

Kevin's Review - 100 NCLEX Practice Questions

1. To monitor the frequency of the uterine contraction during labor, the right technique is to time the contraction is:

- A. From the beginning of one contraction to the end of the same contraction.
- B. From the beginning of one contraction to the beginning of the next contraction.
- C. From the end of one contraction to the beginning of the next contraction.
- D. From the deceleration of one contraction to the acme of the next contraction.

Correct Answer: B. From the beginning of one contraction to the beginning of the next contraction.

The frequency of the uterine contraction is defined as from the beginning of one contraction to the beginning of another contraction.

- **Option A:** Duration is timed from when the contraction is first felt until it is over. This time is usually measured in seconds.
- **Option C:** The time between contractions includes the length or duration of the contraction and the minutes in between the contractions (called the interval). Mild contractions generally begin 15 to 20 minutes apart and last 60 to 90 seconds. The contractions become more regular until they are less than 5 minutes apart.
- **Option D:** Acme is the highest point or peak of a contraction. It is the period during which the contraction is most intense.

2. One leadership theory states that “leaders are born and not made,” which refers to which of the following theories?

- A. Trait
- B. Charismatic
- C. Great Man
- D. Situational

Correct Answer: C. Great Man

Leaders become leaders because of their birthright. This is also called Genetic theory or the Aristotelian theory. This quote sums up the basic tenet of the Great Man theory of leadership, which suggests that the capacity for leadership is innate. According to this theory, you're either a natural-born leader or you're not. The term “Great Man” was used because, at the time, leadership was thought of primarily as a male quality, especially in terms of military leadership.

- **Option A:** According to trait leadership theory, effective leaders have in common a pattern of personal characteristics that support their ability to mobilize others toward a shared vision. These traits include dimensions of personality and motives, sets of skills and capabilities, and behavior in social relationships.
- **Option B:** Charismatic leadership is a trait-based leadership theory where the leaders act as visionary driven by their convictions and motivate their followers to work towards a common vision using their charm and persuasiveness. Leaders are able to cultivate a profound sense of trust with the group of followers.

- **Option D:** The situational theory of leadership refers to those leaders who adopt different leadership styles according to the situation and the development level of their team members. It is an effective way of leadership because it adapts to the team's needs and sets a beneficial balance for the whole organization.

3. During a school screening program for children aged 6-12, a nurse is tasked with evaluating their growth parameters. She encounters a 9-year-old girl who is shorter than her peers and seems to have less muscle development. To align her observations with typical growth expectations for school-age children, what would the nurse expect to see?

- A. Decreasing amounts of body fat and muscle mass
- B. Little change in body appearance from year to year
- C. Progressive height increase of 4 inches each year
- D. Yearly weight gain of about 5.5 pounds per year

Correct Answer: D. Yearly weight gain of about 5.5 pounds per year

School-age children gain about 5.5 pounds each year and increase about 2 inches in height. Between ages 2 to 10 years, a child will grow at a steady pace.

- **Option A:** Decreasing amounts of body fat and muscle mass are common in toddlers.
- **Option B:** A decrease in the change in body appearance occurs among young adults.
- **Option C:** Growth spurts are common in school-age children, as are periods of slow growth.

4. The 6-month-old client with a ventral septal defect is receiving Digitalis for regulation of his heart rate. Which finding should be reported to the doctor?

- A. Blood pressure of 126/80
- B. Blood glucose of 110 mg/dL
- C. Heart rate of 60 bpm
- D. Respiratory rate of 30 per minute

Correct Answer: C. Heart rate of 60 bpm

A heart rate of 60 in the baby should be reported immediately. The dose should be held if the heart rate is below 100 bpm. Digoxin has vagomimetic effects on the AV node. By stimulating the parasympathetic nervous system, it slows electrical conduction in the atrioventricular node, therefore, decreases the heart rate. The rise in calcium levels leads to prolongation of phase 4, and phase 0 of the cardiac action potential thus increases the refractory period of the AV node. Slower conduction through the AV node carries a decreased ventricular response.

- **Option A:** It increases the force of contraction of the heart by reversibly inhibiting the activity of the myocardial Na-K ATPase pump, an enzyme that controls the movement of ions into the heart. Digoxin induces an increase in intracellular sodium that will drive an influx of calcium in the heart and cause an increase in contractility. Cardiac output increases with a subsequent decrease in ventricular filling pressures.

- **Option B:** Electrocardiogram changes seen with digoxin demonstrate a downsloping ST-segment depression, also known as a “reverse check” sign. The ST segments may appear “scooped” without abnormal Q waves or T wave inversions. Regular intake of digoxin results in changes such as a decreased QT interval, prolongation of the PR interval and T wave inversion or flattening. In the case of overdose, the patient should receive digoxin immune fab.
- **Option D:** The prescriber needs to check levels with any recent change in medication. The kidneys excrete approximately 70% of digoxin in direct proportion to the patient’s glomerular filtration rate. The physician must request regular electrocardiograms and bloodwork to assess for renal function, and electrolytes require close monitoring.

5. The right forearm of a client who had a purified protein derivative (PPD) test for tuberculosis is reddened and raised about 3mm where the test was given. This PPD would be read as having which of the following results?

- A. Indeterminate
- B. Needs to be redone
- C. Negative
- D. Positive

Correct Answer: C. Negative

This test would be classed as negative. A 5 mm raised area would be a positive result if a client was HIV+ or had recent close contact with someone diagnosed with TB. If the patient is at a high risk of developing an active infection, a repeat test is recommended after an initial negative test to rule out the possibility of missing a case. However, a decision is made based on the risk factors.

- **Option A:** Indeterminate isn’t a term used to describe results of a PPD test. It is a time-sensitive test. Tests that are read late are not accurate as they tend to under-estimate the size of the skin reaction. Therefore, the reliability of the test is compromised, and the results are doubtful.
- **Option B:** To avoid this, repeat testing is recommended if the reaction is not read on time. The second test can be administered as soon as possible. However, if repeated, the test should preferably be performed within 7 days of the initial test to avoid boosting effect.
- **Option D:** If the PPD is reddened and raised 10mm or more, it’s considered positive according to the CDC. 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.

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

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

Correct Answer: D. Dried apricot

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

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

7. A schizophrenic client with delusions tells the nurse, "There is a man wearing a red coat who's out to get me." The client exhibits increasing anxiety when focusing on the delusions. Which of the following would be the best response?

- A. "This subject seems to be troubling you. Let's walk to the activity room."
- B. "Describe the man who's out to get you. What does he look like?"
- C. "There is no reason to be afraid of that man. This hospital is very secure."
- D. "There is no need to be concerned with a man who isn't even real."

Correct Answer: A. "This subject seems to be troubling you. Let's walk to the activity room."

This remark distracts the client from the delusion by engaging the client in a less threatening or more comforting activity at the first sign of anxiety. The nurse should reinforce reality and discourage the false belief. As a nursing diagnosis in the presence of delusions, the Nursing Interventions Classification (NIC) defines Delusion Control (6440), which is defined as the provision of a safe and therapeutic environment to the patient in acute state of confusion.² Thus, in the presence of delusions, the nurses must demonstrate to patients that they accept that the patient has this belief, although they do not share the belief.

- **Option B:** It is important not to discuss or deny belief so as not to risk compromising trust. Reasonable doubt must therefore be used as a therapeutic technique. For example, "I understand that you believe this to be true, but I do not think the same."
- **Option C:** One should also reinforce reality and talk about things and people that are real, avoiding ruminant thinking in false beliefs. The nurse should also be attentive during feeding and taking medication, since the delirium of poisoning may be present and the patient may believe that the food or medication is to poison him. Thus, it may be necessary to confirm whether the patient has taken the medication.
- **Option D:** The other options focus on the content of the delusion rather than the meaning, feeling, or intent that it provokes. Establishing a therapeutic relationship is not easy, requiring special attention on the part of the nurse. Active listening and empathy are especially important and should focus on the patient's experiences. Authenticity is necessary, allowing the person to distinguish between what is part of the disease and what is not part of it, i.e., what is real and what is not. It is crucial to help the patient find their personal resources and identify achievable goals in the medium and long term and the means to achieve them.

8. A nurse is providing instructions to a client with an impacted cerumen who is prescribed with Carbamide peroxide (Debrox). Which of the following teachings made by the nurse indicates further research?

- A. Do not touch the dropper tip or let it touch your ear or any other surface.
- B. Lie on your side or tilt the affected ear upward. Hold the dropper directly over the ear and place 5 to 10 drops into the ear canal.
- C. Hold the earlobe up and back.
- D. Use a cold preparation of the medication.

Correct Answer: D. Use a cold preparation of the medication.

- **Option D:** Carbamide peroxide is a cerumenolytic medication. Using cold ear drops can cause dizziness in order to avoid it, hold the container in your hand for a few minutes to warm it.

9. A male patient has a soft wrist-safety device. Which assessment finding should the nurse consider abnormal?

- A. A palpable radial pulse
- B. A palpable ulnar pulse
- C. Cool, pale fingers
- D. Pink nail beds

Correct Answer: C. Cool, pale fingers

A safety device on the wrist may impair circulation and restrict blood supply to body tissues. Therefore, the nurse should assess the patient for signs of impaired circulation, such as cool, pale fingers. A palpable radial or lunar pulse and pink nail beds are normal findings.

- **Option A:** To palpate a radial pulse, place the tips of the first two or three fingers over the groove along the radial (or thumb) side of the patient's inner wrist. Slightly extended or flexed the patient's wrist with the palm down until the pulse was strongest. Lightly compressed the artery against the radius, obliterating the pulse initially.
- **Option B:** The pulse is felt just above a large, raised bony area called the zygomatic arch. Like the radial pulse, the ulnar pulse is taken at the wrist.
- **Option D:** These old cells flatten and harden, thanks to keratin, a protein made by these cells. The newly formed nail then slides along the nail bed, the flat surface under the nails. The nail bed sits on top of tiny blood vessels that feed it and give the nails their pink color.

10. Which of the following drugs would be ordered by the physician to improve the platelet count in a male client with idiopathic thrombocytopenic purpura (ITP)?

- A. Acetylsalicylic acid (ASA)
- B. Corticosteroids
- C. Methotrexate

D. Vitamin K

Correct Answer: B. Corticosteroids

Corticosteroid therapy can decrease antibody production and phagocytosis of the antibody-coated platelets, retaining more functioning platelets.

- **Option A:** ASA blocks prostaglandin synthesis. Inhibition of COX-1 results in the inhibition of platelet aggregation for about 7-10 days (average platelet lifespan).
- **Option C:** Methotrexate inhibits enzymes responsible for nucleotide synthesis which prevents cell division and leads to anti-inflammatory actions. It causes thrombocytopenia.
- **Option D:** Vitamin K is used to treat an excessive anticoagulate state from warfarin overload.

11. A 34-year-old woman with a history of asthma is admitted to the emergency department. The nurse notes that the client is dyspneic, with a respiratory rate of 35 breaths/minute, nasal flaring, and use of accessory muscles. Auscultation of the lung fields reveals greatly diminished breath sounds. Based on these findings, what action should the nurse take to initiate care of the client?

- A. Initiate oxygen therapy and reassess the client in 10 minutes.
- B. Draw blood for an ABG analysis and send the client for a chest x-ray.
- C. Encourage the client to relax and breathe slowly through the mouth.
- D. Administer bronchodilators.

Correct Answer: D. Administer bronchodilators.

In an acute asthma attack, diminished or absent breath sounds can be an ominous sign indicating lack of air movement in the lungs and impending respiratory failure. The client requires immediate intervention with inhaled bronchodilators, intravenous corticosteroids, and possibly intravenous theophylline.

- **Option A:** Administering oxygen and reassessing the client 10 minutes later would delay needed medical intervention. A favorable response to initial treatment of status asthmaticus should be a visible improvement in symptoms that sustains 30 minutes or beyond the last bronchodilator dose and a PEFr greater than 70% of predicted.
- **Option B:** Drawing an ABG and obtaining a chest x-ray would be a delay. The absolute value of PEFr less than 120 L per minute and FEV1 less than 1 L corresponds with the proportional reduction. These absolute numbers should prompt an assessment of arterial blood gas (ABG) immediately. Initial blood gas results indicate respiratory alkalosis with hypoxemia.
- **Option C:** It would be futile to encourage the client to relax and breathe slowly without providing necessary pharmacologic intervention. An initial aggressive treatment trial of beta-agonists, corticosteroids, and anticholinergics has to be tried, followed by adjunct measures, which may not be based on robust guidelines but evidence.

12. Ryan underwent an open reduction and internal fixation of the left hip. One day after the operation, the client is complaining of pain. Which data would cause the nurse to refrain from administering the pain medication and to notify the health care provider instead?

- A. Left hip dressing dry and intact.
- B. Blood pressure of 114/78 mm Hg; pulse rate of 82 beats per minute.
- C. Left leg in functional anatomic position.
- D. Left foot cold to touch; no palpable pedal pulse.

Correct Answer: D. Left foot cold to touch; no palpable pedal pulse.

A left foot cold to touch without palpable pedal pulse represents an abnormal finding on neurovascular assessment of the left leg. The client is most likely experiencing some complication from surgery, which requires immediate medical intervention. The nurse should notify the health care provider of these findings.

- **Option A:** A dry and intact hip dressing is a normal assessment of findings that do not require medical intervention. A dressing is considered INTACT if portions of the white dressing border have lifted from the skin as long as the clear viewing window maintains full contact with the skin. The skin under the viewing window does not appear visibly soiled with exudate or blood. The skin under the viewing window does not appear dampened or moist with sweat, exudate, fluid, or blood.
- **Option B:** A blood pressure of 114/78 mm Hg and pulse rate of 82 beats per minute are normal assessment findings that do not require medical intervention. The normal range used in an adult is between 60 to 100 beats /minute with rates above 100 beats/minute and rates and below 60 beats per minute, referred to as tachycardia and bradycardia, respectively. The respiratory rate is the number of breaths per minute. The normal breathing rate is about 12 to 20 beats per minute in an average adult.
- **Option C:** A left foot in functional anatomic position are all normal assessment findings that do not require medical intervention. It functions as a rigid structure for weight-bearing and it can also function as a flexible structure to conform to uneven terrain.

13. Lisa, a client with altered urinary function, is under the care of nurse Tine. Which intervention is appropriate to include when developing a plan of care for Lisa who is experiencing urinary dribbling?

- A. Inserting an indwelling Foley catheter.
- B. Having the client perform Kegel exercises.
- C. Keeping the skin clean and dry.
- D. Using pads or diapers on the client.

Correct Answer: B. Having the client perform Kegel exercises.

Kegel exercises, which help strengthen the muscles in the perineal area, are used to maintain urinary continence. To perform these exercises, the client tightens pelvic floor muscles for 4 seconds 10 times at least 20 times each day, stopping and starting the urinary flow.

- **Option A:** Inserting an indwelling Foley catheter increases the risk for infection and should be avoided. Begin bladder retraining per protocol when appropriate (fluids between certain hours, digital stimulation of trigger area, contraction of abdominal muscles, Credé's maneuver).
- **Option C:** Proper perineal hygiene decreases the risk of skin irritation or breakdown and the development of ascending infection. The nurse should encourage the client to develop a toileting schedule based on normal urinary habits. However, suggesting bathroom use every 8 hours may be too long an interval to wait.

- **Option D:** Pads or diapers should be used only as a resort. Refer to the urinary continence specialist as indicated. Collaboration with specialists is helpful for developing an individual plan of care to meet a patient's specific needs using the latest techniques, continence products.

14. Neoplasm can be classified as either benign or malignant. The following are characteristics of malignant tumor apart from:

- A. Encapsulated
- B. Infiltrates surrounding tissues
- C. Metastasis
- D. Poorly differentiated cells

Correct Answer: A. Encapsulated

- **Option A:** Benign: grows slowly, localized, encapsulated, well-differentiated cells, no metastasis, not harmful to host.
- **Options B, C, and D:** Malignant: Grows rapidly, infiltrate surrounding tissues, not encapsulated, poorly differentiated, metastasis present, always harmful.

15. When preparing to listen to the fetal heart rate at 12 weeks' gestation, the nurse would use which of the following?

- A. Stethoscope placed midline at the umbilicus.
- B. Doppler placed midline at the suprapubic region.
- C. Fetoscope placed midway between the umbilicus and the xiphoid process.
- D. External electronic fetal monitor placed at the umbilicus.

