Secondary tuberculosis differs in clinical presentation from the primary progressive disease. In secondary disease, the tissue reaction and hypersensitivity is more severe, and patients usually form cavities in the upper portion of the lungs.

- **Option B:** Constitutional symptoms like fever, weight loss, lymphadenopathy, and night sweats are commonly reported. Extrapulmonary tuberculosis can affect any organ and can have a varied presentation.
- **Option C:** Physical examination depends on the organs involved. In the case of pulmonary TB, a patient can have crepitations, and bronchial breath sounds, especially over the upper lobes or affected area indicating cavity or consolidation.
- **Option D:** The presentation of secondary tuberculosis is different from that of primary progressive disease as the hypersensitivity, and tissue reaction is more severe in secondary tuberculosis. Primary tuberculosis often causes middle and lower lung field opacities associated with mediastinal adenopathy. Whereas secondary tuberculosis commonly involves upper lobes, causing opacities, cavities, or fibrotic scar tissue.

31. 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).

32. The physician orders heparin, 7,500 units, to be administered subcutaneously every 6 hours. The vial reads 10,000 units per milliliter. The nurse should anticipate giving how much heparin for each dose?

- A. $\frac{1}{4}$ ml
- B. $\frac{1}{2}$ ml
- C. $\frac{3}{4}$ ml
- D. $1 \frac{1}{4}$ ml

Correct Answer: C. $\frac{3}{4}$ ml

The nurse solves the problem as follows:

$$10,000 \text{ units} / 7,500 \text{ units} = 1 \text{ ml} / X$$

$$10,000 X = 7,500$$

$$X = 7,500 / 10,000 \text{ or } \frac{3}{4} \text{ ml}$$

- **Option A:** There are 3 primary methods for the calculation of medication dosages, as referenced above. These include Desired Over Have Method or Formula, Dimensional Analysis and Ratio and Proportion.

- **Option B:** Desired over Have or Formula Method is a formula or equation to solve for an unknown quantity (x) much like ratio proportion. Drug calculations require the use of conversion factors, such as when converting from pounds to kilograms or liters to milliliters. Simplistic in design, this method allows us to work with various units of measurement, converting factors to find our answer. Useful in checking the accuracy of the other methods of calculation as above mentioned, thus acting as a double or triple check.
- **Option D:** The Ratio and Proportion Method has been around for years and is one of the oldest methods utilized in drug calculations (as cited in Boyer, 2002)[Lindow, 2004]. Addition principals is a problem-solving technique that has no bearing on this relationship, only multiplication, and division are used to navigate through a ratio and proportion problem, not adding.

33. The client who experienced an inhalation injury 6 hours ago has been wheezing. When the client is assessed, wheezes are no longer heard. What is the nurse's best action?

- A. Raise the head of the bed.
- B. Notify the emergency team.
- C. Loosen the dressings on the chest.
- D. Document the findings as the only action.

Correct Answer: B. Notify the emergency team.

Clients with severe inhalation injuries may sustain such progressive obstruction that they may lose the effective movement of air. When this occurs, wheezing is no longer heard and neither are breath sounds. The client requires the establishment of an emergency airway and the swelling usually precludes intubation.

- **Option A:** Raising the head of the bed would be not much help because of the obstructed airway. Airway protection should include considering early and preemptive intubation for patients with inhalation injury.
- **Option C:** Dressings may be loosened, but emergency intubation would still be needed. Airway edema may occur suddenly as edema worsens, and often, the upper airways develop injury and obstruction earliest, prior to the parenchymal injury.
- **Option D:** This is not a normal finding. There may be accessory muscle usage, tachypnea, cyanosis, stridor, and rhonchi/rales/wheezing. Findings of stridor or upper airway turbulence/noise are often a sign of impending airway compromise, and prompt intubation should be strongly considered.

34. Dr. Grey prescribes norfloxacin (Noroxin), 400 mg P.O. twice daily, for a client with a urinary tract infection (UTI). The client asks the nurse how long to continue taking the drug. For an uncomplicated UTI, the usual duration of norfloxacin therapy is:

- A. 3 to 5 days.
- B. 7 to 10 days.
- C. 12 to 14 days.

D. 10 to 21 days.

Correct Answer: B. 7 to 10 days.

For an uncomplicated UTI, norfloxacin therapy usually lasts 7 to 10 days. Oral quinolones are rapidly absorbed in the gastrointestinal tract and possess a high oral bioavailability, allowing the oral and IV routes of administration to be used interchangeably for certain quinolones. Though quinolones are widely distributed throughout the body, the degree of penetration into tissues and bodily fluids depends on the individual quinolone.

- **Option A:** Taking the drug for less than 7 days wouldn't eradicate such an infection. Most quinolones are predominantly eliminated unchanged by the kidney via glomerular filtration and some degree of tubular secretion. They are typically eliminated through the hepatic and trans-intestinal routes to a lesser extent, though the degree to which they undergo elimination through these routes depends on the individual quinolones.
- **Option C:** Taking it for more than 10 days isn't necessary. Concurrent consumption of food (including dairy products) with oral quinolones has minimal effect on its absorption and activity. However, oral absorption of quinolones substantially decreases when taken together with other medications containing metallic cations due to the chelation that occurs between quinolone functional groups and the cations leading to the formation of an insoluble compound.
- **Option D:** Only a client with a complicated UTI must take norfloxacin for 10 to 21 days. Multiple studies have observed an increase in the elimination half-life of various quinolones with decreasing creatinine clearance. As such, patients with renal impairment should have their quinolone dosage adjusted according to their respective renal function.

35. Which patient should you, as charge nurse, assign to a new graduate RN who is orienting to the neurologic unit?

- A. A 28-year-old newly admitted patient with spinal cord injury.
- B. A 67-year-old patient with stroke 3 days ago and left-sided weakness.
- C. An 85-year-old dementia patient to be transferred to long-term care today.
- D. A 54-year-old patient with Parkinson's who needs assistance with bathing.

Correct Answer: B. A 67-year-old patient with stroke 3 days ago and left-sided weakness.

The new graduate RN who is oriented to the unit should be assigned stable, non-complex patients, such as the patient with stroke.

- **Option A:** The newly admitted SCI should be assigned to experienced nurses. Most cases of SCI take place when trauma breaks and squeezes the vertebrae, or the bones of the back. This, in turn, damages the axons—the long nerve cell “wires” that pass through vertebrae, carrying signals between the brain and the rest of the body. The axons might be crushed or completely severed by this damage. Someone with injury to only a few axons might be able to recover completely from their injury. On the other hand, a person with damage to all axons will most likely be paralyzed in the areas below the injury.
- **Option C:** A patient for transfer should be assigned to a nurse who has experience in the process of transferring patients.
- **Option D:** The patient with Parkinson's disease needs assistance with bathing, which is best delegated to the nursing assistant.

36. Pediatric and geriatric patients often react with more sensitivity to CNS depressants. This type of sensitivity manifests itself in the development of which type of reaction?

- A. Idiopathic
- B. Teratogenic
- C. Paradoxical
- D. Psychogenic

Correct Answer: C. Paradoxical

Benzodiazepines frequently are administered to patients to induce sedation. Paradoxical reactions to benzodiazepines, characterized by increased talkativeness, emotional release, excitement, and excessive movement, are relatively uncommon and occur in less than 1% of patients.

- **Option A:** Idiosyncratic drug reactions are a significant cause of morbidity and mortality for patients; they also markedly increase the uncertainty of drug development. The major targets are skin, liver, and bone marrow. Clinical characteristics suggest that IDRs are immune-mediated, and there is substantive evidence that most, but not all, IDRs are caused by chemically reactive species.
- **Option B:** A teratogen is an agent that can disturb the development of the embryo or fetus. Teratogens halt the pregnancy or produce a congenital malformation (a birth defect). Classes of teratogens include radiation, maternal infections, chemicals, and drugs.
- **Option D:** Several pharmacological treatments used in internal medicine can induce psychiatric side effects (PSEs) that mimic diagnoses seen in psychiatry. PSEs may occur upon withdrawal or intoxication, and also at usual therapeutic doses.

37. Which of the following statements is expected from a client with borderline personality disorder with a history of dysfunctional relationships?

- A. "I won't get involved in another relationship."
- B. "I'm determined to look for the perfect partner."
- C. "I've decided to use better communication skills."
- D. "I'm going to be an equal partner in a relationship."

Correct Answer: B. "I'm determined to look for the perfect partner."

Clients with borderline personality disorder would decide to look for a perfect partner. This characteristic is a result of the dichotomous manner in which these clients view the world. They go from relationship to relationship without taking responsibility for their behavior. BPD can often interfere with the ability to enjoy life or achieve fulfillment in relationships, work, or school. It's associated with specific and significant problems in interpersonal relationships, self-image, emotions, behaviors, and thinking.

