

Kevin's Review - 85 NCLEX Practice Questions

1. Nurse Nina is assigned to care for a client diagnosed with Catatonic Stupor. When Nurse Nina enters the client's room, the client is found lying on the bed with a body pulled into a fetal position. Nurse Nina should:

- A. Ask the client direct questions to encourage talking.
- B. Take the client into the dayroom to be with other clients.
- C. Sit beside the client in silence and occasionally ask an open-ended question
- D. Leave the client alone and continue with providing care to the other clients.

Correct Answer: C. Sit beside the client in silence and occasionally ask an open-ended question

Clients who are withdrawn may be immobile and mute, and require consistent, repeated interventions. Communication with withdrawn clients requires much patience from the nurse. The nurse facilitates communication with the client by sitting in silence, asking open-ended questions, and pausing to provide opportunities for the client to respond.

- **Option A:** Therapeutic communication is often most effective when patients direct the flow of conversation and decide what to talk about. To that end, giving patients a broad opening such as "What's on your mind today?" or "What would you like to talk about?" can be a good way to allow patients an opportunity to discuss what's on their mind.
- **Option B:** At times, it's useful to not speak at all. Deliberate silence can give both nurses and patients an opportunity to think through and process what comes next in the conversation. It may give patients the time and space they need to broach a new topic. Nurses should always let patients break the silence.
- **Option D:** Recognition acknowledges a patient's behavior and highlights it without giving an overt compliment. A compliment can sometimes be taken as condescending, especially when it concerns a routine task like making the bed. However, saying something like "I noticed you took all of your medications" draws attention to the action and encourages it without requiring a compliment.

2. A clinic patient has recently been prescribed nitroglycerin for treatment of angina. He calls the nurse complaining of frequent headaches. Which of the following responses to the patient is correct?

- A. "Stop taking the nitroglycerin and see if the headaches improve."
- B. "Go to the emergency department to be checked because nitroglycerin can cause bleeding in the brain."
- C. "Headaches are a frequent side effect of nitroglycerine because it causes vasodilation."
- D. "The headaches are unlikely to be related to the nitroglycerin, so you should see your doctor for further investigation."

Correct Answer: C. "Headaches are a frequent side effect of nitroglycerine because it causes vasodilation."

Nitroglycerin is a potent vasodilator and often produces unwanted effects such as headache, dizziness, and hypotension. Patients should be counseled, and the dose titrated, to minimize these effects. In spite of the side effects, nitroglycerin is effective at reducing myocardial oxygen consumption and increasing blood flow.

- **Option A:** The patient should not stop the medication.

- **Option B:** Nitroglycerine does not cause bleeding in the brain.
- **Option D:** Headaches are one of the side effects of nitroglycerin.

3. A 25-year-old client with Grave's disease is admitted to the unit. What would the nurse expect the admitting assessment to reveal?

- A. Bradycardia
- B. Decreased appetite
- C. Exophthalmos
- D. Weight gain

Correct Answer: C. Exophthalmos

Exophthalmos (protrusion of eyeballs) often occurs with hyperthyroidism. Graves' orbitopathy (ophthalmopathy) is caused by inflammation, cellular proliferation and increased growth of extraocular muscles and retro-orbital connective and adipose tissues due to the actions of thyroid stimulating antibodies and cytokines released by cytotoxic T lymphocytes (killer cells). These cytokines and thyroid stimulating antibodies activate periorbital fibroblasts and preadipocytes, causing synthesis of excess hydrophilic glycosaminoglycans (GAG) and retro-orbital fat growth.

- **Option A:** Physical signs of hyperthyroidism include tachycardia, systolic hypertension with increased pulse pressure, signs of heart failure (like edema, rales, jugular venous distension, tachypnea), atrial fibrillation, fine tremors, hyperkinesia, hyperreflexia, warm and moist skin, palmar erythema and onycholysis, hair loss, diffuse palpable goiter with thyroid bruit and altered mental status.
- **Option B:** Hyperthyroidism usually increases the appetite. If the client is taking in a lot more calories, they can gain weight even if their body is burning more energy. Make sure to eat healthy foods, get regular exercise, and work with a doctor on a nutrition plan. These steps can all help combat weight gain from an increased appetite.
- **Option D:** In younger patients, common presentations include heat intolerance, sweating, fatigue, weight loss, palpitation, hyper defecation, and tremors. Other features include insomnia, anxiety, nervousness, hyperkinesia, dyspnea, muscle weakness, pruritus, polyuria, oligomenorrhea or amenorrhea in the female, loss of libido, and neck fullness.