Correct Answer: B. Doppler placed midline at the suprapubic region

At 12 weeks gestation, the uterus rises out of the pelvis and is palpable above the symphysis pubis. The Doppler intensifies the sound of the fetal pulse rate so it is audible. The uterus has merely risen out of the pelvis into the abdominal cavity and is not at the level of the umbilicus.

- **Option A:** The fetal heart rate at this age is not audible with a stethoscope. Exciting circulatory developments continue at 12 weeks when baby-to-be's bone marrow begins busily producing blood cells. By 17 weeks, the fetal brain begins to regulate the heartbeat in preparation for supporting a baby in the outside world. (Up until this point, the heart has been beating spontaneously.) In three more weeks, by around week 20, the mother may hear her baby's heartbeat with a stethoscope.
- **Option C:** The uterus at 12 weeks is just above the symphysis pubis in the abdominal cavity, not midway between the umbilicus and the xiphoid process. At 12 weeks the FHR would be difficult to auscultate with a fetoscope. A fetoscope, or a fetal stethoscope, works much like a regular stethoscope except that it has a bell-shaped end that magnifies sound waves from the fetal heartbeat in order to make them audible. One can usually hear a fetal heartbeat with the stethoscope starting around 20 weeks of pregnancy.
- **Option D:** Although the external electronic fetal monitor would project the FHR, the uterus has not risen to the umbilicus at 12 weeks.

16. A nurse is caring for a client with Wernicke-Korsakoff syndrome. The physician asks the nurse to teach the client to consume thiamine-rich food. The nurse instructs the client to increase the intake of which food items?

- A. Chicken
- B. Milk
- C. Beef
- D. Broccoli

Correct Answer: C. Beef

Food sources of thiamin include beef, liver, nuts, oats, oranges, pork, eggs, seeds, legumes, peas, and yeast. In meat, the liver has the highest amount of thiamine. Whereas three ounces of beefsteak gives 7% of the daily value of thiamine, one serving of beef liver will give about 10%. One serving of cooked salmon gives 18% of the daily value of thiamine.

- **Option A:** Poultry contains niacin. Chicken meat, particularly chicken breast, is an excellent source of protein as well as niacin. A three-ounce serving of skinless breast meat provides 10.3 mg. Niacin is an essential nutrient that we mainly need to get from foods. The body may also convert some tryptophan, one of the body's amino acids, into a nutrient.
- **Option B:** Milk contains vitamins A, D, and B2. Milk contains the fat-soluble vitamins A, D, E, and K. The content level of fat-soluble vitamins in dairy products depends on the fat content of the product. Milk contains the water-soluble vitamins thiamin (vitamin B1), riboflavin (vitamin B2), niacin (vitamin B3), pantothenic acid (vitamin B5), vitamin B6 (pyridoxine), vitamin B12 (cobalamin), vitamin C, and folate. Milk is a good source of thiamin, riboflavin, and vitamin B12.
- **Option D:** Broccoli contains folic acid, vitamins C, E, and K. Broccoli is a good source of fiber and protein and contains iron, potassium, calcium, selenium, and magnesium as well as the vitamins A, C, E, K, and a good array of B vitamins including folic acid.

17. The nurse would monitor for which of the following adverse reactions to aluminum-containing antacids such as aluminum hydroxide (Amphojel)?

- A. Diarrhea
- B. Constipation
- C. GI upset
- D. Fluid retention

Correct Answer: B. Constipation

Aluminum- and calcium-containing antacids cause constipation. The primary side effects of aluminum hydroxide include hypomagnesemia, hypophosphatemia, constipation, and anemia. Additionally, due to its ability to stimulate the immune system, there have been observed cases of persistent granulomas at the injection site of vaccines containing aluminum hydroxide.

- **Option A:** Magnesium-containing antacids cause diarrhea. Antacids that contain magnesium have a laxative effect that may cause diarrhea, and in patients with renal failure, they may cause increased magnesium levels in the blood, because of the reduced ability of the kidneys to eliminate magnesium from the body in the urine.

- **Option C:** Antacids work by counteracting (neutralizing) the acid in the stomach. They do this because the chemicals in antacids are bases (alkalis) which are the opposite of acids. A reaction between an acid and base is called neutralization. This neutralization makes the stomach contents less corrosive.
- **Option D:** Sodium-containing antacids cause sodium and fluid retention. High-dose antacid intake may lead to fluid retention in the body depending on the sodium content of the different antacid preparations. Sodium bicarbonate ingestion provokes metabolic alkalosis and alkalemia, the “nonsystemic calcium, and magnesium-containing antacids” cause these changes too, but to a lower degree.

18. During the history, which information from a 21-year-old client would indicate a risk for development of testicular cancer?

- A. Genital Herpes
- B. Hydrocele
- C. Measles
- D. Undescended testicle

Correct Answer: D. Undescended testicle

Undescended testicles make the client at high risk for testicular cancer. Mumps, inguinal hernia in childhood, orchitis, and testicular cancer in the contralateral testis are other predisposing factors. The risk of testicular cancer might be a little higher for men whose testicles stayed in the abdomen as opposed to one that has descended at least partway. If cancer does develop, it’s usually in the undescended testicle, but about 1 out of 4 cases occur in the normally descended testicle.

- **Option A:** While HPV infections are very common, cancer caused by HPV is not. Most people infected with HPV will not develop cancer-related to the infection. However, some people with long-lasting infections of high-risk types of HPV, are at risk of developing cancer.
- **Option B:** Hydroceles generally don’t pose any threat to the testicles. They’re usually painless and disappear without treatment. However, if the patient has scrotal swelling, he should see his doctor rule out other causes that are more harmful such as testicular cancer.
- **Option C:** Measles has a low death rate in healthy children and adults, and most people who contract the measles virus recover fully. The risk of complications is higher in the following groups: children under 5 years old. adults over 20 years old.

19. When developing a nursing care plan for a client with a fractured right tibia, the nurse includes in the plan of care independent nursing interventions, including:

- A. Apply a cold pack to the tibia.
- B. Elevate the leg 5 inches above the heart.
- C. Perform a range of motion to right leg every 4 hours.
- D. Administer aspirin 325 mg every 4 hours as needed.

Correct Answer: B. Elevate the leg 5 inches above the heart.

This does not require a physician's order. Independent nursing interventions are activities that nurses are licensed to initiate based on their sound judgment and skills. Includes ongoing assessment, emotional support, providing comfort, teaching, physical care, and making referrals to other health care professionals.

- **Option A:** This intervention requires a doctor's order. Assessment and providing explanation while administering medical orders are also part of the dependent nursing interventions.
- **Option C:** C is not appropriate for a fractured tibia. Isometrics contract muscles without bending joints or moving limbs and help maintain muscle strength and mass. Note: These exercises are contraindicated while acute bleeding and edema are present.
- **Option D:** Dependent nursing interventions are activities carried out under the physician's orders or supervision. Includes orders to direct the nurse to provide medications, intravenous therapy, diagnostic tests, treatments, diet, and activity or rest.

20. A male client who weighs 175 lb (79.4 kg) is receiving aminophylline (Aminophylline) (400 mg in 500 ml) at 50 ml/hour. The theophylline level is reported as 6 mcg/ml. The nurse calls the physician who instructs the nurse to change the dosage to 0.45 mg/kg/hour. The nurse should:

- A. Question the order because it's too low.
- B. Question the order because it's too high.
- C. Set the pump at 45 ml/hour.
- D. Stop the infusion and have the laboratory repeat the theophylline measurement.

Correct Answer: A. Question the order because it's too low.

A therapeutic theophylline level is 10 to 20 mcg/ml. The client is currently receiving 0.5 mg/kg/hour of aminophylline. Because the client's theophylline level is sub-therapeutic, reducing the dose (which is what the physician's order would do) would be inappropriate. Therefore, the nurse should question the order.

- **Option B:** Intravenous administration of aminophylline occurs via two methods. A loading dose is given to achieve a serum concentration of 10 mcg/ml. Once the serum concentration has reached 10 to 15 mcg/ml, the maintenance constant infusion follows. The dosage given depends on the clearance of theophylline and whether the person has taken theophylline in the last 24 hours. These dosages vary by age, body weight, and the health status of the patient.
- **Option C:** The loading dose is 5.7 mg/kg based on the ideal body weight for all age groups. Loading doses should be administered over 30 minutes at a rate not to exceed 21 mg/hr and should be calculated using ideal body weight. This dose is for patients who have not taken aminophylline in the past 24 hours. The loading dose calculation must use the formula given below for patients who have taken aminophylline in the last 24 hours.
- **Option D:** Patients taking aminophylline require monitoring for CNS effects, respiratory rate, arterial blood gasses, and serum theophylline concentrations. Clinicians must measure serum concentrations before initiating a loading dose in a person who has taken theophylline in the last 24 hours. A repeat serum concentration is necessary before starting the maintenance dose, as well.

21. A female client comes into the emergency room complaining of SOB and pain in the lung area. She states that she started taking birth control pills 3

weeks ago and that she smokes. Her VS are: 140/80, P 110, R 40. The physician orders ABG's, results are as follows: pH: 7.50; PaCO₂ 29 mm Hg; PaO₂ 60 mm Hg; HCO₃⁻ 24 mEq/L; SaO₂ 86%. Considering these results, the first intervention is to:

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

Correct Answer: B. Place the client on oxygen

The pH (7.50) reflects alkalosis, and the low PaCO₂ indicates the lungs are involved. The client should immediately be placed on oxygen via mask so that the SaO₂ is brought up to 95%. Encourage slow, regular breathing to decrease the amount of CO₂ she is losing.

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

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

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

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

To avoid the spread of the disease, the client diagnosed with tuberculosis should take all the medicines as they're prescribed and comply with all the doctor's appointments. Self-isolation should always be strictly followed and also stop yourself from using public transportation.

- **Option A:** TB is not spread by sharing glasses, plates, utensils, clothing, sheets, furniture, or toilets. These items do not need any special cleaning. TB is not spread by direct physical contact,

such as shaking hands, kissing, or sex. TB is spread through the air when a person with active TB disease in their lungs coughs, sneezes, sings, or talks.

- **Option B:** Covering the mouth and nose with a tissue when sneezing is also very important. Hand washing should always be observed right after sneezing or coughing. Inhaling the aerosolized droplets from an infected person is the principal mechanism through which tuberculosis spreads.
- **Option C:** Home isolation is when a person must stay at home because they have a contagious disease such as TB. The amount of time needed for home isolation is different for each person. Do not have visitors, especially children and people with weak immune systems. Do not use buses, trains, taxis or airplanes.
- **Option D:** Used paper tissues should be disposed of properly. The organism is spread primarily as an airborne aerosol from an individual in the infectious stage of the disease, although transdermal and gastrointestinal (GI) transmission is also possible.
- **Option E:** One can only get infected by breathing in TB germs that a person coughs into the air. You cannot get TB from someone's clothes, drinking glass, eating utensils, handshake, toilet, or other surfaces where a TB patient has been.

23. A 42-year-old man is recovering from a thoracic surgery that was performed to remove a lung nodule. The procedure went smoothly, but during his recovery, he expressed concerns about his lung's function and anatomy. Eager to understand more about the structure of his lungs and how it relates to his post-operative recovery, he initiates a conversation with the nurse. The nurse sees this as an opportunity to educate him about the respiratory system. After discussing the lungs' anatomical aspects, the nurse aims to assess his understanding by asking, "Considering what we discussed and keeping in mind the intricacies of the right lung, can you tell me: "The right lung has ___ lobes and ___ bronchopulmonary segments." Fill in the blanks.

- A. 2 lobes and 5 bronchopulmonary segments
- B. 3 lobes and 10 bronchopulmonary segments
- C. 1 lobe and 3 bronchopulmonary segments
- D. 4 lobes and 8 bronchopulmonary segments

Correct Answer: B. 3 lobes and 10 bronchopulmonary segments

The right lung is divided into three lobes: the upper, middle, and lower lobes. There are 10 bronchopulmonary segments in the right lung – 3 in the upper lobe, 2 in the middle lobe, and 5 in the lower lobe.

- **Option A:** Incorrect. The right lung does have more lobes than the left, but it has 3 lobes, not 2. The number of bronchopulmonary segments is also incorrect; the right lung has 10 segments.
- **Option C:** Incorrect. The right lung has more than one lobe, and the number of segments mentioned here is not accurate for any human lung.
- **Option D:** Incorrect. Humans have a maximum of 3 lobes in the right lung and not 4. The number of bronchopulmonary segments is also incorrect; the right lung has 10 segments.

24. On a follow-up visit after having a vaginal hysterectomy, a 32-year-old patient has a decreased hematocrit level. Which of the following complications does this suggest?

- A. Hematoma
- B. Hypovolemia
- C. Infection
- D. Pulmonary embolus (PE)

Correct Answer: A. Hematoma

A decreased hematocrit level is a sign of hematoma, a delayed complication of abdominal and vaginal hysterectomy.

- **Option B:** Symptoms of hypovolemia include increased hematocrit and hemoglobin values.
- **Option C:** Infection manifests with fever and high WBC count.
- **Option D:** Symptoms of a PE include dyspnea, chest pain, cough, hemoptysis, restlessness, and signs of shock.

25. Patrick who is diagnosed with liver cirrhosis is experiencing symptoms of hepatic encephalopathy. The physician ordered 50 ml of Lactulose p.o. every 2 hours. Patrick suddenly develops diarrhea. The nurse best action would be:

- A. "I'll see if your physician is in the hospital".
- B. "Maybe you're reacting to the drug; I will withhold the next dose".
- C. "I'll lower the dosage as ordered so the drug causes only 2 to 4 stools a day".
- D. "Frequently, bowel movements are needed to reduce sodium level".

Correct Answer: C. "I'll lower the dosage as ordered so the drug causes only 2 to 4 stools a day".

Lactulose is given to a patient with hepatic encephalopathy to reduce absorption of ammonia in the intestines by binding with ammonia and promoting more frequent bowel movements. If the patient experiences diarrhea, it indicates overdosage and the nurse must reduce the amount of medication given to the patient. The stool will be mushy or soft. Lactulose is also very sweet and may cause cramping and bloating.

- **Option A:** The nurse may inform the physician so that he may order a lower dosage.
- **Option B:** Withholding the next dose is unnecessary; the nurse may lower the dosage as ordered.
- **Option D:** Lactulose, in this case, is given to reduce absorption of ammonia in the intestines.

26. The nurse is developing a teaching plan for the client with glaucoma. Which of the following instructions would the nurse include in the plan of care?

- A. Decrease fluid intake to control the intraocular pressure.
- B. Avoid overuse of the eyes.

- C. Decrease the amount of salt in the diet.
- D. Eye medications will need to be administered lifelong.

Correct Answer: D. Eye medications will need to be administered lifelong.

The administration of eye drops is a critical component of the treatment plan for the client with glaucoma. The client needs to be instructed that medications will need to be taken for the rest of his or her life. Stress the importance of meticulous compliance with prescribed drug therapy to prevent an increase in IOP, resulting in disk changes and loss of vision.

- **Option A:** Discuss dietary considerations (adequate fluid, bulk, or fiber intake). Measures to maintain consistency of stool to avoid constipation and straining during defecation. Stress the importance of routine checkups. It is important to monitor the progression and maintenance of disease to allow for early intervention and prevent further loss of vision.
- **Option B:** Encourage the patient to make necessary changes in lifestyle. A tranquil lifestyle decreases the emotional response to stress, preventing ocular changes that push the iris forward, which may precipitate an acute attack.
- **Option C:** Review the importance of maintaining a drug schedule like eye drops. Discuss medications that should be avoided such as mydriatic drops (atropine, propantheline bromide), overuse of topical steroids, and additive effects of [beta]-blocking when systemic [beta]-blocking agents are used.

27. A nurse is assessing a pregnant client in the 2nd trimester of pregnancy who was admitted to the maternity unit with a suspected diagnosis of abruptio placentae. Which of the following assessment findings would the nurse expect to note if this condition is present?

- A. Absence of abdominal pain
- B. A soft abdomen
- C. Uterine tenderness/pain
- D. Painless, bright red vaginal bleeding

Correct Answer: C. Uterine tenderness/pain

In abruptio placentae, acute abdominal pain is present. Uterine tenderness and pain accompany placental abruption, especially with a central abruption and trapped blood behind the placenta. Observation of the fetal monitoring often reveals increased uterine resting tone, caused by failure of the uterus to relax in an attempt to constrict blood vessels and control bleeding.