- **Option A:** It's unlikely that an unsuccessful relationship will cause clients to make a change. They tend to be demanding and impulsive in relationships. People with BPD tend to have intense relationships with loved ones characterized by frequent conflicts, arguments, and break-ups. BPD is associated with an intense fear of being abandoned by loved ones and attempts to avoid real or imagined abandonment. This usually leads to difficulty trusting others, putting a strain on relationships.

- **Option C:** There's no thought given to what one wants or needs from a relationship. Because they tend to blame others for problems, it's unlikely they would express a desire to learn communication skills. Individuals with BPD have difficulties related to the stability of their sense of self. They report many ups and downs in how they feel about themselves. One moment they may feel good about themselves, but the next they may feel they are bad or even evil.
- **Option D:** Emotional instability is a key feature of BPD. Individuals feel like they're on an emotional roller coaster with quick mood shifts (i.e., going from feeling OK to feeling extremely down or blue within a few minutes). Mood changes can last from minutes to days and are often intense. Anger, anxiety, and overwhelming emptiness are common as well.

38. Mrs. Eleanor, a 68-year-old former ballet dancer, is admitted to the rheumatology clinic for management of her gout. She has had recurrent episodes of painful joint inflammation, particularly in her feet. In light of her medical history and current presentation, her rheumatologist prescribes allopurinol to help manage her condition. Given Mrs. Eleanor's new medication regimen, what intervention should the nurse prioritize to ensure effective and safe management of her gout?

- A. Assessing liver function regularly
- B. Encouraging the patient to limit fluid intake
- C. Administering colchicine before meals
- D. Instructing the patient to avoid sunlight exposure

Correct Answer: A. Assessing liver function regularly.

Allopurinol is metabolized in the liver, and while rare, it can have hepatotoxic effects. Regularly monitoring liver function is important to ensure that the patient is not developing any adverse liver reactions to the medication.

- **Option B:** Patients on allopurinol should actually be encouraged to maintain adequate fluid intake to prevent kidney stone formation and assist in uric acid excretion. Reducing fluid intake would be contraindicated.
- **Option C:** While colchicine is another medication used in gout management, the question focuses on allopurinol. Furthermore, the timing of colchicine administration relative to meals is not critical to its absorption.
- **Option D:** While some medications can cause photosensitivity, allopurinol is not commonly associated with this side effect. Thus, this instruction would not be a priority for a patient on allopurinol.

39. In which phase of the nursing process does the nurse decide whether her actions have successfully treated the client's health problem?

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

Correct Answer: D. Evaluation

During the implementation phase, the nurse carries out the interventions or delegates them to other health care team members. During the evaluation phase, the nurse judges whether her actions have been successful in treating or preventing the identified client health problem. This final step of the nursing process is vital to a positive patient outcome. Whenever a healthcare provider intervenes or implements care, they must reassess or evaluate to ensure the desired outcome has been met. Reassessment may frequently be needed depending upon overall patient condition. The plan of care may be adapted based on new assessment data.

- **Option A:** In the assessment phase, the nurse gathers data from many sources for analysis in the diagnosis phase. Assessment is the first step and involves critical thinking skills and data collection; subjective and objective. Subjective data involves verbal statements from the patient or caregiver. Objective data is measurable, tangible data such as vital signs, intake and output, and height and weight.
- **Option B:** In the diagnosis phase, the nurse identifies the client's health status. The North American Nursing Diagnosis Association (NANDA) provides nurses with an up to date list of nursing diagnoses. A nursing diagnosis, according to NANDA, is defined as a clinical judgment about responses to actual or potential health problems on the part of the patient, family or community.
- **Option C:** In the planning outcomes phase, the nurse and client decide on goals they want to achieve. In the intervention planning phase, the nurse identifies specific interventions to help achieve the identified goal. The planning stage is where goals and outcomes are formulated that directly impact patient care based on EDP guidelines. These patient-specific goals and the attainment of such assist in ensuring a positive outcome.

40. For a client diagnosed with epistaxis, which intervention would be included in the care plan?

- A. Performing several abdominal thrust (Heimlich) maneuvers.
- B. Compressing the nares to the septum for 5 to 10 minutes.
- C. Applying an ice collar to the neck area.
- D. Encouraging warm saline throat gargles.

Correct Answer: B. Compressing the nares to the septum for 5 to 10 minutes.

When a client experiences epistaxis, the nurse should compress the soft outer portion of the nares against the septum for approximately 5 to 10 minutes. The client should sit upright, breathe through the mouth, and refrain from talking. Treatment for anterior bleeding can be started with direct pressure for at least 10 minutes. Have the patient apply constant direct pressure by pinching the nose over the cartilaginous tip (instead of over the bony areas) for a few minutes to try to control the bleed. If that is ineffective, vasoconstrictors such as oxymetazoline or thrombogenic foams or gels can be employed.

- **Option A:** Performing abdominal thrusts is appropriate for the client with a foreign-body aspiration. The treatment for an adult with complete FBAO is similar to that of a child where a bystander performs the Heimlich maneuver until expelling the foreign body or CPR if the patient loses consciousness.
- **Option C:** Applying an ice collar to the neck is commonly done for a client after a tonsillectomy. Bleeding is one of the most common and feared complications following tonsillectomy with or without adenoidectomy. A study from 2009 to 2013 involving over one hundred thousand children showed that 2.8% of children had unplanned revisits for bleeding following tonsillectomy, 1.6%

percent of patients came through the emergency department, and 0.8% required a procedure.

- **Option D:** Warm saline throat gargles are appropriate for the client with pharyngitis. All patients with pharyngitis should be educated on the importance of handwashing, rest, and hydration. Antibiotics are typically overused in the treatment of acute pharyngitis. As most cases are due to a viral etiology, antibiotics will not alter the patient's course.

41. Stephanie delegates effectively if she has authority to act, which is best defined as:

- A. Having a responsibility to direct others.
- B. Being accountable to the organization.
- C. Having a legitimate right to act.
- D. Telling others what to do.

Correct Answer: C. Having legitimate right to act.

Authority is a legitimate or official right to give the command. This is an officially sanctioned responsibility. Managers must possess the authority to give orders, and recognize that with authority comes responsibility. As well as rank, Fayol argues that a manager's intelligence, experience, and values should command respect.

- **Option A:** In order to get things done in an organization, management has the authority to give orders to the employees. Of course with this authority comes responsibility. According to Henri Fayol, the accompanying power or authority gives the management the right to give orders to the subordinates.
- **Option B:** The responsibility can be traced back from performance and it is, therefore, necessary to make agreements about this. In other words, authority and responsibility go together and they are two sides of the same coin.
- **Option D:** The right to give orders should not be considered without reference to responsibility. If the authority is more than responsibility then chances are that a manager may misuse it. If responsibility is more than authority then he may feel frustrated.

42. A client with schizophrenia tells the nurse, "My intestines are rotted from the worms chewing on them." This statement indicates a:**A. Delusion of persecution**

- A. Delusion of persecution
- B. Delusion of grandeur
- C. Somatic delusion
- D. Jealous delusion

Correct Answer: C. Somatic delusion

Somatic delusions focus on bodily functions or systems and commonly include delusions about foul odor emissions, insect infestations, internal parasites, and misshapen parts. Of the delusional symptoms, somatic delusions-those that pertain to the body-are rather rare. Somatic delusions are defined as fixed false beliefs that one's bodily function or appearance is grossly abnormal. They are a

poorly understood psychiatric symptom and pose a significant clinical challenge to clinicians.

- **Option A:** Delusions of persecution are morbid beliefs that one is being mistreated and harassed by unidentified enemies. Persecutory delusions occur when someone believes others are out to harm them despite evidence to the contrary. It's a type of paranoid thinking that can be part of several different mental illnesses. Whether people with this condition think coworkers are sabotaging their work or they believe the government is trying to kill them, persecutory delusions vary in severity. Some individuals with persecutory delusions believe they have to go to great lengths to stay safe—and consequently, they may struggle to function normally.
- **Option B:** Delusions of grandeur are gross exaggerations of one's importance, wealth, power, or talents. A delusion of grandeur is the false belief in one's own superiority, greatness, or intelligence. People experiencing delusions of grandeur do not just have high self-esteem; instead, they believe in their own greatness and importance even in the face of overwhelming evidence to the contrary. Someone might, for example, believe they are destined to be the leader of the world, despite having no leadership experience and difficulties in interpersonal relationships. Delusions of grandeur are characterized by their persistence. They are not just moments of fantasy or hopes for the future.
- **Option D:** Jealous delusions are delusions that one's spouse or lover is unfaithful. Delusional jealousy (also known as morbid jealousy) is one type of delusional disorder, and as the name implies people with jealous delusions are completely convinced that their spouses or romantic partners have been unfaithful.