4. Which of the following diagnostic tools is most commonly used to determine the location of myocardial damage?

- A. Cardiac catheterization
- B. Cardiac enzymes
- C. Echocardiogram
- D. Electrocardiogram

Correct Answer: D. Electrocardiogram

The ECG is the quickest, most accurate, and most widely used tool to determine the location of myocardial infarction.

- **Option A:** Cardiac catheterization is an invasive study for determining coronary artery disease and may also indicate the location of myocardial damage, but the study may not be performed immediately.
- **Option B:** Cardiac enzymes are used to diagnose MI but can't determine the location.
- **Option C:** An echocardiogram is used most widely to view myocardial wall function after an MI has been diagnosed.

5. Which of the following tasks should be included in the immediate postoperative management of a client who has undergone gastric resection?

- A. Monitoring gastric pH to detect complications.
- B. Assessing for bowel sounds.
- C. Providing nutritional support.
- D. Monitoring for symptoms of hemorrhage.

Correct Answer: D. Monitoring for symptoms of hemorrhage.

The client should be monitored closely for signs and symptoms of hemorrhage, such as bright red blood in the nasogastric tube suction, tachycardia, or a drop in blood pressure. Identify signs and symptoms requiring medical evaluation such as persistent nausea and vomiting or abdominal fullness; weight loss; diarrhea; foul-smelling fatty or tarry stools; bloody or coffee-ground vomitus or presence of bile, fever. Instruct the patient to report changes in pain characteristics.

- **Option A:** Gastric pH may be monitored to evaluate the need for histamine-2 receptor antagonists. Caution the patient to read labels and avoid products containing ASA, ibuprofen. This can cause gastric irritation and bleeding. Review medication purpose, dosage, and schedule, and possible side effects.
- **Option B:** Bowel sounds may not return for up to 72 hours postoperatively. Auscultate for resumption of bowel sounds and note passage of flatus. Peristalsis can be expected to return about the third postoperative day, signaling readiness to resume oral intake.
- **Option C:** Nutritional needs should be addressed soon after surgery. Monitor tolerance to fluid and food intake, noting abdominal distension, reports of increased pain, cramping, nausea, and vomiting. Avoid milk and high-carbohydrate foods in the diet because this may trigger dumping syndrome.

6. If a client continues to hypoventilate, the nurse will continually assess for a complication of:

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

Correct Answer: A. Respiratory acidosis

Respiratory acidosis represents an increase in the acid component, carbon dioxide, and an increase in the hydrogen ion concentration (decreased pH) of the arterial blood. The respiratory centers in the pons

and medulla control alveolar ventilation. Chemoreceptors for PCO₂, PO₂, and pH regulate ventilation. Central chemoreceptors in the medulla are sensitive to changes in the pH level. A decreased pH level influences the mechanics of ventilation and maintains proper levels of carbon dioxide and oxygen. When ventilation is disrupted, arterial PCO₂ increases and an acid-base disorder develops.

- **Option B:** In almost every scenario, respiratory alkalosis is induced by a process involving hyperventilation. These include central causes, hypoxemic causes, pulmonary causes, and iatrogenic causes. Central sources are a head injury, stroke, hyperthyroidism, anxiety-hyperventilation, pain, fear, stress, drugs, medications such as salicylates, and various toxins. Hypoxic stimulation leads to hyperventilation in an attempt to correct hypoxia at the expense of a CO₂ loss.
- **Option C:** Hydrogen ion concentration is determined by acid ingestion, acid production, acid excretion, and renal and GI bicarbonate losses. Buffers such as bicarbonate minimize significant pH alterations. Further classification of metabolic acidosis is based on the presence or absence of an anion gap, or concentration of unmeasured serum anions.
- **Option D:** In general, the causes can be narrowed down to an intracellular shift of hydrogen ions, gastrointestinal (GI) loss of hydrogen ions, excessive renal hydrogen ion loss, retention or addition of bicarbonate ions, or volume contraction around a constant amount of extracellular bicarbonate known as contraction alkalosis. All of which leads to the net result of increased levels of bicarbonate in the blood.

7. At an international dermatology symposium, Dr. Alvarez presents a riveting case study involving a patient who showed heightened skin sensitivity to an array of commonly used cosmetic products. Upon examination, it was revealed that there was a significant alteration in a specific type of skin cell responsible for immune surveillance and recognizing allergens. Citing this clinical instance, Dr. Alvarez queries the audience regarding the specific skin cell that plays a pivotal role in helping the body recognize and remember allergens. Which cell type is he referring to?