- **Option A:** Placental abruption occurs when there is a compromise of the vascular structures supporting the placenta. In other words, the vascular networks connecting the uterine lining and the maternal side of the placenta are torn away. These vascular structures deliver oxygen and nutrients to the fetus.
- **Option B:** The abdomen will feel hard and board like on palpation as the blood penetrates the myometrium and causes uterine irritability. Disruption of the vascular network may occur when the vascular structures are compromised because of hypertension or substance use or by conditions that cause stretching the uterus. The uterus is a muscle and is elastic whereas the placenta is less elastic than the uterus. Therefore, when the uterine tissue stretches suddenly, the placenta remains stable and the vascular structure connecting the uterine wall to the placenta tears away.

- **Option D:** If bleeding is present, the quantity and characteristic of the blood, as well as the presence of clots, is evaluated. Remember, the absence of vaginal bleeding does not eliminate the diagnosis of placental abruption.

28. George, a 17-year-old individual, is attending a health education session at a community clinic. The clinic is conducting screenings and teaching about early detection of common health issues in young adults. George has a family history of testicular cancer and is seeking information on how to reduce his risk. The nurse should include education on testicular self-examinations as part of the session. At what age should the nurse emphasize the initiation of regular testicular self-examinations?

- A. At the onset of sexual activity to ensure sexual health is maintained.
- B. After the age of 69, as part of a routine examination for senior health.
- C. Starting after age 40, coinciding with increased risk for other male health issues.
- D. Prior to the age of 20, to establish early detection habits during the peak incidence of testicular cancer.
- E. During the annual physical examination, regardless of age, to ensure consistency.

Correct Answer: D. Prior to the age of 20, to establish early detection habits during the peak incidence of testicular cancer.

Educating George and other young individuals about the importance of regular testicular self-examinations can lead to the early detection of abnormalities, which is crucial for early intervention, especially given George's family history of testicular cancer. Testicular cancer commonly occurs in men between ages 20 and 30. A male client should be taught how to perform testicular self-examination before age 20, preferably when he enters his teens.

29. A male client with psoriasis visits the dermatology clinic. When inspecting the affected areas, the nurse expects to see which type of secondary lesion?

- A. Scale
- B. Crust
- C. Ulcer
- D. Scar

Correct Answer: A. Scale

A scale is the characteristic secondary lesion occurring in psoriasis. Although crusts, ulcers, and scars also are secondary lesions in skin disorders, they don't accompany psoriasis. Psoriasis is a chronic proliferative and inflammatory condition of the skin. It is characterized by erythematous plaques covered with silvery scales particularly over the extensor surfaces, scalp, and lumbosacral region.

- **Option B:** Impetigo is a common infection of the superficial layers of the epidermis that is highly contagious and most commonly caused by gram-positive bacteria. It most commonly presents as erythematous plaques with a yellow crust and may be itchy or painful. The lesions are highly contagious and spread easily.

- **Option C:** Decubitus ulcers are skin or soft tissue injuries that form due to prolonged pressure exerted over specific areas of the body. They should receive prompt treatment; otherwise, complications associated with these injuries can be fatal. The cornerstone of treatment is to reduce the pressure exerted at the site of the lesion.
- **Option D:** Hypertrophic scarring represents an undesirable variant in the wound healing process. In hypertrophic scars, excess connective tissue is deposited in the area of the original tissue wound. Hypertrophic scarring presents as an area of increased induration and often dyspigmentation over the site of a wound, especially in areas of increased wound tension.

30. Which of the following factors is the underlying cause of dystocia?

- A. Nutritional
- B. Mechanical
- C. Environmental
- D. Medical

Correct Answer: B. Mechanical

Dystocia is difficult, painful, prolonged labor due to mechanical factors involving the fetus (passenger), uterus (powers), pelvis (passage), or psyche.

- **Option A:** Recognizing the causes of obstructed labor is important if the complications are to be prevented. Adequate prevention, however, can be achieved only through a multidisciplinary approach aimed in the short term at identifying high-risk cases and in the long term at improving nutrition. Early motherhood should be discouraged, and efforts are needed to improve nutrition during infancy, childhood, early adulthood, and pregnancy.
- **Option C:** Dystocia is a complex disorder of poor uterine action that is influenced by a significant genetic component as well as environmental factors. The amount of genetic influence makes it interesting to study the gene expression in these patients. Detection of the genes related to dystocia might lead to better pathophysiological understanding of this condition and detection of these mothers before parturition.
- **Option D:** A number of researchers have regarded factors such as mother's age, height, weight before pregnancy, body mass index (BMI), weight gain during pregnancy, fundal height, birth weight, and foot length of the mother as risk factors.

31. Which of the following descriptions of a client's experience and behavior can be assessed as an illusion?

- A. The client tries to hit the nurse when vital signs must be taken.
- B. The client says, "I keep hearing a voice telling me to run away".
- C. The client becomes anxious whenever the nurse leaves the bedside.
- D. The client looks at the shadow on a wall and tells the nurse she sees frightening faces on the wall.

Correct Answer: D. The client looks at the shadow on a wall and tells the nurse she sees frightening faces on the wall.

Minor memory problems are distinguished from dementia by their minor severity and their lack of significant interference with the client's social or occupational lifestyle. The psychological concept of

illusion is defined as a process involving an interaction of logical and empirical considerations. Common usage suggests that an illusion is a discrepancy between one's awareness and some stimulus.

- **Option A:** In psychology, the term aggression refers to a range of behaviors that can result in both physical and psychological harm to yourself, others, or objects in the environment. This type of behavior centers on harming another person either physically or mentally. It can be a sign of an underlying mental health disorder, a substance use disorder, or a medical disorder.
- **Option B:** Auditory hallucinations are the sensory perceptions of hearing voices without an external stimulus. This symptom is particularly associated with schizophrenia and related psychotic disorders but is not specific to it. Auditory hallucinations are one of the major symptoms of psychosis. Nonpsychotic disorders known to be associated with auditory hallucinations are mood disorders, trauma-related, substance-related, neurological, personality, as well as their occurrence in "healthy" individuals.
- **Option C:** Other options would be included in the history data but don't directly correlate with the client's lifestyle. Anxiety is linked to fear and manifests as a future-oriented mood state that consists of a complex cognitive, affective, physiological, and behavioral response system associated with preparation for the anticipated events or circumstances perceived as threatening. Pathological anxiety is triggered when there is an overestimation of perceived threat or an erroneous danger appraisal of a situation which leads to excessive and inappropriate responses.

32. A nurse prepares to administer a vitamin K injection to a newborn infant. The mother asks the nurse why her newborn infant needs the injection. The best response by the nurse would be:

- A. "Your infant needs vitamin K to develop immunity."
- B. "Vitamin K will protect your infant from having jaundice."
- C. "Newborn infants are deficient in vitamin K, and this injection prevents your infant from abnormal bleeding."
- D. "Newborn infants have sterile bowels, and vitamin K promotes the growth of bacteria in the bowel."

Correct Answer: C. "Newborn infants are deficient in vitamin K, and this injection prevents your infant from abnormal bleeding."

- **Option C:** Vitamin K is necessary for the body to synthesize coagulation factors. Vitamin K is administered to the newborn infant to prevent abnormal bleeding.
- **Option D:** Newborn infants are vitamin K deficient because the bowel does not have the bacteria necessary for synthesizing fat-soluble vitamin K. The infant's bowel does not support the production of vitamin K until bacteria adequately colonize it by food ingestion.

33. The nurse plans care for a client in the post-anesthesia care unit. Which of the following should the nurse assess first?

- A. Respiratory status
- B. Level of consciousness
- C. Level of pain
- D. Reflexes and movement of extremities

Correct Answer: A. Respiratory status

Assessing respiratory status is the first priority. Remember ABC. General anesthesia and mechanical ventilation impair pulmonary function, even in normal individuals, and result in decreased oxygenation in the postanesthesia period. They also cause a reduction in functional residual capacity of up to 50% of the preanesthesia value.

- **Option B:** A level of consciousness assessment is also helpful, such as the AVPU scale or the Glasgow Coma Scale. The AVPU scale assesses if the patient is alert and oriented, responds to voice, responds to pain, or is unresponsive. The Glasgow Coma Scale is an objective way to record the conscious state of a patient, examining eye, verbal, and motor responses.
- **Option C:** Pain is a common occurrence after most all types of surgical procedures and is probably the most significant postoperative problem in the eyes of the patient. Prompt and adequate pain relief is a critical nursing intervention.
- **Option D:** Neurologic functions can be assessed by the patient's response to verbal stimuli, pupils' responsiveness to light and accommodation, ability to move all extremities, and strength and equality of a hand grip.

34. In a gravido-cardiac mother, the first 2 hours postpartum (4th stage of labor and delivery) particularly in a cesarean section is a critical period because at this stage

- A. There is a fluid shift from the placental circulation to the maternal circulation which can overload the compromised heart.
- B. The maternal heart is already weak and the mother can die.
- C. The delivery process is strenuous to the mother.
- D. The mother is tired and weak which can distress the heart.

Correct Answer: A. There is a fluid shift from the placental circulation to the maternal circulation which can overload the compromised heart.

During the pregnancy, there is an increase in maternal blood volume to accommodate the need of the fetus. When the baby and placenta have been delivered, there is a fluid shift back to the maternal circulation as part of physiologic adaptation during the postpartum period. In a cesarean section, the fluid shift occurs faster because the placenta is taken out right after the baby is delivered giving it less time for the fluid shift to gradually occur.

- **Option B:** Heart rate increases in a linear fashion during pregnancy by 10 to 20 bpm over baseline and returns to pre-pregnant levels in 6 weeks postpartum. There is ventricular remodeling during pregnancy and left ventricular wall thickness and mass increase by 28% to 52% above pre-pregnancy values. Cardiac contractility and ventricular ejection fraction don't undergo any significant change during the entire peripartum period.
- **Option C:** There is generalized physical fatigue immediately after delivery. The pulse rate may be elevated a few hours after the childbirth, due to excitement or pain, and usually normalizes on the second day. The blood pressure could be elevated due to pain or excitement but is generally in the normal range
- **Option D:** Cardiac output increases throughout pregnancy. However, in the immediate postpartum period, following delivery, there is an increase in circulating blood volume from the contraction of the uterus and an increase in preload from the relief of inferior vena cava obstruction, leading to an

increase in stroke volume and heart rate leading to a 60 to 80% rise in cardiac output, which rapidly declines to pre-labor values in 1 to 2 hours following delivery and to pre-pregnancy values in two weeks postpartum.

35. When a client has a lobectomy, what fills the space where the lobe was?

- A. The remaining lobe or lobes over expand to fill the space
- B. The lung space fills up with serous fluid
- C. The space stays empty
- D. The surgeon fills the space with gel

Correct Answer: A. The remaining lobe or lobes over expand to fill the space

- **Option A:** The remaining lobe or lobes over expand slightly to fill the space previously occupied by the removed tissue. The diaphragm is carried higher on the operative side to further reduce the empty space.
- **Option C:** The space can't remain "empty" because truly empty would imply a vacuum, which would interfere with the intrathoracic pressure changes that allow breathing.
- **Option B:** Serous fluid overproduction would compress the remaining lobes, diminish their function and possibly, cause a mediastinal shift.
- **Option D:** The surgeon doesn't use a gel to fill the space.

36. The nurse is caring for a female client experiencing neutropenia as a result of chemotherapy and develops a plan of care for the client. The nurse plans to:

- A. Teach the client and family about the need for hand hygiene
- B. Insert an indwelling urinary catheter to prevent skin breakdown
- C. Restrict fluid intake
- D. Restrict all visitors

Correct Answer: A. Teach the client and family about the need for hand hygiene

- **Option A:** In the neutropenic client, meticulous hand hygiene education is implemented for the client, family, visitors, and staff to avoid transmission-based infection.
- **Option B:** Invasive measures such as an indwelling urinary catheter should be avoided to prevent infections.
- **Option C:** Fluids should be encouraged.
- **Option D:** Not all visitors are restricted, but the client is protected from persons with known infections.

37. Orly Khan is suffering from fluid volume deficit (FVD), which of the following symptoms would the nurse expect to assess in the patient?

- A. Rales

- B. Bounding pulse
- C. Tachycardia
- D. Bulging neck veins

Correct Answer: C. Tachycardia

Tachycardia, poor tissue turgor, and hypotension are symptoms of FVD. Other choices are symptoms of FVE. A decrease in circulating blood volume can cause hypotension and tachycardia. Alteration in HR is a compensatory mechanism to maintain cardiac output.

- **Option A:** Auscultate and document heart sounds; note rate, rhythm or other abnormal findings. Cardiac alterations like dysrhythmias may reflect hypovolemia and/or electrolyte imbalance, commonly hypocalcemia. Note: MI, pericarditis, and pericardial effusion with/ without tamponade are common cardiovascular complications.
- **Option B:** Usually, the pulse is weak and may be irregular if electrolyte imbalance also occurs. Hypotension is evident in hypovolemia. Close monitoring for responses during therapy reduces complications associated with fluid replacement.
- **Option D:** Assess skin turgor and oral mucous membranes for signs of dehydration. Signs of dehydration are also detected through the skin. Skin of elderly patients loses elasticity, hence skin turgor should be assessed over the sternum or on the inner thighs. Longitudinal furrows may be noted along the tongue.

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

- A. Baking class
- B. Role-playing
- C. Scrapbook making
- D. Music group

Correct Answer: B. Role-playing

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

- **Option A:** A baking class would not work well with a histrionic client. Histrionic personality disorder, or dramatic personality disorder, is a psychiatric disorder distinguished by a pattern of exaggerated emotionality and attention-seeking behaviors. Histrionic personality disorder falls within the “Cluster B” of personality disorders. Cluster B personality disorders include conditions such as narcissistic personality disorder, borderline personality disorder, and antisocial personality disorder. These personality disorders are commonly described as dramatic, excitable, erratic, or volatile. Specifically, people with histrionic personality disorder typically present as flirtatious, seductive, charming, manipulative, impulsive, and lively.
- **Option C:** People with histrionic personality disorder may feel underappreciated or disregarded when they are not the center of attention. These people are typically the life of the party and have a “larger than life” presence. They may be vibrant, enchanting, overly seductive, or inappropriately sexual with most of the people they meet, even when they are not sexually attracted to them.

- **Option D:** People presenting with histrionic personality disorder may demonstrate rapidly shifting and shallow emotions that others may perceive as insincere. Physical appearance may be used to draw attention to oneself by wearing bright-colored clothing or revealing garments. Those with histrionic personality disorder may speak in a vague style that lacks in detail. Furthermore, they may be dramatic and extremely emotionally expressive, even embarrassing friends and family with public displays of emotions.

39. The nurse is instructing the client to perform a testicular self-examination. The nurse tells the client:

- A. That testicular examination should be done at least every 6 months
- B. To gently feel the testicle with one finger to feel for a growth
- C. To examine the testicles while lying down
- D. The best time for the examination is after a shower

Correct Answer: D. The best time for the examination is after a shower

- **Option D:** The testicular-self examination is recommended monthly after a warm shower or bath when the scrotal skin is relaxed. The client should stand to examine the testicles. Using both hands, with the fingers under the scrotum and the thumbs on top, the client should gently roll the testicles, feeling for any lumps.
- **Option A:** Testicular self-examination is done at least once a month.
- **Option B:** Testicles are examined using both hands by placing the index and middle fingers under the scrotum.
- **Option C:** To do the exam, the patient should stand in front of a mirror.

40. Which of the following muscles is a possible site for IM injections?

- A. Outer aspect of the hip.
- B. Shoulder.
- C. Vastus gluteus.
- D. Vastus lateralis.

Correct Answer: D. Vastus lateralis.

Possible injection sites for IM administration include ventrogluteal, deltoid, dorsogluteal, vastus lateralis, and rectus femoris. The thigh may be used when the other sites aren't available or if the client needs to administer the medication on his own. Divide the upper thigh into three equal parts. Locate the middle of these three sections. The injection should go into the outer top portion of this section.

- **Option A:** The ventrogluteal muscle is the safest site for adults and children older than 7 months. It's deep and not close to any major blood vessels and nerves. This site is difficult for self-injection and may require the help of a friend, family member, or caregiver.
- **Option B:** The deltoid muscle is the site most typically used for vaccines. However, this site is not common for self-injection, because its small muscle mass limits the volume of medication that can be injected — typically no more than 1 milliliter.

- **Option C:** The dorsogluteal muscle of the buttocks was the site most commonly selected by healthcare providers for many years. However, due to the potential for injury to

41. The physician prescribes 250 mg of a drug. The drug vial reads 500 mg/ml. How much of the drug should the nurse give?