43. Blessy, a community health nurse is conducting an educational session with community members regarding tuberculosis. The nurse tells the group that one of the first symptoms associated with tuberculosis is:

- A. Dyspnea
- B. Chest pain
- C. A bloody, productive cough.
- D. A cough with the expectoration of mucoid sputum.

Correct Answer: D. A cough with the expectoration of mucoid sputum

One of the first pulmonary symptoms is a slight cough with the expectoration of mucoid sputum. A chronic cough, hemoptysis, weight loss, low-grade fever, and night sweats are some of the most common physical findings in pulmonary tuberculosis. Other options are late symptoms and signify cavitation and extensive lung involvement.

- **Option A:** Secondary tuberculosis differs in clinical presentation from the primary progressive disease. In secondary disease, the tissue reaction and hypersensitivity is more severe, and patients usually form cavities in the upper portion of the lungs
- **Option B:** Pulmonary or systemic dissemination of the tubercles may be seen in active disease, and this may manifest as miliary tuberculosis characterized by millet-shaped lesions on chest x-ray. Disseminated tuberculosis may also be seen in the spine, the central nervous system, or the bowel.
- **Option C:** As the bacterium begins multiplying in the body and destroying tissue, it causes symptoms such as a bad, persistent cough, fatigue/loss of energy, weight loss, loss of appetite, chills, fever, drenching night sweats, chest pain, and coughing up or spitting up bright red blood, a symptom that occurs when the blood vessels inside the lungs become eroded and begin to bleed.

44. A maternity nurse is caring for a client with abruptio placenta and is monitoring the client for disseminated intravascular coagulopathy. Which assessment finding is least likely to be associated with disseminated intravascular coagulation?

- A. Swelling of the calf in one leg
- B. Prolonged clotting times
- C. Decreased platelet count
- D. Petechiae, oozing from injection sites, and hematuria

Correct Answer: A. Swelling of the calf in one leg

DIC is a state of diffuse clotting in which clotting factors are consumed, leading to widespread bleeding. Swelling and pain in the calf of one leg are more likely to be associated with thrombophlebitis.

- **Option B:** Fibrin plugs may clog the microvasculature diffusely, rather than in an isolated area. Derangement of the fibrinolytic system further contributes to intravascular clot formation, but in some cases, accelerated fibrinolysis may cause severe bleeding. Hence, a patient with DIC can present with a simultaneously occurring thrombotic and bleeding problem, which obviously complicates the proper treatment.
- **Option C:** Platelets are decreased because they are consumed by the process; coagulation studies show no clot formation (and are thus normal to prolong). Exposure to tissue factor (TF) in the circulation occurs via endothelial disruption, tissue damage, or inflammatory or tumor cell expression of procoagulant molecules (including TF). TF activates coagulation via the extrinsic pathway involving factor VIIa. The TF-VIIa complex activates thrombin, which cleaves fibrinogen to fibrin while simultaneously causing platelet aggregation..
- **Option D:** The presence of petechiae, oozing from injection sites, and hematuria are signs associated with DIC. With acute DIC, the physical findings are usually those of the underlying or inciting condition; however, patients with the acute disease (ie, the hemorrhagic variety associated with excess plasmin formation) have petechiae on the soft palate, trunk, and extremities from thrombocytopenia and ecchymosis at venipuncture sites. These patients also manifest ecchymosis in traumatized areas.

45. A nurse is caring for a client who disconnected the tubing of the parenteral nutrition from the central line catheter. A nurse suspects an occurrence of an air embolism. Which of the following is an appropriate position for the client in this kind of situation?

- A. On the right side, with head higher than the feet.
- B. On the right side, with head lower than the feet.
- C. On the left side, with the head higher than the feet.
- D. On the left side, with head lower than the feet.

Correct Answer: D. On the left side, with head lower than the feet.

Air embolism happens because of the entry of air into the catheter system. If it occurs, the client should be placed in a left-side-lying position with the head be lower than the feet. This position will lessen the effect of the air traveling as a bolus to the lungs by trapping it on the right side of the heart. It occurs as

a result of a pressure gradient that allows air to enter the bloodstream, which can subsequently occlude blood flow.

- **Option A:** When removing catheters, it is also recommended to raise CVP by keeping the patient in a supine position or with their head down or Trendelenburg position. Ideally, the venotomy site should be below the level of the heart to ensure adequate central venous pressure at the time of removal.
- **Option B:** Patients should be instructed to perform a Valsalva maneuver during catheter removal, if possible. If this is not possible, removing the catheter during active expiration is recommended. It should be ensured that the exit site is covered with impermeable dressing and that pressure is applied afterward for 5–10 min, for hemostasis and prevention of bubble entry. It is recommended that the patient remains supine for 30 min after central venous access removal
- **Option C:** In cases of venous air embolism, Durant's maneuver is performed, by placing the patient in the left lateral decubitus and Trendelenburg position. This serves to encourage the air bubble to move out of the right ventricular outflow tract (RVOT) and into the right atrium, thereby relieving the "air-lock" effect responsible for potentially catastrophic cardiopulmonary collapse.

46. Nurse Casey is studying insulin administration. She should be knowledgeable that regular insulin:

- A. Is slow acting
- B. Is used IV
- C. Is a suspended insulin
- D. Peaks in 6 to 12 hours

Correct Answer: B. Is used IV

Regular insulin is the only insulin preparation that can be administered IV. 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 A:** Regular insulin is rapid-acting. In patients with DM (mainly type 1 but also can be in type 2) and on an insulin regimen, blood glucose should be monitored between meals to prevent hypoglycemia. Additionally, weight measurements are necessary due to insulin-associated weight gain. Insulin regular onset of effect is 1 hour.
- **Option C:** It is a crystalline zinc preparation. 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.
- **Option D:** It peaks in 2 to 4 hours. Insulin regular onset of effect is 1 hour, peaks at 2 to 4 hours, and the duration of the effect lasts 4-hours.

47. The classic symptoms that define breast cancer includes the following except:

- A. Solitary, irregularly shaped mass
- B. "Pink peel" skin

- C. Firm, nontender, nonmobile mass
- D. Abnormal discharge from the nipple

Correct Answer: B. "Pink peel" skin

- **Options D:** Pink peel skin is a symptom of breast cancer but it can also be seen with other conditions such as eczema, contact dermatitis, or scarlet fever.
- **Options A, C, and D:** Classic symptoms that define breast cancer include: Firm, nontender, nonmobile mass. Solitary, irregularly shaped mass. Adherence to muscle or skin causing dimpling effect. Involvement of the upper outer quadrant or central nipple portion. Asymmetry of the breasts. "Orange peel" skin. Retraction of nipple. Abnormal discharge from nipple.

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

- A. Varicose vein surgery.
- B. Myelogram.
- C. Abdominal aneurysm resection.
- D. Arterial Vascular Grafting.

Correct Answer: D. Arterial Vascular Grafting.

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

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

49. A client with schizoaffective disorder is exhibiting Parkinsonian symptoms. Which medication is responsible for the development of Parkinsonian symptoms?

- A. Cogentin (benztropine mesylate)
- B. Benadryl (diphenhydramine)

- C. Zyprexa (olanzapine)
- D. Depakote (divalproex sodium)

Correct Answer: C. Zyprexa (olanzapine)

- Option C: A side effect of antipsychotic medication such as olanzapine is the development of Parkinsonian symptoms.
- Options A and B: They are used to reverse Parkinsonian symptoms in the client taking antipsychotic medication.
- Option D: Depakote is an anticonvulsant used to stabilize mood. Parkinsonian symptoms are not associated with anticonvulsant medication.

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

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

Correct Answer: A. Check the client for bladder distention

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

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

51. The therapeutic approach in the care of an autistic child includes the following except:

- A. Engage in diversionary activities when acting -out.
- B. Provide an atmosphere of acceptance.

- C. Provide safety measures.
- D. Rearrange the environment to activate the child.

Correct Answer: D. Rearrange the environment to activate the child

The child with the autistic disorder does not want change. Maintaining a consistent environment is therapeutic. Many individuals with ASD show a need for a structured, sometimes regimented, daily schedule. The need for controlled sensory stimulation, such as decreasing noise, lights, and tactile input, is common. Families must consider each family member's personality and activities while adapting to the needs of the family member with ASD.

- **Option A:** Angry outbursts can be re-channeled through safe activities. Education of nurses on how to best care for patients with ASD provides an avenue for ongoing advocacy to the entire healthcare team. Each person with ASD is unique and complex, and each must adapt to the world based on his or her strengths, weaknesses, and limitations. Remember that these individuals aren't autistic, but rather they have ASD.
- **Option B:** Acceptance enhances a trusting relationship. Nurses can team with the family for rehearsal of planned actions with expected behaviors before appointments or procedures, and frequent reminders during post-intervention care can reduce fear and outbursts while gaining patient cooperation. Tailoring care based on sensory sensitivity and the patient's ability to communicate is the primary focus. Interventions, such as dimming the lights, using a weighted blanket or vest, and allowing repetitive movement that doesn't hinder care, can soothe the person with ASD.
- **Option C:** Ensure safety from self-destructive behaviors like headbanging and hair-pulling. Clinical practice guidelines encourage direct, clear statements beginning with the patient's name to improve information processing. Instead of completing the entire head-to-toe assessment, nurses can anticipate the need to assess one or two body systems at a time to evaluate sensory tolerance. It's recommended for nurses and caregivers to deliver clear directions to gain inclusion and participation in the actions that are needed when giving care.

