

Kevin's Review - 100 NCLEX Practice Questions

1. The client with leukemia is receiving Myleran (busulfan) and Zyloprim (allopurinol). The nurse tells the client that the purpose of the allopurinol is to prevent:

- A. Mouth sores
- B. Hyperuricemia
- C. Nausea
- D. Alopecia

Correct Answer: B. Hyperuricemia

- **Option B:** Allopurinol decreases uric acid concentrations in serum and urine. In the client receiving chemotherapy, uric acid levels increase as a result of the massive cell destruction that occurs from the chemotherapy. This medication prevents or treats hyperuricemia caused by chemotherapy.
- **Options A, C, and D:** Allopurinol is not used to prevent alopecia, nausea, or mouth sores.

2. When giving narcotic analgesics to a mother in labor, the special consideration to follow is:

- A. The progress of labor is well established reaching the transitional stage.
- B. Uterine contraction is progressing well, and delivery of the baby is imminent.
- C. Cervical dilatation has already reached at least 8 cm. and the station is at least (+)2.
- D. Uterine contractions are strong and the baby will not be delivered yet within the next 3 hours.

Correct Answer: D. Uterine contractions are strong and the baby will not be delivered yet within the next 3 hours.

Narcotic analgesics must be given when uterine contractions are already well established so that it will not cause stoppage of the contraction thus protracting labor. Also, it should be given when delivery of a fetus is imminent or too close because the fetus may suffer respiratory depression as an effect of the drug that can pass through the placental barrier.

- **Option A:** Opioid analgesia offers a systemic alternative to regional analgesia procedures. Since the early 1940s, the most commonly used systemic analgesic has been meperidine (pethidine). As with all opioids, meperidine crosses the placenta and presents a dose-dependent risk of neonatal respiratory depression and reduction of fetal heart frequency. The mother may suffer from nausea, vomiting, respiratory depression, dysphoria, and delayed gastric emptying.
- **Option B:** The effects of systemic opioids in labor are predominantly sedative rather than analgesic; other opioids, when used in labor, are usually administered as patient-controlled analgesia.
- **Option C:** Visceral labor pain occurs during the early first stage and the second stage of childbirth. With each uterine contraction, pressure is transmitted to the cervix causing stretching and distension and activating excitatory nociceptive afferents. These afferents innervate the endocervix and lower segment from T10 – L1.

3. Genevieve has diabetes type 1 and receives insulin for glycemic control. She tells the nurse that she likes to have a glass of wine with dinner. What will the

best plan of the nurse for client education include?

- A. The alcohol could cause pancreatic disease.
- B. The alcohol could cause serious liver disease.
- C. The alcohol could predispose you to hypoglycemia.
- D. The alcohol could predispose you to hyperglycemia.

Correct Answer: C. The alcohol could predispose you to hypoglycemia.

Alcohol can potentiate hypoglycemic, not hyperglycemic, effects in the client. When the client drinks alcohol, the alcohol can inhibit the liver's ability to release glucose into the blood. This can be particularly significant for people on stronger medication such as insulin because it can mean that the liver is not able to release enough glycogen to keep the blood glucose levels from going too low under the influence of insulin in the body.

- **Option A:** Alcohol can cause pancreatic disease, but the client's pancreas is not producing any insulin currently. Alcohol abuse is a well-recognized association of both acute and chronic pancreatitis, with repeated attacks of alcohol-induced acute pancreatic necroinflammation leading to chronic disease. The risk of developing pancreatitis increases with increased consumption of alcohol.
- **Option B:** Alcohol can cause liver disease, but the more immediate concern is hypoglycemia. Moderate amounts of alcohol may cause blood sugar to rise, excess alcohol can actually decrease your blood sugar level – which can be dangerous for people with T1D.
- **Option D:** People with T1D should only drink while eating food. Beer and sweet wine contain carbohydrates and may raise blood sugar. People may overeat when drinking alcohol which also can increase your BG.

4. The nurse is teaching the client how to use a metered-dose inhaler (MDI) to administer a Corticosteroid drug. Which of the following client actions indicates that he is using the MDI correctly? Select all that apply.

- A. The inhaler is held upright.
- B. Head is tilted down while inhaling the medication.
- C. Client waits 5 minutes between puffs.
- D. Mouth is rinsed with water following administration.
- E. Client lies supine for 15 minutes following administration.

Correct Answer: A & D.

In using a corticosteroid MDI, remove the cap and hold the inhaler upright, stand or sit up straight, shake the inhaler, tilt your head back slightly, put the inhaler in the mouth, press down on the inhaler quickly, breathe in slowly for 3 to 5 seconds, hold the breath for 10 seconds, breathe out slowly, repeat puffs as prescribed, rinse the mouth, and gargle using water or mouthwash after each use.

- **Option A:** Keep the chin up and the inhaler upright (not aimed at the roof of the mouth or the tongue). Use a spacer/valve-holding chamber (the best way, useful for all patients) by putting the inhaler into the end with the hole and the mouthpiece end in the mouth. If there is no spacer, hold the inhaler 1 to 2 inches (or two-finger widths) in front of an open mouth.

- **Option B:** Head is tilted up during inhalation of the medication. Start breathing in slowly through the mouth and press down on the inhaler one time. If using a spacer or valved-holding chamber, press down on the inhaler before starting to breathe in. Breathe in slowly.
- **Option C:** For inhaled quick-relief medicine (like albuterol), wait about 1 minute between puffs. There is no need to wait between puffs for other medicines.
- **Option D:** If the client is using this inhaler for a corticosteroid preventer medication, with or without a spacer, rinse the mouth with water and spit after inhaling the last dose to reduce the risk of side effects.
- **Option E:** There is no need to lie supine after administration of the medication. If more than one dose is needed, repeat all the steps.

5. Which of the following tests is most effective in diagnosing hemophilia?

- A. Bleeding time
- B. Complete blood count (CBC)
- C. Partial thromboplastin time (PTT)
- D. Platelet count

Correct Answer: C. Partial thromboplastin time (PTT)

PTT is abnormal in hemophilia. Therefore, this test will be the most helpful in diagnosing the disorder. In both hemophilia A and B, PTT will be prolonged (intrinsic pathway disruption), whereas PT and BT will be normal. The PTT could be as prolonged as 2 to 3 times the high normal range. Once PTT is found to be prolonged, it should be followed by a mixing study.

- **Option A:** Bleeding time is normal in hemophilia. Kaneshiro in 1969 confirmed that the mean bleeding time was normal in hemophilia. However, 2 of 11 patients with severe hemophilia A had prolonged baseline bleeding times of 12 and 15 min, respectively.
- **Option B:** The CBC is not affected in hemophilia. After the prenatal period, the initial laboratory work includes but is not limited to complete blood count, prothrombin time (PT), partial thromboplastin time (PTT), and bleeding time (BT).
- **Option D:** The severity of the disease correlates with remaining factor levels, although individual differences in bleeding tendency are seen despite similar factor levels. While thrombin generation is severely impaired in persons with hemophilia, primary hemostasis, i.e. platelet function has been generally considered to be normal.

6. A client had undergone radiation therapy (external). The expected side effects include the following apart from:

- A. Hair loss
- B. Ulceration of oral mucous membranes
- C. Constipation
- D. Headache

Correct Answer: C. Constipation

- **Option C:** Diarrhea, not constipation is the side effect of radiation therapy which usually starts during or right after the treatment and may last for several weeks.
- **Options A, B, and D:** These are common side effects of radiation therapy.

7. The use of barbiturates in treating insomnia include which of the following? Select all that apply.

- A. Barbiturates deprive people of NREM sleep
- B. Barbiturates deprive people of REM sleep
- C. When the barbiturates are discontinued, the NREM sleep increases.
- D. When the barbiturates are discontinued, the REM sleep increases.
- E. Nightmares are often an adverse effect when discontinuing barbiturates.

Correct Answer: B, D, & E.

Barbiturates are a group of sedative-hypnotic medications used for the treatment of seizure disorder, neonatal withdrawal, insomnia, preoperative anxiety, induction of coma for increased intracranial pressure

- **Option A:** The demonstration of a relationship between the profusion of eye movements and the “activity” or vividness of the accompanying dream and the finding that barbiturates not only decrease the overall amount of REM sleep but also reduce the profusion of eye movements per minute of REM sleep led to the prediction that barbiturate administration would result in dream experiences of a more tranquil nature
- **Option B:** Barbiturates deprive people of REM sleep. To determine the effect of barbiturates on sleep, two subjects, after a control period, received 200 mg. of sodium amylobarbitone for 26 nights. All night sleep records taken during this period showed that the barbiturate shortened the delay to sleep, increased the total sleep period, lengthened the delay to rapid eye movement (R.E.M.) sleep, and depressed R.E.M. sleep.
- **Option C:** After five nights R.E.M. sleep returned to baseline values —that is, showed tolerance. On stopping the drug withdrawal phenomena were seen, even to this small dose of the drug. In a second experiment a subject dependent on 600 mg. of Tuinal was found to have low normal R.E.M. sleep while on drugs. On withdrawal, delay to sleep increased and total sleep time fell. R.E.M. sleep was doubled and the delay to R.E.M. became abnormally short.
- **Option D:** When the barbiturate is stopped and REM sleep once again occurs, a rebound phenomenon occurs. During this phenomenon, the person’s dream time constitutes a larger percentage of the total sleep pattern, and the dreams are often nightmares.

8. Which of the following reflects the principle on which a client’s diet will most likely be based during the acute phase of MI?

- A. Liquids as ordered
- B. Small, easily digested meals
- C. Three regular meals per day
- D. NPO

Correct Answer: B. Small, easily digested meals

Recommended dietary principles in the acute phase of MI include avoiding large meals because small, easily digested foods are better tolerated. Fluids are given according to the client's needs, and sodium restrictions may be prescribed, especially for clients with manifestations of heart failure. Cholesterol restrictions may be ordered as well.

- **Option A:** Limit saturated fat and trans fat and replace them with the better fats, monounsaturated and polyunsaturated. If there is a need to lower blood cholesterol, reduce saturated fat to no more than 5 to 6 percent of total calories. For someone eating 2,000 calories a day, that's about 13 grams of saturated fat.
- **Option C:** Choose foods with less sodium and prepare foods with little or no salt. To lower blood pressure, aim to eat no more than 2,300 milligrams of sodium per day. Reducing daily intake to 1,500 mg is desirable because it can lower blood pressure even further. If the client can't meet these goals right now, even reducing sodium intake by 1,000 mg per day can benefit blood pressure.
- **Option D:** Clients are not prescribed a diet of liquids only or NPO unless their condition is very unstable. Choose poultry and fish without skin and prepare them in healthy ways without added saturated and trans fat. If the client chooses to eat meat, look for the leanest cuts available and prepare them in healthy and delicious ways.

9. The nurse is caring for a client admitted with suspected myasthenia gravis. Which finding is usually associated with a diagnosis of myasthenia gravis?

- A. Ascending paralysis and loss of motor function
- B. Visual disturbances, including diplopia
- C. Cogwheel rigidity and loss of coordination
- D. Progressive weakness that is worse at the day's end

Correct Answer: D. Progressive weakness that is worse at the day's end

- **Option D:** Myasthenia gravis is an autoimmune disease in which antibodies destroy muscle nerve receptors. This causes problems with communication between nerves and muscles resulting in skeletal muscle weakness that worsens during the day.
- **Option A:** Ascending paralysis and loss of motor function are symptoms of Guillain Barre syndrome.
- **Option B:** Visual problems such as blurred vision, double vision, or loss of vision are common with multiple sclerosis.
- **Option C:** Cogwheel rigidity and loss of coordination is a sign of Parkinson's disease.

10. Which information is most important for the nurse to include in a teaching plan for a schizophrenic client taking clozapine (Clozaril)?

- A. Monthly blood tests will be necessary.
- B. Report a sore throat or fever to the physician immediately.
- C. Blood pressure must be monitored for hypertension.

D. Stop the medication when symptoms subside.

Correct Answer: B. Report a sore throat or fever to the physician immediately.

A sore throat and fever are indications of an infection caused by agranulocytosis, a potentially life-threatening complication of clozapine. The risk of developing agranulocytosis is around 1% in patients who take clozapine, which may be independent of dosing. Most cases occur early in the treatment, within six weeks to six months, and require extensive monitoring of blood absolute neutrophil counts. The definition of neutropenia is an ANC level below 1500/mm, and agranulocytosis is an ANC level below 500/mm.

- **Option A:** Because of the risk of agranulocytosis, white blood cell (WBC) counts are necessary weekly, not monthly. If the WBC count drops below 3,000/ μ l, the medication must be stopped. Weekly complete blood count (CBC) to measure ANC levels. ANC levels less than 1500 indicate neutropenia. Levels less than 500 indicate agranulocytosis. A complete blood count should be taken weekly for the first six months, then every other week for the next six months. A national registry is in place to monitor for safe use.
- **Option C:** Hypotension may occur in clients taking this medication. Warn the client to stand up slowly to avoid dizziness from orthostatic hypotension. Clozapine-induced myocarditis is a rare complication, affecting less than 3% of patients. This lethal dose-independent side effect appears more frequently during the first four weeks of treatment. In these patients, signs and symptoms of myocarditis may vary from having a flu-like illness to respiratory and cardiovascular symptoms.
- **Option D:** The medication should be continued, even when symptoms have been controlled. If the medication must be stopped, it should be slowly tapered over 1 to 2 weeks and only under the supervision of a physician. Slow titration is essential for reducing the many side effects associated with clozapine. With the persistent partial response, clozapine may be augmented with ECT to increase the drug's efficacy. Other methods of augmentation include lamotrigine and other antipsychotics.

11. Which of the following assessments in a child with hemophilia would lead the nurse to suspect early hemarthrosis?

- A. Child's reluctance to move a body part.
- B. Cool, pale, clammy extremity.
- C. Ecchymosis formation around a joint.
- D. Instability of a long bone in passive movement.

Correct Answer: A. Child's reluctance to move a body part.

Bleeding into the joints in the child with hemophilia leads to pain and tenderness, resulting in restricted movement. Therefore, an early sign of hemarthrosis would be the child's reluctance to move a body part. Joints can become painful, swollen, inflamed, warm, and have a restricted range of motion due to bleeding. The most commonly affected joints are knees, elbows, ankles, shoulders, wrist, and hips.

- **Option B:** If the bleeding into the joint continues, the area becomes hot, swollen, and immobile—not cool, pale, and clammy. Spontaneous joint bleed incidence typically increases with age reaching up to 60% by 65 years of age. Repetitive joint bleeds often lead to hemophilia arthropathies. Usually, hemarthrosis becomes more frequent as physical activity increases.
- **Option C:** Ecchymosis formation around a joint would be difficult to assess. Another characteristic presentation can be unexplained bruising when an infant begins crawling or walking or musculocutaneous hemorrhage after intramuscular vaccination. Sometimes extensive soft tissue

contusions or hemorrhage can be mistaken for child abuse in young patients.

- **Option D:** Instability of a long bone on passive movement is not associated with joint hemarthrosis. Brain bleeds, both intracranial and extracranial, are common, and patients can present with falls, confusion, lethargy, meningismus, and coma in severe cases. Intracranial hemorrhage is the earliest and most severe complication in the neonatal period (1 to 4% cases).

12. The uterine fundus right after delivery of placenta is palpable at

- A. Level of Xiphoid process
- B. Level of umbilicus
- C. Level of symphysis pubis
- D. Midway between umbilicus and symphysis pubis

Correct Answer: B. Level of umbilicus

Immediately after the delivery of the placenta, the fundus of the uterus is expected to be at the level of the umbilicus because the contents of the pregnancy have already been expelled. The fundus is expected to recede by 1 fingerbreadth (1cm) every day until it becomes no longer palpable above the symphysis pubis.