- A. 2 ml
- B. 1 ml
- C. ½ ml
- D. ¼ ml

Correct Answer: C. ½ ml

The nurse should give ½ ml of the drug. The dosage is calculated as follows:

$$250 \text{ mg}/X=500 \text{ mg}/1 \text{ ml}$$

$$500x=250$$

$$X=1/2 \text{ ml}$$

- **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.

42. A pregnant client is admitted to the labor room. An assessment is performed, and the nurse notes that the client's hemoglobin and hematocrit levels are low, indicating anemia. The nurse determines that the client is at risk for which of the following?

- A. A loud mouth
- B. Low self-esteem
- C. Hemorrhage
- D. Postpartum infections

Correct Answer: D. Postpartum infections

Anemic women have a greater likelihood of cardiac decompensation during labor, postpartum infection, and poor wound healing. Good nutrition is the best way to prevent anemia if the woman is pregnant or trying to become pregnant. Eating foods high in iron content (such as dark green leafy vegetables, red meat, fortified cereals, eggs, and peanuts) can help ensure that she maintains the supply of iron her

body needs to function properly. The obstetrician will also prescribe vitamins to ensure that the woman has enough iron and folic acid. Make sure to get at least 27 mg of iron each day. If the woman does become anemic during pregnancy, it can usually be treated by taking iron supplements.

- **Option A:** The amount of blood in the body increases by about 20-30 percent, which increases the supply of iron and vitamins that the body needs to make hemoglobin. Hemoglobin is the protein in red blood cells that carries oxygen to other cells in the body.
- **Option B:** Mild anemia is normal during pregnancy due to an increase in blood volume. More severe anemia, however, can put the baby at higher risk for anemia later in infancy. In addition, if the mother is significantly anemic during the first two trimesters, she is at greater risk for having a preterm delivery or low-birth-weight baby. Being anemic also burdens the mother by increasing the risk of blood loss during labor and making it more difficult to fight infections.
- **Option C:** Anemia does not specifically present a risk for hemorrhage. Severe anemia may weaken uterine muscular strength or lower resistance to infectious diseases, contributing to postpartum hemorrhage and subsequent maternal mortality. However, the severity of anemia that places a woman at a greater risk of experiencing postpartum hemorrhage or a debilitating and clinically relevant blood loss has not been investigated. Indeed, the impact of anemia on the extent of blood loss at childbirth and postpartum is not well-understood.

43. 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.

44. 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.

45. A client with a very dry mouth, skin, and mucous membranes is diagnosed with dehydration. Which intervention should the nurse perform when caring for a client diagnosed with fluid volume deficit?

- A. Assessing urinary intake and output.
- B. Obtaining the client's weight weekly at different times of the day.
- C. Monitoring arterial blood gas (ABG) results.
- D. Maintaining I.V. therapy at the keep-vein-open rate.

Correct Answer: A. Assessing urinary intake and output.

For the client with fluid volume deficit, assessing the client's urine output (using a urometer if necessary) is essential to ensure an output of at least 30 ml/hour. Assess color and amount of urine. Report urine output less than 30 ml/hr for 2 consecutive hours. A normal urine output is considered normal not less than 30ml/hour. Concentrated urine denotes fluid deficit.

- **Option B:** The client should be weighed daily, not weekly, and at the same time each day, usually in the morning. Weigh daily with the same scale, and preferably at the same time of day. Weight is the best assessment data for possible fluid volume imbalance. An increase of 2 lbs a week is considered normal.
- **Option C:** Monitoring ABGs is not necessary for this client. Rather, serum electrolyte levels would most likely be evaluated. Monitor serum electrolytes and urine osmolality, and report abnormal values. Elevated blood urea nitrogen suggests fluid deficit. Urine-specific gravity is likewise increased.
- **Option D:** The client also would have an I.V. rate of at least 75 ml/hour, if not higher, to correct the fluid volume deficit. Administer parenteral fluids as prescribed. Consider the need for an IV fluid challenge with an immediate infusion of fluids for patients with abnormal vital signs.

46. The pituitary hormone that stimulates the secretion of milk from the mammary glands is:

- A. Prolactin
- B. Oxytocin
- C. Estrogen
- D. Progesterone

Correct Answer: A. Prolactin.

Prolactin is the hormone from the anterior pituitary gland that stimulates mammary gland secretion. Oxytocin, a posterior pituitary hormone, stimulates the uterine musculature to contract and causes the “let down” reflex.

- **Option B:** Oxytocin has been best known for its roles in female reproduction. It is released in large amounts during labor, and after stimulation of the nipples. It is a facilitator for childbirth and breastfeeding. One of the oldest applications of oxytocin as a proper drug is as a therapeutic agent during labor and delivery. It is a stimulant widely employed to induce or augment labor, especially at term, when adequate oxytocin receptors are present. It is also one of the principal uterotonic drugs used to prevent postpartum hemorrhage.
- **Option C:** Estrogen is a steroid hormone associated with the female reproductive organs and is responsible for the development of female sexual characteristics. In the uterus, estrogen helps to proliferate endometrial cells in the follicular phase of the menstrual cycle, thickening the endometrial lining in preparation for pregnancy.
- **Option D:** Progesterone is an endogenous steroid hormone that is commonly produced by the adrenal cortex as well as the gonads, which consist of the ovaries and the testes. Progesterone is also secreted by the ovarian corpus luteum during the first ten weeks of pregnancy, followed by the placenta in the later phase of pregnancy. The conversion of progesterone generation from the corpus luteum to the placenta generally occurs after week ten.

47. The charge nurse on the medical-surgical floor assigns vital signs to the nursing assistive personnel (NAP) and medication administration to the licensed vocational nurse (LVN). Which nursing model of care is this floor following?

- A. Team nursing
- B. Case method nursing
- C. Functional nursing
- D. Primary nursing

Correct Answer: C. Functional nursing

This medical-surgical floor is following the functional nursing model of care, in which care is partitioned and assigned to a staff member with the appropriate skills. For example, the NAP is assigned vital signs, and the LVN is assigned medication administration. Functional nursing is task-oriented in scope. Instead of one nurse performing many functions, several nurses are given one or two assignments. For example, there is a medicine nurse whose sole responsibility is administering medications.

- **Option A:** With team nursing, an RN or LVN is paired with a NAP. The pair is then assigned to render care for a group of patients. Team nursing is a system that distributes the care of a patient amongst a team that is all working together to provide for this person. This team consists of up to 4 to 6 members that has a team leader who gives jobs and instructions to the group.
- **Option B:** In case method nursing, one nurse cares for one patient during her entire shift. Private duty nursing is an example of this care model. The case method is a participatory, discussion-based way of learning where students gain skills in critical thinking, communication, and group dynamics. It is a type of problem-based learning.
- **Option D:** When the primary nursing model is utilized, one nurse manages care for a group of patients 24 hours a day, even though others provide care during part of the day. A method of providing nursing services to inpatients whereby one nurse plans the care of specific patients for a

period of 24 hours. The primary nurse provides direct care to those patients when working and is responsible for directing and supervising their care in collaboration with other health care team members.

48. Which goal of the client's care should take priority during the first days of hospitalization for an exacerbation of ulcerative colitis?

- A. Promoting self-care and independence.
- B. Managing diarrhea.
- C. Maintaining adequate nutrition.
- D. Promoting rest and comfort.

Correct Answer: B. Managing diarrhea

Diarrhea is the primary symptom in an exacerbation of ulcerative colitis, and decreasing the frequency of stools is the first goal of treatment. Observe and record stool frequency, characteristics, amount, and precipitating factors. The other goals are ongoing and will be best achieved by halting the exacerbation. The client may receive antidiarrheal medications, antispasmodic agents, bulk hydrophilic agents, or anti-inflammatory drugs.

- **Option A:** Include patient and SO in team conferences to develop an individualized program. Promotes continuity of care and enables the patient and SO to feel a part of the plan, imparting a sense of control and increasing cooperation with the therapeutic regimen.
- **Option C:** Identify and restrict foods and fluids that precipitate diarrhea (vegetables and fruits, whole-grain cereals, condiments, carbonated drinks, milk products). Avoiding intestinal irritants promotes intestinal rest and reduces intestinal workload.
- **Option D:** Encourage use of stress management skills, (relaxation techniques, visualization, guided imagery, deep-breathing exercises). Refocuses attention, promotes relaxation, and enhances coping abilities.

49. An appropriate nursing diagnosis for clients who are taking NSAIDs and anticoagulants would be which of the following?

- A. Risk for injury related to prolonged bleeding time, inhibition of platelet aggregation, and increased risk of GI bleeding.
- B. Potential for injury related to GI toxicity and decrease in bleeding time.
- C. Altered protection related to GI bleeding and increasing platelet aggregation.
- D. Risk for injury related to thrombocytosis prolonged prothrombin time.

Correct Answer: A. Risk for injury related to prolonged bleeding time, inhibition of platelet aggregation, and increased risk of GI bleeding.

The nursing diagnosis addresses all the interactions that pose a threat to the client taking both these drugs. Significant interactions between corticosteroids and other drugs also exist, so concurrent use of other medications should undergo an evaluation as changes in their management may be warranted. The effect of anticoagulants, such as warfarin, may increase, which would require closer monitoring and potential dosage change. This effect would likely be at 3 to 7 days after starting the corticosteroid.

- **Option B:** Bleeding time is prolonged not decreased when both drugs are used. Corticosteroid users who are on concurrent NSAID therapy, or others at higher risk of ulcers or gastrointestinal (GI) bleeding including those with a history of ulcers or GI bleeding and those with severe comorbidities (e.g., advanced cancer) should receive proton pump inhibitor therapy.
- **Option C:** Platelet aggregation is inhibited not increased when both drugs are used. Live vaccine administration while a patient is taking immunosuppressive dosing of a glucocorticoid (40 mg/day of prednisolone or equivalent and greater for more than 7-day duration) may lead to an increased risk of infection. Therefore, the recommendation is to delay any live or live-attenuated vaccination for three months after discontinuing immunosuppressive glucocorticoid therapy.
- **Option D:** Thrombocytosis does not occur with the use of either drug. Contraindications to corticosteroids include hypersensitivity to any component of the formulation, concurrent administration of live or live-attenuated vaccines (when using immunosuppressive doses), systemic fungal infection, osteoporosis, uncontrolled hyperglycemia, diabetes mellitus, glaucoma, joint infection, uncontrolled hypertension, herpes simplex keratitis, and varicella infection. Additional relative contraindications include peptic ulcer disease, congestive heart failure, and viral or bacterial infections not controlled by anti-infectives.

50. Which nursing statement is a good example of the therapeutic communication technique of focusing?

- A. "Describe one of the best things that happened to you this week."
- B. "I'm having a difficult time understanding what you mean."
- C. "Your counseling session is in 30 minutes. I'll stay with you until then."
- D. "You mentioned your relationship with your father. Let's discuss that further."

Correct Answer: D. "You mentioned your relationship with your father. Let's discuss that further."

This is an example of the therapeutic communication technique of focusing. Focusing takes notice of a single idea or even a single word and works especially well with a client who is moving rapidly from one thought to another. The nurse encourages the client to concentrate his energies on a single point, which may prevent a multitude of factors or problems from overwhelming the client.

- **Option A:** Theme identification refers to underlying issues or problems experienced by the client that emerge repeatedly during nurse-client relationship. It allows the nurse to best promote the client's exploration and understanding of important problems.
- **Option B:** Seeking information refers to seeking to make clear that which is not meaningful or that which is vague. The nurse should seek clarification throughout interactions with clients. Doing so can help the nurse to avoid making assumptions that understanding has occurred when it has not.
- **Option C:** The nurse can offer his presence, interest, and desire to understand. It is important that this offer is unconditional, that is, the client does not have to respond verbally to get the nurse's attention.

51. In a renowned dermatology conference, Dr. Simmons presents a case study of a patient with a genetic condition that hampers the skin's natural renewal process, making the skin appear prematurely aged. Citing this case, Dr. Simmons postulates the importance of the skin's regenerative capacity and asks the attendees to identify the specific layer in the skin where the majority of

mitotic division takes place, facilitating the continuous renewal and repair of the epidermis. Which of the following is the correct layer?

- A. Stratum spinosum
- B. Stratum granulosum
- C. Stratum corneum
- D. Stratum basale

Correct Answer: D. Stratum basale

Stratum basale is the deepest layer of the epidermis, also known as the “basal layer.” It contains columnar to cuboidal keratinocytes, melanocytes, Merkel cells, and stem cells. The stem cells in this layer undergo continuous mitotic division, providing new cells that differentiate and mature as they migrate to the surface of the epidermis. This is the primary site for the renewal and repair of the epidermis.

- **Option A:** Stratum spinosum, also known as the “spiny layer,” is positioned above the stratum basale. Keratinocytes in this layer are connected by desmosomes, giving them a spiny appearance. While some cell division does occur here, the primary site of mitosis is in the stratum basale.
- **Option B:** The stratum granulosum is the “granular layer” where keratinocytes produce keratohyalin and lamellated granules. These cells are in the process of dying and don’t undergo mitotic division.
- **Option C:** The stratum corneum is the outermost layer of the epidermis, comprised of dead, flattened keratinocytes called corneocytes. These cells are continuously shed from the surface and replaced by cells from the deeper layers. No cell division occurs in this layer.

52. A client has been taking prednisone (Deltasone) 20 mg once a day to treat severe seborrheic dermatitis. Which of the following assessment findings is of most concern?

- A. Complaints of epigastric pain.
- B. Blood pressure 145/90 mm Hg.
- C. Blood glucose level 129 mg/dL.
- D. Complaints of increase appetite.

Correct Answer: A. Complaints of epigastric pain.

Complaints of epigastric pain indicate that the client might be suffering from peptic ulcers, which require the addition of the use of antacid such as proton pump inhibitor (Nexium).

- **Options B, C, and D:** These are symptoms related to the use of prednisone but are not clinically significant when steroids are used for limited periods and do not require treatment.

53. A client with shortness of breath has decreased to absent breath sounds on the right side, from the apex to the base. Which of the following conditions would best explain this?

- A. Acute asthma
- B. Chronic bronchitis
- C. Pneumonia
- D. Spontaneous pneumothorax

Correct Answer: D. Spontaneous pneumothorax

A spontaneous pneumothorax occurs when the client's lung collapses, causing an acute decrease in the amount of functional lung used in oxygenation. The sudden collapse was the cause of his chest pain and shortness of breath.

- **Option A:** An asthma attack would show wheezing breath sounds.
- **Option B:** Bronchitis would have rhonchi.
- **Option C:** Pneumonia would have bronchial breath sounds over the area of consolidation.

54. A patient with leukemia is receiving chemotherapy that is known to depress bone marrow. A CBC (complete blood count) reveals a platelet count of 25,000/microliter. Which of the following actions related specifically to the platelet count should be included on the nursing care plan?

- A. Monitor for fever every 4 hours.
- B. Require visitors to wear respiratory masks and protective clothing.
- C. Consider transfusion of packed red blood cells.
- D. Check for signs of bleeding, including examination of urine and stool for blood.

Correct Answer: D. Check for signs of bleeding, including examination of urine and stool for blood.

A platelet count of 25,000/microliter is severely thrombocytopenic and should prompt the initiation of bleeding precautions, including monitoring urine and stool for evidence of bleeding. Review laboratory results for coagulation status as appropriate: platelet count, prothrombin time/international normalized ratio (PT/INR), activated partial thromboplastin time (aPTT), fibrinogen, bleeding time, fibrin degradation products, vitamin K, activated coagulation time (ACT).

- **Option A:** Educate the at-risk patient and caregivers about precautionary measures to prevent tissue trauma or disruption of the normal clotting mechanisms. Thoroughly conform the patient to surroundings; put call light within reach and teach how to call for assistance; respond to call light immediately.
- **Option B:** Monitoring for fever and requiring protective clothing are indicated to prevent infection if white blood cells are decreased. Wash hands and teach patient and SO to wash hands before contact with patients and between procedures with the patient; encourage fluid intake of 2,000 to 3,000 mL of water per day, unless contraindicated.
- **Option C:** Transfusion of red cells is indicated for severe anemia. Prehospital care focuses on the ABCs (airway, breathing, circulation), which include providing oxygen, controlling severe hemorrhage, and initiating intravenous (IV) fluids to maintain hemodynamic stability; airway control may be necessary for a large intracranial hemorrhage.

55. The nurse is doing an admission assessment on a client with a history of duodenal ulcer. To determine whether the problem is currently active, the nurse would assess the client for which of the following most frequent symptom(s) of duodenal ulcer?