52. The client with ovarian cancer is receiving Tamoxifen (Nolvadex). Which of the following indicates a side effect specific to this medication?

- A. Weak and brittle nails
- B. Facial twitching
- C. Convulsions
- D. Constipation

Correct Answer: D. Constipation

Tamoxifen (Nolvadex) is an antineoplastic medication that may increase calcium levels. Signs of hypercalcemia include constipation, abdominal pain, hypotonicity of muscle, nausea, and vomiting.

- **Options A, B, & C:** These are signs of hypocalcemia.

53. Nurse Ryan is assessing for correct placement of a nasogastric tube. The nurse aspirates the stomach contents and checks the contents for pH. The nurse verifies correct tube placement if which pH value is noted?

- A. 3.5
- B. 7.0
- C. 7.35
- D. 7.5

Correct Answer: A. 3.5

If the nasogastric tube is in the stomach, the pH of the contents will be acidic. Gastric aspirates have acidic pH values and should be 3.5 or lower. The pH test performed with reagent strips is sensitive to identify the correct placement of the gastric tube, so it can be used as an adjuvant technique in the evaluation of the gastric tube placement. In interpreting the results, pH ≤ 5.5 points to correct placement, and values > 5.5 require radiological confirmation.

- **Option B:** 7.0 indicates a slightly acidic pH. There is evidence that the use of histamine H₂ receptor antagonist drugs may increase the pH value and cause confusion in the evaluation of gastric tube placement.
- **Option C:** 7.35 indicates a neutral pH. Verifying the pH of the aspirated secretion using reagent strips is a quick bedside test. Currently, there is a consensus among experts that this is the safest method available and is recommended as the first choice when verifying gastric tube placement in adults and children.
- **Option D:** 7.5 indicates an alkaline pH. The use of pH reagent strips is a sensitive but non-specific test to verify the placement of the gastric tube in newborns in the sample studied. That is, pH values ≤ 5.5 in the aspirated gastric tube secretion are sensitive indicators of the correct positioning of the tip of the tube.

54. A client with ulcerative colitis has an order to begin salicylate medication to reduce inflammation. The nurse instructs the client to take the medication:

- A. 30 minutes before meals
- B. On an empty stomach
- C. After meals
- D. On arising

Correct Answer: C. After meals

Salicylate compounds act by inhibiting prostaglandin synthesis and reducing inflammation. The nurse teaches the client to take the medication with a full glass of water and to increase fluid intake throughout the day. This medication needs to be taken after meals to reduce GI irritation.

- **Option A:** The medication should not be taken 30 minutes before meals. Aspirin absorption from the gastrointestinal (GI) tract depends on the formulation state. When consumed as a liquid preparation, it is rapidly absorbed as opposed to tablets. Its hydrolysis yields salicylic acid. Salicylic acid has a narrow therapeutic window. If maintained within that narrow range, it provides the appropriate anti-inflammatory effect.
- **Option B:** Aspirin, if taken on an empty stomach, may cause GI upset. Aspirin's absorption is pH sensitive at the level of the small intestine. Absorption is higher through the small intestine than the stomach for the same pH range. At pH 3.5 or 6.5, aspirin's intestinal absorption is greater than the gastric absorption of the compound. The stomach does not absorb aspirin at pH 6.5.

- **Option D:** Taking aspirin upon arising may put the client at risk for GI upset. The most common side effect of aspirin is gastrointestinal upset ranging from gastritis to gastrointestinal bleed. Aspirin increases the risk of GI bleeding in patients who already suffer from peptic ulcer disease or gastritis. The risk of bleeding is still present even without these conditions if there is concomitant consumption of alcohol or if the patient is on warfarin.

55. A 68-year-old male with a history of hypertension and diabetes has undergone a cardiac catheterization to evaluate potential coronary artery disease. He has a known allergy to iodine-based contrast agents, which required premedication with corticosteroids and antihistamines. The procedure was successful, but the patient experienced brief hypotension during the administration of the contrast material. The patient has been transferred to the cardiac step-down unit for observation, and the nurse is aware of the potential complications that can arise in the initial 24 hours post-procedure. Which complication should the nurse monitor closely during this period?

- A. Persistent angina despite being at rest and receiving nitroglycerin
- B. Thrombus formation leading to decreased peripheral pulses and cyanosis
- C. Dizziness accompanied by a sudden drop in blood pressure when standing
- D. Gradual decrease in blood pressure with no other symptoms

Correct Answer: B. Thrombus formation

In the initial 24 hours after a cardiac catheterization, the nurse should closely monitor for thrombus formation. Thrombus formation at the catheterization site can lead to serious complications, such as decreased blood flow to the extremities or embolization to other parts of the body. While the other options (angina at rest, dizziness, and falling blood pressure) can be potential concerns, thrombus formation is the most critical complication to monitor for during the immediate post-procedure period.

56. A female client with chronic obstructive pulmonary disease (COPD) takes anhydrous theophylline, 200 mg P.O. every 8 hours. During a routine clinic visit, the client asks the nurse how the drug works. What is the mechanism of action of anhydrous theophylline in treating a nonreversible obstructive airway disease such as COPD?

- A. It makes the central respiratory center more sensitive to carbon dioxide and stimulates the respiratory drive.
- B. It inhibits the enzyme phosphodiesterase, decreasing degradation of cyclic adenosine monophosphate, a bronchodilator.
- C. It stimulates adenosine receptors, causing bronchodilation.
- D. It alters diaphragm movement, increasing chest expansion and enhancing the lung's capacity for gas exchange.

Correct Answer: A. It makes the central respiratory center more sensitive to carbon dioxide and stimulates the respiratory drive.

Anhydrous theophylline and other methylxanthine agents make the central respiratory center more sensitive to CO₂ and stimulate the respiratory drive. Theophylline is indicated for the treatment of the symptoms and reversible airflow obstruction associated with chronic asthma and other chronic lung diseases, e.g., emphysema and chronic bronchitis.

- **Option B:** Inhibition of phosphodiesterase is the drug's mechanism of action in treating asthma and other reversible obstructive airway diseases — not COPD. At larger doses, theophylline inhibits phosphodiesterase causing increased cyclic adenosine monophosphate resulting in increased levels of adrenergic activation and catecholamine release.
- **Option C:** Methylxanthine agents inhibit rather than stimulate adenosine receptors. One mechanism is that theophylline blocks adenosine receptors, which has both therapeutic and toxic effects such as bronchodilation, tachycardia, cardiac arrhythmias, seizures, and cerebral vasoconstriction.
- **Option D:** Although these agents reduce diaphragmatic fatigue in clients with chronic bronchitis or emphysema, they don't alter diaphragm movement to increase chest expansion and enhance gas exchange. Theophylline causes endogenous release of catecholamines through indirect stimulation of beta-1 and beta-2 receptors, which at therapeutic levels cause desired bronchodilation.

57. Scott is a teenager suffering from osteomyelitis; the nurse would expect which of the following symptoms? Select all that apply.

- A. Fever
- B. Irritability
- C. Pallor
- D. Tenderness
- E. Swelling

Correct Answer: A, B, D, & E

The symptoms for acute and chronic osteomyelitis are very similar and include fever, irritability, fatigue, nausea, tenderness, redness (not pallor in option C), and warmth in the area of the infection, swelling around the affected bone, and lost range of motion.

- **Option A:** There may be a dull pain with or without motion and sometimes constitutional symptoms such as fever or chills. In subacute presentations, some patients may have generalized malaise, mild pain over several weeks with minimal fever, or other constitutional symptoms.
- **Option B:** Physical examination should focus primarily on finding a possible nidus of infection, assessing sensory function, and peripheral vasculature. Some patients are at high risk for osteomyelitis, and these include those with bacteremia, endocarditis, intravenous drug use, trauma, and open fractures.
- **Option C:** In chronic osteomyelitis, symptoms may occur over a longer duration of time, usually more than two weeks. As with acute osteomyelitis, patients may also present with swelling, pain, and erythema at the site of infection, but constitutional symptoms like fever are less common.
- **Option D:** Tenderness to palpation over vertebral bone may be a significant finding in vertebral osteomyelitis. The ability to probe an ulcer to the bone with a blunt sterile instrument is highly suggestive of osteomyelitis.
- **Option E:** Acute osteomyelitis may present gradually with onset over a few days but usually manifests within two weeks. Patients may have local symptoms such as erythema, swelling, and

warmth at the site of infection.