- **Option A:** The fundus continues to descend into the pelvis at the rate of approximately one centimeter (finger-breadth) per day and should be nonpalpable by two weeks postpartum.
- **Option C:** By approximately one-hour post-delivery, the fundus is firm and at the level of the umbilicus. The fundus continues to descend into the pelvis at the rate of approximate
- **Option D:** Immediately after delivery, the upper portion of the uterus, known as the fundus, is midline and palpable halfway between the symphysis pubis and the umbilicus.

13. Which of the following is the priority focus of nursing practice with the current early postpartum discharge?

- A. Promoting comfort and restoration of health.
- B. Exploring the emotional status of the family.
- C. Facilitating safe and effective self and newborn care.
- D. Teaching about the importance of family planning.

Correct Answer: C. Facilitating safe and effective self and newborn care

Because of early postpartum discharge and limited time for teaching, the nurse's priority is to facilitate the safe and effective care of the client and newborn.

- **Option A:** After a vaginal birth, recovery can take anywhere from three weeks if the woman didn't tear to six weeks or more if she had a perineal tear or an episiotomy. If the woman is delivered by C-section, expect to spend the first three to four days postpartum in the hospital recovering; it will take four to six weeks before the woman will feel back to normal.
- **Option B:** Having a baby is a life-changing experience. Almost every mom faces a bout of the baby blues due to a roller coaster of hormones, lack of sleep, and the struggle to adjust to that tiny new human at home. That said, if the woman has symptoms of postpartum depression — including feeling persistently hopeless, sad, isolated, irritable, worthless, or anxious — for more than two

weeks postpartum, she should talk to a doctor.

- **Option D:** Teaching about family planning is important in postpartum/newborn nursing care, but they are not the priority focus in the limited time presented by early postpartum discharge.

14. It would be most helpful for the nurse to deal with a client with severe anxiety by:

- A. Give specific instructions using speak in concise statements.
- B. Ask the client to identify the cause of her anxiety.
- C. Explain in detail the plan of care developed.
- D. Urge the client to focus on what the nurse is saying.

Correct Answer: A. Give specific instructions using speak in concise statements.

The client has narrowed the perceptual field. Lengthy explanations cannot be followed by the client. Maintain a calm, non-threatening manner while working with the client. Anxiety is contagious and may be transferred from health care provider to client or vice versa. The client develops a feeling of security in presence of a calm staff person.

- **Option B:** The client will not be able to identify the cause of anxiety. Establish and maintain a trusting relationship by listening to the client; displaying warmth, answering questions directly, offering unconditional acceptance; being available and respecting the client's use of personal space.
- **Option C:** Move the client to a quiet area with minimal stimuli such as a small room or seclusion area (dim lighting, few people, and so on.) Anxious behavior escalates by external stimuli. A smaller or secluded area enhances a sense of security as compared to a large area which can make the client feel lost and panicked.
- **Option D:** The client has difficulty concentrating and will not be able to focus. 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.

15. A nurse is caring for a 46-year-old patient admitted with a diagnosis of Chronic Lymphocytic Leukemia (CLL). As part of the treatment regimen, the patient is scheduled for a bone marrow transplantation. The nurse is reviewing the patient's education plan concerning the procedure. Which of the following statements about bone marrow transplantation is NOT correct?

- A. The patient will be under local anesthesia during the procedure.
- B. The harvested bone marrow will be treated with heparin to prevent clotting.
- C. The bone marrow is typically aspirated from the posterior or anterior iliac crest.
- D. The patient will receive cyclophosphamide (Cytoxan) for 4 consecutive days prior to the procedure.
- E. A series of chemotherapy and/or radiation therapy may be administered before the transplantation.
- F. The patient will be placed in protective isolation following the transplant to reduce the risk of infection.

Correct Answer: A. The patient will be under local anesthesia during the procedure.

Before the procedure, the patient is administered with drugs that would help to prevent infection and rejection of the transplanted cells such as antibiotics, cytotoxic, and corticosteroids. During the transplant, the patient is placed under general anesthesia.

16. Nurse Jamie should explain to a male client with diabetes that self-monitoring of blood glucose is preferred to urine glucose testing because:

- A. More accurate
- B. Can be done by the client
- C. It is easy to perform
- D. It is not influenced by drugs

Correct Answer: A. More accurate

Urine testing provides an indirect measure that may be influenced by kidney function while blood glucose testing is a more direct and accurate measure. Accurate measurement of blood glucose is superior to the capillary blood glucose test. However, this is dependent on the laboratory meeting established industry standards.

- **Option B:** Both tests can be done by the client himself. Equipment used includes a lancet used to prick the skin, a glucometer, and test strips. Glucometers have a range of features with modern smart machines requiring a very small sample of blood (from 0.3 to 1 microL), have Bluetooth capabilities that synchronize data with paired applications (apps) on smartphones. These machines and apps record data and provide trends in glucose measurements undertaken.
- **Option C:** Both procedures can be easily performed by the client. Blood samples can also be sourced from alternate sites such as the earlobe, heel, forearm, palm. Alternate site testing provides similar results to finger-prick testing, especially in the fasting and two-hour post meal times. Using alternate sites may be less painful but may need a deeper lance.
- **Option D:** When the client has taken a drug before performing a procedure, this procedure could be affected by the drug taken. Blood glucose monitoring may support the diagnosis and management of the client with impaired glucose metabolism or diabetes. Regular monitoring of blood glucose levels is not recommended for patients with type 2 diabetes on oral antidiabetic drugs and or dietary management.

17. You are caring for a patient with recurrent glioblastoma who is receiving dexamethasone (Decadron) 4 mg IV every 6 hours to relieve symptoms of right arm weakness and headache. Which assessment information concerns you the most?

- A. The patient does not recognize family members.
- B. The blood glucose level is 234 mg/dL.
- C. The patient complains of a continued headache.
- D. The daily weight has increased 1 kg.

Correct Answer: A. The patient does not recognize family members.

The inability to recognize a family member is a new neurologic deficit for this patient, and indicates a possible increase in intracranial pressure (ICP). This change should be communicated to the physician immediately so that treatment can be initiated.

- **Option B:** Increased blood glucose levels is an expected side effect but not an emergency.
- **Option C:** The continued headache also indicates that the ICP may be elevated, but it is not a new problem.
- **Option D:** The weight gain is a common adverse effect of dexamethasone that may require treatment, but is not an emergency.

18. A 32-year-old client, who is on an anticoagulant medication due to a history of deep vein thrombosis, arrives at the emergency department after accidentally spilling a pot of boiling water mixed with hot oil on their right arm while attempting to deep-fry food at home. The client is in significant pain and reports that the burn occurred approximately 30 minutes ago. Upon assessment, the nurse observes a large burned area on the client's right arm with a mix of pink and mottled red areas, blisters, and signs of active bleeding from the blistered areas. The burned area is very painful to touch and the client is visibly anxious. Based on the assessment findings and the client's medical history, how will the nurse categorize this burn injury?

- A. Full-thickness
- B. Partial-thickness superficial
- C. Partial-thickness deep
- D. Full-thickness deep

Correct Answer: C. Partial-thickness deep

Deep partial-thickness burns are pink or red in color, swollen, painful, with blisters that may ooze a clear fluid. Deep partial-thickness (second-degree) involves the deeper dermis. Healing occurs in 3 to 8 weeks with scarring present.

- **Option A:** Third-degree involves the full thickness of skin and subcutaneous structures. It appears white or black/brown. With pressure, no blanching occurs. The burn is leathery and dry. There is minimal to no pain because of decreased sensation.
- **Option B:** The characteristics of the wound meet the criteria for a superficial partial-thickness injury: color that is red; without blisters and pain present. 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 D:** Blisters are not seen with full-thickness burns and are rarely seen with deep partial-thickness burns. Full-thickness burns heal by contracture and take greater than 8 weeks. Full-thickness burns require skin grafting.

19. A 56-year-old patient with a recent diagnosis of glioblastoma multiforme (GBM) is brought into the neuro-oncology clinic for initiation of treatment planning. The oncologist explains the difficulties in delivering chemotherapeutic agents to the tumor site due to certain anatomic and

physiologic barriers within the central nervous system. The discussion advances towards the understanding of these barriers which segregate the circulating blood from the brain extracellular fluid, maintaining a tightly regulated environment for neural function. The oncologist poses a question to the medical staff to elucidate on which of the following structures or processes serves as either physical barriers or physiological processes (transport system) that primarily function to separate the circulating blood from the brain extracellular fluid in the central nervous system (CNS)?

- A. Circle of Willis
- B. Lateral corticospinal tract
- C. Corticobulbar projections
- D. Blood-brain barrier

Correct Answer: D. Blood-brain barrier

The blood-brain barrier is a highly selective and protective barrier that separates the bloodstream from the brain and spinal cord tissues. It consists of specialized endothelial cells lining the capillaries in the brain, tight junctions between these cells, and the surrounding astrocytes, all of which work together to restrict the passage of most substances, including toxins and pathogens, from the bloodstream into the brain, ensuring a stable and protected environment for neural function.

- **Option A:** The Circle of Willis is an arterial polygon at the base of the brain that provides collateral circulation between the anterior and posterior cerebral circulations. While it is a crucial structure for cerebral blood flow, it does not act as a barrier to separate circulating blood from the brain extracellular fluid.
- **Option B:** The lateral corticospinal tract is a part of the motor system and carries motor fibers from the cerebral cortex to the spinal cord. This tract is critical for voluntary motor control but does not act as a barrier or a transport system between circulating blood and the brain extracellular fluid.
- **Option C:** Corticobulbar projections are pathways by which cerebral motor centers communicate with medullary and pontine nuclei. They are involved in the control of cranial nerve motor nuclei but do not serve as a barrier between the circulating blood and the brain extracellular fluid.

20. Nurse Lesley is conducting health teachings to a group of first-time mothers. Which of the following are signs of ovulation? Select all that apply.

- A. Mittelschmerz
- B. Spinnbarkeit
- C. Thin watery cervical mucus
- D. Elevated body temperature of 4.0 degrees centigrade

Correct Answer: A, B, & C

Mittelschmerz, spinnbarkeit and thin watery cervical mucus are signs of ovulation. When ovulation occurs, the hormone progesterone is released which can cause a slight elevation of temperature between 0.2-0.4 degrees centigrade and not 4 degrees centigrade. Mittelschmerz is one-sided, lower abdominal pain associated with ovulation. German for "middle pain," mittelschmerz occurs midway through a menstrual cycle — about 14 days before the next menstrual period. In most cases,

mittelschmerz doesn't require medical attention. The 'stretchability' of cervical mucus, or the length that strands of cervical mucus reach before breaking—? 6 cm, a reaction that parallels 'ferning' reaction, peaking on the 14th day—ovulation of the menstrual cycle. This kind of cervical mucus stretches further than creamy cervical mucus, and it appears clearer. While not the "ideal" fertile cervical mucus, watery cervical mucus is fertile.

21. Kim is using bronchodilators for asthma. The side effects of these drugs that you need to monitor this patient for include:

- A. tachycardia, nausea, vomiting, heart palpitations, inability to sleep, restlessness, and seizures.
- B. tachycardia, headache, dyspnea, temp. 101 F, and wheezing.
- C. blurred vision, tachycardia, hypertension, headache, insomnia, and oliguria.
- D. restlessness, insomnia, blurred vision, hypertension, chest pain, and muscle weakness.

Correct Answer: A. Tachycardia, nausea, vomiting, heart palpitations, inability to sleep, restlessness, and seizures.

Bronchodilators can produce the side effects listed in answer choice (A) for a short time after the patient begins using them. The adverse effects of bronchodilators are due to sympathetic system activation. The most frequent and common adverse effects include trembling, nervousness, sudden, noticeable heart palpitations, and muscle cramps.

- **Option B:** More severe effects include sudden constriction of the bronchial airways, or paradoxical bronchospasm, hypokalemia, and in rare cases, myocardial infarction. A patient should talk to their primary care physician if they have any comorbidities.
- **Option C:** For anticholinergics, side effects include symptoms caused by a decrease in vagal tone. These can include dry mouth, urinary retention, tachycardia, constipation, and an upset stomach.
- **Option D:** Serious adverse effects of bronchodilators include bronchospasm, hypersensitivity reactions, hypertension, hypotension, cardiac arrest, hypokalemia, and hyperglycemia. Anticholinergics have correlated with dry mouth, constipation, urinary retention, and delirium.

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

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

Correct Answer: D. Forearm weakness

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

- **Option A:** The left leg would be at rest since the fracture is at the left tibia. Crutches are vital in the short-term and long-term management of orthopedic and neurologic injuries. Through offloading body weight to the injured extremity optimal conditions are provided to allow healing of acute injuries.
- **Option B:** All the strength spent in crutch walking falls on the forearms, not the biceps brachii. Crutches provide ambulatory support and mobility options to those with neurologic injuries or chronic orthopedic injuries enabling the individual to stay mobile and active. Crutches are a vital adjunct for those with acute and chronic injuries to maintain mobility and independence.
- **Option C:** The triceps would not be as affected than the forearms after crutch walking The user's strength and coordination should undergo evaluation before issuing them a set of crutches. The use of the wrong crutches can lead to injury. Most injuries are a direct result of falling.

23. A 78-year-old retired pianist, diagnosed with osteoporosis, is preparing for discharge after a brief hospital stay due to a wrist fracture from a fall at home. As the nurse reviews home safety measures, the patient, concerned about preventing future falls, inquires, "Given my condition, what specific modifications should I implement in my home to ensure a safer environment?" Which of the following recommendations by the nurse would be most pertinent to address her concerns?

- A. "Install grab bars in the bathroom."
 - B. "Avoid using nightlights in the hallways."
 - C. "Keep the floor cluttered with rugs for comfort."
 - D. "Place furniture close together for support."
- **Option B:** Avoiding the use of nightlights may increase the risk of falls in poorly lit areas.
 - **Option C:** Keeping the floor cluttered with rugs increases the risk of tripping.
 - **Option D:** Placing furniture close together may limit mobility and increase the risk of falls.

24. A nurse is preparing to deliver a food tray to a Jewish client. The nurse checks the food on the tray and notes that the client has received a hamburger and whole milk as a beverage. Which is the appropriate action for the nurse?

- A. Ask the dietary department to replace the hamburger with crabs.
- B. Replace the whole milk with fat-free milk.
- C. Call the dietary department and ask for a new meal tray.
- D. Deliver the designated food tray to the client.

Correct Answer: C. Call the dietary department and ask for a new meal tray.

"You may not cook a young animal in the milk of its mother" -Torah says (Ex.23:19). From this, it is derived that milk and meat products may not be combined together. Not only may they not be cooked together, but they may not be served together on the same table and surely not eaten at the same time. This rule is followed observantly by the Jewish people so the appropriate nursing action is to call the dietary department to change the meal tray of the patient.

- **Option A:** Jewish dietary laws are known as kashrut and food that adheres to these standards is called kosher. Many mandates of the kosher diet are similar to those found in Islam. The only type of fish that may be eaten are those that have fins and scales. Therefore, shellfish, such as lobster, shrimp, oysters and crab, are prohibited.
- **Option B:** Certain parts of permitted animals may not be eaten. In the case of forbidden animals, their eggs and milk also cannot be consumed. Eating any pork or pork products, including animal shortening, is prohibited.
- **Option D:** Dairy products and meat products cannot be eaten together, because this is considered unhealthy. Cooking equipment and eating utensils that have come into contact with dairy products cannot be used with meat, and vice versa.