- A. Pain that is relieved by food intake.
- B. Pain that radiates down the right arm.
- C. N/V
- D. Weight loss

Correct Answer: A. Pain that is relieved by food intake.

The most frequent symptom of a duodenal ulcer is pain that is relieved by food intake. These clients generally describe the pain as burning, heavy, sharp, or “hungry” pain that often localizes in the midepigastric area. Duodenal ulcers occur when there is a disruption to the surface of the mucosa of the duodenum. These ulcers are part of peptic ulcer disease, which involves the stomach and the first part of the duodenum.

- **Option B:** The degree of disease progression before the initial diagnosis can affect the symptoms with which a patient may present. The location of the disease can also be differentiated based on symptoms. The pain associated with duodenal ulcers improves after meals, while the pain associated with gastric ulcers generally intensifies after meals.
- **Option C:** The typical presentation of a patient with gastric ulcers is epigastric pain that is worse with eating. It often correlates with mild nausea and early satiety. They often describe this pain as a sharp or burning type of pain that typically doesn’t radiate. The most common finding on the physical exam is epigastric tenderness.
- **Option D:** The client with a duodenal ulcer usually does not experience weight loss. These symptoms are usually more typical in the client with a gastric ulcer. Patients may present with upper GI bleeding. The clinician should ask if they are having any black tarry stools, hematemesis, coffee-ground emesis, or bright red blood per rectum. It is important to remember that up to 15% of patients who present with bright red rectal bleeding have a brisk upper GI bleed.

56. When planning the discharge of a client with chronic anxiety, the nurse directs the goals at promoting a safe environment at home. The most appropriate maintenance goal should focus on which of the following?

- A. Continued contact with a crisis counselor.
- B. Identifying anxiety-producing situations.
- C. Ignoring feelings of anxiety.
- D. Eliminating all anxiety from daily situations.

Correct Answer: B. Identifying anxiety-producing situations.

Recognizing situations that produce anxiety allows the client to prepare to cope with anxiety or avoid a specific stimulus. Observe for increasing anxiety. Assume a calm manner, decrease environmental stimulation, and provide temporary isolation as indicated. Early detection and intervention facilitate modifying a client’s behavior by changing the environment and the client’s interaction with it, to minimize the spread of anxiety.

- **Option A:** Counselors will not be available for all anxiety-producing situations, and this option does not encourage the development of internal strengths. Teach signs and symptoms of escalating anxiety, and ways to interrupt its progression (e.g., relaxation techniques, deep-breathing exercises, physical exercises, brisk walks, jogging, meditation). So the client can start using relaxation techniques; gives the client confidence in having control over his anxiety.
- **Option C:** Ignoring feelings will not resolve anxiety. Remain with the client at all times when levels of anxiety are high (severe or panic); reassure the client of his or her safety and security. The client's safety is utmost priority. A highly anxious client should not be left alone as his anxiety will escalate. Provide reassurance and comfort measures. Encourage the client's participation in relaxation exercises such as deep breathing, progressive muscle relaxation, guided imagery, meditation and so forth.
- **Option D:** Elimination anxiety from life is impossible. Stay with the patient during panic attacks. Use short, simple directions. During a panic attack, the patient needs reassurance that he is not dying and the symptoms will resolve spontaneously. In anxiety, the client's ability to deal with abstractions or complexity is impaired.

57. Nurse Danita is working with clients who have personality disorders. Which of the following techniques would the nurse use to deal with her own feelings that interfere with therapeutic performance?

- A. Active listening techniques
- B. Challenging the client's assertions
- C. Forming social relations
- D. Seeking peer or supervisor direction

Correct Answer: D. Seeking peer or supervisor direction

The nurse is likely to have strong reactions to clients with personality disorders, especially those who display intense emotions and manipulative behaviors. Seeking the direction of peers and supervisors can help clarify issues and determine the best nursing responses to difficult behaviors.

- **Option A:** Be aware of flattery as an attempt to feed into your needs to feel special. Giving into the client's thinking that you are "the best" or "the only one" can pit you against other staff and undermine the client's need for limits.
- **Option B:** If the client becomes hostile or projects blame onto you or staff, project a neutral, calm demeanor, and avoid power struggles. Focus on the client's underlying feelings. Defuses tension and opens up productive interaction.
- **Option C:** Guard against personal feelings of frustration and lack of progress. Change if often very slow and may seem to take longer than it actually is. Nurture yourself outside the job. Keep your "bucket" full of laughter and high regard from family and friends.

58. A nurse assigned to the emergency department evaluates a patient who underwent fiberoptic colonoscopy 18 hours previously. The patient reports increasing abdominal pain, fever, and chills. Which of the following conditions poses the most immediate concern?

- A. Bowel perforation

- B. Viral Gastroenteritis
- C. Colon cancer
- D. Diverticulitis

Correct Answer: A. Bowel perforation

Bowel perforation is the most serious complication of fiberoptic colonoscopy. Important signs include progressive abdominal pain, fever, chills, and tachycardia, which indicate advancing peritonitis. One of the most serious complications of colonoscopy is endoscopic perforation of the colon, which has been reported as between 0.03% and 0.7%. Although colonoscopic perforation (CP) occurs rarely, it can be associated with high mortality and morbidity rates.

- **Option B:** Viral gastroenteritis is a known cause of nausea, vomiting, diarrhea, anorexia, weight loss, and dehydration. Isolated cases can occur, but viral gastroenteritis more commonly occurs in outbreaks within close communities such as daycare centers, nursing facilities, and cruise ships. Many different viruses can lead to symptomatology, though in routine clinical practice the true causative virus is generally not identified.
- **Option C:** If the patient is age 50 or older and at average risk of colon cancer — he has no colon cancer risk factors other than age — the doctor may recommend a colonoscopy every 10 years or sometimes sooner to screen for colon cancer. Colonoscopy is one option for colon cancer screening.
- **Option D:** Diverticulitis may cause pain, fever, and chills, but is far less serious than perforation and peritonitis.

59. A physician diagnoses a client with myasthenia gravis, prescribing pyridostigmine (Mestinon), 60 mg P.O. every 3 hours. Before administering this anticholinesterase agent, the nurse reviews the client's history. Which preexisting condition would contraindicate the use of pyridostigmine?

- A. Ulcerative colitis
- B. Blood dyscrasia
- C. Intestinal obstruction
- D. Spinal cord injury

Correct Answer: C. Intestinal obstruction

Anticholinesterase agents such as pyridostigmine are contraindicated in a client with a mechanical obstruction of the intestines or urinary tract, peritonitis, or hypersensitivity to anticholinesterase agents. Pyridostigmine bromide is preferred over neostigmine because of its longer duration of action. In those with bromide intolerance that leads to gastrointestinal effects, ambenonium chloride can be used. Patients with MuSK MG respond poorly to these drugs and hence may require higher doses.

- **Option A:** Ulcerative colitis is not a contraindication to pyridostigmine. The mainstay of treatment in MG involves cholinesterase enzyme inhibitors and immunosuppressive agents. Symptoms that are resistant to primary treatment modalities or those requiring rapid resolution of symptoms (myasthenic crisis), plasmapheresis, or intravenous immunoglobulins can be used.
- **Option B:** Blood dyscrasia is not a contraindication to pyridostigmine. Agricultural employees who handle organophosphates for a prolonged period should have medical monitoring. Appropriate testing is recommended to identify overexposure before the occurrence of clinical illness. Both

serum and RBC cholinesterase must be determined.

- **Option D:** The contraction of the smooth muscle in various organs of the body gets mediated through M3 receptors. Tone and peristalsis in the gastrointestinal tract increase and sphincters relax, causing abdominal cramps and evacuation of the bowel. The detrusor muscle contracts while the bladder trigone and sphincter relax, leading to the voiding of the bladder.

60. Nurse Jamie is administering the initial total parenteral nutrition solution to a client. Which of the following assessments requires the nurse's immediate attention?

- A. Temperature of 37.5 degrees Celsius.
- B. Urine output of 300 cc in 4 hours.
- C. Poor skin turgor.
- D. Blood glucose of 350 mg/dl.

Correct Answer: D. Blood glucose of 350 mg/dl.

Total parenteral nutrition formulas contain dextrose in concentrations of 10% or greater to supply 20% to 50% of the total calories. Blood glucose levels should be checked every 4 to 6 hours. A sliding scale dose of insulin may be ordered to maintain the blood glucose level below 200mg/dl.

- **Option A:** Catheter-related bloodstream infection or CR-BSI, which starts at the hub connection, is the spread of bacteria through the bloodstream. There's an increased risk of CR-BSI with TPN, due to the high dextrose concentration of TPN. Symptoms include tachycardia, hypotension, elevated or decreased temperature, increased breathing, decreased urine output, and disorientation. Strict adherence to aseptic technique with insertion, care, and maintenance; avoid hyperglycemia to prevent infection complications; closely monitor vital signs and temperature. IV antibiotic therapy is required. Monitor white blood cell count and patient for the malaise. Replace IV tubing frequently as per agency policy (usually every 24 hours).
- **Option B:** Monitor and record every eight hours or as per agency policy. Monitor for signs and symptoms of fluid overload (excessive weight gain) by completing a cardiovascular and respiratory assessment. Assess intakes such as IV (intravenous fluids), PO (oral intake), NG (nasogastric tube feeds). Assess outputs: NG (removed gastric content through the nasogastric tube), fistula drainage, BM (liquid bowel movements), colostomy/ileostomy drainage, closed suction drainage devices (Penrose or Jackson-Pratt drainage), and chest tube drainage.
- **Option C:** Related to a sudden increase in glucose after a recent malnourished state. After starvation, glucose intake suppresses gluconeogenesis by leading to the release of insulin and the suppression of glycogen. Excessive glucose may lead to hyperglycemia, with osmotic diuresis, dehydration, metabolic acidosis, and ketoacidosis. Excess glucose also leads to lipogenesis (again caused by insulin stimulation). This may cause fatty liver, increased CO₂ production, hypercapnia, and respiratory failure.

61. Which of the following statements about chest X-rays is not true?

- A. No contradictions exist for this test.
- B. Before the procedure, the patient should remove all jewelry, metallic objects, and buttons above the waist.

- C. A signed consent is not required.
- D. Eating, drinking, and medications are allowed before this test.

Correct Answer: A. No contradictions exist for this test

Pregnancy or suspected pregnancy is the only contraindication for a chest X-ray. However, if a chest X-ray is necessary, the patient can wear a lead apron to protect the pelvic region from radiation. X-rays during pregnancy don't increase the risk of miscarriage or cause problems in the unborn baby, such as birth defects and physical or mental development problems. However, if a pregnant woman has an X-ray and is exposed to radiation there is a very small increased risk that the baby may go on to develop cancer in childhood. This is why the dose of radiation used in an X-ray is always as low as possible.

- **Option B:** Jewelry, metallic objects, and buttons would interfere with the X-ray and thus should not be worn above the waist. Metal appears as a bright area on an X-ray, blocking visibility of underlying structures. The reason you're asked to remove metal is to give the radiologist an unobstructed view of the area of interest. Basically, you remove metal because it blocks anatomy.
- **Option C:** A signed consent is not required because a chest X-ray is not an invasive examination. Consent is ensuring the patient is aware of the purpose and nature of any procedure to be carried out. The radiographer must ensure that the patient is fully aware of his/her options, including alternatives, the right to refuse and the consequences of refusal.
- **Option D:** Eating, drinking, and medications are allowed because the X-ray is of the chest, not the abdominal region. To create a radiograph, a patient is positioned so that the part of the body being imaged is located between an x-ray source and an x-ray detector. When the machine is turned on, x-rays travel through the body and are absorbed in different amounts by different tissues, depending on the radiological density of the tissues they pass through.

62. Which of the following interventions is essential when instilling Cortisporin suspension, 2 gtt right ear?

- A. Verifying the proper client and route.
- B. Warming the solution to prevent dizziness.
- C. Holding an emesis basin under the client's ear.
- D. Positioning the client in the Semi-fowler's position.

Correct Answer: A. Verifying the proper client and route.

When giving medications, a nurse follows the five R's of medication administration. The right patient: check that you have the correct patient using two patient identifiers (e.g., name and date of birth). The right route: check that the route is appropriate for the patient's current condition.

- **Option B:** The drops may be warmed to prevent pain or dizziness, but this action is not essential. Internal ear structures are particularly sensitive to temperature extremes. Therefore, ear (otic) medications should always be administered at room temperature. Always use sterile ear drops in case the eardrum is ruptured.
- **Option C:** An emesis basin would be used for irrigation of the ear. Apply gentle pressure to the tragus several times. Pressure helps move medication toward the tympanic membrane. If ordered, a cotton ball may be placed loosely in the ear canal. Cotton balls help prevent the medication from escaping from the ear.

- **Option D:** Put the client in the lateral position to prevent the drops from draining out for 5 minutes, not Semi-fowler's position. Position patient with affected ear uppermost, on the unaffected side, if lying down, or tilt head to the side if sitting up. Proper positioning helps to stop the medication from escaping. Do not tilt the head if the patient has a cervical spine injury.

63. A second-year nursing student, who is on a clinical rotation in the infectious diseases unit of a major urban hospital, has just suffered a needlestick injury. The incident occurred while the student was assisting in drawing blood from a patient known to have a high viral load and is positive for AIDS. The student is visibly shaken, as they are aware of the patient's medical history. Given the circumstances and potential risk, which of the following is the most significant action that the nursing student should take immediately after the incident?

- A. Immediately see a social worker to discuss potential implications.
- B. Start prophylactic AZT treatment as soon as possible.
- C. Start prophylactic Pentamidine treatment to prevent potential opportunistic infections.
- D. Seek counseling to address potential emotional and psychological impacts.
- E. Report the incident to the clinical instructor and fill out an incident report.
- F. Seek immediate testing for HIV to establish a baseline.

Correct Answer: B. Start prophylactic AZT treatment

Azidothymidine (AZT) treatment is the most critical intervention. It is an antiretroviral medication used to prevent and treat HIV/AIDS by reducing the replication of the virus. Post-exposure prophylaxis (PEP) for HIV is a treatment to suppress the virus and prevent infection after exposure. PEP should be taken within 72 hours of possible exposure to HIV, so it is important to seek treatment quickly. While reporting the incident, seeking counseling, and other actions are also important, the immediate priority is to reduce the risk of HIV transmission.

64. The ductus arteriosus is another fetal structure that is important in the intrauterine life. It functions to:

- A. Shunts the combined cardiac output from the pulmonary artery to the aorta going to the lungs
- B. Shunts the combined cardiac output from the pulmonary artery to the systemic circulation
- C. Shunts the combined cardiac output from the aorta to the pulmonary artery and later to the pulmonary veins
- D. Shunts the combined cardiac output from the aorta to the pulmonary artery to the right ventricle

Correct Answer: B. Shunts the combined cardiac output from the pulmonary artery to the systemic circulation

In the developing fetus, the ductus arteriosus, also called the ductus Botalli, is a blood vessel connecting the pulmonary artery to the proximal descending aorta. It allows most of the blood from the right ventricle to bypass the fetus's fluid-filled non-functioning lungs.

- **Option A:** The right ventricle pumps blood through the right ventricular outflow tract, across the pulmonic valve, and into the pulmonary artery that distributes it to the lungs for oxygenation. In the

lungs, the blood oxygenates as it passes through the capillaries, where it is close enough to the oxygen in the alveoli of the lungs.

- **Option C:** This oxygenated blood is collected by the four pulmonary veins, two from each lung. All four of these veins open into the left atrium that acts as a collection chamber for oxygenated blood. As with the right atrium, the left atrium passes the blood onto its ventricle both by passive flow and active pumping.
- **Option D:** Oxygenated blood thus fills the left ventricle, passing through the mitral valve. The left ventricle is the main pumping chamber of the left heart, then pumps, sending freshly oxygenated blood to the systemic circulation through the aortic valve. The cycle is then repeated all over again in the next heartbeat.

65. The ELISA test is used to:

- A. Screen blood donors for antibodies to human immunodeficiency virus (HIV).
- B. Test blood to be used for transfusion for HIV antibodies.
- C. Aid in diagnosing a patient with AIDS.
- D. All of the above.

Correct Answer: D. All of the above.

The ELISA test of venous blood is used to assess blood and potential blood donors to human immunodeficiency virus (HIV). A positive ELISA test combined with various signs and symptoms helps to diagnose acquired immunodeficiency syndrome (AIDS). Enzyme-linked immunosorbent assay (ELISA) is a labeled immunoassay that is considered the gold standard of immunoassays. This immunological test is very sensitive and is used to detect and quantify substances, including antibodies, antigens, proteins, glycoproteins, and hormones. The detection of these products is accomplished by the complexing of antibodies and antigens to produce a measurable result.