- A. Cornified cells
- B. Fibroblasts
- C. Merkel cells
- D. Langerhans cells

Correct Answer: D. Langerhans cells

Langerhans cells are dendritic cells located in the epidermis. They function as antigen-presenting cells, capturing foreign substances (like allergens) that come into contact with the skin and presenting them to the immune system. They are essential components of the skin's immune defense mechanism and are particularly involved in recognizing and "remembering" allergens, thus priming the immune system for future encounters.

- **Option A:** Cornified cells are the final products of the keratinization process. They form the outermost layer of the skin, the stratum corneum, and are primarily involved in forming the protective barrier of the skin. They do not play a role in immune surveillance or allergen detection.
- **Option B:** Found primarily in the dermis, fibroblasts are responsible for producing extracellular matrix components, such as collagen and elastin, which give the skin its strength and elasticity. While crucial for skin's structural integrity, they do not participate in allergen recognition.

- **Option C:** Merkel cells are tactile cells found in the epidermis and are associated with nerve endings. They play a role in the sensation of light touch but are not involved in the immune response or allergen detection.

8. During an outbreak of a novel respiratory virus, a community health clinic organizes informational sessions to educate the public about the infection, prevention measures, and the immune response. At one such session, a patient who recently recovered from a mild form of the viral infection is curious about the type of immunity he has acquired against the pathogen. He asks the physician speaker about the immunity that arises when one naturally encounters and recovers from a specific infectious disease, leading the body to generate a tailored antibody response. In the context of this clinical and community health scenario, which term best describes the form of immunity acquired by the patient?

- A. Active Natural Immunity
- B. Active Artificial Immunity
- C. Passive Natural Immunity
- D. Passive Artificial Immunity

Correct Answer: A. Active Natural Immunity

Active natural immunity is acquired when an individual is exposed to a live pathogen, develops the disease, and becomes immune due to the primary immune response. In this case, the patient's immune system has encountered the natural infection, responded to it by generating specific antibodies, and thereby developed immunity to this particular respiratory virus.

- **Option B:** Active artificial immunity involves exposure to a weakened or inactivated form of the pathogen or to a recombinant antigen, such as a vaccine. This form of immunity also results from the body's own immune response, but the initial exposure is controlled and administered intentionally via vaccination, unlike the natural exposure in the scenario described.
- **Option C:** Passive natural immunity refers to the transmission of antibodies from mother to infant, either through the placenta during pregnancy or through breast milk postnatally. It does not result from the individual's own immune system responding to a pathogen, and therefore does not apply to the described scenario of a patient recovering from a natural infection.
- **Option D:** Passive artificial immunity is acquired through the administration of pre-formed antibodies, such as immunoglobulin therapy. This form of immunity provides immediate but temporary protection, without engaging the host's own immune system in an active response to the pathogen.

9. In clients with a cognitive impairment disorder, the phenomenon of increased confusion in the early evening hours is called:

- A. Aphasia.
- B. Agnosia.
- C. Sundowning.

D. Confabulation.

Correct Answer: C. Sundowning.

Sundowning is a common phenomenon that occurs after daylight hours in a client with a cognitive impairment disorder. The term “sundowning” refers to a state of confusion occurring in the late afternoon and spanning into the night. Sundowning can cause a variety of behaviors, such as confusion, anxiety, aggression, or ignoring directions. Sundowning can also lead to pacing or wandering. Sundowning isn’t a disease, but a group of symptoms that occur at a specific time of the day that may affect people with dementia, such as Alzheimer’s disease. The exact cause of this behavior is unknown.

- **Option A:** Aphasia is an impairment of language, affecting the production or comprehension of speech and the ability to read or write. Aphasia is always due to injury to the brain—most commonly from a stroke, particularly in older individuals. Aphasia can be so severe as to make communication with the patient almost impossible, or it can be very mild. It may affect mainly a single aspect of language use, such as the ability to retrieve the names of objects, or the ability to put words together into sentences, or the ability to read. More commonly, however, multiple aspects of communication are impaired, while some channels remain accessible for a limited exchange of information.
- **Option B:** Agnosia is a rare disorder whereby a patient is unable to recognize and identify objects, persons, or sounds using one or more of their senses despite otherwise normally functioning senses. The deficit cannot be explained by memory, attention, language problems, or unfamiliarity to the stimuli. Usually, one of the sensory modalities is affected.
- **Option D:** Confabulation is a type of memory error in which gaps in a person’s memory are unconsciously filled with fabricated, misinterpreted, or distorted information. When someone confabulates, they are confusing things they have imagined with real memories. A person who is confabulating is not lying. They are not making a conscious or intentional attempt to deceive. Rather, they are confident in the truth of their memories even when confronted with contradictory evidence.