58. A 66-year-old client has been complaining of sleeping more, increased urination, anorexia, weakness, irritability, depression, and bone pain that interferes with her going outdoors. Based on these assessment findings, the nurse would suspect which of the following disorders?

- A. Diabetes mellitus
- B. Diabetes insipidus
- C. Hypoparathyroidism
- D. Hyperparathyroidism

Correct Answer: D. Hyperparathyroidism

Hyperparathyroidism is most common in older women and is characterized by bone pain and weakness from excess parathyroid hormone (PTH). Clients also exhibit hypercalciuria-causing polyuria.

- **Option A:** Common symptoms of diabetes mellitus include polyuria, polydipsia, and polyphagia
- **Option B:** While clients with diabetes insipidus also have polyuria, they don't have bone pain and increased sleeping.
- **Option C:** Hypoparathyroidism is characterized by urinary frequency rather than polyuria.

59. Myrna, a 52-year-old client with a fractured left tibia, has a long leg cast and she is using crutches to ambulate. Nurse Joy assesses for which sign and symptom that indicates complication associated with crutch walking?

- A. Left leg discomfort
- B. Weak biceps brachii
- C. Triceps muscle spasm
- D. Forearm weakness

Correct Answer: D. Forearm weakness

Forearm muscle weakness is a probable sign of radial nerve injury caused by crutch pressure on the axillae. Crutch palsy is observable in axilla crutch users who rest their weight on the shoulder rest. The pressure on the brachial plexus can result in palsy to the radial and ulnar nerves. Extra padding on the shoulder rest can aid in preventing crutch palsy.

- **Option A:** The left leg would be at rest since the fracture is at the left tibia. Crutches are vital in the short-term and long-term management of orthopedic and neurologic injuries. Through offloading body weight to the injured extremity optimal conditions are provided to allow healing of acute injuries.
- **Option B:** All the strength spent in crutch walking falls on the forearms, not the biceps brachii. Crutches provide ambulatory support and mobility options to those with neurologic injuries or chronic orthopedic injuries enabling the individual to stay mobile and active. Crutches are a vital adjunct for those with acute and chronic injuries to maintain mobility and independence.

- **Option C:** The triceps would not be as affected than the forearms after crutch walking. The user's strength and coordination should undergo evaluation before issuing them a set of crutches. The use of the wrong crutches can lead to injury. Most injuries are a direct result of falling.

60. The nurse assesses the client who has chronic renal failure and notes the following: crackles in the lung bases, elevated blood pressure, and weight gain of 2 pounds in one day. Based on these data, which of the following nursing diagnoses is appropriate?

- A. Excess fluid volume related to the kidney's inability to maintain fluid balance.
- B. Increased cardiac output related to fluid overload.
- C. Ineffective tissue perfusion related to interrupted arterial blood flow.
- D. Ineffective Therapeutic Regimen Management related to lack of knowledge about therapy.

Correct Answer: A. Excess fluid volume related to the kidney's inability to maintain fluid balance.

Crackles in the lungs, weight gain, and elevated blood pressure are indicators of excess fluid volume, a common complication in chronic renal failure. The client's fluid status should be monitored carefully for imbalances on an ongoing basis. Renal disorder impairs glomerular filtration that results in fluid overload. With fluid volume excess, hydrostatic pressure is higher than the usual pushing excess fluids into the interstitial spaces.

- **Option B:** The symptoms described do not indicate an increase in cardiac output. Auscultate heart and lung sounds. Evaluate the presence of peripheral edema, vascular congestion, and reports of dyspnea. S3 and S4 heart sounds with muffled tones, tachycardia, irregular heart rate, tachypnea, dyspnea, crackles, wheezes, edema, and jugular distension suggest HF.
- **Option C:** For optimal cell functioning the kidneys excrete potentially harmful nitrogenous products – urea, creatinine, and uric acid. But because of the loss of kidney excretory functions, there is impaired excretion of nitrogenous waste products causing an increase in laboratory results of BUN, creatinine, and uric acid.
- **Option D:** If fluid retention is a problem, the patient may need to restrict intake of fluid to 1100 cc (or less) and restrict dietary sodium. If a fluid overload is present, diuretic therapy or dialysis will be part of the regimen. Incidence of hypertension is increased in CRF, often requiring management with antihypertensive drugs, necessitating close observation of treatment effects (vascular response to medication).

61. Stephen was diagnosed with minimal-change nephrotic syndrome; which of the following signs and symptoms are characteristics of the said disorder?

- A. Hypertension, edema, hematuria
- B. Hypertension, edema, proteinuria
- C. Gross hematuria, fever, proteinuria
- D. Poor appetite, edema, proteinuria

Correct Answer: D. Poor appetite, edema, proteinuria

Clinical manifestations of nephrotic syndrome include loss of appetite due to edema of the intestinal mucosa, proteinuria, and edema. The classic NS presentation is edema, in the early phase is located in the face in the morning on waking with puffiness of the eyelids and the impression of the folds of sheets on the skin and ankles at the end of the day.

- **Option A:** Proteinuria that is more than 85% albumin is selective proteinuria. Albumin has a net negative charge, and it is proposed that loss of glomerular membrane negative charges could be important in causing albuminuria.
- **Option B:** Hypertension alone or accompanied by hematuria is associated with glomerulonephritis. Moderate arterial hypertension is present in 25% of cases, and hypotension may reveal a state of effective hypovolemia.
- **Option C:** Gross hematuria is not associated with nephrotic syndrome. Fever will occur only if infection also exists. Functional renal failure is possible. Microscopic hematuria is noted in about 20% of cases, macroscopic hematuria being exceptional and having to make look for thrombosis of the renal veins.

62. An instructor is correcting a nursing student's clinical worksheet. Which instructor statement is the best example of effective feedback?

- A. "Why did you use the client's name on your clinical worksheet?"
- B. "You were very careless to refer to your client by name on your clinical worksheet."
- C. "Surely you didn't do this deliberately, but you breached confidentiality by using the client's name."
- D. "It is disappointing that after being told, you're still using client names on your worksheet."

Correct Answer: C. "Surely you didn't do this deliberately, but you breached confidentiality by using the client's name."

The instructor's statement, "Surely you didn't do this deliberately, but you breached confidentiality by using the client's name." is an example of effective feedback. Feedback is a method of communication to help others consider a modification of behavior. Feedback should be descriptive, specific, and directed toward behavior that the person has the capacity to modify and should impart information rather than offer advice or criticize the individual.

- **Option A:** Some students need to be nudged to achieve at a higher level and others need to be handled very gently so as not to discourage learning and damage self-esteem. A balance between not wanting to hurt a student's feelings and providing proper encouragement is essential.
- **Option B:** When feedback is predominantly negative, studies have shown that it can discourage student effort and achievement (Hattie & Timperley, 2007, Dinham). A teacher has the distinct responsibility to nurture a student's learning and to provide feedback in such a manner that the student does not leave feeling defeated.
- **Option D:** Providing feedback means giving students an explanation of what they are doing correctly and incorrectly. However, the focus of the feedback should be based essentially on what the students are doing right. It is most productive to a student's learning when they are provided with an explanation and example as to what is accurate and inaccurate about their work.

63. A client arrives in the emergency room with a tricyclic antidepressant overdose. Which of the following measures should the nurse do, except?

- A. Maintain a patent airway
- B. Administration of sodium bicarbonate
- C. Gastric lavage with activated charcoal
- D. Obtain an electrocardiogram
- E. Administration of an antipyretic

Correct Answer: E. Administration of an antipyretic

One of the signs and symptoms of a tricyclic antidepressant overdose is hypothermia, so an administration of an antipyretic will not help in the treatment.

- **Option A:** Maintain a patent airway by providing measures such as oxygen.
- **Option B:** Sodium bicarbonate resolves metabolic acidosis and cardiovascular complications.
- **Option C:** Gastric lavage with activated charcoal is done for GI decontamination.
- **Option D:** An ECG is done to check for dysrhythmias.

64. A male client is admitted to the hospital with a suspected diagnosis of Hodgkin's disease. Which assessment findings would the nurse expect to note specifically in the client?

- A. Fatigue
- B. Weakness
- C. Weight gain
- D. Enlarged lymph nodes

Correct Answer: D. Enlarged lymph nodes

- **Option D:** Hodgkin's disease is a chronic progressive neoplastic disorder of lymphoid tissue characterized by the painless enlargement of lymph nodes with progression to extra lymphatic sites, such as the spleen and liver.
- **Options A and B:** Fatigue and weakness may occur but are not related significantly to the disease.
- **Option C:** Weight loss is most likely to be noted.

65. A mother of a term neonate asks what the thick, white, cheesy coating is on his skin. Which correctly describes this finding?