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

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

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

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

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

26. The nurse caring for a client with small bowel obstruction would plan to implement which nursing intervention first?

- A. Administering pain medication
- B. Obtaining a blood sample for laboratory studies
- C. Preparing to insert a nasogastric (NG) tube
- D. Administering I.V. fluids

Correct Answer: D. Administering I.V. fluids.

I.V. infusions containing normal saline solution and potassium should be given first to maintain fluid and electrolyte balance. Maintenance of bowel rest requires alternative fluid replacement to correct losses and anemia. Fluids containing sodium may be restricted in presence of regional enteritis.

- **Option A:** Pain medication often is withheld until the obstruction is diagnosed because analgesics can decrease intestinal motility. Provide comfort measures (back rub, reposition) and diversional activities. Promotes relaxation, refocuses attention, and may enhance coping abilities.
- **Option B:** A blood sample is then obtained for laboratory studies to aid in the diagnosis of bowel obstruction and guide treatment. Blood studies usually include a complete blood count, serum electrolyte levels, and blood urea nitrogen level.
- **Option C:** For the client's comfort and to assist in bowel decompression, the nurse should prepare to insert an NG tube next. Resume or advance diet as indicated (clear liquids progressing to bland, low residue; then high-protein, high-calorie, caffeine-free, non-spicy, and low-fiber as indicated).

27. Which of the following recurring conditions most commonly occurs in clients with cardiomyopathy?

- A. Heart failure
- B. Diabetes
- C. MI
- D. Pericardial effusion

Correct Answer: A. Heart failure

Because the structure and function of the heart muscle is affected, heart failure most commonly occurs in clients with cardiomyopathy. Heart failure can occur when the heart muscle is weak (systolic failure) or when it is stiff and unable to relax normally (diastolic failure). Cardiomyopathy, which means "disease of the heart muscle," is one of many causes of heart failure.

- **Option B:** One of the most devastating consequences of DM is its effect on cardiovascular disease (ASCVD). Approximately two-thirds of those with DM will die from a myocardial infarction or stroke. In T2DM, fasting glucose of more than 100 mg/dL significantly contributes to the risk of ASCVD, and cardiovascular risk can develop before frank hyperglycemia.
- **Option C:** MI results from prolonged myocardial ischemia due to reduced blood flow through one of the coronary arteries. Ischemic cardiomyopathy (ICM) is a term that refers to the heart's decreased ability to pump blood properly, due to myocardial damage brought upon by ischemia.
- **Option D:** Pericardial effusion is most predominant in clients with pericarditis. Pericardial effusion is an acute or chronic accumulation of fluid within the pericardial space. Effusion can be transudative, exudative, or sanguineous. The pericardium has limited elasticity, and in acute settings, only 100 ml to 150 mL of fluid is necessary to cause cardiac tamponade.

28. Referencing the image below, what is the name of the structure marked #9.

- A. Minor calyx
- B. Major calyx
- C. Cortical blood vessels
- D. Interlobal blood vessels

- E. Arcuate blood vessels
- F. Renal vein
- G. Renal nerve
- H. Renal artery
- I. Renal pelvis
- J. Renal pyramid

Correct answer: #9 is Option I. Renal pelvis

The renal pelvis is the funnel-shaped dilated part of the ureter in the kidney. It is formed by the convergence of the major calyces, acting as a funnel for urine flowing from the major calyces to the ureter. The renal pelvis is lined with a mucous membrane that is continuous with the lining of the ureter. The mucous membrane is made up of transitional epithelium, which is a type of tissue that can stretch and contract. This allows the renal pelvis to expand and contract as urine flows through it.

29. A 35-year-old asthmatic patient is admitted to the respiratory ward for a severe asthma exacerbation. The medical team is considering mechanical ventilation due to persistent hypercapnia and respiratory fatigue. The attending physician is explaining the principles of positive pressure ventilation to a group of interns. Noticing the nurse nearby, the physician wants to make sure everyone in the team has a solid grasp of respiratory physiology to understand the importance of managing ventilatory settings effectively. The physician posits: "Consider this basic concept of respiratory physiology: During the expiratory phase, a reduction in thoracic volume leads to elevated alveolar pressure, facilitating the expulsion of air from the lungs. Is this statement accurate?"

- A. True
- B. False
- C. Partially true
- D. Partially false

Correct Answer: A. True

This is the correct answer. During expiration, the diaphragm and external intercostal muscles relax, causing the thoracic volume to decrease. This reduction in volume increases the pressure within the alveoli (alveolar pressure). When the alveolar pressure is greater than the atmospheric pressure, air is pushed out of the lungs.

- **Option B:** The statement given is an accurate depiction of the physiological changes during the expiratory phase, so this option is incorrect.
- **Option C:** This would suggest that only part of the statement is accurate. However, the entire statement provided is correct regarding respiratory physiology.
- **Option D:** While this could be seen as the inverse of "Partially true," the statement in question is entirely correct, making this option invalid.

30. The nurse closely observes the client who has been displaying aggressive behavior. The nurse observes that the client's anger is escalating. Which approach is least helpful for the client at this time?

- A. Acknowledge the client's behavior.
- B. Maintain a safe distance from the client.
- C. Assist the client to an area that is quiet.
- D. Initiate confinement measures.

Correct Answer: D. Initiate confinement measures

The proper procedure for dealing with harmful behavior is to first try to calm the patient verbally. When verbal and psychopharmacologic interventions are not adequate to handle aggressiveness, seclusion or restraints may be applicable. Alert staff if a potential for seclusion appears imminent. Usual priority of interventions would be firmly setting limits; chemical restraints (tranquilizers); and seclusions.

- **Option A:** Frequently assess client's behavior for signs of increased agitation and hyperactivity. Early detection and intervention of escalating mania will prevent the possibility of harm to self or others, and decrease the need for seclusions.
- **Option B:** Redirect agitation and potentially violent behaviors with physical outlets in an area of low stimulation (e.g., punching bag). Can help to relieve pent-up hostility and relieve muscle tension.
- **Option C:** Assisting the client in a quiet place an appropriate approach during the escalation phase of aggression. Decrease environmental stimuli (e.g., by providing a calming environment or assigning a private room). Helps decrease escalation of anxiety and manic symptoms.

31. A 68-year-old client comes to the outpatient clinic and complains to the attending nurse about his increased difficulty with "close-work" such as knitting. He indicates he does not have difficulty seeing objects on either side but does state that straight lines appear distorted or wavy. The nurse suspects which of the following disorders is consistent with the client's reported symptoms?

- A. Glaucoma
- B. Cataracts
- C. Macular degeneration
- D. Subconjunctival hemorrhage

Correct Answer: C. Macular degeneration

Macular degeneration, often age-related macular degeneration (AMD or ARMD), is a medical condition that usually affects older adults and results in a loss of vision in the center of the visual field (the macula) because of damage to the retina. It occurs in "dry" and "wet" forms. It is a major cause of blindness and visual impairment in older adults (>50 years). Macular degeneration can make it difficult or impossible to read or recognize faces, although enough peripheral vision remains to allow other activities of daily life.

- **Option A:** Glaucoma is a condition of increased intraocular pressure in the eye that may progress to a loss of vision. This results in a characteristic optic nerve head appearance on fundoscopic

examination and a corresponding progressive loss of vision.

- **Option B:** A cataract is a disease of the eye in which the normally clear lens has opacified which obscures the passage of light. It is a gradually progressive disease and a significant cause of blindness around the world. This blinding disease can affect infants, adults, and older people, but it predominates the latter group. It can be bilateral and vary in severity.
- **Option D:** The red-eye is a common complaint in emergency departments and outpatient clinics. One frequent cause is a subconjunctival hemorrhage. Subconjunctival Hemorrhage (SCH) is a disorder that can occur for the most part from benign situations. However, there are certain times when subconjunctival hemorrhages can occur as a manifestation of a more dangerous underlying diagnosis, especially if persistent or recurrent.

32. 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.

33. Which data indicates to the nurse that a client may be experiencing ineffective coping? Select all that apply.

- A. Constantly neglects personal grooming

- B. Visits her husband's grave once a month
- C. Visits the senior citizens' center once a month
- D. Frequently looks at snapshots of her husband and family
- E. Criticizing one's self (negative self-talk)

Correct Answer: A & E.

Coping mechanisms are behaviors that are used to decrease stress and anxiety. In response to a death, ineffective coping is manifested by an extreme behavior that in some instances may be harmful to the individual, physically, psychologically or both.

- **Option A:** This is indicative of behavior that identifies an ineffective coping behavior as part of the grieving process. Patients using maladaptive coping mechanisms are more likely to engage in health-risk behaviors than those with appropriate mechanisms.
- **Option B:** Emotion-focused, which aims to reduce the negative emotions associated with the problem: Examples of this style include positive reframing, acceptance, turning to religion, and humor.
- **Option C:** Social coping (support-seeking) in which an individual reduces stress by seeking emotional or instrumental support from their community.
- **Option D:** Meaning-focused, in which an individual uses cognitive strategies to derive and manage the meaning of the situation.
- **Option E:** The relation between maladaptive coping mechanisms and numerous disorders has been established. Psychiatric disorders such as PTSD, anxiety, and major depression, and somatic symptoms were all correlated with coping styles related to avoidance.

34. A client went to the emergency room with complaints of abdominal pain, nausea, diarrhea, and mucoid stools. Upon the interview with the nurse, the client stated that he is taking cefixime (Suprax) for the treatment of urinary tract infection. The nurse determines that the client is most likely suffering from?

- A. Crohn's disease
- B. Acute Gastroenteritis
- C. Acute appendicitis
- D. Pseudomembranous colitis

Correct Answer: D. Pseudomembranous colitis

- **Option D:** Pseudomembranous colitis, also called antibiotic-associated colitis or C. difficile colitis, is the inflammation of the colon associated with an overgrowth of the bacterium Clostridium difficile. This overgrowth of C. difficile is most often related to recent antibiotic use such as ampicillin, clindamycin, fluoroquinolones, and cephalosporins.
- **Options A, B, and C:** Crohn's disease, acute gastroenteritis, and acute appendicitis may have the symptoms of the client but are not likely due to this case.

35. Which nursing intervention is most appropriate for a client with Alzheimer's disease who has frequent episodes of emotional lability?

- A. Attempt humor to alter the client's mood.
- B. Explore reasons for the client's altered mood.
- C. Reduce environmental stimuli to redirect the client's attention.
- D. Use logic to point out reality aspects.

Correct Answer: C. Reduce environmental stimuli to redirect the client's attention.

The client with Alzheimer's disease can have frequent episodes of labile mood, which can best be handled by decreasing a stimulating environment and redirecting the client's attention. Maintain a nice quiet neighborhood. Noise, crowds, the crowds are usually the excessive sensory neurons and can increase interference.

- **Option A:** The client with Alzheimer's disease loses the cognitive ability to respond to either humor or logic. Assess the level of cognitive disorders such as a change to orientation to people, places and times, range, attention, thinking skills. It provides the basis for the evaluation or comparison that will come and influencing the choice of intervention.
- **Option B:** An over-stimulating environment may cause a labile mood, which will be difficult for the client to understand. Maintain consistent scheduling with allowances for patient's specific needs, and avoid frustrating situations and overstimulation. It prevents patient agitation, erratic behaviors, and combative reactions. Scheduling may need revision to show respect for the patient's sense of worth and to facilitate the completion of tasks.
- **Option D:** The client lacks any insight into his or her own behavior and therefore will be unaware of any causative factors. Assist with establishing cues and reminders for patient's assistance. Assists patients with early AD to remember the location of articles and facilitates some orientation.

36. Which information noted by the nurse reviewing the laboratory results of a patient who is receiving chemotherapy is most important to report to the health care provider?

- A. WBC count of 1700/ μ l
- B. Platelets of 65,000/ μ l
- C. Hemoglobin of 10 g/L
- D. Serum creatinine level of 1.2 mg/dl

Correct Answer: A. WBC count of 1700/ μ l

- **Option A:** Neutropenia places the patient at risk for severe infection and is an indication that the chemotherapy dose may need to be lower or that white blood cell (WBC) growth factors such as filgrastim (Neupogen) are needed.
- **Options B, C, and D:** The other laboratory data do not indicate any immediate life-threatening adverse effects of the chemotherapy.

37. The nurse is preparing to discharge a client following a laparoscopic cholecystectomy. The nurse should:

- A. Instruct the client to avoid a tub bath for 48 hours
- B. Instruct the client to expect clay-colored stools

- C. Instruct the client that she can expect lower abdominal pain for the next week
- D. Instruct the client that she can resume a regular diet in the next 24 hours

Correct Answer: A. Instruct the client to avoid a tub bath for 48 hours

- Option A: Following a laparoscopic cholecystectomy, the client should avoid a tub bath for 48 hours to prevent the dressing from soaking.
- Option B: The stools should not be clay-colored.
- Option C: Pain is usually located in the shoulders.
- Option D: The client should not resume a regular diet until clear liquids have been tolerated.

38. A client has been taking Ibuprofen for a while and was given misoprostol (Cytotec). Which of the following is exhibiting the therapeutic effect of Cytotec?

- A. Relief of constipation
- B. Relief of diarrhea
- C. Relief of vomiting
- D. Relief of gastric ulcer

Correct Answer: D. Relief of gastric ulcer

Misoprostol (Cytotec) is a synthetic (man-made) prostaglandin that is used to reduce the risk of stomach ulcers in patients treated with nonsteroidal anti-inflammatory drugs (NSAIDs, for example, aspirin, ibuprofen, etc.).

- **Options A & C:** These are not related to the medication.
- **Option B:** Although a side effect, it is not the intended therapeutic effect.

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

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

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

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

- **Option A:** Adequate fluid intake may improve the symptoms of UTI, however, it can help mildly with the prevention of hospital-acquired UTI. The DRInK-Up study provides preliminary evidence suggesting that increasing daily fluid intake by small amounts may have a potentially positive effect on the number of UTIs experienced. However, further research is still needed.

- **Option B:** Routine hygiene of the urethral meatus surface should be performed during daily bathing or showering. Urethral cleaning with povidone-iodine solution or soap and water has not been shown to prevent CA-UTIs. However, there is evidence that frequent urethral cleaning can lead to mucosal irritation and breakdown that may increase the risk of infection.
- **Option C:** Avoid breaking the collecting system to obtain urine specimens for analysis and bacterial culture. To obtain urine specimens, the sampling port for the urine collection must be used. If this is not available, urine can be aspirated with a sterile needle and syringe from the distal end of the catheter using an aseptic technique.

40. A 52-year-old male patient, who is overweight and has a history of mild hypertension, presents to the healthcare facility with symptoms of severe flank pain and hematuria. The patient has been diagnosed with ureteral colic. The nurse is focusing on the immediate management of the patient's condition. What should be the immediate objective of nursing care for this patient?

- A. Decrease pain.
- B. Decrease weight.
- C. Decrease hematuria.
- D. Decrease hypertension.
- E. Increase fluid intake.
- F. Initiate dietary modifications.
- G. Administer antibiotics.

Correct Answer: A. Decrease pain.

Sharp, severe pain (renal colic) radiating toward the genitalia and thigh is caused by urethral distention and smooth muscle spasm; relief from pain is the priority.

41. A client taking lithium carbonate (Lithobid) started complaining of nausea, vomiting, diarrhea, drowsiness, muscle weakness, tremor, blurred vision, and ringing in the ears. The lithium level is 2 mEq/L. The nurse interprets this value as:

- A. Normal level
- B. Toxic level
- C. Below normal level
- D. Above normal level

Correct Answer: B. Toxic level

The therapeutic drug serum level of lithium is 0.6 to 1.2 mEq/L. Toxicity can happen when the level of lithium reaches 1.5 mEq/L or higher.