10. What is the most appropriate nursing response to a myocardial infarction client who is fearful of dying?

- A. “Tell me about your feelings right now.”
- B. “When the doctor arrives, everything will be fine.”
- C. “This is a bad situation, but you’ll feel better soon.”
- D. “Please be assured we’re doing everything we can to make you feel better.”

Correct Answer: A. “Tell me about your feelings right now.”

Validation of the client’s feelings is the most appropriate response. It gives the client a feeling of comfort and safety.

- **Option B:** Option B may give the client false hope.
- **Option C:** Telling the client that he will feel better soon would give him false hope.
- **Option D:** No one can determine if a client experiencing MI will feel or get better and therefore, these responses are inappropriate.

11. Buerger's disease is characterized by all of the following except:

- A. Arterial thrombosis formation and occlusion.
- B. Lipid deposits in the arteries.
- C. Redness or cyanosis in the limb when it is dependent.
- D. Venous inflammation and occlusion.

Correct Answer: B. Lipid deposits in the arteries

Buerger disease, also known as Thromboangiitis obliterans (TAO) is a progressive, nonatherosclerotic, segmental, inflammatory disease that most often affects small and medium arteries of the upper and lower extremities. The typical age range for occurrence is 20 to 50 years, and the disorder is more frequently found in males who smoke.

- **Option A:** Patients initially present with foot, leg, arm, or hand claudication which may be mistaken for joint or neuromuscular problems. Progression of the disease leads to calf claudication, and eventually, ischemic rest pain and ulcerations on the toes, feet, or fingers. This is also called Raynaud's.
- **Option C:** Patients with TAO typically present with ischemic signs and symptoms in the distribution of the distal arteries of the upper or lower extremities. Manifestations may include claudication in the arch of the foot as well as the calf. This is also called Raynaud's phenomenon or livedo reticularis that presents as pain in hands, feet, and digits at rest.
- **Option D:** TAO commonly begins in the distal extremities, but as the disease progresses, it will affect the proximal vessels. The Allen test is done to test the extent of the initial disease. Superficial thrombophlebitis complicates almost half of all cases of TAO. Due to associated neurologic involvement, paresthesias of the acral portions of the upper and lower extremities are often described.

12. The nurse in charge must monitor a patient receiving chloramphenicol for adverse drug reaction. What is the most toxic reaction to chloramphenicol?

- A. Lethal arrhythmias
- B. Malignant hypertension
- C. Status epilepticus
- D. Bone marrow suppression

Correct Answer: D. Bone marrow suppression

The most toxic reaction to chloramphenicol is bone marrow suppression. Chloramphenicol is a synthetically manufactured broad-spectrum antibiotic. It was initially isolated from the bacteria *Streptomyces venezuelae* in 1948 and was the first bulk produced synthetic antibiotic. However, chloramphenicol is a rarely used drug in the United States because of its known severe adverse effects, such as bone marrow toxicity and grey baby syndrome. Chloramphenicol is not known to cause lethal arrhythmias, malignant hypertension, or status epilepticus.

- **Option A:** Chloramphenicol is associated with severe hematological side effects when administered systemically. Since 1982, chloramphenicol has reportedly caused fatal aplastic anemia, with possible increased risk when taken together with cimetidine. This adverse side effect can occur even with the topical administration of the drug, which is most likely due to the systemic

absorption of the drug after topical application.

- **Option B:** Besides causing fatal aplastic anemia and bone marrow suppression, other side effects of chloramphenicol include ototoxicity with the use of topical ear drops, gastrointestinal reactions such as oesophagitis with oral use, neurotoxicity, and severe metabolic acidosis.
- **Option C:** Optic neuritis is the most commonly associated neurotoxic complication that can arise from chloramphenicol use. This adverse effect usually takes more than six weeks to manifest, presenting with either acute or subacute vision loss, with possible fundal changes. It may also present with peripheral neuropathy, which may present as numbness or tingling. If optic neuropathy occurs, the drug should be withdrawn immediately, which will usually lead to partial or complete recovery of vision.