- A. Lanugo
- B. Milia
- C. Nevus flammeus
- D. Vernix

Correct Answer: D. Vernix.

- **Option D:** Vernix caseosa or vernix is the waxy or cheese-like white substance found coating the skin of newborn human babies. It is produced by dedicated cells and is thought to have some

protective roles during fetal development and for a few hours after birth.

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

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

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

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

- **Option A:** The patient is usually kept in the right decubitus position. The duration of observation varies across centers ranging from 1 hour to 6 hours. The American Association for the Study of Liver Diseases guidelines recommends observation for 2 to 4 hours. The vital signs are monitored every 15 minutes for the first hour, every 30 minutes for the next hour, and hourly till discharge.
- **Option C:** The patients are made to lie in a comfortable supine position. The right hand is placed under the head in a neutral position. By percussion, the area of maximum dullness is identified over the right hemithorax. This is typically between the 6 and 9 intercostal spaces between the anterior and the midclavicular line.
- **Option D:** The skin is prepped and draped in a sterile fashion. The overlying skin is anesthetized using 1% lidocaine. The peritoneum is also anesthetized by inserting the needle along the upper border of the rib avoiding vascular structures.

67. A diagnosis of Hodgkin's disease was made to a 58- year old man and is admitted for the initial cycle of chemotherapy. During the hospitalization, the nurse should watch out for the following complication, except?

- A. Fertility problems
- B. Benign prostatic hyperplasia
- C. Secondary cancer
- D. Infection

Correct Answer: B. Benign prostatic hyperplasia

- **Option B:** Hodgkin's disease (Hodgkin's lymphoma) is a type of cancer that affects the lymphatic system (bone marrow, spleen, liver, and lymph node tissue). Symptoms include painless swelling of a lymph node, recurrent fever, night sweats, pruritus, and unexplained weight loss. Prostate involvement is rare in Hodgkin's disease.
- **Options A, C, and D:** Complications of the disease would lead to a weakened immune system resulting in various infections, It can also result in fertility problems related to chemotherapy, and a probability of secondary cancers in the future.

68. A client with diabetes visits the prenatal clinic at 28 weeks gestation. Which statement is true regarding insulin needs during pregnancy?

- A. Insulin requirements moderate as the pregnancy progresses.
- B. A decreased need for insulin occurs during the second trimester.
- C. Elevations in human chorionic gonadotropin decrease the need for insulin.
- D. Fetal development depends on adequate insulin regulation.

Correct Answer: D. Fetal development depends on adequate insulin regulation.

Fetal development depends on adequate nutrition and insulin regulation. Significant alterations in maternal metabolism during pregnancy ensure a continuous supply of nutrients to the fetus. Glucose is the primary energy source for the fetus. In early pregnancy, increases in maternal insulin sensitivity enable the storage of energy and nutrients.

- **Option A:** Insulin requirements do not moderate as the pregnancy progresses. To counteract insulin resistance and achieve adequate metabolic control in late pregnancy, the dose of insulin may need to be increased. Understanding insulin requirements in pregnant women with type 1 diabetes would help them to maintain tight glycemic control.
- **Option B:** Insulin needs to increase during the second and third trimesters. In late pregnancy, maternal insulin resistance develops due to increases in pregnancy-related hormones, such as progesterone, human placental lactogen and prolactin, as well as inflammatory cytokines, such as tumor necrosis factor- α . These changes facilitate the supply of glucose toward the fetus.
- **Option C:** Elevated human chorionic gonadotropin elevates insulin needs, not decreases them. Insulin dose prior to pregnancy was associated with pre-pregnancy body weight, BMI, and HbA1c levels before pregnancy and in the first trimester. Insulin dose prior to pregnancy was higher in patients with male infants than patients with female infants.

69. A patient received 6 units of regular insulin three (3) hours ago. The nurse would be most concerned if which of the following was observed?

- A. Kussmaul respirations and diaphoresis
- B. Anorexia and lethargy
- C. Diaphoresis and trembling
- D. Headache and polyuria

Correct Answer: C. Diaphoresis and trembling

Diaphoresis and trembling indicate hypoglycemia and should be treated immediately. Neurogenic signs and symptoms can either be adrenergic (tremor, palpitations, anxiety) or cholinergic (hunger, diaphoresis, paresthesias). Identification of a hypoglycemic patient is critical due to potential adverse effects, including coma and/or death.

- **Option A:** The patient with diabetic ketoacidosis may present with a myriad of symptoms and physical exam findings. Patients may have symptoms of hyperglycemia like polyphagia, polyuria, or polydipsia. Kussmaul's 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.

- **Option B:** In patients with DM (mainly type 1 but can also be type 2) and on an insulin regimen, blood glucose should be monitored between meals to prevent hypoglycemia. Additionally, weight measurements are necessary due to insulin-associated weight gain.
- **Option D:** Neuroglycopenic signs and symptoms are signs and symptoms that result from direct central nervous system (CNS) deprivation of glucose. These include behavioral changes, confusion, fatigue, seizure, coma, and potential death if not immediately corrected.

70. A patient receiving head and neck radiation and systemic chemotherapy has ulcerations over the oral mucosa and tongue and thick, ropey saliva. An appropriate intervention for the nurse to teach the patient is to

- A. Rinse the mouth before and after each meal and at bedtime with a saline solution
- B. Use cotton-tipped applicators dipped in hydrogen peroxide to clean the teeth
- C. Gargle and rinse the mouth several times a day with an antiseptic mouthwash
- D. Remove food debris from the teeth and oral mucosa with a stiff toothbrush

Correct Answer: A. Rinse the mouth before and after each meal and at bedtime with a saline solution

- **Option A:** The patient should rinse the mouth with a saline solution frequently to decrease the pain and to cleanse the wounds.
- **Option B:** Hydrogen peroxide may damage tissues.
- **Option C:** Antiseptic mouthwashes may irritate the oral mucosa and are not recommended.
- **Option D:** A soft toothbrush is used for oral care.

71. When performing a physical examination on a female anxious client, nurse Nelli would expect to find which of the following effects produced by the parasympathetic system?

- A. Muscle tension
- B. Hyperactive bowel sounds
- C. Decreased urine output
- D. Constipation

Correct Answer: B. Hyperactive bowel sounds

The parasympathetic nervous system would produce incomplete G.I. motility resulting in hyperactive bowel sounds, possibly leading to diarrhea. The parasympathetic nervous system, in contrast, exerts both excitatory and inhibitory control over gastric and intestinal tone and motility. Although GI functions are controlled by the autonomic nervous system and occur, by and large, independently of conscious perception, it is clear that the higher CNS centers influence homeostatic control as well as cognitive and behavioral functions.

- **Option A:** When the body is stressed, muscles tense up. Muscle tension is almost a reflex reaction to stress—the body’s way of guarding against injury and pain. With sudden onset stress, the muscles tense up all at once and then release their tension when the stress passes. Chronic stress causes the muscles in the body to be in a more or less constant state of guardedness. When

muscles are taut and tense for long periods of time, this may trigger other reactions of the body and even promote stress-related disorders.

- **Option C:** During micturition, parasympathetic stimulation causes the detrusor muscle to contract and the internal urethral sphincter to relax. The external urethral sphincter (sphincter urethrae) is under somatic control and is consciously relaxed during micturition. In infants, voiding occurs involuntarily (as a reflex).
- **Option D:** The parasympathetic nervous system controls processes in the body such as digestion, repair, and relaxation. When the parasympathetic nervous system is dominant in the body it conserves energy, slows heart rate, increases digestion, and relaxes sphincter muscles in the digestive tract. These changes in the function of the digestive system due to stress may result in spasms through the digestive tract and an increase in the amount of acid present in the stomach – causing indigestion and burning sensations, and irritation of the large intestine which may lead to symptoms such as diarrhea, constipation, cramping and bloating.

72. Nurse Melinda is caring for a client who is postoperative following a pelvic exenteration and the physician changes the client's diet from NPO status to clear liquids. The nurse makes which priority assessment before administering the diet?

- A. Ability to ambulate
- B. Urine specific gravity
- C. Bowel sounds
- D. Incision appearance

Correct Answer: C. Bowel sounds

- **Option C:** The client is kept NPO until peristalsis returns, usually in 4 to 6 days. When signs of bowel function return, clear fluids are given to the client. If no distention occurs, the diet is advanced as tolerated. The most important assessment is to assess bowel sounds before feeding the client.
- **Options A, B, and D:** These are unrelated to the subject of the question.

73. A 4-month-old with meningococcal meningitis has just been admitted to the pediatric unit. Which nursing intervention has the highest priority?