42. Five hours after birth, a neonate is transferred to the nursery, where the nurse intervenes to prevent hypothermia. What is a common source of radiant

heat loss?

- A. Low room humidity
- B. Cold weight scale
- C. Cool incubator walls
- D. Cool room temperature

Correct Answer: C. Cools incubator walls

A common source of radiant heat loss includes cool incubator walls and windows. Radiant heat loss constitutes the transfer of heat from an infant's warm skin, via infrared electromagnetic waves, to the cooler surrounding walls that absorb heat.

- **Option A:** Low room humidity promotes evaporative heat loss. Evaporative heat loss occurs through the skin and the respiratory system. The driving force behind evaporation is the vapor pressure difference between the body surface and the environment.
- **Option B:** When the skin directly contacts a cooler object, such as a cold weight scale, conductive heat loss may occur. Heat loss can occur by conduction of heat from the skin to the layer of still air around the body.
- **Option D:** A cool room temperature may lead to convective heat loss. Convective heat loss is the transfer of heat from a body to moving molecules such as air or liquid.

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

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

Correct Answer: B. Avoid sudden head movements.

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

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

44. 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.

45. A nurse is caring for a client in labor. The nurse determines that the client is beginning in the second stage of labor when which of the following assessments is noted?

- A. The client begins to expel clear vaginal fluid.
- B. The contractions are regular.
- C. The membranes have ruptured
- D. The cervix is dilated completely.

Correct Answer: D. The cervix is dilated completely.

The second stage of labor begins when the cervix is dilated completely and ends with the birth of the neonate. After cervical dilation is complete, the fetus descends into the vaginal canal with or without maternal pushing efforts. The fetus passes through the birth canal via 7 movements known as the cardinal movements.

- **Option A:** The first stage of labor is further subdivided into two phases, which are defined by the degree of cervical dilation. The latent phase is commonly defined as the 0 to 6 cm, while the active phase commences from 6 cm to full cervical dilation.
- **Option B:** Although precisely determining when labor starts may be inexact, labor is generally defined as beginning when contractions become strong and regularly spaced at approximately 3 to 5 minutes apart

- **Option C:** Rupture of membranes results from a variety of factors that ultimately lead to accelerated membrane weakening. This is caused by an increase in local cytokines, an imbalance in the interaction between matrix metalloproteinases and tissue inhibitors of matrix metalloproteinases, increased collagenase and protease activity, and other factors that can cause increased intrauterine pressure.

46. To prevent postoperative complications, Nurse Kim assists the client with coughing and deep breathing exercises. This is best accomplished by implementing which of the following?

- A. Coughing exercises one hour before meals and deep breathing one hour after meals.
- B. Forceful coughing as many times as tolerated.
- C. Huff coughing every two hours or as needed.
- D. Diaphragmatic and pursed lip breathing 5 to 10 times, four times a day.

Correct Answer: C. Huff coughing every two hours or as needed.

Huff coughing helps keep the airways open and secretions mobilized. Huff coughing is an alternative for clients who are unable to perform a normal forceful cough (such as postoperatively) deep breathing and coughing should be performed at the same time.

- **Option A:** Only at mealtimes is not sufficient. Deep breathing and coughing exercises can decrease the risk of lung complications following surgery. Not only can they prevent pneumonia, deep breathing helps to get more oxygen to the body's cells. These exercises can also be beneficial to individuals who are susceptible to pulmonary or respiratory problems. Coughing and deep breathing work to clear mucus and allow moist air to enter the airways.
- **Option B:** Extended forceful coughing fatigues the client, especially postoperatively. If you are lying in bed and need to cough, it may be more comfortable to bend your knees up. Lean forward when you cough, if you are sitting in a chair. Place a pillow over your surgical incision and apply pressure to the area while coughing. This can help to alleviate any discomfort you feel. It's more comfortable to sit upright if you can when doing coughing exercises.
- **Option D:** Diaphragmatic and pursed-lip breathing are techniques used for clients with obstructive airway disease. You can perform breathing exercises by relaxing your shoulders and upper chest. Take a deep breath in through your nose. Hold the breath for three seconds. Breathe out slowly through your mouth. Repeat three times. Taking too many breaths can make you dizzy or light-headed. Perform breathing exercises every hour.

47. A primigravida client at about 35 weeks gestation in active labor has had no prenatal care and admitted to cocaine use during the pregnancy. Which of the following persons must the nurse notify?

- A. Nursing unit manager so appropriate agencies can be notified.
- B. Head of the hospital's security department.
- C. Chaplain in case the fetus dies in utero.
- D. Physician who will attend the delivery of the infant.

Correct Answer: D. Physician who will attend the delivery of the infant.

The fetus of a cocaine-addicted mother is at risk for hypoxia, meconium aspiration, and intrauterine growth retardation (IUGR). Therefore, the nurse must notify the physician of the client's cocaine use because this knowledge will influence the care of the client and neonate. The information is used only in relation to the client's care.

- **Option A:** Informing the nursing unit manager would be inappropriate since the physician would be the one who will have the knowledge on how to manage the fetus.
- **Option B:** The knowledge should only be used in relation to the client's care. Notifying the head of the security department is unnecessary and would be against the data privacy act.
- **Option C:** Informing the physician first of the cocaine use would most likely save the fetus' life in utero.

48. The nurse finds the apical pulse below the 5th intercostal space. The nurse suspects:

- A. Left atrial enlargement
- B. Left ventricular enlargement
- C. Right atrial enlargement
- D. Right ventricular enlargement

Correct Answer: B. Left ventricular enlargement

A normal apical impulse is found under over the apex of the heart and is typically located and auscultated in the left fifth intercostal space in the midclavicular line. An apical impulse located or auscultated below the fifth intercostal space or lateral to the midclavicular line may indicate left ventricular enlargement.

- **Option A:** Left atrial enlargement (LAE) is the hallmark of the structural remodeling process, which occurs in response to chronic pressure and volume overload. LAE occurs most commonly in association with diastolic dysfunction, left ventricular hypertrophy, mitral valvular disease, and systemic hypertension. Patients with LAE might present with a variety of symptoms, including palpitations, dyspnea, syncope, peripheral edema, fatigue, and weight gain.
- **Option C:** When right atrial enlargement occurs, it does not take longer for cardiac action potentials to travel through the atrial myocardium (similar to left atrial enlargement). However, the amplitude of the P wave is exaggerated due to the close proximity of the hypertrophied right atrial myocardium to the SA node.
- **Option D:** Right ventricular hypertrophy (RVH) is an abnormal enlargement or pathologic increase in muscle mass of the right ventricle in response to pressure overload, most commonly due to severe lung disease. The right ventricle is considerably smaller than the left ventricle and produces electrical forces that are largely obscured by those generated by the larger left ventricle. The most prominent features of the physical examination in patients with TR are those related to the regurgitant murmur and the development of right-sided heart failure.

49. The nurse is responsible for performing a neonatal assessment on a full-term infant. At 1 minute, the nurse would expect to find:

- A. An apical pulse of 100
- B. An absence of tonus

- C. Cyanosis of the feet and hands
- D. Jaundice of the skin and sclera

Correct Answer: C. Cyanosis of the feet and hands

Cyanosis of the feet and hands is acrocyanosis. This is a normal finding 1 minute after birth. Acrocyanosis is bluish discoloration around the mouth and extremities, with the remaining area pink. It is a benign finding often seen in healthy newborns and is common in the initial days of life due to initial peripheral vasoconstriction. This is managed by routine newborn care. The routine newborn care management which involves pulse oximetry and screening of congenital heart disease (CHD).

- **Option A:** An apical pulse should be 120–160. The next step would be cardiac auscultation, making a note of the rate, rhythm, and quality of sounds. Heart sounds should have a single first heart sound and second split heart sound. Neonatal murmurs on the first day of life are common and are usually transient.
- **Option B:** The baby should have muscle tone, making answer B incorrect. A neurological exam should include a more thorough assessment of tone & level of alertness than the initial inspection. Tone can be assessed by holding up the newborn under the bilateral axilla.
- **Option D:** Jaundice immediately after birth is pathological jaundice and is abnormal. Pathologic jaundice may occur in the first 24 hours of life and is characterized by a rapid rate of rising in the bilirubin level more than 0.2 mg/dl per hour or 5 mg/dl per day.

50. When assessing a patient's needs for psychologic support after the patient has been diagnosed with stage I cancer of the colon, which question by the nurse will provide the most information?

- A. "How do you feel about having a possibly terminal illness?"
- B. "How long ago were you diagnosed with this cancer?"
- C. "Are you familiar with the stages of emotional adjustment to a diagnosis like cancer of the colon?"
- D. "Can you tell me what has been helpful to you in the past when coping with stressful events?"

Correct Answer: D. "Can you tell me what has been helpful to you in the past when coping with stressful events?"

- **Option D:** Information about how the patient has coped with past stressful situations helps the nurse determine usual coping mechanisms and their effectiveness.
- **Option A:** The patient with stage I cancer is not considered to have a terminal illness at this time, and this question is likely to worry the patient unnecessarily.
- **Option B:** The length of time since the diagnosis will not provide much information about the patient's need for support.
- **Option C:** The patient's knowledge of typical stages in adjustment to a critical diagnosis does not provide insight into patient's needs for assistance.

51. Following A. Electrolyte status.norepinephrine (Levophed) administration, it is essential to the nurse to assess:

- A. Electrolyte status.

- B. Color and temperature of toes and fingers.
- C. Capillary refill.
- D. Ventricular arrhythmias.

Correct Answer: B. Color and temperature of toes and fingers.

Because decreased perfusion is a side effect of norepinephrine (Levophed), the nurse must check circulation frequently. Vasoconstriction secondary to alpha1 stimulation can result in reflex bradycardia via the baroreceptor reflex, which is generally not compensated for by the beta1 activity. The overall result is that cardiac output may decrease, or at most stay the same, despite beta1 agonism. Electrolytes and ventricular arrhythmias are not specific for norepinephrine.

- **Option A:** Blood pressure requires close monitoring whenever vasopressors such as norepinephrine are in use; this is possible via invasive or non-invasive measurement techniques. If following non-invasive measurements, then it is recommended to obtain values every 2 to 3 minutes during initial titration and then at least every 5 minutes following the determination of the appropriate maintenance dose.
- **Option C:** Capillary refill is not a reliable indication of perfusion in a shocking state.
- **Option D:** At the same time, the increase in systemic vascular resistance increases the work of the heart by increasing afterload, thereby increasing myocardial oxygen demand. Because of these phenomena, the benefits of norepinephrine for cardiogenic shock are still unclear but merit consideration under certain conditions.

52. Which client(s) are appropriate to assign to the LPN/LVN, who will function under the supervision of the RN or team leader? Select all that apply.

- A. A client who needs pre-op teaching for use of a PCA pump.
- B. A client with a leg cast who needs neurologic checks and PRN hydrocodone.
- C. A client post-op toe amputation with diabetic neuropathic pain.
- D. A client with terminal cancer and severe pain who is refusing medication.

Correct Answer: B & C.

The clients with the cast and the toe amputation are stable clients and need ongoing assessment and pain management that are within the scope of practice for an LPN/LVN under the supervision of an RN. The RN should take responsibility for preoperative teaching, and terminal cancer needs a comprehensive assessment to determine the reason for refusal of medication.

- **Option A:** Preoperative teaching is a nursing responsibility. Proper and appropriate assignments facilitate quality care. Improper and inappropriate assignments can lead to poor quality of care, disappointing outcomes of care, the jeopardization of client safety, and even legal consequences.
- **Option B:** The clients with the cast are within the scope of practice for an LPN/LVN under the supervision of an RN. Delegation, simply defined, is the transfer of the nurse's responsibility for the performance of a task to another nursing staff member while retaining accountability for the outcome. Responsibility can be delegated. Accountability cannot be delegated. The delegating registered nurse remains accountable for all client care despite the fact that some of these aspects of care can, and are, delegated to others.
- **Option C:** The client with the toe amputation is a stable client and needs ongoing assessment and pain management that are within the scope of practice for an LPN/LVN under the supervision of an

RN. The staff members' levels of education, knowledge, past experiences, skills, abilities, and competencies are also evaluated and matched with the needs of all of the patients in the group of patients that will be cared for.

- **Option D:** A client with terminal cancer and severe pain who is refusing medication is a nursing responsibility. Based on these characteristics and the total client needs for the group of clients that the registered nurse is responsible and accountable for, the registered nurse determines and analyzes all of the health care needs for a group of clients; the registered nurse delegates care that matches the skills of the person that the nurse is delegating to.

53. The client is very hostile toward one of the staff for no apparent reason. The client is manifesting:

- A. Splitting
- B. Transference
- C. Countertransference
- D. Resistance

Correct Answer: B. Transference

Transference is a positive or negative feeling associated with a significant person in the client's past that is unconsciously assigned to another. Transference describes a situation where the feelings, desires, and expectations of one person are redirected and applied to another person. Most commonly, transference refers to a therapeutic setting, where a person in therapy may apply certain feelings or emotions toward the therapist.

- **Option A:** Splitting is a defense mechanism commonly seen in a client with a personality disorder in which the world is perceived as all good or all bad. Splitting is a term used in psychiatry to describe the inability to hold opposing thoughts, feelings, or beliefs. Some might say that a person who splits sees the world in terms of black or white—all or nothing. It's a distorted way of thinking in which the positive or negative attributes of a person or event are neither weighed nor cohesive.
- **Option C:** Countertransference is a phenomenon where the nurse shifts feelings assigned to someone in her past to the patient. Countertransference, which occurs when a therapist transfers emotions to a person in therapy, is often a reaction to transference, a phenomenon in which the person in treatment redirects feelings for others onto the therapist.
- **Option D:** Resistance is the client's refusal to submit himself to the care of the nurse. Resistance in psychology refers to any opposition to the therapeutic process. Resistance is a way of pushing back against suggestions, even those that could help you solve mental or emotional health concerns.

54. 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 plates and utensils whenever I eat."

Correct Answer: B, C, D, E

Review pathology of disease (active and inactive phases; dissemination of infection through bronchi to adjacent tissues or via bloodstream and/or lymphatic system) and potential spread of infection via airborne droplet during coughing, sneezing, spitting, talking, laughing, singing.

- **Option A:** Identify others at risk like household members, close associates, and friends. Those exposed may require a course of drug therapy to prevent spread or development of infection.
- **Option B:** Instruct patient to cough or sneeze and expectorate into tissue and to refrain from spitting. Initial therapy of uncomplicated pulmonary disease usually includes four drugs, e.g., four primary drugs or combination of primary and secondary drugs.
- **Option C:** Review necessity of infection control measures. Put in temporary respiratory isolation if indicated. May help the patient understand the need for protecting others while acknowledging the patient's sense of isolation and social stigma associated with communicable diseases.
- **Option D:** Review proper disposal of tissue and good hand washing techniques. Encourage return demonstration. Compliance with multidrug regimens for prolonged periods is difficult, so directly observed therapy (DOT) should be considered.
- **Option E:** Contagious period may last only 2–3 days after initiation of chemotherapy, but in presence of cavitation or moderately advanced disease, risk of spread of infection may continue up to 3 months.

55. In a complex pediatric clinical scenario, an assessment of maternal-infant attachment is crucial, especially in cases where the neonate has been diagnosed with a congenital condition requiring prolonged hospitalization. Given this context, which of the following maternal behaviors most accurately indicates that the mother is initiating a healthy bond with her infant?