13. Which of the following describes the Babinski reflex?

- A. The newborn's toes will hyperextend and fan apart from the dorsiflexion of the big toe when one side of the foot is stroked upward from the ball of the heel and across the ball of the foot.
- B. The newborn abducts and flexes all extremities and may begin to cry when exposed to sudden movement or loud noise.
- C. The newborn turns the head in the direction of the stimulus, opens the mouth, and begins to suck when the cheek, lip, or corner of the mouth is touched.
- D. The newborn will attempt to crawl forward with both arms and legs when he is placed on his abdomen on a flat surface.

Correct Answer: A. The newborn's toes will hyperextend and fan apart from the dorsiflexion of the big toe when one side of the foot is stroked upward from the ball of the heel and across the ball of the foot.

With the Babinski reflex, the newborn's toes hyperextend and fan apart from dorsiflexion of the big toe when one side of the foot is stroked upward from the heel and across the ball of the foot.

- **Option B:** With the startle reflex, the newborn abducts and flexes all extremities and may begin to cry when exposed to sudden movement of loud noise.
- **Option C:** With the rooting and sucking reflex, the newborn turns his head in the direction of the stimulus, opens the mouth, and begins to suck when the cheeks, lip, or corner of the mouth is touched.
- **Option D:** With the crawl reflex, the newborn will attempt to crawl forward with both arms and legs when he is placed on his abdomen on a flat surface.

14. A nurse is told in a report that a client has a positive Chvostek's sign. What other data would the nurse expect to find on data collection? Select all that apply.

- A. Coma
- B. Tetany
- C. Diarrhea
- D. Possible seizure activity
- E. Hypoactive bowel sounds

F. Positive Trousseau's sign

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

A positive Chvostek's sign is indicative of hypocalcemia. Other signs and symptoms include tachycardia, hypotension, paresthesias, twitching, cramps, tetany, seizures, positive Trousseau's sign, diarrhea, hyperactive bowel sounds, and a prolonged QT interval.

- **Option A:** Severe hypercalcemia can damage the kidneys, limiting their ability to cleanse the blood and eliminate fluid. Severe hypercalcemia can lead to confusion, dementia, and coma, which can be fatal.
- **Option B:** Tetany is generally induced by a rapid decline in serum ionized calcium. Tetany is usually more dangerous and most commonly seen in the presence of respiratory alkalosis causing hypocalcemia.
- **Option C:** The presence of chronic diarrhea or intestinal disease (eg, Crohn's disease, sprue, chronic pancreatitis) suggests the possibility of hypocalcemia due to malabsorption of calcium and/or vitamin D.
- **Option D:** Seizures are usually present in very severe hypocalcemia. It can be the sole manifestation or a part of the myriad of clinical presentations.
- **Option E:** Signs of chronic hypocalcemia include hyperactive bowel sounds, dry and brittle hair, and abnormal clotting.
- **Option F:** It represents increased neuromuscular excitability which may be related to the gating function of calcium ions for ion channels at a cellular level (particularly in neurons). It manifests as a spasm of the hand characterized by adduction of the thumb, flexion of the metacarpophalangeal joints, an extension of the interphalangeal joints, and flexion of the wrist when a sphygmomanometer is inflated above systolic blood pressure for three minutes.

15. A client with gastric cancer can expect to have surgery for resection. Which of the following should be the nursing management priority for the preoperative client with gastric cancer?

- A. Discharge planning
- B. Correction of nutritional deficits
- C. Prevention of DVT
- D. Instruction regarding radiation treatment

Correct Answer: B. Correction of nutritional deficits

Client's with gastric cancer commonly have nutritional deficits and may be cachectic. For patients undergoing surgery, the preoperative nutritional condition directly affects postoperative prognosis, overall survival, and disease-specific survival. The goal of nutritional therapy is to improve the nutritional status, metabolism, adherence to antitumor therapies, quality of life, and course of the disease.

- **Option A:** Discharge planning before surgery is important, but correcting the nutrition deficit is a higher priority. Provide accurate, consistent information regarding diagnosis and prognosis. Avoid arguing about the patient's perceptions of the situation.
- **Option C:** Prevention of DVT also isn't a high priority to surgery, though it assumes greater importance after surgery. The link between thromboembolism and cancer has been recognized for

over 100 years. Venous thromboembolism (VTE) is associated with considerable morbidity in patients with cancer, with emerging research also indicating a detrimental effect on survival.