- **Option A:** ELISAs are performed in polystyrene plates, typically in 96-well plates that are coated to bind protein very strongly. Depending on the ELISA type, testing requires a primary and/or secondary detection antibody, analyte/antigen, coating antibody/antigen, buffer, wash, and substrate/chromogen. The primary detection antibody is a specific antibody that only binds to the protein of interest, while a secondary detection antibody is a second enzyme-conjugated antibody that binds a primary antibody that is not enzyme-conjugated.
- **Option B:** In HIV testing, a blood or saliva specimen is collected for testing typically by the use of indirect ELISA-based tests. The ELISA is a screening tool for HIV detection, but not diagnostic. Diagnosis requires further testing by Western blot due to potential false positives. Another virus, Molluscum contagiosum virus (MCV) that commonly infects the skin of children and young adults, can be detected by ELISA testing. ELISA testing in this setting is currently being evaluated for the assessment of global MCV seroprevalence.
- **Option C:** ELISA testing is used in the diagnosis of HIV infection, pregnancy tests, and blood typing, among others. The first ELISA methodology involved chromogenic reporter molecules and substrates to generate observable color change that monitors the presence of antigen. Further advancement in the ELISA technique leads to the development of fluorogenic, quantitative PCR, and electrochemiluminescent reporters to generate signals. However, some of these techniques do not rely on using enzyme-linked substrates but non-enzymatic reporters that utilize the principle of ELISA.

66. Ethical dilemmas often arise over a conflict of opinion. Once the nurse has determined that the dilemma is ethical, a critical first step in negotiating the difference of opinion would be to:

- A. Consult a professional ethicist to ensure that the steps of the process occur in full.
- B. Gather all relevant information regarding the clinical, social, and spiritual aspects of the dilemma.
- C. List the ethical principles that inform the dilemma so that negotiations agree on the language of the discussion.
- D. Ensure that the attending physician has written an order for an ethics consultation to support the ethics process.

Correct Answer: B. Gather all relevant information regarding the clinical, social, and spiritual aspects of the dilemma

Each step in the processing of an ethical dilemma resembles steps in critical thinking. The nurse begins by gathering information and moves through assessment, identification of the problem, planning, implementation, and evaluation.

- **Option A:** To address health inequity factors, nurses are encouraged to be aware of health disparities that could impair treatment outcomes. They can then refer patients to social workers, case managers, and other healthcare team members for additional services. Nurses should be mindful of the social and economic factors that affect patient and community health.
- **Option C:** Nurses make decisions based on the information available to them in the current situation. The more relevant information they have, the more likely their decision will have a positive outcome. When a nurse's decision leads to a negative outcome, the question becomes: What critical pieces of information were lacking at the time of the decision? Nurses must take responsibility for their decisions and strive to understand why some decisions have negative outcomes.
- **Option D:** Even the most extensive code of ethics can't account for all the potential dilemmas that nurses may encounter in their work. That's the reason that one of the duties stated in the nursing code of ethics is to seek the advice and counsel of others whenever a nurse is uncertain about a medical decision's ethical aspects.

67. While reviewing the renal anatomy and physiology with nursing students, the instructor emphasizes the importance of the ascending limb of the loop of Henle in renal function. Which of the following functions should the instructor describe as a primary role of the ascending limb of the loop of Henle?:

- A. Dilute the filtrate by removing solutes.
- B. Remove water and additional solutes.
- C. Help regulate aldosterone secretion.
- D. Increase the rate of active transport of Na⁺ in the distal tubules and collecting ducts.

Correct Answer: A. Dilute the filtrate by removing solutes.

The ascending limb of the loop of Henle functions to dilute the filtrate by removing solutes. The thin segment of the ascending limb is not permeable to water, but it is permeable to solutes.

- **Option B:** The cuboidal cells of the distal tubule and collecting duct function to remove water and additional solutes.
- **Option C:** Renin and angiotensin help regulate aldosterone secretion. Renin is secreted by cells of the juxtaglomerular apparatus in the kidneys. It is an enzyme that acts on a protein produced by the liver called angiotensinogen.
- **Option D:** Aldosterone increases the rate of active transport of Na⁺ in the distal tubules and collecting ducts. In the absence of aldosterone, large amounts of Na⁺ remain in the nephron and become part of the urine.

68. A male client with atrial fibrillation who is receiving maintenance therapy of warfarin (Coumadin) has a prothrombin time of 37 seconds. Based on the result, the nurse will follow which of the following doctor's orders?

- A. Administering the next dose of warfarin.
- B. Increasing the next dose of warfarin.
- C. Decreasing the next dose of warfarin.
- D. Withholding the next dose of warfarin.

Correct Answer: D. Withholding the next dose of warfarin.

The normal prothrombin time is 9.6 to 11.8 seconds (male adult). A therapeutic level PT level is 1.5 to 2 times higher than the normal level. Since the value of 37 seconds is high, the nurse should expect that the client's next dose of warfarin will be withheld. Patients receiving treatment with warfarin should have close monitoring to ensure the safety and efficacy of the medication. Periodic blood testing is recommended to assess the patient's prothrombin time (PT) and the international normalized ratio (INR).

- **Option A:** The laboratory parameter utilized to monitor warfarin therapy is the PT/INR. The PT is the number of seconds it takes the blood to clot, and the INR allows for the standardization of the PT measurement depending on the thromboplastin reagent used by a laboratory. Therefore, monitoring a patient's INR while on warfarin is strongly preferable over PT because it allows for a standardized measurement without variations due to different laboratory sites.
- **Option B:** Routine assessment of INR is essential in the management of patients receiving warfarin therapy. The INR of a patient who is not on anticoagulation therapy is approximately 1.0. If a patient has an INR of 2.0 or 3.0, that would indicate that it takes two or three times longer for that individual's blood to clot than someone who does not take any anticoagulants.
- **Option C:** The therapeutic INR goal for patients on warfarin therapy is dependent on the indication but may vary based on the patient's clinical presentation and provider preference. Most patients on warfarin have an INR goal of 2 to 3. However, specific indications, such as a mechanical mitral valve, require an INR goal of 2.5 to 3.5.

69. Where would nurse Kristine place the call light for a male client with a right-sided brain attack and left homonymous hemianopsia?

- A. On the client's right side
- B. On the client's left side
- C. Directly in front of the client

D. Where the client like

Correct Answer: A. On the client's right side

The client has left visual field blindness. The client will see only from the right side. Homonymous hemianopsia is a condition in which a person sees only one side?right or left?of the visual world of each eye. The person may not be aware that the vision loss is happening in both eyes, not just one. An injury to the right part of the brain produces loss of the left side of the visual world of each eye.

- **Option B:** The client would not be able to see the call light on his right side because he can only see the left side.
- **Option C:** Only the right half of the visual world can be seen by the client.
- **Option D:** The most ideal place to put the call light is on the client's right side to avoid any injuries.

70. A client is undergoing peritoneal dialysis. The dialysate dwell time is completed, and the dwell clamp is opened to allow the dialysate to drain. The nurse notes that the drainage has stopped and only 500 ml has drained; the amount the dialysate instilled was 1,500 ml. Which of the following interventions would be done first?

- A. Change the client's position.
- B. Call the physician.
- C. Check the catheter for kinks or obstruction.
- D. Clamp the catheter and instill more dialysate at the next exchange time.

Correct Answer: C. Check the catheter for kinks or obstruction.

The first intervention should be to check for kinks and obstructions because that could be preventing drainage. Peritoneal catheter outflow problems are common and many PD patients transfer to hemodialysis because of catheter related issues. Peritoneal outflow failure can be defined as the incomplete recovery of instilled dialysate consistently within 45 minutes of beginning a drain.

- **Option A:** After checking for kinks, have the client change position to promote drainage. Check tubing for kinks; note placement of bottles and bags. Anchor catheter so that adequate inflow/outflow is achieved. Improper functioning of equipment may result in retained fluid in the abdomen and insufficient clearance of toxins.
- **Option B:** If unable to get more output despite checking for kinks and changing the client's position, the nurse should then call the physician to determine the proper intervention. Evaluate the development of tachypnea, dyspnea, increased respiratory effort. Drain dialysate, and notify the physician. Abdominal distension and diaphragmatic compression may cause respiratory distress.
- **Option D:** Don't give the next scheduled exchange until the dialysate is drained because abdominal distention will occur unless the output is within parameters set by the physician. Alter dialysate regimen as indicated. Changes may be needed in the glucose or sodium concentration to facilitate efficient dialysis

71. As a nursing professional within an endocrine unit, you are assigned to the care of Emily, a 14-year-old young female, recently diagnosed with Turner Syndrome, a chromosomal disorder affecting females. To address the growth

limitations associated with her condition, Emily has been initiated on a regimen of Somatropin (Humatrope), a recombinant growth hormone intended to foster height augmentation and developmental progress. Concurrently, Emily has a medical history nuanced by congenital heart anomalies and a mild degree of renal impairment. Given the intricacies of her medical history interwoven with her novel therapeutic regimen, you are called to assess and monitor for potential adverse reactions or interactions stemming from Somatropin (Humatrope) administration. As the nurse, what sign or symptom should be accorded your utmost vigilance, given its potential ramifications in the context of Emily's intricate medical backdrop?

- A. Hypotension, potentially exacerbated by her pre-existing congenital heart defects
- B. Water intoxication, engendering potential renal complications in light of her renal impairment
- C. A reduction in ALT (Alanine Aminotransferase) and AST (Aspartate Aminotransferase) levels, indicative of liver dysfunction
- D. Mild hyperglycemia, necessitating meticulous glucose monitoring
- E. Exacerbation of scoliosis, a common skeletal issue in Turner syndrome patients
- F. Increased intracranial pressure, manifesting as headaches or visual disturbances

Correct Answer: D. Mild hyperglycemia, necessitating meticulous glucose monitoring

Somatropin can induce insulin resistance, which might result in hyperglycemia. Given Emily's Turner Syndrome and its association with increased risk of diabetes, vigilant glucose monitoring is prudent to early identify and manage potential hyperglycemia.

- **Option A:** Hypotension: While congenital heart defects can certainly influence cardiovascular dynamics, Somatropin does not have a known direct effect on blood pressure. It's more commonly associated with fluid retention and potential hypertension rather than hypotension.
- **Option B:** Water intoxication: Somatropin can lead to fluid retention, but severe water intoxication that could lead to renal complications is less common. However, it's not entirely outside the realm of possibility and warrants consideration, particularly given her renal impairment.
- **Option C:** Reduced ALT and AST: These liver enzymes could indicate liver dysfunction if elevated, not reduced. Somatropin does not typically decrease liver enzyme levels, making this choice less relevant to Emily's scenario.
- **Option E:** Exacerbation of scoliosis: Turner Syndrome can include skeletal issues such as scoliosis. While growth hormone therapy may accelerate growth, it's not directly associated with the exacerbation of scoliosis.
- **Option F:** Increased intracranial pressure: Somatropin can cause increased intracranial pressure, especially in the initial stages of treatment. While not directly linked to Emily's pre-existing conditions, it's a significant side effect that warrants monitoring.

72. A nurse is caring for a client with diarrhea and dehydration. The nurse determines that the client has received adequate fluid replacement if the blood urea nitrogen decreases to:

- A. 36 mg/dL.

- B. 27 mg/dL.
- C. 18 mg/dL.
- D. 6 mg/dL.

Correct Answer: C. 18 mg/dL.

The normal value of blood urea nitrogen is 8 to 25 mg/dL. Fluid status absolutely affects the levels of BUN and creatinine in the blood, but volume depletion or dehydration tends to affect BUN more so that we see a BUN: creatinine ratio of 20:1 or more in people who are very dry.

- **Option A:** 36 mg/dl indicates a high level of BUN. Dehydration generally causes BUN levels to rise more than creatinine levels. This causes a high BUN-to-creatinine ratio. Kidney disease or blockage of the flow of urine from the kidney causes both BUN and creatinine levels to go up.
- **Option B:** 27 mg/dl still indicates dehydration. A patient who is severely dehydrated may also have a high BUN due to the lack of fluid volume to excrete waste products. Because urea is an end product of protein metabolism, a diet high in protein, such as high-protein tube feeding, may also cause the BUN to increase.
- **Option D:** A low BUN occurs with conditions such as fluid volume overload, malnutrition, etc. Because urea is synthesized by the liver, severe liver failure causes a reduction of urea in the blood. Just as dehydration may cause an elevated BUN, overhydration causes a decreased BUN. When a person has a “syndrome of inappropriate antidiuretic secretion” (SIADH), the antidiuretic hormone responsible for stimulating the kidney to conserve water causes excess water to be retained in the bloodstream rather than being excreted into the urine.

73. Mina, who is suspected of an ovarian tumor is scheduled for a pelvic ultrasound. The nurse provides which pre-procedure instruction to the client?

- A. Wear comfortable clothing and shoes for the procedure
- B. Maintain an NPO status before the procedure
- C. Drink six to eight glasses of water without voiding before the test
- D. Eat a light breakfast only

Correct Answer: C. Drink six to eight glasses of water without voiding before the test

- **Option C:** A pelvic ultrasound requires the ingestion of large volumes of water just before the procedure. A full bladder is necessary so that it will be visualized as such and not mistaken for possible pelvic growth.
- **Option A:** Comfortable shoes and clothing is unrelated to this specific procedure.
- **Option B:** An abdominal ultrasound may require that the client abstain from food or fluid for several hours before the procedure.
- **Option D:** A patient may eat and drink on the day of the exam regardless of quantity.

74. A nurse teaches a client about the use of a respiratory inhaler. Which action by the client indicated a need for further teaching?

- A. Removes the cap and shakes the inhaler well before use.
- B. Press the canister down with your finger as he breathes in.

- C. Inhales the mist and quickly exhales.
- D. Waits 1 to 2 minutes between puffs if more than one puff has been prescribed.

Correct Answer: C. Inhales the mist and quickly exhales.

Take the inhaler out of the mouth. If the client can, he should hold his breath as he slowly counts to 10. This lets the medicine reach deep into the lungs. The client should be instructed to hold his or her breath at least 10 to 15 seconds before exhaling the mist.

- **Option A:** If the client has not used the inhaler in a while, he may need to prime it. See the instructions that came with the inhaler for when and how to do this. Shake the inhaler hard 10 to 15 times before each use.
- **Option B:** Hold the inhaler with the mouthpiece down. Place lips around the mouthpiece so that the mouth forms a tight seal. As the client starts to slowly breathe in through the mouth, press down on the inhaler one time.
- **Option D:** If using inhaled, quick-relief medicine (beta-agonists), wait about 1 minute before taking the next puff. You do not need to wait a minute between puffs for other medicines.

75. Which of the following symptoms would occur in a client with a detached retina?

- A. Flashing lights and floaters
- B. Homonymous hemianopia
- C. Loss of central vision
- D. Ptosis

Correct Answer: A. Flashing lights and floaters

Signs and symptoms of retinal detachment include abrupt flashing lights, floaters, loss of peripheral vision, or a sudden shadow or curtain in the vision. Occasionally visual loss is gradual. Patients with a rhegmatogenous retinal detachment may present with a history of a large number of new-onset floaters. They may also have significant photopsia (flashes of light) in their vision. The patient often presents with slowly progressive or fixed visual field loss, typically starting in the periphery and then moving centrally.

- **Option B:** Homonymous hemianopsia involves loss of visual field zones, and patients often present with bilateral field loss, though sometimes they complain of monocular loss or dyslexia. In addition, unilateral lesions in these following anatomical locations do not alter acuity.
- **Option C:** Many patients with glaucoma, especially early in the disease, are not aware they have this condition until it is discovered on a routine eye exam. On comprehensive eye examination, optic nerves may have a focally notched neuroretinal rim or diffuse cup enlargement, a decrease in peripheral vision detected on visual field testing, and (although not required for diagnosis) an increased intraocular pressure reading on tonometry.
- **Option D:** Ptosis is known as the drooping of the upper eyelid, and the patient usually presents with the complaint of a defect in vision and cosmesis. It can be congenital or acquired, or it can be neurogenic, myogenic, aponeurotic, mechanical, or traumatic in origin.