A. The client adheres to a regimented schedule of enteral feeding for the neonate every three hours.

B. The client requests recommendations from the nursing staff for comprehensive literature on neonatal care and management of congenital conditions.

C. The client engages in direct verbal communication with the neonate, and when he exhibits signs of distress, she is prompt in providing tactile comfort.

D. The client delegates the task of administering supplemental hydration to the infant's father, due to her own feelings of emotional distress.

E. The client consistently inquires about the neonate's vitals and expresses concern over deviations from established norms.

F. The client displays hesitation in handling the neonate, citing anxiety about the medical equipment and the infant's fragility.

Correct Answer: C. The client engages in direct verbal communication with the neonate, and when he exhibits signs of distress, she is prompt in providing tactile comfort.

Communicating with the neonate and responding to cries by providing comfort are behaviors indicative of bonding. These actions show an emotional connection and recognition of the infant's needs, which are fundamental aspects of maternal-infant bonding.

- **Option A:** Adhering to a strict feeding schedule is important for the neonate's nutrition, particularly in a hospital setting, but it does not necessarily reflect emotional bonding. Bonding transcends routine care and encompasses emotional and affective interaction.
- **Option B:** Requesting information indicates a proactive approach towards understanding and managing the neonate's condition. While this is indicative of concern, it does not directly illustrate the formation of an emotional bond.
- **Option D:** While involving the father in care is positive, it doesn't directly showcase the mother's bonding process. The additional note of her emotional distress might suggest challenges in the bonding process.
- **Option E:** Showing concern for the neonate's health is important, but without additional affective behaviors, it doesn't solely indicate bonding. Bonding is characterized by emotional connection, not just clinical concern.
- **Option F:** Hesitation and anxiety in handling the neonate might reflect a disruption in the bonding process, potentially due to the medical complexity of the situation. Support and counseling may be required to facilitate bonding.

56. A 22-year-old female client with a full-thickness burn is being discharged to home after a month in the hospital. Her wounds are minimally opened and she will be receiving home care. Which nursing diagnosis has the highest priority?

- A. Acute Pain
- B. Deficient Diversional Activity
- C. Impaired Adjustment
- D. Imbalanced Nutrition: Less than Body Requirements

Correct Answer: C. Impaired Adjustment

Recovery from a burn injury requires a lot of work on the part of the client and significant others. The client is seldom restored to her pre burn level of functioning. Adjustments to changes in appearance, family structure, employment opportunities, role, and functional limitations are only a few of the numerous life-changing alterations that must be made or overcome by the client.

- **Option A:** By the rehabilitation phase, acute pain from the injury or its treatment is no longer a problem. This stage starts with the closure of the burn and ends when the patient has reached the optimal level of functioning. The focus is on helping the patient return to a normal injury-free life. Helping the patient adjust to the changes the injury has imposed is also a priority.
- **Option B:** Diversional activity for pain is applicable during the intermediate phase of the burn injury. Provide diversional activities appropriate for age and condition. This helps lessen concentration on pain experience and refocus attention.
- **Option D:** Imbalanced nutrition is more appropriate during the emergent and intermediate phases of the burn injury. Appropriate guides to proper caloric intake include 25 kcal/kg body weight, plus 40 kcal per percentage of TBSA burn in the adult. As the burn wound heals, the percentage of burned areas is reevaluated to calculate prescribed dietary formulas, and appropriate adjustments are made.

57. The nurse plans to instruct the postpartum client about methods to prevent breast engorgement. Which of the following measures would the nurse include

in the teaching plan?

- A. Feeding the neonate a maximum of 5 minutes per side on the first day.
- B. Wearing a supportive brassiere with nipple shields.
- C. Breastfeeding the neonate at frequent intervals.
- D. Decreasing fluid intake for the first 24 to 48 hours.

Correct Answer: C. Breastfeeding the neonate at frequent intervals

Prevention of breast engorgement is key. The best technique is to empty the breast regularly while feeding. Engorgement is less likely when the mother and neonate are together, as in single-room maternity care continuous rooming-in, because nursing can be done conveniently to meet the neonate's and mother's needs.

- **Option A:** A newborn feeds every 2 to 3 hours. They should be breastfed 8-12 times per day for about the first month. Frequent feedings help stimulate your milk production during the first few weeks.
- **Option B:** A nipple shield is usually meant to be used for a short time. When using a shield, help the baby to latch on by himself with a wide-open mouth. This will help the baby learn to breastfeed without a shield.
- **Option D:** Breastfeeding women are recommended to increase fluid intake by 800 ml/day during the first 6 months postpartum.

58. A white female client is admitted to an acute care facility with a diagnosis of cerebrovascular accident (CVA). Her history reveals bronchial asthma, exogenous obesity, and iron deficiency anemia. Which history finding is a risk factor for CVA?

- A. Caucasian race
- B. Female sex
- C. Obesity
- D. Bronchial asthma

Correct Answer: C. Obesity

Obesity is a risk factor for CVA. Other risk factors include a history of ischemic episodes, cardiovascular disease, diabetes mellitus, atherosclerosis of the cranial vessels, hypertension, polycythemia, smoking, hypercholesterolemia, oral contraceptive use, emotional stress, family history of CVA, and advancing age.

- **Option A:** Of all the risk factors, hypertension is the most common modifiable risk factor for stroke. Hypertension is most prevalent in African-Americans and also occurs earlier in life. According to JNC8, the recommended blood pressure targets in patients with stroke should be less than 140/90 mm Hg.
- **Option B:** One-third of the adults in the USA have elevated low-density lipoprotein (LDL), leading to plaque formation in the intracerebral vasculature. Eventually, due to the excessive plaque build-up thrombotic strokes occur.

- **Option D:** Ischemic etiologies can further be divided into embolic, thrombotic, and lacunar. In general, the common risk factors for stroke include hypertension, diabetes, smoking, obesity, atrial fibrillation, and drug use.

59. A man brings his elderly wife to the emergency department. He states that she has been vomiting and has had diarrhea for the past two days. She appears lethargic and is complaining of leg cramps. What should the nurse do first?

- A. Start an IV.
- B. Review the results of serum electrolytes.
- C. Offer the woman foods that are high in sodium and potassium content.
- D. Administer an antiemetic.

Correct Answer: B. Review the results of serum electrolytes.

Further assessment is needed to determine appropriate action. While the nurse may perform some of the interventions in options one, three, and four, assessment is needed initially. Electrolyte abnormalities may be addressed on an individual level, although often these are caused by an overall fluid volume depletion which, when corrected, will also cause electrolytes to normalize. Both saline and lactated Ringer's solutions appear to be effective for the treatment of dehydration due to viral gastroenteritis.

- **Option A:** The most important goal of treatment is to maintain hydration status and effectively counter fluid and electrolyte losses. Fluid therapy is a fundamental part of treatment. Intravenous fluids may be administered to those individuals who appear dehydrated or to those unable to tolerate oral fluids.
- **Option C:** No specific nutritional recommendations are universal for patients with viral gastroenteritis. A diet of banana, rice, apples, tea, and toast is often advised, but several studies have failed to show any significant outcome difference when compared to regular diets.
- **Option D:** Antiemetic medications such as ondansetron or metoclopramide may be used to assist with controlling nausea and vomiting symptoms. Patients demonstrating severe dehydration or intractable vomiting may require hospital admission for continued intravenous fluids and careful monitoring of electrolyte status.

60. The nurse must administer a medication to reverse or prevent Parkinson-type symptoms in a client receiving an antipsychotic. The medication the client will likely receive is:

- A. benztropine (Cogentin)
- B. diphenhydramine (Benadryl)
- C. propranolol (Inderal)
- D. haloperidol (Haldol)

Correct Answer: A. benztropine (Cogentin)

Benztropine, trihexyphenidyl, or amantadine are prescribed for a client with Parkinson-type symptoms. It is also useful for drug-induced extrapyramidal symptoms and the prevention of dystonic reactions and acute treatment of dystonic reactions. Furthermore, benztropine has further off-label use as it can treat

chronic sialorrhea occurring in developmentally-disabled patients. Benztropine antagonizes acetylcholine and histamine receptors. In the CNS and smooth muscles, benztropine exerts its action through competing with acetylcholine at muscarinic receptors. Consequently, it reduces central cholinergic effects by blocking muscarinic receptors that appear to improve the symptoms of Parkinson disease. Thus, benztropine blocks the cholinergic muscarinic receptor in the central nervous system. Therefore, it reduces the cholinergic effects significantly during Parkinson disease which becomes more pronounced in the nigrostriatal tract because of reduced dopamine concentrations.

- **Option B:** Diphenhydramine provides rapid relief for dystonia. Diphenhydramine, which is available as an over-the-counter medication, is a first-generation antihistamine that is used in a variety of conditions to treat and prevent dystonias, insomnia, pruritus, urticaria, vertigo, and motion sickness. It also possesses local anesthetic properties for those patients who have allergies to other, more commonly used local anesthetics; however, this is an off-label use of the medication.
- **Option C:** Propranolol relieves akathisia. Beta-blockers such as propranolol and benzodiazepines have historically been used for the treatment of akathisia although the amount of high-quality data supporting their use is limited. When using beta-blockers, clinicians should be aware of the risk of bradycardia and hypotension.
- **Option D:** Haloperidol can cause Parkinson-type symptoms. Toxicities are the exaggerated symptoms of known pharmacologic effects and known adverse reactions. The most prominent toxicities of haloperidol are 1) severe extrapyramidal symptoms, hypotension, sedation. The patient may appear comatose with severe respiratory depression or shock from hypotension. The extrapyramidal symptoms are muscular weakness or rigidity, a generalized or localized tremor that may be characterized by the akinetic or agitation types of movements, respectively.

61. The nurse is developing a teaching plan for a patient who is 8 weeks pregnant. The nurse should tell the patient that she can expect to feel the fetus move at which time?

- A. Between 10 and 12 weeks' gestation
- B. Between 16 and 20 weeks' gestation.
- C. Between 21 and 23 weeks' gestation.
- D. Between 24 and 26 weeks' gestation.

Correct Answer: B. Between 16 and 20 weeks' gestation.

A pregnant woman usually can detect fetal movement (quickenings) between 16 and 20 weeks' gestation.

- **Option A:** Before 16 weeks, the fetus is not developed enough for the woman to detect movement.
- **Option C:** After 20 weeks, the fetus continues to gain weight steadily, the lungs start to produce surfactant, the brain is grossly formed, and myelination of the spinal cord begins.
- **Option D:** After 24 weeks, the fetus might be able to respond to familiar sounds such as its mother's voice, with movement. It is spending most of its sleep time in rapid eye movement (REM).

62. A client is diagnosed with progressive prostate cancer. The nurse expects which drug is given?

- A. Arimidex (anastrozole)

- B. Emcyt (estramustine)
- C. Taxol (paclitaxel)
- D. Camptosar (irinotecan)

Correct Answer: B. Emcyt (estramustine)

- **Option B:** Emcyt (estramustine)– is used as a palliative treatment of metastatic and progressive prostate cancer.
- **Option A:** Arimidex (anastrozole)- is used in the treatment of advanced breast cancer in post-menopausal women following tamoxifen therapy.
- **Option C:** Taxol (paclitaxel) is given as a treatment for ovarian cancer, breast cancer, and AIDS-related to Kaposi's sarcoma.
- **Option D:** Camptosar (irinotecan) is indicated in the treatment of metastatic colon or rectal cancer after treatment with 5-FU.

63. The physician has ordered a minimal-bacteria diet for a client with neutropenia. The client should be taught to avoid eating:

- A. Packed fruits
- B. Salt
- C. Fresh raw pepper
- D. Ketchup

Correct Answer: C. Fresh raw pepper

Fresh raw or whole pepper is not allowed unless thoroughly cooked in food. A low-bacteria diet is designed to reduce exposure to bacteria and other pathogens that can make one sick. It's often prescribed for people who are at a greater risk of infection because they're currently not making enough white blood cells due to certain illnesses or medical treatments.

- **Option A:** Canned fruits are allowed since they are processed and pasteurized. Fresh fruits and vegetables are fine as long as they are washed first or cooked thoroughly. Meat, fish, and eggs should also be fully cooked. Commercially prepared and packaged foods are acceptable but avoid buying foods indented and swollen cans or damaged packaging.
- **Option B:** Salt is allowed. The keys to a low-bacteria diet are choosing foods that are less likely to carry bacteria while avoiding the foods that do. Frequent hand washing and paying particular attention to food safety practices are also essential.
- **Option D:** Ketchup is also allowed. Bread, ready-to-eat cereals, pancakes, waffles, and crackers are safe to eat. Bottled beverages, hot beverages, and pasteurized fruit and vegetable juices are good as well. Cream cheese, sour cream, mayonnaise, margarine, commercial peanut butter, and chocolate are okay, too.

64. In a clinical setting, a patient presents with a penetrating injury to the spine. The medical team is concerned about potential sensory deficits due to the injury. During a discussion regarding the patient's neurological integrity, a junior medical staff member inquires about the organization of sensory neurons to better understand the potential implications of the spinal injury. The

attending physician explains that in terms of structural organization, the cell body of all sensory neurons is primarily located within the:

- A. Dorsal gray horn
- B. Dorsal root ganglion
- C. Spinal cord
- D. Brain

Correct Answer: B. Dorsal root ganglion

The dorsal root ganglion houses the cell bodies of sensory neurons. Sensory neurons have a unipolar structure with a single process extending from the cell body which divides into a peripheral process (conducts signals from sensory receptors) and a central process (transmits signals to the spinal cord).

- **Option A:** The dorsal gray horn of the spinal cord is the region where central processes of sensory neurons synapse with second-order neurons. While it is a crucial area for the transmission of sensory information, the cell bodies of sensory neurons are not located here. This location primarily contains interneurons and the terminus of some sensory neurons.
- **Option C:** The spinal cord is the primary conduit of neural signals between the body and the brain, and while it hosts the central processes of sensory neurons and the cell bodies of many motor neurons and interneurons, it does not contain the cell bodies of sensory neurons.
- **Option D:** The brain, while the central organ for processing sensory information, does not house the cell bodies of primary sensory neurons. However, it does contain the cell bodies of numerous other types of neurons which are involved in the higher-order processing and interpretation of sensory information.

65. A parent brings a toddler, age 19 months, to the clinic for a regular check-up. When palpating the toddler's fontanels, what should the nurse expect to find?

- A. Open anterior and fontanel and closed posterior fontanel
- B. Closed anterior and posterior fontanels
- C. Closed anterior fontanel and open posterior fontanel
- D. Open anterior and posterior fontanels

Correct Answer: B. Closed anterior and posterior fontanels

By age 18 months, the anterior and posterior fontanels should be closed. The diamond-shaped anterior fontanel normally closes between ages 9 and 18 months. The triangular posterior fontanel normally closes between ages 2 and 3 months. Fontanelles, often referred to as "soft spots," are one of the most prominent anatomical features of the newborn's skull. Fontanelle morphology may vary between infants, but characteristically they are flat and firm.

- **Option A:** The most common conditions associated with a large anterior fontanelle or a delay in its closure are as listed: Down syndrome, achondroplasia, congenital hypothyroidism, rickets, and elevated intracranial pressures. Infants of African descent statically have larger fontanelles that range from 1.4 to 4.7 cm, and in terms of sex, the fontanelles of male infants will close sooner compared to female infants.