- A. Obtaining history information from the parents
- B. Administering acetaminophen (Tylenol)
- C. Instituting droplet precautions
- D. Orienting the parents to the pediatric unit

Correct Answer: C. Instituting droplet precautions

Instituting droplet precautions by providing a private room and wearing a mask, gloves, and gown for all those who will interact with the child is a priority for a newly admitted patient with meningococcal meningitis until an appropriate antibiotic regimen has been given for 24 hours. Based on experience with military recruits, the nasopharyngeal carrier state is the primary factor for the transmission and development of meningitis.

- **Option A:** Obtaining history information doesn't take priority. The patient with suspected or confirmed *N. meningitidis* should follow droplet precaution. This should be continued until after 24 hours of effective antibiotics administration.
- **Option B:** Acetaminophen may be prescribed but administering it doesn't take priority over instituting droplet precautions. Antibiotic dose should be given as soon as meningitis is suspected and should not be delayed awaiting confirmatory studies. Lumbar puncture is performed as soon as possible as parenteral antibiotic therapy clears out meningococci from CSF in less than six hours.
- **Option D:** Orienting the parents to the unit doesn't take priority. Meningococcal meningitis is a medical emergency presenting with severe sepsis syndrome, fever, petechiae, and ecchymosis requiring prompt resuscitation and antibiotic administration.

74. Match the acid-base status of the following blood samples to the disorders in the given choices. (PaCO₂ values are in mm Hg and bicarbonate values in mmol/l). pH 7.57, PaCO₂ 22, HCO₃⁻ 17

- A. Respiratory Acidosis, Partially Compensated
- B. Respiratory Alkalosis, Uncompensated
- C. Metabolic Acidosis, Partially Compensated
- D. Respiratory Alkalosis, Partially Compensated

Correct Answer: D. Respiratory Alkalosis, Partially Compensated

- Based on the given ABG values, pH is 7.57. For pH, the normal range is 7.35 to 7.45. Any blood pH above 7.45 (7.46, 7.47, 7.48, and so on...) is ALKALOSIS.
- PaCO₂ is 22. The normal range for PaCO₂ is from 35 to 45. If PaCO₂ is below 35, it is alkalosis. Based on the given ABG values, PaCO₂ is below 35, so it is considered ALKALOSIS.
- HCO₃⁻ is 17. The normal range for HCO₃⁻ is from 22 to 26. If HCO₃⁻ is below 22, it is acidosis. Based on the given ABG values, HCO₃⁻ is below 22, so it is considered ACIDOSIS.
- For these ABG values, pH is ALKALOSIS and lines up with PaCO₂ which is RESPIRATORY. Therefore, this group of ABG values is considered RESPIRATORY ALKALOSIS.
- Lastly, it is PARTIALLY COMPENSATED because all three (3) values are abnormal. It is considered partially compensated if all three (3) values are abnormal.

75. The nurse has given instructions to the client with an ileostomy about foods to eat to thicken the stool. The nurse determines that the client needs further instructions if the client starts to eat which of the following foods to make the stools less watery?

- A. Pasta
- B. Boiled rice
- C. Bran
- D. Low-fat cheese

Correct Answer: C. Bran

Foods that help thicken the stool of the client with an ileostomy include pasta, boiled rice, and low-fat cheese. Bran is high in dietary fiber and thus will increase the output of watery stool by increasing propulsion through the bowel. Ileostomy output is liquid. The addition or elimination of various foods can help thicken or loosen this liquid drainage.

- **Option A:** Eat foods that thicken the stool such as rice, pasta, cheese, bananas, applesauce, smooth peanut butter, pretzels, yogurt, and marshmallows. Drink 2 or 3 glasses of fluid that will replace electrolytes like sports drinks, fruit or vegetable juice, and broth but limit these items. Too much sugar drinks can produce diarrhea.
- **Option B:** Slowly increase intake of high-fiber foods, such as whole grains, bread, and cereals. As a daily goal, women need 25 grams of fiber; men need 38 grams of fiber. For more fluid, fiber, and vitamin punch, eat at least five servings of fruits and vegetables per day. An easy way to do this is to fill half of the plate with fruit and/or vegetables at every meal
- **Option D:** Any bland, low-fat, low-fiber diet is likely to help alleviate diarrhea. By bland, low-fat, low-fiber, we're referring to foods such as white bread, peeled potatoes, peeled and cooked fruit, white pasta, and rice. Another way to approach this is to avoid spicy, fatty, fried, or raw food and any food that's difficult to chew.

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

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

Correct Answer: C & D

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

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

77. The nurse is providing postpartum teaching for a mother planning to breastfeed her infant. Which of the client's statements indicates the need for additional teaching?

- A. "I'm wearing a support bra."
- B. "I'm expressing milk from my breast."
- C. "I'm drinking four glasses of fluid during a 24-hour period."
- D. "While I'm in the shower, I'll allow the water to run over my breasts."

Correct Answer: C. "I'm drinking four glasses of fluid during a 24-hour period."

Mothers who plan to breastfeed should drink plenty of liquids, and four glasses are not enough in a 24-hour period. Women need extra support, encouragement, and reassurance while breastfeeding. Although we view breastfeeding as a natural process, it is still a skill that has to be learned. Initially, breastfeeding can seem demanding, as the baby may have a desire to feed/suck frequently. Babies, however, begin to establish their own pattern over time, and the mother will begin to feel more comfortable and at ease.

- **Option A:** Wearing a support bra is a good practice for the mother who is breastfeeding as well as the mother who plans to bottle-feed. A comfortable, soft, cotton nursing bra is a good choice for both day and night, and a sports bra style may also make a comfortable bra for nighttime use.
- **Option B:** Expressing milk from the breast will stimulate milk production. If it is necessary to express breast milk, show the mother how to do this and show her how to feed expressed breast milk by the cup. You may need to refer her to a trained infant feeding counselor for this.
- **Option D:** Allowing the water to run over the breast will also facilitate “letdown,” when the milk begins to be produced; thus, answer D is incorrect. Some women also find that the initial ‘let down’ reflex is very strong which causes them pain or they get strong after-pains as their wombs contract. Reassure them that this will pass. The ‘let down’ reflex may also cause them to leak milk when they have sexual intercourse. Reassure them that this is normal and that they may need to tell their husband or partner that this is normal.

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

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

Correct Answer: A. Crackles

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

- **Option B:** Arrhythmias can be associated with both right- and left-sided heart failure. Heart failure can result if the heart is pumping ineffectively for a prolonged period due to bradycardia or tachycardia, such as atrial fibrillation. Sometimes controlling the rate of an arrhythmia that’s causing heart failure can improve the heart’s function.
- **Option C:** Increased pressure in the sublobular branches of the hepatic veins causes engorgement of venous blood, and is most frequently due to chronic cardiac lesions, especially those affecting the right heart (e.g., right-sided heart failure), the blood being dammed back in the inferior vena cava and hepatic veins.
- **Option D:** Left-sided heart failure causes hypertension secondary to an increased workload on the system. Patients with left heart failure may present with complaints of shortness of breath (often on exertion, a sensitivity of 89%), orthopnea (specificity of 89%), paroxysmal nocturnal dyspnea and/or symptoms of volume overload (e.g., leg swelling, weight gain, increased abdominal girth, or right upper quadrant pain due to liver congestion).

79. The client asks Nurse Annie the causes of peptic ulcer. Nurse Annie responds that recent research indicates that peptic ulcers are the result of which of the following:

- A. Genetic defect in gastric mucosa
- B. Stress
- C. Diet high in fat
- D. Helicobacter pylori infection

Correct Answer: D. Helicobacter pylori infection

Most peptic ulcers are caused by Helicobacter pylori which is a gram-negative bacterium. 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. The organism has a wide spectrum of virulence factors allowing it to adhere to and inflame the gastric mucosa. This results in hypochlorhydria or achlorhydria, leading to gastric ulceration.

- **Option A:** Peptic ulcers are not genetic in nature. They occur when acid in the digestive mucosa eats away at the inner surface of the stomach or small intestine. Peptic ulcer disease (PUD) has various causes; however, Helicobacter pylori-associated PUD and NSAID-associated PUD account for the majority of the disease etiology.
- **Option B:** Stress is not a cause of peptic ulcers. Nonsteroidal anti-inflammatory drugs use is the second most common cause of PUD after H. pylori infection. The secretion of prostaglandin normally protects the gastric mucosa. NSAIDs block prostaglandin synthesis by inhibiting COX-1 enzyme resulting in a decrease in gastric mucus and bicarbonate production and a decrease in mucosal blood flow.
- **Option C:** Common causes of peptic ulcer include a bacteria (H. pylori), regular use of certain pain relievers, and use of certain medications along with NSAIDs. Apart from NSAIDs, corticosteroids, bisphosphonates, potassium chloride, steroids, and fluorouracil have been implicated in the etiology of PUD. Smoking also appears to play a role in duodenal ulcers, but the correlation is not linear. Alcohol can irritate the gastric mucosa and induce acidity.