76. The proper technique to monitor the intensity of a uterine contraction is:

- A. Place the palm of the hands-on the abdomen and time the contraction.
- B. Place the fingertips lightly on the suprapubic area and time the contraction.
- C. Put the tip of the fingers lightly on the fundal area and try to indent the abdominal wall at the height of the contraction.
- D. Put the palm of the hands-on the fundal area and feel the contraction at the fundal area.

Correct Answer: C. Put the tip of the fingers lightly on the fundal area and try to indent the abdominal wall at the height of the contraction.

In monitoring the intensity of the contraction the best place is to place the fingertips at the fundal area. The fundus is the contractile part of the uterus and the fingertips are more sensitive than the palm of the hand.

- **Option A:** Using the fingertips rather than the palm of the hands yields more accurate results. Fingertips are more sensitive than the palm of the hand.
- **Option B:** Place the fingertips on the fundal area because this area is the most contractile part of the uterus.
- **Option D:** Use the fingertips instead of the palms of the hand because it is more sensitive.

77. A leukemia patient has a relative who wants to donate blood for transfusion. Which of the following donor medical conditions would prevent this?

- A. A history of hepatitis C five years previously
- B. Cholecystitis requiring cholecystectomy one year previously
- C. Asymptomatic diverticulosis
- D. Crohn's disease in remission

Correct Answer: A. A history of hepatitis C five years previously

Hepatitis C is a viral infection transmitted through bodily fluids, such as blood, causing inflammation of the liver. Patients with hepatitis C may not donate blood for transfusion due to the high risk of infection in the recipient.

- **Option B:** Cholecystitis is the inflammation of the gallbladder. This condition does not transmit through bodily fluids.
- **Option C:** Diverticulosis is when pockets called diverticula form in the wall of the digestive tract. The inner layer of the intestine pushes through weak spots in the outer lining. This pressure makes them bulge out, making little pouches.
- **Option D:** Crohn's disease is an inflammatory bowel disease. It causes inflammation of the digestive tract. This disease does not transmit through the blood.

78. The newly admitted client has burns on both legs. The burned areas appear white and leather-like. No blisters or bleeding are present, and the client states that he or she has little pain. How should this injury be categorized?

- A. Superficial
- B. Partial-thickness superficial

- C. Partial-thickness deep
- D. Full thickness

Correct Answer: D. Full thickness

The characteristics of the wound meet the criteria for a full-thickness injury (color that is black, brown, yellow, white, or red; no blisters; pain minimal; outer layer firm and inelastic). With pressure, no blanching occurs. The burn is leathery and dry. There is minimal to no pain because of decreased sensation. Full-thickness burns heal by contracture and take greater than 8 weeks. Full-thickness burns require skin grafting.

- **Option A:** Superficial (first-degree) involves the epidermis of the skin only. It appears pink to red, there are no blisters, and it is dry. It is moderately painful. Superficial burns heal without scarring within 5 to 10 days.
- **Option B:** Superficial partial-thickness (second-degree) involves the superficial dermis. It appears red with blisters and is wet. The erythema blanches with pressure. The pain associated with superficial partial-thickness is severe. Healing typically occurs within 3 weeks with minimal scarring.
- **Option C:** Deep partial-thickness (second-degree) involves the deeper dermis. It appears yellow or white, is dry, and does not blanch with pressure. There is minimal pain due to a decreased sensation. Healing occurs in 3 to 8 weeks with scarring present.

79. While working in the ICU, you are assigned to care for a patient with a seizure disorder. Which of these nursing actions will you implement first if the patient has a seizure?

- A. Place the patient on a non-rebreather mask with the oxygen at 15 L/minute.
- B. Administer lorazepam (Ativan) 1 mg IV.
- C. Turn the patient to the side and protect the airway.
- D. Assess level of consciousness during and immediately after the seizure.

Correct Answer: C. Turn the patient to the side and protect the airway.

The priority action during a generalized tonic-clonic seizure is to protect the airway.

- **Option B:** Administration of lorazepam should be the next action since it will act rapidly to control the seizure.
- **Option A:** Although oxygen may be useful during the postictal phase, the hypoxemia during tonic-clonic seizures is caused by apnea.
- **Option D:** Checking the level of consciousness is not appropriate during the seizure, because generalized tonic-clonic seizures are associated with a loss of consciousness.

80. The client with an arteriovenous shunt in place for hemodialysis is at risk for bleeding. The nurse would do which of the following as a priority action to prevent this complication from occurring?

- A. Check the results of the PT time as they are ordered.
- B. Observe the site once per shift.

- C. Check the shunt for the presence of a bruit and thrill.
- D. Ensure that small clamps are attached to the AV shunt dressing.

Correct Answer: D. Ensure that small clamps are attached to the AV shunt dressing.

An AV shunt is a less common form of access site but carries a risk of bleeding when it is used because two ends of an external cannula are tunneled subcutaneously into an artery and a vein and the ends of the cannula are joined. If accidental connection occurs, the client could lose blood rapidly. For this reason, small clamps are attached to the dressing that covers the insertion site to use if needed.

- **Option A:** Use of heparin to prevent clotting in bloodlines and hemofilter alters coagulation and potentiates active bleeding. Administer protamine sulfate as appropriate. It may be needed to return clotting times to normal or if heparin rebound occurs (up to 16 hr after hemodialysis).
- **Option B:** The shunt site should be assessed at least every four hours. Apply external shunt dressing. Permit no puncture of shunt. Minimizes stress on cannula insertion site to reduce inadvertent dislodgement and bleeding from site. Verify continuity of shunt and/or access catheter. Disconnected shunt or open access permits exsanguination.
- **Option C:** Checking for a bruit and thrill is done to monitor the patency of the shunt. Assess for oozing or frank bleeding at access site or mucous membranes, incisions, or wounds. Hematest and/or guaiac stools, gastric drainage. Systemic heparinization during dialysis increases clotting times and places the patient at risk for bleeding, especially during the first 4 hr after the procedure.

81. For lipid-lowering agents to be successful, drug therapy must lower:

- A. HDL
- B. LDL
- C. Total fat
- D. All of the above

Correct Answer: B. LDL

An elevated LDL is the most significant risk factor for the development of atherosclerosis; therefore, for drug therapy to be effective, LDL must be reduced. Atherosclerosis is one of the major causes of coronary heart disease. According to the 2016 CDC data, heart disease is the leading cause of death in the United States. Dietary modifications, weight reduction, and exercise are the first line of defense. Patients at an increased risk of having a cardiovascular event (cardiovascular death, nonfatal MI, nonfatal stroke, coronary revascularization, or unstable angina) benefit from lipid-lowering medications.

- **Option A:** The primary function of HDL is the transport of cholesterol from the peripheral tissues to the liver, playing a role in the biodistribution of lipids. HDL is known for its anti-atherogenic and anti-inflammatory properties, thanks to its uptake and return of the cholesterol stored in the foam cells of atherosclerotic plaques to the liver. Thus, reducing the size of the plaque and its associated inflammation.
- **Option C:** Fats and lipids are an essential component of the homeostatic function of the human body. Lipids contribute to some of the body's most vital processes. Since cholesterol is mostly lipophilic, it is transported through the blood, along with triglycerides, inside lipoprotein particles (HDL, IDL, LDL, VLDL, and chylomicrons). These lipoproteins can be detected in the clinical setting to estimate the amount of cholesterol in the blood.

- **Option D:** There are several types of lipoproteins that travel through the blood, and they each have different purposes. There are high-density lipoproteins (HDL), intermediate-density lipoproteins (IDL), low-density lipoproteins (LDL), and very-low-density lipoproteins (VLDL). Notably, LDL particles are thought to act as a major transporter of cholesterol, at least two-thirds of circulating cholesterol resides in LDL, to the peripheral tissues. Conversely, HDL molecules are thought to do the opposite. They take excess cholesterol and return it to the liver for excretion.

82. Jessie, a young man with newly diagnosed acquired immune deficiency syndrome (AIDS) is being discharged from the hospital. The nurse knows that teaching regarding prevention of AIDS transmission has been effective when the client:

- A. Verbalizes the role of sexual activity in the spread of the disorder.
- B. States he will make arrangements to drop his college classes.
- C. Acknowledges the need to avoid all contact sports.
- D. Says he will avoid close contact with his three-year-old niece.

Correct Answer: A. Verbalizes the role of sexual activity in the spread of the disorder.

HIV is spread through direct contact with body fluids such as blood and through sexual intercourse. Casual contact with other people does not pose a risk of transmission of HIV. Review modes of transmission of disease, especially if newly diagnosed. This corrects myths and misconceptions; promotes safety for the client and others. Accurate epidemiological data are important in targeting prevention interventions.

- **Option B:** Unless the client is feeling very ill, there is no need for him to drop his college classes. Determine level of independence or dependence and physical condition. Note extent of care and support available from family and SO and need for other caregivers.
- **Option C:** Contact sports are not contraindicated unless there is a significant chance of bleeding and direct contact with others. Casual contact with other people does not pose a risk of transmission of HIV.
- **Option D:** There is no need to limit casual contact with children. The nurse may discuss extent and rationale for isolation precautions and maintenance of personal hygiene. This may promote cooperation with the regime and may lessen feelings of isolation.

83. A 5-year-old girl Hannah is recently diagnosed with Kawasaki disease. Apart from the identified symptoms of the disease, she may also likely develop which of the following?

- A. Sepsis
- B. Meningitis
- C. Mitral valve disease
- D. Aneurysm formation

Correct Answer: D. Aneurysm formation

Kawasaki disease is a rare childhood illness that affects the blood vessels. 20% to 25% of children can develop aneurysm formation if not intervened. Treatment depends on the degree of the disease but is

often immediate treatment with IV gamma globulin or aspirin. Corticosteroids can sometimes lessen impending complications. Children who experience the disease usually need lifelong follow-up appointments to keep an eye on heart health.

- **Option A:** Over weeks and months, wall thickening of the coronary aneurysms can lead to stenosis and thrombus formation which can result in myocardial infarction (MI), rupture, ischemia-related dysrhythmias, or death.
- **Option B:** The greatest risk of these cardiac complications is during the period of thrombocytosis. Small coronary aneurysms may resolve in 60% of cases in the later convalescent-phase when inflammatory markers return to normal.
- **Option C:** Kawasaki disease (KD), also known by the name mucocutaneous lymph node syndrome, is an acute, self-limited medium vessel vasculitis that has a predilection for the coronary arteries. It is the leading cause of acquired heart disease in developed nations and is slowly bypassing rheumatic heart disease in developing countries.

84. Which of the following would be an appropriate expected outcome for an elderly client recovering from bacterial pneumonia?

- A. A respiratory rate of 25 to 30 breaths per minute.
- B. The ability to perform ADLs without dyspnea.
- C. A maximum loss of 5 to 10 pounds of body weight.
- D. Chest pain that is minimized by splinting the ribcage.

Correct Answer: B. The ability to perform ADL's without dyspnea

An expected outcome for a client recovering from pneumonia would be the ability to perform ADLs without experiencing dyspnea. Determine patient's response to activity. Note reports of dyspnea, increased weakness and fatigue, changes in vital signs during and after activities. Establishes patient's capabilities and needs and facilitates choice of interventions.

- **Option A:** A respiratory rate of 25 to 30 breaths/minute indicates the client is experiencing tachypnea, which would not be expected on recovery. Assess and record respiratory rate and depth at least every 4 hours. The average rate of respiration for adults is 10 to 20 breaths per minute. It is important to take action when there is an alteration in the pattern of breathing to detect early signs of respiratory compromise.
- **Option C:** A weight loss of 5-10 pounds is undesirable; the expected outcome would be to maintain normal weight. Evaluate general nutritional state, obtain baseline weight. Presence of chronic conditions (COPD or alcoholism) or financial limitations can contribute to malnutrition, lowered resistance to infection, and/or delayed response to therapy.
- **Option D:** A client who is recovering from pneumonia should experience decreased or no chest pain. Assess pain characteristics: sharp, constant, stabbing. Investigate changes in character, location, or intensity of pain. Assess reports of pain with breathing or coughing.

85. Which laboratory test value is elevated in clients who smoke and can't be used as a general indicator of cancer?

- A. Acid phosphatase level
- B. Serum calcitonin level

- C. Alkaline phosphatase level
- D. Carcinoembryonic antigen level

Correct Answer: D. Carcinoembryonic antigen level

In clients who smoke, the level of carcinoembryonic antigen is elevated. Therefore, it can't be used as a general indicator of cancer. However, it is helpful in monitoring cancer treatment because the level usually falls to normal within 1 month if treatment is successful.

- **Option A:** An elevated acid phosphatase level may indicate prostate cancer. Prostatic acid phosphatase is a non-specific phosphomonoesterase synthesized in prostate epithelial cells and its level proportionally increases with prostate cancer progression.
- **Option C:** An elevated alkaline phosphatase level may reflect bone metastasis. When abnormal bone tissue is being formed by cancer cells, levels of alkaline phosphatase increase. Therefore, high levels of this enzyme could suggest that a patient has bone metastasis.
- **Option B:** An elevated serum calcitonin level usually signals thyroid cancer. Calcitonin can be measured as a blood test to help diagnose medullary thyroid cancer and its level can indicate the amount of medullary thyroid cancer present before thyroid surgery.

86. Which of the following statements about the nursing process is most accurate?

- A. The nursing process is a four-step procedure for identifying and resolving patient problems.
- B. Beginning in Florence Nightingale's days, nursing students learned and practiced the nursing process.
- C. Use of the nursing process is optional for nurses since there are many ways to accomplish the work of nursing.
- D. The state board examinations for professional nursing practice now use the nursing process rather than medical specialties as an organizing concept.

Correct Answer: D. The state board examinations for professional nursing practice now use the nursing process rather than medical specialties as an organizing concept.

The nursing process is a systematic decision-making method focusing on identifying and treating responses of individuals or groups to actual or potential alterations in health it- is the essential core of nursing practice to deliver holistic, patient-focused care. Nursing process provides an organizing framework for the practice of nursing and the knowledge, judgments, and actions that nurses bring to patient care.”

- **Option A:** The nursing process is a five-step process. The nursing process functions as a systematic guide to client-centered care with 5 sequential steps. These are assessment, diagnosis, planning, implementation, and evaluation. The utilization of the nursing process to guide care is clinically significant going forward in this dynamic, complex world of patient care.
- **Option B:** The term nursing process was first used by Hall in 1955. In 1958, Ida Jean Orlando started the nursing process that still guides nursing care today. Defined as a systematic approach to care using the fundamental principles of critical thinking, client-centered approaches to treatment, goal-oriented tasks, evidence-based practice (EDP) recommendations, and nursing intuition.
- **Option C:** Nursing process is not optional since standards demand the use of it. Holistic and scientific postulates are integrated to provide the basis for compassionate, quality-based care. As

explored by Salmond and Echevarria, healthcare is changing, and the traditional roles of nurses are transforming to meet the demands of this new healthcare environment. Nurses are in a position to promote change and impact patient delivery care models in the future.

87. During the period of induction of labor, a client should be observed carefully for signs of:

- A. Severe pain
- B. Uterine tetany
- C. Hypoglycemia
- D. Umbilical cord prolapse

Correct Answer: B. Uterine tetany.

Uterine tetany could result from the use of oxytocin to induce labor. Because oxytocin promotes powerful uterine contractions, uterine tetany may occur. The oxytocin infusion must be stopped to prevent uterine rupture and fetal compromise.

- **Option A:** Women being offered induction of labor should be informed that induced labor is likely to be more painful than spontaneous labor. During the induction of labor, healthcare professionals should provide women with the pain relief appropriate for them and their pain.
- **Option C:** Since people with GDM and their babies are at increased risk of pregnancy complications, some care providers encourage women with GDM to plan an early birth (usually elective induction) at or near term instead of waiting for labor to start on its own.
- **Option D:** Umbilical cord prolapse is an uncommon but potentially fatal obstetric emergency. When this occurs during labor or delivery the prolapsed cord is compressed between the fetal presenting part and the cervix. This can result in a loss of oxygen to the fetus, and may even result in a stillbirth.

88. A client with stomach cancer is admitted to the oncology unit after vomiting for 3 days. Physical assessment findings include irregular pulse, muscle twitching, and complaints of prickling sensations in the fingers and hands. Laboratory results include a potassium level of 2.9 mEq/L, a pH of 7.46, and a bicarbonate level of 29 mEq/L. The client is experiencing:

- A. Metabolic alkalosis
- B. Respiratory acidosis
- C. Metabolic acidosis
- D. Respiratory alkalosis

Correct Answer: A. Metabolic alkalosis

- The client is experiencing metabolic alkalosis caused by loss of hydrogen and chloride ions from excessive vomiting. This is shown by a pH of 7.46 and elevated bicarbonate level of 29 mEq/L.