- **Option C:** Often, the delayed closure of the posterior fontanelle is associated with hydrocephalus or congenital hypothyroidism. Unlike the anterior fontanelle, the posterior fontanelle is triangular and completely closes within about six to eight weeks after birth. On average, the posterior fontanelle is 0.5 cm in Caucasian infants and 0.7 cm in infants of African descent.
- **Option D:** An elevated thyroid-stimulating hormone level on a newborn screening usually detects congenital hypothyroidism, but an abnormally large anterior fontanel in conjunction with an open posterior fontanel can be an early sign of the disorder. Myxedema and growth deficiency are later signs.

66. Honey, a 23-year old client complains of substernal chest pain and states that her heart feels like “it’s racing out of the chest”. She reports no history of cardiac disorders. The nurse attaches her to a cardiac monitor and notes sinus tachycardia with a rate of 136beats/minutes. Breath sounds are clear and the respiratory rate is 26 breaths/minutes. Which of the following drugs should the nurse question the client about using?

- A. Barbiturates
- B. Opioids
- C. Cocaine
- D. Benzodiazepines

Correct Answer: C. Cocaine

Because of the client’s age and negative medical history, the nurse should question her about cocaine use. Cocaine increases myocardial oxygen consumption and can cause coronary artery spasm, leading to tachycardia, ventricular fibrillation, myocardial ischemia, and myocardial infarction.

- **Option A:** Barbiturate overdose may trigger respiratory depression and slow pulse.
- **Option B:** Opioids can cause marked respiratory depression.
- **Option D:** Benzodiazepines can cause drowsiness and confusion.

67. What is regarded as one of the priority actions that must be accomplished when a primary assessment of a trauma client is conveyed?

- A. Taking a full set of vital sign measurements.
- B. Completing a brief neurologic assessment.
- C. Monitoring pulse oximetry reading.
- D. Palpating and auscultating the abdomen.

Correct Answer: B. Completing a brief neurological assessment

A brief neurologic assessment to ascertain level of consciousness and pupil reaction is part of the primary survey. Once the patient is stabilized, a neurologic examination should be conducted. CT scan is the diagnostic modality of choice in the initial evaluation of patients with head trauma.

- **Option A:** Vital signs are considered part of the secondary survey. Avoid hypotension. Normal blood pressure may not be adequate to maintain adequate flow and CPP if ICP is elevated.

Isolated head trauma usually does not cause hypotension. Look for another cause if the patient is in shock.

- **Option C:** Identify any condition which might compromise the airway, such as pneumothorax. The cervical spine should be maintained in-line during intubation. Nasotracheal intubation should be avoided in patients with facial trauma or basilar skull fracture.
- **Option D:** Assessment of abdomen is basically part of the secondary survey. The secondary survey is a rapid but thorough head to toe examination assessment to identify potential injuries. It should be performed after the primary survey and the initial stabilization is complete.

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

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

Correct Answer: C. Instituting droplet precautions

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

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

69. When administering magnesium sulfate to a client with preeclampsia, the nurse understands that this drug is given to:

- A. Prevent seizures.
- B. Reduce blood pressure.
- C. Slow the process of labor.
- D. Increase diuresis.

Correct Answer: A. Prevent seizures

The chemical makeup of magnesium is similar to that of calcium and, therefore, magnesium will act like calcium in the body. As a result, magnesium will block seizure activity in a hyper-stimulated neurologic system by interfering with signal transmission at the neuromuscular junction.

- **Option B:** Magnesium sulfate may attenuate blood pressure by decreasing the vascular response to pressor substances.
- **Option C:** Since the primary therapeutic goal of tocolysis is to delay preterm delivery within 48 hours from the initiation of steroid prophylaxis, little evidence suggests that extended MgSO₄ therapy is beneficial.
- **Option D:** There are rare cases of pregnant women who develop polyuria after receiving intravenous therapy of magnesium sulfate. It can be considered as another cause of solute diuresis.

70. A client with antisocial personality disorder was admitted in a unit at Nurseslabs Hospital. The newly admitted client stole money from an elderly in the unit. Which of the following is the most appropriate for the nurse to say to this client?

- A. "Why did you take the money?"
- B. "Let's talk about how you felt when you took the money."
- C. "The consequences of stealing are a loss of privileges."
- D. "This client is defenseless against you."

Correct Answer: C. "The consequences of stealing are loss of privileges."

The most appropriate response is to reinforce the consequences of behavior that disregard the rights of others. Be very clear about the consequences if policies/limits are not adhered to. Client needs to understand the consequences of breaking the rules.

- **Option A:** This client is likely to rationalize and excuse the behavior. Approach the client in a consistent manner in all interactions. Enhances feelings of security and provides structure. Exceptions encourage manipulative behavior.
- **Option B:** The nurse should not encourage the client to provide excuses or explanations of behaviors that are clearly against the rules. Be clear with the client as to the unit/hospital/clinic policies. Give brief concrete reasons for the rules, if asked, and then move on.
- **Option D:** A client with antisocial personality disorder is unlikely to have compassion for others and typically lacks respect for the rights of others. When limits or policies are not followed, enforce the consequences in a matter-of-fact, nonjudgmental manner. Helps minimize manipulations and might help encourage cooperation.

71. The clinic nurse asks a 13-year-old female to bend forward at the waist with arms hanging freely. Which of the following assessments is the nurse most likely conducting?

- A. Spinal flexibility
- B. Leg length disparity
- C. Hypostatic blood pressure

D. Scoliosis

Correct Answer: D. Scoliosis

A check for scoliosis, a lateral deviation of the spine, is an important part of the routine adolescent exam. It is assessed by having the teen bend at the waist with arms dangling, while observing for lateral curvature and uneven rib level. Scoliosis is more common in female adolescents. Evaluation is generally a screening evaluation either through a school entity, sports coach, or pediatrician. The proper formal evaluation includes x-ray imaging.

- **Option A:** The ability to move the spine through its full range of motion, both forward and backward, demonstrates a high level of flexibility, and when done correctly, also good control over the spinal structure. Although the spine is made up of a chain of bones, it is flexible due to elastic ligaments and spinal disks.
- **Option B:** Leg length disparity (discrepancy) or anisomelia, is defined as a condition in which the paired lower extremity limbs have a noticeably unequal length. Leg length discrepancy (LLD) has been a controversial issue among researchers and clinicians for many years. Its presence is accepted but there is little consensus as to its many aspects, including the extent of LLD considered to be clinically significant, the prevalence, reliability, and validity of the measuring methods, the effect of LLD on function, and its role in various neuromusculoskeletal conditions
- **Option C:** Orthostatic hypotension is defined as a decrease in systolic blood pressure of 20 mmHg or a decrease in diastolic blood pressure of 10 mmHg within three minutes of standing when compared with blood pressure from the sitting or supine position.

72. Which of the following types of behavior is expected from a client diagnosed with a paranoid personality disorder?

- A. Eccentric
- B. Exploitative
- C. Hypersensitive
- D. Seductive

Correct Answer: C. Hypersensitive

People with paranoid personality disorders are hypersensitive to perceived threats. While this mistrust is unfounded, their distrust of others makes it difficult to form relationships and can interfere with many aspects of life including at home, at school, and at work. People with PPD do not see their behaviors as out of the ordinary but are perceived by others as hostile and suspicious.

- **Option A:** Schizotypal personalities appear eccentric and engage in activities others find perplexing. Schizotypal personality disorder is marked by a pervasive pattern of social and interpersonal deficits. Individuals with schizotypal personality disorder have little capacity—and perhaps even need—for close relationships.
- **Option B:** Clients with narcissistic personality disorder are interpersonally exploitative to enhance themselves or indulge in their own desires. Narcissistic personality disorder (NPD) is an enduring pattern of inner experience and behavior characterized by self-centeredness, lack of empathy, and an exaggerated sense of self-importance.
- **Option D:** A client with a histrionic personality disorder can be extremely seductive when in search of stimulation and approval. 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.

73. Corinne is experiencing diarrhea after consuming her prescribed antibiotics for the whole week. This is because:

- A. The drugs render food indigestible.
- B. Gastric flora is disturbed.
- C. Fluid is added into the intestine.
- D. Normal intestinal bacteria are destroyed.

Correct Answer: D. Normal intestinal bacteria are destroyed.

The destruction of normal intestinal flora causes diarrhea. Bacteria in the gut, for example, help break down food. Antibiotics kill these “good” microbes along with bacteria that are causing an infection. This upsets the balance of the normal flora in the intestines. The result is often loose, watery stools known as antibiotic-associated diarrhea.

- **Option A:** A drug that rendered food indigestible could not be given because it would cause severe malnutrition. Thousands of species of bacteria, yeast, and other microorganisms live on our skin, in our intestines, and on other body surfaces. They’re known as our “normal flora.” When it is in balance, these microbes stay put and many of them contribute to good health. Bacteria in the gut, for example, help break down food.
- **Option B:** This is incorrect because there is no gastric flora. About one in three people who take antibiotics develop diarrhea. The symptoms usually start on the last day or two of antibiotic therapy, or a day or so after it has ended. The diarrhea is usually mild, with two to four loose stools lasting for a couple days. In most cases, it gets better quickly without treatment. That said, antibiotic-associated diarrhea makes some people very sick. The most severe form, called *C. difficile* colitis, can be life-threatening.
- **Option C:** There is no way to add fluid into the intestine. Almost all antibiotics, particularly those that act on anaerobes, can cause diarrhea, but the risk is higher with aminopenicillins, a combination of aminopenicillins and clavulanate, cephalosporins, and clindamycin.^{1,4,5} Host factors for antibiotic-associated diarrhea include age over 65, immunosuppression, being in an intensive care unit, and prolonged hospitalization.

74. A nurse is assisting a gastroenterologist in caring for a client with complaints of epigastric pain. The nurse is explaining the role of the gastric glands in the fundus and body of the stomach which secrete intrinsic factor and hydrochloric acid. The nurse is correct when stating which of these substances as those needed in the GI tract. Select all that apply.

- A. Vitamin B 12 absorption.
- B. Emulsifying fats.
- C. Dissolving food fibers.
- D. Killing microorganisms.
- E. Activating the enzyme pepsin.
- F. Vitamin B 6 absorption.

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

Hydrochloric acid (HCl), the main constituent of gastric acid, is secreted by parietal cells. The hydrogen (H) and chloride (Cl) components of HCl are secreted separately by hydrogen/potassium ATPase pumps and chloride channels in the stomach. Pepsinogen, a proenzyme for pepsin, is secreted by chief cells.

- **Option A:** Intrinsic factor is needed for vitamin B12 absorption. Approximately 1.2% of vitamin B12 is absorbed passively without the help of intrinsic factors. If a patient receives the oral formulation at high doses, this passive absorption is sufficient to replenish vitamin B12 deficiency.
- **Option B:** Bile is the substance secreted from the gallbladder to emulsify fats as they are consumed. Once the food is present in the duodenum (especially fatty food), the I cells are stimulated to secrete CCK which in turn causes gallbladder wall contraction as well as relaxation of the sphincter of Oddi. The bile then flows into the second part of the duodenum and causes the emulsification of large fat droplets into small ones.
- **Option C:** Hydrochloric acid is needed for dissolving food fibers. When pepsinogen and hydrochloric acid exist together in the gastric juice, pepsin takes its active form. Through the actions of pepsin and the squeezing properties of the stomach, the food bolus enters the intestines as a liquid mixture of partially digested food particles, called chyme.
- **Option D:** Hydrochloric acid is needed for killing microorganisms. The acidic environment of the stomach is not only useful for protein denaturing but also for protection against potentially infectious agents. All material consumed by the body must pass through the stomach, making it an important defense against microbes. Many bacteria are killed or inhibited by the stomach's acidity.
- **Option E:** Hydrochloric acid is needed for activating the enzyme pepsin. Collectively, gastric acid creates an acidic environment that denatures proteins and activates the conversion of pepsinogen to pepsin. Pepsin breaks down proteins into smaller peptides, which may be further processed and later absorbed in the small intestine.
- **Option F:** Vitamin B6, an essential nutrient, must be replaced daily because it is water-soluble and eliminated in urine. As a coenzyme, vitamin B6 is involved as a cofactor in over 100 enzymatic reactions including amino acid metabolism, carbohydrate metabolism, and lipid metabolism. It contributes to cognitive development via neurotransmitter synthesis, immune function via interleukin-2 production, and hemoglobin formation.

75. A client calls the emergency department and tells the nurse that he had been cleaning a wooden area in the backyard and came directly into contact with poison ivy shrubs. The client tells the nurse that he cannot see anything on the skin and ask the nurse what to do. Which of the following is the appropriate nursing response?

- A. "Apply calamine lotion immediately to the exposed skin areas."
- B. "It is not necessary to do anything if you cannot see anything on your skin."
- C. "Come to the emergency department."
- D. "Take a shower immediately, lathering, and rinsing several times."

Correct Answer: D. "Take a shower immediately, lathering, and rinsing several times."

When an individual comes in contact with a poison ivy plant, the sap from the plants forms an invisible film on the human skin. The client should be instructed to cleanse the area with alcohol and then shower immediately and to lather the skin several times and rinse each time in running water.

- **Option A:** Calamine lotion is recommended for use if dermatitis occurs.
- **Option B:** The sap that is released from a poison ivy triggers an allergic reaction when it comes into contact with the skin, resulting in an itchy rash that may appear within hours of exposure or up to several days later so it is important to observe and treat it immediately.
- **Option C:** It is not yet necessary to be at the emergency unit at this time.

76. Effective handwashing requires the use of:

- A. Soap or detergent to promote emulsification.
- B. Hot water to destroy bacteria.
- C. A disinfectant to increase surface tension.
- D. All of the above.

Correct Answer: A. Soap or detergent to promote emulsification.

Soaps and detergents are used to help remove bacteria because of their ability to lower the surface tension of water and act as emulsifying agents. Handwashing is the act of washing hands with soap, either antimicrobial or non antimicrobial, and water for at least 15 to 20 seconds with a vigorous motion to cause friction making sure to include all surfaces of the hands and fingers.

- **Option B:** Hot water may lead to skin irritation or burns. Warm water would be enough for handwashing. Healthcare professionals caring for high-risk patients that are immunocompromised must take great care in performing proper hand hygiene as this patient population is at high risk for opportunistic infections
- **Option C:** Handwashing with soap and water will remove nearly all transient gram-negative bacilli in 10 seconds while chlorhexidine may be more appropriate than soap and water for the removal of transient gram-positive bacteria. According to the CDC, established guidelines recommend that agents used for surgical hand scrubs should reduce microorganisms on intact skin in a substantial manner, contain a nonirritating antimicrobial preparation, have broad-spectrum activity, and be fast-acting and persistent.
- **Option D:** Hand hygiene practices are paramount in reducing cross-transmission of microorganisms, hospital-acquired infections and the risk of occupational exposure to infectious diseases. According to the CDC, understanding the importance of hand hygiene and its impact on the pathogenic spread of microorganisms is best understood when one understands the anatomy of the skin. The skin serves as a protective barrier against water loss, heat loss, microorganisms, and other environmental hazards.

77. A patient is admitted to the emergency department with an overdose of a benzodiazepine. The nurse immediately prepares to administer which of the following antidotes from the emergency drug cart?

- A. naloxone (Narcan)
- B. naltrexone (ReVia)
- C. nalmefene (Revox)
- D. flumazenil (Romazicon)

Correct Answer: D. flumazenil (Romazicon)

Flumazenil is the antidote for benzodiazepine overdoses. Flumazenil injection is indicated for a complete or partial reversal of the sedative effects of benzodiazepines in conscious sedation and general anesthesia in the adult and pediatric populations. Flumazenil speeds the recovery from sedation following minor surgical procedures and shortened the postoperative monitoring period for minor surgery, resulting in earlier patient discharge.