80. A nurse is instructing a client regarding carbidopa-levodopa (Sinemet) for the treatment of Parkinson's disease. The nurse tells the client which of the following indicates an overdose of the medication?

- A. Difficulty performing a voluntary movement.
- B. Increased blood pressure.
- C. Decreased appetite.
- D. Black tarry stools.

Correct Answer: A. Difficulty performing a voluntary movement.

- **Option A:** Dyskinesia (difficulty performing a voluntary movement) is one of the symptoms of a levodopa overdose. Other side effects include nausea, diarrhea, vomiting, hypotension, bradycardia, confusion, and hallucinations.

- **Option B:** Postural hypotension may happen due to dose adjustment or when Sinemet is taken with medications that decrease blood pressure.
- **Options C and D:** Loss of appetite and black tarry stools are rare side effects of the medication.

81. Mr. Carter, a 64-year-old retired history teacher, visits the ophthalmology clinic for a routine eye checkup. During his conversation with the nurse, he mentioned that he recently read about the importance of various structures in and around the eye and their contribution to vision and eye protection. Intrigued by his interest, the nurse decides to delve deeper into the topic, highlighting not only the main structures responsible for vision but also the accessory structures that serve supportive roles. To gauge Mr. Carter's understanding and to further educate him, the nurse poses a question regarding the accessory structures of the eye. During a patient's ophthalmic examination, the nurse discusses the importance of accessory structures that protect, lubricate, and move the eye. Which of the following is NOT considered an accessory structure of the eye?

- A. Eyebrows
- B. Eyelids
- C. Conjunctiva
- D. Lacrimal apparatus
- E. Extrinsic eye muscles
- F. Sclera

Correct Answer: F. Sclera

The sclera, often referred to as the 'white of the eye', is a dense, fibrous structure that provides shape and protection to the eyeball. It is not considered an accessory structure; instead, it is a primary structural component of the eye.

- **Option A:** Eyebrows are considered accessory structures. They prevent sweat from dripping into the eyes and provide some shade to the eyes from direct sunlight.
- **Option B:** Eyelids protect the eyes by covering them and by blinking, thereby preventing foreign substances from entering and also moistening the cornea.
- **Option C:** Conjunctiva is a thin, transparent layer that covers the inner surface of the eyelids and the white part of the eye. It helps in lubricating the eye by producing mucus and tears and also protects the eye from microbial invasion.
- **Option D:** Lacrimal apparatus includes the structures that produce, store, and drain tears. Tears help to keep the eye surface moist and free from dust and other foreign particles.
- **Option E:** Extrinsic eye muscles enable the movement of the eye in various directions. They are essential for adjusting the direction of vision.

82. Which action will you take to most effectively reduce the incidence of hospital-associated urinary tract infections?

- A. Ensure that clients have enough adequate fluid intake
- B. Teach assistive personnel how to provide good perineal hygiene
- C. Perform dipstick urinalysis for clients with risk factors for UTI
- D. Limit the use of indwelling foley catheter (IFC)

Correct Answer: D. Limit the use of indwelling foley catheter (IFC)

The most effective way to reduce the incidence of UTIs in the hospital setting is to avoid using retention catheters. Among UTIs acquired in the hospital, approximately 75% are associated with a urinary catheter, which is a tube inserted into the bladder through the urethra to drain urine. Between 15-25% of hospitalized patients receive urinary catheters during their hospital stay. The most important risk factor for developing a catheter-associated UTI (CAUTI) is prolonged use of the urinary catheter.

- **Option A:** Adequate fluid intake may improve the symptoms of UTI, however, it can help mildly with the prevention of hospital-acquired UTI. The DRInK-Up study provides preliminary evidence suggesting that increasing daily fluid intake by small amounts may have a potentially positive effect on the number of UTIs experienced. However, further research is still needed.
- **Option B:** Routine hygiene of the urethral meatus surface should be performed during daily bathing or showering. Urethral cleaning with povidone-iodine solution or soap and water has not been shown to prevent CA-UTIs. However, there is evidence that frequent urethral cleaning can lead to mucosal irritation and breakdown that may increase the risk of infection.
- **Option C:** Avoid breaking the collecting system to obtain urine specimens for analysis and bacterial culture. To obtain urine specimens, the sampling port for the urine collection must be used. If this is not available, urine can be aspirated with a sterile needle and syringe from the distal end of the catheter using an aseptic technique.

83. For a female client with anorexia nervosa, Nurse Jimmy is aware that which goal takes the highest priority?

- A. The client will establish adequate daily nutritional intake.
- B. The client will make a contract with the nurse that sets a target weight.
- C. The client will identify self-perceptions about body size as unrealistic.
- D. The client will verbalize the possible physiological consequences of self-starvation.

Correct Answer: A. The client will establish adequate daily nutritional intake.

According to Maslow's hierarchy of needs, all humans need to meet basic physiological needs first. Because a client with anorexia nervosa eats little or nothing, the nurse must first plan to help the client meet this basic, immediate physiological need. Treatment for anorexia nervosa is centered on nutrition rehabilitation and psychotherapy. Refeeding syndrome can occur following prolonged starvation. As the body utilizes glucose to produce molecules of adenosine triphosphate (ATP), it depletes the remaining stores of phosphorus. Also, glucose entry into cells is mediated by insulin and occurs rapidly following long periods without food. Both cause electrolyte abnormalities such as hypophosphatemia and hypokalemia, triggering cardiac and respiratory compromise. Patients should be followed carefully for signs of refeeding syndrome and electrolytes closely monitored.

- **Option B:** Recovery from an eating disorder can be a long process that requires not only a qualified team of professionals but also the love and support of family and friends. It is not uncommon for someone who suffers from an eating disorder to feel uncertain about their progress or for their loved ones to feel disengaged from the treatment process. These potential roadblocks

may lead to feelings of ambivalence, limited progress, and treatment dropout.

- **Option C:** Anorexia nervosa is a psychiatric disease in which patients restrict their food intake relative to their energy requirements through eating less, exercising more, and/or purging food through laxatives and vomiting. Despite being severely underweight, they do not recognize it and have distorted body images. They can develop complications from being underweight and purging food. Diagnose by history, physical, and lab work that rules out other conditions that can make people lose weight. Treatment includes gaining weight (sometimes in a hospital if severe), therapy to address body image, and management of complications from malnourishment.
- **Option D:** The nurse may give lesser priority to goals that address long-term plans, self-perception, and potential complications. Eating disorders can affect every organ system in the body, and people struggling with an eating disorder need to seek professional help. The earlier a person with an eating disorder seeks treatment, the greater the likelihood of physical and emotional recovery.

84. The most important factor in providing nursing care to clients in a specific ethnic group is:

- A. Communication
- B. Time orientation
- C. Biological variation
- D. Environmental control

Correct Answer: A. Communication

The ability to communicate effectively with patients and families is paramount for good patient care. This practice point reviews the importance of communicating effectively in cross-cultural encounters. The LEARN (Listen, Explain, Acknowledge, Recommend, Negotiate) model is a framework for cross-cultural communication that helps build mutual understanding and enhance patient care.

- **Option B:** One way of looking at cultural attitudes to time is in terms of time orientation, a cultural or national preference toward past, present, or future thinking. The time orientation of a culture affects how it values time, and the extent to which it believes it can control time.
- **Option C:** Biological variations in transcultural nursing relate to the genetic difference between cultures that may or may not predispose certain groups to specific diseases. This dimension may also include variations of “pain tolerance and deficiencies and predilections in nutrition” (Albougami, Pounds, & Alotaibi, 2016).
- **Option D:** Environmental control refers to how the patient “perceives society and its internal and external factors, such as beliefs and understandings regarding how illness occurs, how it should be treated, and how health is uplifted and maintained” (Albougami, Pounds, & Alotaibi, 2016).

85. What is the purpose of grounded theory?

- A. To support theoretical frameworks.
- B. To generate theory from data.
- C. To develop explanatory models.
- D. To find significant differences among groups of people.

Correct Answer: B. To generate theory from data.

The grounded theory method refers to a qualitative approach of building theory about a phenomenon about which little is known. Grounded theory sets out to discover or construct theory from data, systematically obtained and analyzed using comparative analysis. While grounded theory is inherently flexible, it is a complex methodology.

- **Option A:** A theoretical framework consists of concepts and, together with their definitions and reference to relevant scholarly literature, existing theory that is used for a particular study. The theoretical framework must demonstrate an understanding of theories and concepts that are relevant to the topic of the research paper and that relate to the broader areas of knowledge being considered.
- **Option C:** An explanatory model is a useful description of why and how anything works or an explanation of why a phenomenon is the way it is. The explanatory model is used as a substitute for “the full explanation” of the thing in question: either because the full explanation is unavailable.
- **Option D:** A significant difference between two groups or two points in time means that there is a measurable difference between the groups and that, statistically, the probability of obtaining that difference by chance is very small (usually less than 5%).