89. All of these nursing activities are included in the care plan for a 78-year-old man with Parkinson's disease who has been referred to your home health

agency. Which ones will you delegate to a nursing assistant (NA)? Select all that apply.

- A. Check for orthostatic changes in pulse and blood pressure.
- B. Monitor for improvement in tremor after levodopa (L-dopa) is given.
- C. Remind the patient to allow adequate time for meals.
- D. Monitor for abnormal involuntary jerky movements of extremities.
- E. Assist the patient with prescribed strengthening exercises.
- F. Adapt the patient's preferred activities to his level of function.

Correct Answer: A, C, & E

NA education and scope of practice includes taking pulse and blood pressure measurements. In addition, NAs can reinforce previous teaching or skills taught by the RN or other disciplines, such as speech or physical therapists.

- **Option B:** Evaluation of patient response to medication requires the knowledge of an experienced RN.
- **Option D:** Development and individualizing the plan of care require RN-level education and scope of practice.

90. Nurse Joy is caring for a client after a bronchoscopy and biopsy. Which of the following signs, if noticed in the client, should be reported immediately to the physician?

- A. Dry cough
- B. Hematuria
- C. Bronchospasm
- D. Blood-streaked sputum

Correct Answer: C. Bronchospasm

If a biopsy was performed during a bronchoscopy, blood-streaked sputum is expected for several hours. The client should be assessed for signs of complications, which would include cyanosis, dyspnea, stridor, bronchospasm, hemoptysis, hypotension, tachycardia, and dysrhythmias. Cardiac arrhythmias may also occur especially in patients with pre-existing cardiac disease.

- **Option A:** A dry cough may be expected. In 1% to 3% of patients, pneumothorax may occur after transbronchial biopsies. Small pneumothoraces may be managed conservatively, while symptomatic and large pneumothorax will require chest tube insertion and hospitalization.
- **Option B:** Hematuria is unrelated to this procedure. A tension pneumothorax results in hemodynamic instability and should be recognized even without imaging studies. Appropriate life-saving measures such as chest tube insertion should be undertaken immediately.
- **Option D:** Frank blood indicates hemorrhage. In most cases, bleeding is usually self-limited. The pulmonologists should carefully ascertain for hemostasis, and in the event of severe bleeding prompt management should be immediately instituted.

91. The nurse has identified the nursing diagnosis of imbalanced nutrition: less than body requirements related to altered taste sensation in a patient with lung cancer who has had a 10% loss in weight. An appropriate nursing intervention that addresses the etiology of this problem is to

- A. Add strained baby meats to foods such as soups and casseroles
- B. Provide foods that are highly spiced to stimulate the taste buds
- C. Avoid presenting foods for which the patient has a strong dislike
- D. Teach the patient to eat whatever is nutritious since food is tasteless

Correct Answer: C. Avoid presenting foods for which the patient has a strong dislike

- **Option C:** The patient will eat more if disliked foods are avoided and foods that patient likes are included instead.
- **Option A:** Adding baby meats to foods will increase calorie and protein levels, but does not address the issue of taste.
- **Option B:** Additional spice is not usually an effective way to enhance the taste.
- **Option D:** Patients will not improve intake by eating foods that are beneficial but have an unpleasant taste.

92. During a hearing assessment, the nurse notes that the sound lateralizes to the clients left ear with the Weber test. The nurse analyzes this result as:

- A. A normal finding.
- B. A conductive hearing loss in the right ear.
- C. A sensorineural or conductive loss.
- D. The presence of nystagmus.

Correct Answer: C. A sensorineural or conductive loss.

In the Weber tuning fork test the nurse places the vibrating tuning fork in the middle of the client's head, at the midline of the forehead, or above the upper lip over the teeth. Normally, the sound is heard equally in both ears by bone conduction. If the client has a sensorineural hearing loss in one ear, the sound is heard in the other ear. The inner ear is more sensitive to sound via air conduction than bone conduction (in other words, air conduction is better than bone conduction).

- **Option A:** Weber test does not demonstrate lateralization: in a normal subject, the sound should be heard in the middle and equally on both sides. In the primary care setting, it is useful to use the Weber test along with the Rinne test to help the clinician differentiate between conductive hearing loss and sensorineural hearing loss. This will guide the clinician to the need for further examination, investigation, and management.
- **Option B:** If the client has a conductive hearing loss in one ear, the sound is heard in that ear. In the presence of a purely unilateral conductive hearing loss, there is a relative improvement in the ability to hear a bone-conducted sound. In the presence of sensorineural hearing loss, the sound will be perceived louder in the unaffected ear, which has the better cochlear.
- **Option D:** Nystagmus is a rhythmic, involuntary, rapid, oscillatory movement of the eyes. The Weber test is a useful, quick, and simple screening test for evaluating hearing loss. The test can

detect unilateral conductive and sensorineural hearing loss. The outer and middle ear mediate conductive hearing. The inner ear mediates sensorineural hearing.

93. Which of the following conditions is most commonly responsible for myocardial infarction?

- A. Aneurysm
- B. Heart failure
- C. Coronary artery thrombosis
- D. Renal failure

Correct Answer: C. Coronary artery thrombosis

Coronary artery thrombosis causes an inclusion of the artery, leading to myocardial death. The pathogenesis of acute myocardial infarction (AMI) and unstable angina is the rupture of the coronary artery plaque resulting in acute thrombotic occlusion of a coronary artery. Thus, the thrombus forms an integral part of the atherosclerotic coronary plaques.

- **Option A:** An aneurysm is an outpouching of a vessel and doesn't cause an MI. Coronary artery thrombosis occurs due to rupture or erosion of preexisting coronary artery plaque, resulting in the artery's complete occlusion. It manifests clinically as an acute coronary syndrome, including ST-elevation MI, Non-ST elevation myocardial infarction, and unstable angina.
- **Option B:** Heart failure is usually a result from an MI. A heart attack occurs when an artery that supplies blood to the heart muscle gets blocked. The denial of oxygen and nutrients damages the heart's muscle tissue – part of it essentially "dies." The damaged heart tissue does not contract as well, which weakens the heart's ability to pump blood.
- **Option D:** Renal failure can be associated with MI but isn't a direct cause. In acute myocardial infarction, impaired renal function may result from underlying kidney disease, acute renal failure, and the effect of drugs and contrast agents used during diagnostic procedures or treatment. These various causes may coexist, resulting in significantly worse outcomes.

94. A two-year-old child with congestive heart failure has been receiving digoxin for one week. The nurse needs to recognize that an early sign of digitalis toxicity is:

- A. Bradypnea
- B. Failure to thrive
- C. Tachycardia
- D. Vomiting

Correct Answer: D. Vomiting

The earliest sign of digitalis toxicity is vomiting, although one episode does not warrant discontinuing the medication. Digitalis is a plant-derived cardiac glycoside commonly used in the treatment of chronic heart failure (CHF), atrial fibrillation, and reentrant supraventricular tachycardia. Digoxin is the only available preparation of digitalis in the United States.

- **Option A:** Bradypnea (slow breathing) is not associated with digitalis toxicity. Bradycardia is associated with digitalis toxicity. The respiratory rate is sometimes increased. Basal crepitations are associated with CHF. Although GI symptoms are common, the abdominal examination is usually nonspecific. An enlarged liver secondary to CHF (ie, hepatic congestion) may be palpated. Hepatojugular reflux is present. Pedal edema is noted if the patient has renal failure or decompensated CHF.
- **Option B:** Although children with congestive heart failure often have a related condition of failure to thrive, it is not directly related to digitalis administration. It is more related to chronic hypoxia. The therapeutic daily dose of digoxin ranges from 5-15 mcg/kg. The absorption of digoxin tablets is 70-80%; its bioavailability is 95%. The kidney excretes 60-80% of the digoxin dose unchanged.
- **Option C:** Tachycardia is not a sign of digitalis toxicity. Bradycardia is a sign of digitalis toxicity. Digoxin and other cardiac glycosides cause direct vasoconstriction in the arterial and venous system in vascular smooth muscle. Bidirectional ventricular tachycardia is particularly characteristic of severe digitalis toxicity and results from alterations in intraventricular conduction, junctional tachycardia with aberrant intraventricular conduction, or, on rare occasions, alternating ventricular pacemakers.

95. A 42-year-old female patient is scheduled for a bronchoscopy to investigate recent breathing difficulties and a persistent cough. Post-procedure care is crucial for her safety and recovery. The nurse is providing the patient with pre-procedure education, emphasizing the most important aspects of post-procedure care. In teaching the patient what to expect and how to care for herself after the bronchoscopy, what is the highest priority information the nurse should provide?

- A. Food and fluids will be withheld for at least 2 hours.
- B. Warm saline gargles will be done q 2h.
- C. Coughing and deep-breathing exercises will be done q2h.
- D. Only ice chips and cold liquids will be allowed initially.

Correct Answer: A. Food and fluids will be withheld for at least 2 hours.

Prior to bronchoscopy, the doctors spray the back of the throat with anesthetic to minimize the gag reflex and thus facilitate the insertion of the bronchoscope. Giving the client food and drink after the procedure without checking on the return of the gag reflex can cause the client to aspirate. The gag reflex usually returns after two hours.

- **Option B:** Warm saline gargles may help soothe the throat after bronchoscopy.
- **Option C:** Coughing should not be done after bronchoscopy to avoid initiating bleeding.
- **Option D:** The client should be on NPO status after bronchoscopy until gag reflex has returned.

96. Normal serum sodium concentration ranges from:

- A. 120 to 125 mEq/L
- B. 125 to 130 mEq/L
- C. 136 to 145 mEq/L

D. 140 to 148 mEq/L

Correct Answer: C. 136 to 145 mEq/L

Normal serum sodium level ranges from 136 to 145 mEq/L. Sodium, which is an osmotically active anion, is one of the most important electrolytes in the extracellular fluid. It is responsible for maintaining the extracellular fluid volume, and also for regulation of the membrane potential of cells. Sodium is exchanged along with potassium across cell membranes as part of active transport.

- **Option A:** Sodium regulation occurs in the kidneys. The proximal tubule is where the majority of the sodium reabsorption takes place. In the distal convoluted tubule, sodium undergoes reabsorption. Sodium transport takes place via sodium-chloride symporters, which is by the action of the hormone aldosterone.
- **Option B:** Among the electrolyte disorders, hyponatremia is the most frequent. Diagnosis is when the serum sodium level less than 135 mmol/L. Hyponatremia has neurological manifestations. Patients may present with headache, confusion, nausea, delirium.
- **Option D:** Hypernatremia presents when the serum sodium levels greater than 145 mmol/L. Symptoms of hypernatremia include tachypnea, sleeping difficulty, and feeling restless. Rapid sodium corrections can have serious consequences like cerebral edema and osmotic demyelination syndrome.

97. Which of the following metabolic effects may be a consequence of the administration of adrenergic agents?

- A. Hypoglycemia
- B. Metabolic acidosis
- C. Hyperglycemia
- D. Respiratory alkalosis

Correct Answer: C. Hyperglycemia

Epinephrine-induced hyperglycemia is markedly accentuated by concomitant elevations of glucagon and cortisol or in patients with diabetes. In both cases, the effect of epinephrine on hepatic glucose production is converted from a transient to a sustained response, thereby accounting for the exaggerated hyperglycemia.

- **Option A:** Hypoglycemia increases plasma levels of both epinephrine and norepinephrine. These catechols are released primarily from the adrenal medulla. However, it is well documented that hypoglycemic increases muscle sympathetic nerve activity, and that both alpha and beta-adrenergic activity increase.
- **Option B:** Drugs that selectively bind to alpha-2 receptors may cause hypotension, dry mouth, and sedation. At higher doses, respiratory depression and somnolence may occur. These effects are most pronounced with clonidine and similarly acting drugs.
- **Option D:** Selective binding to beta-1 receptors commonly causes tachycardia, palpitations, and hypertension. Tachyarrhythmias and anxiety can also be common. High doses may induce dangerous arrhythmias. An example of a selective beta-1 receptor agonist is dobutamine.

98. Which of the following clients would least likely be at risk of developing skin breakdown?

- A. A client incontinent of urine feces.
- B. A client with chronic nutritional deficiencies.
- C. A client with decreased sensory perception.
- D. A client who is unable to move about and is confined to bed.

Correct Answer: C. A client with decreased sensory perception.

Bed or chair confinement, inability to move, loss of bowel or bladder control, poor nutrition, absent or inconsistent caregiving, and decreased sensory perception can contribute to the development of skin breakdown. The least likely risk, as presented in the options, is the decreased sensory perception. Options A, B, and D identify physiological conditions, which are the risk priorities.

- **Option A:** Assess for fecal/urinary incontinence. Stool may contain enzymes that cause skin breakdown. The urea in urine turns into ammonia within minutes and is caustic to the skin. Use of diapers and incontinence pads hastens skin breakdown.
- **Option B:** Usually, individuals change position off pressure areas every few minutes; these occur automatically even during sleep. Patients who are unaware of sensation tend to do nothing thus results in prolonged pressure on skin capillaries and eventually in skin ischemia.
- **Option D:** Specific areas where the skin is stretched tautly are at higher risk for breakdown because the possibility of ischemia to the skin is high as a result of compression of skin capillaries between a hard surface (e.g., mattress, chair, or table) and the bone. For lightly pigmented skin, pressure areas appear to be red. For darker skin tones, these areas appear to be red, blue, or purple hue spots.

99. Kendall, the sister of a client with a substance-related disorder, tells the nurse she calls out sick for her sister Kylie occasionally when the latter has too much to drink and cannot work. This behavior can be described as:

- A. Caretaking
- B. Codependent
- C. Helpful
- D. Supportive

Correct Answer: B. Codependent

Enabling behaviors that inadvertently promote continued use of a substance by the person abusing substances is known as codependency. Codependency is a type of dysfunctional relationship that involves one person's self-esteem and emotional needs being dependent on the other person. The codependent person may also enable the other person's unhealthy behaviors.

- **Option A:** The sister's behavior is not an example of caretaking or support. She is taking responsibility for the client's behavior and allowing her to avoid the consequences of his abuse problem. People in a relationship with those who have alcohol use disorder can develop codependency, which is an unhealthy focus on the other person's needs over their own. Nonetheless, codependency can happen in relationships without alcoholism, generally in a different type of caretaker situation, such as a relationship involving a physical or mental illness. Treatment can help people with codependency improve their own self-esteem and learn to have healthier relationships.
- **Option C:** Alcohol abuse can isolate a person from the outside world. But at home, in the family, there is no isolation or separation; everyone who lives with an alcoholic is affected by their illness

and the frightening and unpredictable behavior it causes.

- **Option D:** The behavior is unhelpful and unsupportive. Oftentimes, when family dynamics are corrupted by alcohol the two dominant emotions in the household are denial and shame, which are clearly interrelated. The whole family may cooperate in hiding the truth about the alcohol abuse from others, even as they refuse to accept the full truth among themselves. Extended family members may or may not go along with this ruse, but if they do try to confront the person with the alcohol use disorder they may be rebuffed—not just by the alcoholic, but by spouses, children, or others living in the home.

100. Dark, tarry stools indicate bleeding in which location of the GI tract?

- A. Upper colon
- B. Lower colon
- C. Upper GI tract
- D. Small intestine

Correct Answer: C. Upper GI tract

Melena is the passage of dark, tarry stools that contain a large amount of digested blood. It occurs with bleeding from the upper GI tract. The clinical presentation can vary but should be well-characterized. Hematemesis is the overt bleeding with vomiting of fresh blood or clots. Melena refers to dark and tarry-appearing stools with a distinctive smell. The term “coffee-grounds” describes gastric aspirate or vomitus that contains dark specks of old blood.

- **Option A:** UGIB is described as blood loss from a gastrointestinal source above the ligament of Treitz. It can manifest as hematemesis, which can be bright red emesis or coffee-ground emesis, hematochezia, or melena. Patients may also present with symptoms secondary to blood loss, such as syncopal episodes, fatigue, and weakness.
- **Option B:** Gastrointestinal bleeding can fall into two broad categories: upper and lower sources of bleeding. The anatomic landmark that separates upper and lower bleeds is the ligament of Treitz, also known as the suspensory ligament of the duodenum. This peritoneal structure suspends the duodenojejunal flexure from the retroperitoneum.
- **Option D:** Bleeding that originates above the ligament of Treitz usually presents either as hematemesis or melena whereas bleeding that originates below most commonly presents as hematochezia.