- **Option A:** Naloxone is indicated for the treatment of opioid toxicity, specifically to reverse respiratory depression from opioid use. It is useful in accidental or intentional overdose and acute or chronic toxicity.
- **Option B:** Naltrexone is an opioid antagonist used to treat alcohol use disorder and opioid dependence. It is FDA-approved for alcohol misuse and opioid dependence treatment. Another clinical use for naltrexone is for opiate toxicity/addiction. Exogenous opioids include the commonly prescribed pain relievers such as hydrocodone, oxycodone, among others, and drugs of abuse such as heroin.
- **Option C:** Nalmefene is another opioid antagonist. Its affinity for mu and kappa receptors is similar to naltrexone though its affinity for the delta receptor is greater than that of naltrexone. In the United States, it is approved for the reversal of Mu receptor agonist effects by parenteral routes.

78. When assessing a client during her first prenatal visit, the nurse discovers that the client had a reduction mammoplasty. The mother indicates she wants to breast-feed. What information should the nurse give to this mother regarding breastfeeding success?

- A. "It's contraindicated for you to breastfeed following this type of surgery."
- B. "I support your commitment; however, you may have to supplement each feeding with formula."
- C. "You should check with your surgeon to determine whether breast-feeding would be possible."
- D. "You should be able to breastfeed without difficulty."

Correct Answer: B. "I support your commitment; however, you may have to supplement each feeding with formula."

Recent breast reduction surgeries are done in a way to protect the milk sacs and ducts, so breastfeeding after surgery is possible. Still, it's good to check with the surgeon to determine what breast reduction procedure was done. There is the possibility that reduction surgery may have decreased the mother's ability to meet all of her baby's nutritional needs, and some supplemental feeding may be required. Preparing the mother for this possibility is extremely important because the client's psychological adaptation to mothering may be dependent on how successfully she breast-feeds.

- **Option A:** While there is evidence that both breastfeeding and breast reduction surgery are beneficial, it is unknown whether breast reduction surgery impacts breastfeeding and whether any breast reduction technique differentially preserves the ability to breastfeed.
- **Option C:** Women considering breast reduction surgery should be told not only the name of the proposed breast reduction technique but its characteristics, including the extent the column of subareolar parenchyma will be preserved and pedicle width, to allow them to gain a better understanding of its impact on breastfeeding.
- **Option D:** Breast reduction techniques have been in a continuous state of development since the early 1900s, with new techniques developed, refined, and modified by subsequent plastic surgeons. This has led to many diverse breast reduction techniques. Its effect on breastfeeding

remains entirely unclear, so telling the client that she could breastfeed without difficulty would give her a false sense of reassurance.

79. For which of the following medical conditions would the nurse anticipate that an antianxiety agent would not be indicated?

- A. Seizure disorders
- B. Alcohol detoxification
- C. Parkinson's disease
- D. Panic disorder

Correct Answer: C. Parkinson's disease

Benzodiazepines may exacerbate the symptoms of Parkinson's disease. Benzodiazepines are a class of drugs that act upon benzodiazepine receptors (BZ-R) in the central nervous system (CNS). The receptor is a protein composed of five transmembrane subunits that form a chloride channel in the center, i.e., GABA-A receptor. The five subunits consist of two alpha, two beta, and one gamma subunit. The extracellular portions of the alpha and beta subunit proteins form a receptor site for gamma-aminobutyric acid (GABA), an inhibitory neurotransmitter.

- **Option A:** Benzodiazepines are especially important in the cessation of seizure activity, as 1% to 2% of emergency department visits annually in the United States are for seizures. Indications for benzodiazepine administration include, but are not limited to, anxiety disorders, insomnia, acute status epilepticus, induction of amnesia, spastic disorders, seizure disorders, and agitation.
- **Option B:** Benzodiazepines have the largest and the best evidence base in the treatment of alcohol withdrawal, and are considered the gold standard. Others, such as anticonvulsants, barbiturates, adrenergic drugs, and GABA agonists have been tried and have evidence.
- **Option D:** Benzodiazepines approved by the FDA for the treatment of panic disorder include alprazolam (Xanax) and clonazepam (Klonopin). Benzodiazepines are generally used only on a short-term basis because they can be habit-forming, causing mental or physical dependence.

80. A nurse is preparing to remove a nasogastric tube from a female client. The nurse should instruct the client to do which of the following just before the nurse removes the tube?

- A. Exhale
- B. Inhale and exhale quickly
- C. Take and hold a deep breath
- D. Perform a Valsalva maneuver

Correct Answer: C. Take and hold a deep breath.

When the nurse removes a nasogastric tube, the client is instructed to take and hold a deep breath. This will close the epiglottis. This allows for easy withdrawal through the esophagus into the nose. The nurse removes the tube with one smooth, continuous pull.

- **Option A:** The patient should take a deep breath, and hold it, not exhale. An NG tube should be removed if it is no longer required. The process of removal is usually very quick. Prior to removing

an NG tube, verify physician orders. If the NG tube was ordered to remove gastric content, the physician's order may state to "trial" clamping the tube for a number of hours to see if the patient tolerates its removal. During the trial, the patient should not experience any nausea, vomiting, or abdominal distension.

- **Option B:** Inhaling and exhaling quickly could make the removal uncomfortable. Instruct the patient to take a deep breath and hold it. This prevents aspiration; holding the breath closes the glottis.
- **Option D:** Performing the Valsalva maneuver is inappropriate. Kink the NG tube near the nares and gently pull out the tube in a swift, steady motion, wrapping it in hand as it is being pulled out. Dispose of the tube in a garbage bag.

81. The nurse is providing home care instructions to a client who has recently had a skin graft. It's most important that the client remember to:

- A. Use cosmetic camouflage techniques.
- B. Protect the graft from direct sunlight.
- C. Continue physical therapy.
- D. Apply lubricating lotion to the graft site.

Correct Answer: B. Protect the graft from direct sunlight.

To avoid burning and sloughing, the client must protect the graft from direct sunlight. Protect the grafted area and the donor site from direct exposure to sunlight. Keep it covered for the first year and then protect it with a sunblock thereafter. The other three interventions are helpful to the client and his recovery but are less important.

- **Option A:** Ask the surgeon about camouflage make-up if concerned about the appearance of the graft. Expect skin discoloration at both the graft and the donor sites. This will gradually improve over the following 9-12 months.
- **Option C:** The client should take it easy for two weeks, building up slowly into his normal routine. Do not exert the grafted area. Depending on where the graft is, how big it is and what type of job the client has he may need to take time off work, two weeks or more. Exercise that might stretch or injure the graft should be avoided for 3-4 weeks.
- **Option D:** Once healed, the client may use a moisturizing cream such as E45, Nivea cream, or Vaseline two or three times a day, on both grafted site and the donor site for three months or longer if the area remains dry.

82. For which of the following research questions would qualitative methods be most appropriate?

- A. Which pain medications decrease the need for sleep medication in elderly patients?
- B. What is the meaning of health for migrant farm-worker women?
- C. Under what conditions does a decubitus ulcer heal most quickly?
- D. How does frequency of medication administration impact the degree of pain experienced following knee replacement surgery?

Correct Answer: B. What is the meaning of health for migrant farm-worker women?

This question seeks to explore a phenomenon (health) for a specific population. Qualitative research involves collecting and analyzing non-numerical data (e.g., text, video, or audio) to understand concepts, opinions, or experiences. It can be used to gather in-depth insights into a problem or generate new ideas for research.

- **Option A:** Qualitative research is used to understand how people experience the world. While there are many approaches to qualitative research, they tend to be flexible and focus on retaining rich meaning when interpreting data.
- **Option C:** Qualitative research often tries to preserve the voice and perspective of participants and can be adjusted as new research questions arise. Open-ended responses mean that researchers can uncover novel problems or opportunities that they wouldn't have thought of otherwise.
- **Option D:** Quantitative methods allow the researcher to test a hypothesis by systematically collecting and analyzing data, while qualitative methods allow you to explore ideas and experiences in depth.

83. Which of the following symptoms indicated diverticulosis?

- A. No symptoms exist.
- B. Change in bowel habits.
- C. Anorexia with low-grade fever.
- D. Episodic, dull, or steady midabdominal pain.

Correct Answer: A. No symptoms exist.

Diverticulosis is an asymptomatic condition. The other choices are signs and symptoms of diverticulitis. The majority of individuals with diverticulosis are asymptomatic. Diverticular disease occurs when there is symptomatic diverticulosis (e.g., diverticular bleeding); diverticulitis (e.g., acute or chronic inflammation that may or may not be complicated by abscess formation, fistula formation, bowel obstruction, or perforation); or associated segmental colitis (e.g., inflammation in segments of the mucosal segments of the colon in between diverticula).

- **Option B:** Change in bowel habits, either diarrhea (35%) or constipation (50%), can be associated with abdominal pain. Patients may also experience nausea and vomiting, possibly secondary to bowel obstruction.
- **Option C:** Fever is not uncommon in patients with abscesses and perforation. Dysuria, frequency, and urgency can occur in patients when the inflamed portion of the bowel comes into direct contact with the bladder wall, which is called sympathetic cystitis.
- **Option D:** Clinical manifestation of acute diverticulitis varies depending on the severity of the disease. Patients with uncomplicated diverticulitis typically present with left lower quadrant abdominal pain, reflecting that propensity of left-sided disease in Western nations.

84. Which of the following effects of calcium channel blockers causes a reduction in blood pressure?

- A. Increased cardiac output.
- B. Decreased peripheral vascular resistance.
- C. Decreased renal blood flow.

D. Calcium influx into cardiac muscles.

Correct Answer: B. Decreased peripheral vascular resistance.

One of the effects of calcium channel blockers is to decrease peripheral vascular resistance. Cardiovascular indications include hypertension, coronary spasm, angina pectoris, supraventricular dysrhythmias, hypertrophic cardiomyopathy, and pulmonary hypertension. In addition to these, they are also prescribed for Raynaud phenomenon, subarachnoid hemorrhage, and migraine headaches. The other options describe the opposite effects of calcium channel blockers.

- **Option A:** The non-dihydropyridines have inhibitory effects on the sinoatrial (SA), and atrioventricular (AV) nodes are resulting in a slowing of cardiac conduction and contractility. This allows for the treatment of hypertension, reduces oxygen demand, and helps to control the rate in tachydysrhythmias.
- **Option C:** The dihydropyridines, in therapeutic dosing, have a little direct effect on the myocardium, and instead, are more often peripheral vasodilators, which is why they are useful for hypertension, post-intracranial hemorrhage associated vasospasm, and migraines.
- **Option D:** Calcium channel antagonists block the inward movement of calcium by binding to the L-type "long-acting" voltage-gated calcium channels in the heart, vascular smooth muscle, and pancreas.

85. Which of the following nursing interventions is applicable for a hospitalized client with mania who is exhibiting manipulative behavior. Select all that apply.

- A. Communicate expected behaviors to the client.
- B. Enforce rules and inform the client that he or she will not be allowed to attend group therapy sessions.
- C. Ensure that the client knows that he or she is not in charge of the nursing unit.
- D. Be clear with the client regarding the consequences of exceeding limits set regarding behavior.
- E. Assist the client in testing out alternative behaviors for obtaining needs.

Correct Answers: A, D, & E

Interventions for dealing with the client exhibiting manipulative behavior include setting clear, consistent, and enforceable limits on manipulative behaviors; being clear with the client regarding the consequences of exceeding limits set; following through with the consequences in a non-punishment manner; and assisting the client in identifying strengths and in testing out alternative behaviors for obtaining needs. Decrease environmental stimuli (e.g., by providing a calming environment or assigning a private room).

- **Option B:** Enforcing rules and informing the client that he or she will not be allowed to attend group therapy sessions is a violation of the client's rights. Remain neutral as possible; Do not argue with the client. The client can use inconsistencies and value judgments as justification for arguing and escalating mania.
- **Option C:** Ensuring the client knows that he or she is not in charge of the nursing unit is inappropriate, power struggles need to be avoided. Maintain a consistent approach, employ consistent expectations, and provide a structured environment. Clear and consistent limits and expectations minimize the potential for the client's manipulation of staff.

86. The nurse should teach the community that a minor burn injury could be caused by what common occurrence?

- A. Chimney sweeping every year
- B. Cooking with a microwave oven
- C. Use of sunscreen agents
- D. Use of space heaters

Correct Answer: D. Use of space heaters

Minor burns are common occurrences. The use of space heaters can cause a fire if clothing, bedding, and other flammable objects are near them. Make sure to always keep anything that gives off heat at least 3 feet away from flammable materials or items.

- **Option A:** Chimneys should be swept each year to prevent creosote build-up and resultant fire. If there is a fireplace, make sure the chimney is checked and cleaned by a professional once a year. Use a metal or glass screen that is large enough to prevent escaping embers.
- **Option B:** Burn injuries do not commonly occur from microwave cooking, but rather when taking food from it. Thermal burns are skin injuries caused by excessive heat, typically from contact with hot surfaces, hot liquids, steam, or flame. Most burns are minor and patients can be treated as outpatients or at local hospitals.
- **Option C:** Lastly, sunscreen agents are recommended to prevent sunburn. A broad-spectrum sunscreen with an SPF of at least 30 should be applied 30 minutes before sun exposure and every 90 minutes after that.

87. A nurse in a newborn nursery receives a phone call to prepare for the admission of a 43-week-gestation newborn with Apgar scores of 1 and 4. In planning for the admission of this infant, the nurse's highest priority should be to:

- A. Connect the resuscitation bag to the oxygen outlet
- B. Turn on the apnea and cardiorespiratory monitors
- C. Set up the intravenous line with 5% dextrose in water
- D. Set the radiant warmer control temperature at 36.5° C (97.6°F)

Correct Answer: A. Connect the resuscitation bag to the oxygen outlet.

- **Option A:** The highest priority on admission to the nursery for a newborn with low Apgar scores is airway, which would involve preparing respiratory resuscitation equipment.
- **Options B, C, & D:** The other options are also important, although they are of lower priority.

88. An elderly client who experiences nighttime confusion wanders from his room into the room of another client. The nurse can best help decrease the client's confusion by:

- A. Assigning a nursing assistant to sit with him until he falls asleep

- B. Allowing the client to room with another elderly client
- C. Administering a bedtime sedative
- D. Leaving a nightlight on during the evening and night shifts

Correct Answer: D. Leaving a nightlight on during the evening and night shifts

- Option D: Leaving a nightlight on during the evening and night shifts help the client remain oriented to the environment and fosters independence.
- Options A and B: Assigning a nursing assistant to sit with him and allowing the client to room with another client will not decrease the client's confusion.
- Option C: Administering a bedtime sedative will increase the likelihood of confusion in an elderly client.

89. When assessing a male client for suicidal risk, which of the following methods of suicide would the nurse identify as most lethal?

- A. Wrist cutting
- B. Headbanging
- C. Use of gun
- D. Aspirin overdose

Correct Answer: C. Use of gun

A crucial factor in determining the lethality of a method is the amount of time that occurs between initiating the method and the delivery of the lethal impact of the method. A clear and complete evaluation and clinical interview provide the information upon which to base a suicide intervention. Although risk factors offer major indications of the suicide danger, nothing can substitute for a focused patient inquiry. However, although all the answers a patient gives may be inclusive, a therapist often develops a visceral sense that his or her patient is going to commit suicide. The clinician's reaction counts and should be considered in the intervention.

- **Option A:** Determine whether the person has any thoughts of hurting him or herself. Suicidal ideation is highly linked to completed suicide. Some inexperienced clinicians have difficulty asking this question. They fear the inquiry may be too intrusive or that they may provide the person with an idea of suicide. In reality, patients appreciate the question as evidence of the clinician's concern. A positive response requires further inquiry.
- **Option B:** If suicidal ideation is present, the next question must be about any plans for suicidal acts. The general formula is that more specific plans indicate greater danger. Although vague threats, such as a threat to commit suicide sometime in the future, are the reason for concern, responses indicating that the person has purchased a gun, has ammunition, has made out a will, and plans to use the gun are more dangerous. The plan demands further questions. If the person envisions a gun-related death, determine whether he or she has the weapon or access to it.
- **Option D:** Nearly one-third of adults who had serious thoughts of suicide made suicide plans, and about 1 in 9 adults who had serious thoughts of suicide made a suicide attempt. In other words, more than two-thirds of adults in 2014 who had serious thoughts of suicide did not make suicide plans, and 8 out of 9 adults who had serious thoughts of suicide did not attempt suicide. This data shows that suicidal thoughts can serve as an indicator of suicidal plans and attempts.

90. A nurse is caring for a client in labor who is receiving Pitocin by IV infusion to stimulate uterine contractions. Which assessment finding would indicate to the nurse that the infusion needs to be discontinued?

- A. Three contractions occurring within a 10-minute period
- B. Increased urinary output
- C. Adequate resting tone of the uterus palpated between contractions
- D. A fetal heart rate of 90 beats per minute

Correct Answer: D. A fetal heart rate of 90 beats per minute

A normal fetal heart rate is 120-160 BPM. Bradycardia or late or variable decelerations indicate fetal distress and the need to discontinue Pitocin. The goal of labor augmentation is to achieve three good-quality contractions in a 10-minute period.

- **Option A:** Pitocin (oxytocin injection) is a natural hormone that causes the uterus to contract used to induce labor, strengthen labor contractions during childbirth, control bleeding after childbirth, or induce an abortion.
- **Option B:** Oxytocin has an antidiuretic effect and increases the urinary excretion of AQP2 in humans whose urinary concentration mechanism is preserved. Urine volume and free water clearance were decreased, and urine osmolality was increased by the administration of oxytocin or dDAVP in the normal volunteers and CDI patients.
- **Option C:** In a normal labor, one contraction every two to three minutes or less than five contractions in a 10 minute period is ideal. A uterus must rest between contractions, having sufficient uterine resting tone (soft to the touch), and uterine resting time (about one minute).

91. To be effective in meeting various ethnic needs, the nurse should:

- A. Treat all clients alike.
- B. Be aware of the client's cultural differences.
- C. Act as if he or she is comfortable with the client's behavior.
- D. Avoid asking questions about the client's cultural background.

Correct Answer: B. Be aware of the client's cultural differences.

Nurses can pay close attention to their own biases and how they react to people whose backgrounds and cultural experiences differ from their own. For example, a person who becomes conscious that they think of immigrants as illegal aliens achieves cultural awareness of that particular bias.

- **Option A:** Once nurses tap into awareness, they can actively analyze their increased awareness and internal belief systems. Using the above example, the person can examine their background, beliefs, and values to understand their cultural bias regarding immigrants.
- **Option C:** Often, individual beliefs and values do not correspond to their behavior and actions. Nurses can work to acknowledge that this disconnect exists and view knowledge as an important element of developing cultural competence. Research has shown that people who score low on prejudice tests may still use labels such as "illegal alien."
- **Option D:** Nurses put their awareness, attitude, and knowledge into practice by repeating culturally competent behaviors until they become integrated into their daily interactions. These behaviors

include effective and respectful communication and body language. Among various cultures, nonverbal communication methods, such as gestures, can mean very different things.

92. A client with a T1 spinal cord injury arrives at the emergency department with a BP of 82/40, pulse 34, dry skin, and flaccid paralysis of the lower extremities. Which of the following conditions would most likely be suspected?

- A. Autonomic dysreflexia
- B. Hypervolemia
- C. Neurogenic shock
- D. Sepsis

Correct Answer: C. Neurogenic shock

Loss of sympathetic control and unopposed vagal stimulation below the level of injury typically cause hypotension, bradycardia, pallor, flaccid paralysis, and warm, dry skin in the client in neurogenic shock. Neurogenic shock is a devastating consequence of spinal cord injury (SCI), also known as vasogenic shock. Injury to the spinal cord results in a sudden loss of sympathetic tone, which leads to the autonomic instability that is manifested in hypotension, bradyarrhythmia, and temperature dysregulation.

- **Option A:** Autonomic dysreflexia occurs after neurogenic shock abates. Neurogenic shock is defined as the injury to the spinal cord with associated autonomic dysregulation. This dysregulation is due to a loss of sympathetic tone and an unopposed parasympathetic response. Neurogenic shock is most commonly a consequence of traumatic spinal cord injuries.
- **Option B:** Hypervolemia is indicated by rapid and bounding pulse and edema. The joint committee of the American Spinal Injury Association and the International Spinal Cord Society proposed the definition of a neurogenic shock to be general autonomic nervous system dysfunction that also includes symptoms such as orthostatic hypotension, autonomic dysreflexia, temperature dysregulation.
- **Option D:** Signs of sepsis would include elevated temperature, increased heart rate, and increased respiratory rate. Though neurogenic shock should be considered only after a hemorrhagic shock has been ruled out in a traumatic patient, the presence of vertebral fracture or dislocation raises the concern for a neurogenic shock. Bradyarrhythmia, hypotension, flushed warm skin are the classic signs associated with neurogenic shock.

93. When newborns have been on formula for 36-48 hours, they should have a:

- A. Screening for PKU
- B. Vitamin K injection
- C. Test for necrotizing enterocolitis
- D. Heel stick for blood glucose level

Correct Answer: A. Screening for PKU.

- **Option A:** By now the newborn will have ingested an ample amount of the amino acid phenylalanine, which, if not metabolized because of a lack of the liver enzyme, can deposit injurious metabolites into the bloodstream and brain; early detection can determine if the liver

enzyme is absent.

94. St. Raphael Medical Center just opened its new Performance Improvement Department. Ms. Valencia is appointed as the Quality Control Officer. She commits herself to her new role and plans her strategies to realize the goals and objectives of the department. Which of the following is a primary task that they should perform to have an effective control system?

- A. Make an interpretation about strengths and weaknesses.
- B. Identify the values of the department.
- C. Identify structure, process, outcome standards & criteria.
- D. Measure actual performances.

Correct Answer: B. Identify the values of the department

Identify the values of the department will set the guiding principles within which the department will operate its activities. Some control techniques, such as those involving standard hours and costs, budgets, and various financial ratios, have general application in various situations.

- **Option A:** Control techniques should reflect the plans they are designed to follow. Managers need the information that will tell them how the plans for which they are responsible are progressing. An effective control system will disclose where failures are occurring and who is/are responsible for the failures and it will ensure that some corrective action is taken.
- **Option C:** Control systems and information are, of course, intended to help individual managers carry out their function of control. An effective control system must fit in with the organizational culture. If employees have been managed without allowing them any participation in decision-making, the sudden introduction of a permissive control system will hardly succeed.
- **Option D:** As far as possible the information provided by the control system should be objective. If on the other hand, controls are subjective, a manager's or an executive's personality may influence judgments of performance and make them less accurate. Thus, the control system should ideally provide objective information to the manager for evaluation and action.

95. A patient is catheterized with a #16 indwelling urinary (Foley) catheter to determine if:

- A. Trauma has occurred.
- B. His 24-hour output is adequate.
- C. He has a urinary tract infection.
- D. Residual urine remains in the bladder after voiding.

Correct Answer: B. His 24-hour output is inadequate.

A 24-hour urine output of less than 500 ml in an adult is considered inadequate and may indicate kidney failure. This must be corrected while the patient is in the acute state so that appropriate fluids, electrolytes, and medications can be administered and excreted. Indwelling catheterization is not needed to diagnose trauma, urinary tract infection, or residual urine.

- **Option A:** Urinary bladder catheterization is performed for both therapeutic and diagnostic purposes. Based on the dwell time, the urinary catheter can be either intermittent (short-term) or indwelling (long-term).
- **Option C:** Cystitis, urethritis, prostatitis (common infectious etiology in men), and vulvovaginitis in the woman can cause urinary retention.
- **Option D:** Brain or spinal cord injury, cerebrovascular accident, multiple sclerosis, Parkinson's disease, and dementia can lead to urinary retention.

96. Which of the following symptoms is associated with ulcerative colitis?

- A. Dumping syndrome
- B. Rectal bleeding
- C. Soft stools
- D. Fistulas

Correct Answer: B. Rectal bleeding

In ulcerative colitis, rectal bleeding is the predominant symptom. Ulcerative colitis is an idiopathic inflammatory condition of the colon which results in diffuse friability and superficial erosions on the colonic wall associated with bleeding. It is the most common form of inflammatory bowel disease worldwide.

- **Option A:** Dumping syndrome occurs after gastric surgeries. Dumping syndrome is likely caused by the rapid movement of chyme. In patients without gastric surgery, digestion is initiated in the stomach, and the transition to the duodenum occurs progressively. The severity of dumping syndrome is correlated to the extent of gastric surgery. Surgical etiologies include gastrojejunostomy, antrectomy, pylorotomy, pyloroplasty, esophagectomy, vagotomy, Roux-en-Y bypass, and Nissen fundoplication.
- **Option C:** Soft stools are more commonly associated with Crohn's disease, in which malabsorption is more of a problem. Steatorrhea from malabsorption can occur with Crohn's disease. The inflammatory process caused by Crohn's disease, especially if it involves large tracts of intestine, alters the absorption mechanisms of different substances due to the lack of reabsorption of the bile salts, which normally stimulate the reabsorption of food fats.
- **Option D:** Fistulas are associated with Crohn's disease. Fistulas occur in all these areas, but the anorectal area is most common because of the relative thinness of the intestinal wall in this area. The initial lesion starts out as an infiltrate around an intestinal crypt. This goes on to develop ulceration first in the superficial mucosa and involves deeper layers. As the inflammation progresses, non-caseating granulomas form involving all layers of the intestinal wall.

97. Mr. and Mrs. Smith's child has hemophilia; which of the following actions would you instruct them to avoid?

- A. Immobilizing the joint
- B. Lowering the injured area
- C. Applying cold to the area
- D. Applying pressure

Correct Answer: B. Lowering the injured area

With hemophilia, the injured area must be elevated, not lowered. If bleeding is in a joint (hemarthrosis), elevate and immobilize the affected limb. Repeated hemarthrosis can result in severe and crippling deformity.

- **Option A:** Immobilize the affected limb. Provide replacement therapy of deficient clotting factors. Replacement of factors is the primary treatment for bleeding. Treatment includes factor VIII, which is an essential clotting factor needed to convert prothrombin to thrombin.
- **Option C:** Apply ice packs to control bleeding. Usual sites of external bleeding may include the bleeding in the mouth from a cut, bite, or from cutting or losing a tooth; nosebleeds for no obvious reasons; heavy bleeding from a minor cut, or bleeding from a cut that resumes after stopping for a short time.
- **Option D:** Apply manual or mechanical pressure if active bleeding is noted. Apply sterile dressings to wounds, and apply pressure. Controlling bleeding is a nursing priority. Nasal packing should be avoided, because the subsequent removal of the packing may precipitate further bleeding.

98. A client admitted to the hospital with a subarachnoid hemorrhage has complaints of severe headache, nuchal rigidity, and projectile vomiting. The nurse knows lumbar puncture (LP) would be contraindicated in this client in which of the following circumstances?

- A. Vomiting continues.
- B. Intracranial pressure (ICP) is increased.
- C. The client needs mechanical ventilation.
- D. Blood is anticipated in the cerebrospinal fluid (CSF).

Correct Answer: B. Intracranial pressure (ICP) is increased.

Sudden removal of CSF results in pressures lower in the lumbar area than the brain and favors herniation of the brain; therefore, LP is contraindicated with increased ICP. A head computed tomogram (CT) should be obtained before performing a lumbar puncture if there is a concern for increased intracranial pressure. Signs and symptoms of possible increased intracranial pressure include altered mental status, focal neurological deficits, new-onset seizure, papilledema, immunocompromised state, malignancy, history of focal CNS disease (stroke, focal infection, tumor), concern for mass CNS lesion and age greater than 60 years old.

- **Option A:** Vomiting may be caused by reasons other than increased ICP; therefore, LP isn't strictly contraindicated. Contraindications to performing a lumbar puncture include skin infection near or at the site of lumbar puncture needle insertion, central nervous system (CNS) lesion or spinal mass leading to increased intracranial pressure, platelet count less than 20,000 mm³ (ideally the platelet count should be greater than 50,000 mm³), use of unfiltered heparin or low-molecular-weight heparin in the past 24 hours, coagulopathies (i.e., hemophilia, von Willebrand disease) and vertebral trauma.
- **Option C:** An LP may be performed on clients needing mechanical ventilation. Lumbar puncture (LP), also referred to as "spinal tap," is a commonly performed procedure that involves obtaining and sampling cerebrospinal fluid from the spinal cord.
- **Option D:** Blood in the CSF is diagnostic for subarachnoid hemorrhage and was obtained before signs and symptoms of ICP. It is the gold standard diagnostic procedure in the diagnosis of meningitis, subarachnoid hemorrhage, and certain neurological disorders. It is also used in the

measurement of intracranial pressure and administration of medications or diagnostic agents.

99. A client has a mid pelvic contracture from a previous pelvic injury due to a motor vehicle accident as a teenager. The nurse is aware that this could prevent a fetus from passing through or around which structure during childbirth?

- A. Symphysis pubis
- B. Sacral promontory
- C. Ischial spines
- D. Pubic arch

Correct Answer: C. Ischial spines

The ischial spines are located in the mid-pelvic region and could be narrowed due to the previous pelvic injury.

- **Option A:** The pubic symphysis is a secondary cartilaginous joint (a joint made of hyaline cartilage and fibrocartilage) located between the left and right pubic bones near the midline of the body. More specifically, it is located above any external genitalia and in front of the bladder.
- **Option B:** Superiorly, there is an anterior projection of bone, known as the sacral promontory. It forms the posterior margin of the pelvic inlet and as a result, it is serially continuous with the margin of the ala of the sacrum, arcuate line of the ilium, and the pecten pubis and pubic crest of the pubic bone.
- **Option D:** The pubic arch, also referred to as the ischiopubic arch, is part of the pelvis. It is formed by the convergence of the inferior rami of the ischium and pubis on either side, below the pubic symphysis. The angle at which they converge is known as the subpubic angle.

100. A patient with a spinal cord injury (SCI) complains about a severe throbbing headache that suddenly started a short time ago. Assessment of the patient reveals increased blood pressure (168/94) and decreased heart rate (48/minute), diaphoresis, and flushing of the face and neck. What action should you take first?

- A. Administer the ordered acetaminophen (Tylenol).
- B. Check the Foley tubing for kinks or obstruction.
- C. Adjust the temperature in the patient's room.
- D. Notify the physician about the change in status.

Correct Answer: B. Check the Foley tubing for kinks or obstruction.

These signs and symptoms are characteristic of autonomic dysreflexia, a neurologic emergency that must be promptly treated to prevent a hypertensive stroke. The cause of this syndrome is noxious stimuli, most often a distended bladder or constipation, so checking for poor catheter drainage, bladder distention, or fecal impaction is the first action that should be taken.

- **Option C:** Adjusting the room temperature may be helpful, since too cool a temperature in the room may contribute to the problem.

- **Option A:** Tylenol will not decrease the autonomic dysreflexia that is causing the patient's headache.
- **Option D:** Notification of the physician may be necessary if nursing actions do not resolve symptoms.