- **Option D:** At present, radiation therapy hasn't been proven effective for gastric cancer, and teaching about it preoperatively wouldn't be appropriate. People with stomach cancer usually receive external-beam radiation therapy, which is radiation given from a machine outside the body. Radiation therapy may be used before surgery to shrink the size of the tumor or after surgery to destroy any remaining cancer cells.

16. A nurse is giving medicinal instructions to a female client receiving leflunomide (Arava). Which of the following is an appropriate instruction with the use of the medication?

- A. To use an effective form of birth control while on the treatment.
- B. Breastfeeding does not have to be stopped during the treatment.
- C. To use cholestyramine to lessen the side effects.
- D. It may take 3-5 days to notice any improvement while taking leflunomide.

Correct Answer: A. To use an effective form of birth control while on the treatment.

Use an effective form of birth control to avoid pregnancy while taking leflunomide because of its teratogenic effect.

- **Option B:** The medicine can be excreted in human milk.
- **Option C:** Cholestyramine decreases leflunomide's effectiveness.
- **Option D:** It may take 4 weeks or more to notice any improvement while taking leflunomide.

17. A nurse is preparing dinoprostone (Cervidil) for a client to induce labor. Which of the following nursing intervention must be questioned?

- A. Have the client hold void before administration.
- B. Place the client in a side-lying position for 30 to 60 minutes after the administration.
- C. Monitor maternal vital signs.
- D. Have the client void before administration.

Correct Answer A. Have the client hold void before administration.

Dinoprostone (Cervidil) is a prostaglandin used in the induction of labor. It is administered vaginally so in order for the medication not to be contaminated with urine, the nurse should let the client void before administration.

- **Options B, C, & D:** These are the correct nursing interventions.

18. In reviewing the burned client's laboratory report of white blood cell count with differential, all the following results are listed. Which laboratory finding indicates the possibility of sepsis?

- A. The total white blood cell count is 9000/mm³.
- B. The lymphocytes outnumber the basophils.
- C. The “bands” outnumber the “segs.”
- D. The monocyte count is 1,800/mm³.

Correct Answer: C. The “bands” outnumber the “segs.”

Normally, the mature segmented neutrophils (“segs”) are the major population of circulating leukocytes, constituting 55% to 70% of the total white blood count. Fewer than 3% to 5% of the circulating white blood cells should be the less mature “band” neutrophils. A left shift occurs when the bone marrow releases more immature neutrophils than mature neutrophils. Such a shift indicates severe infection or sepsis, in which the client’s immune system cannot keep pace with the infectious process.

- **Option A:** The normal WBC count is 4,500 to 11,000/mm³. Burn injury causes systemic inflammatory response. The magnitude of the changes is roughly a function of burn size that is manifested by increased body temperature, increased WBC count, and increased metabolic rate, which makes diagnosis of infection in the burned patient more difficult.
- **Option B:** Peripheral blood lymphocytes represent the most important line of host defense against pathogenic microorganisms in humans. Researchers found a reduction in the number of lymphocytes as well as WBC, which may contribute to the impairment of general mechanisms for immune regulation during burn shock and transition of blood to the level of self-regulation.
- **Option D:** The normal monocyte count ranges from 100-700 per mm³ (2–8%). Severe burn and sepsis profoundly inhibit the functions of DC, monocyte, and macrophage. These phagocytes are the first cellular responders to severe burn injury after acute disruption of the skin barrier.

19. A nurse wants to study the effectiveness of meditation on people with anxiety disorder. Which variable would be most relevant to explore in the literature on this topic?

- A. Use of meditation during childbirth.
- B. Meditation techniques found to be effective.
- C. Pain management for people with anxiety disorders.
- D. Outcomes of meditation when used by elderly populations.

Correct Answer: B. Meditation techniques found to be effective.

Framing a study using variables is a common approach to organizing the elements of a social sciences research study in order to discover relevant and meaningful results. A variable in research simply refers to a person, place, thing, or phenomenon that the researcher is trying to measure in some way. The best way to understand the difference between a dependent and independent variable is that the meaning of each is implied by what the words tell us about the variable being used.

- **Option A:** Dependent variable is the variable that depends on other factors that are measured. These variables are expected to change as a result of an experimental manipulation of the independent variable or variables. It is the presumed effect.
- **Option C:** Independent variable the variable that is stable and unaffected by the other variables you are trying to measure. It refers to the condition of an experiment that is systematically manipulated by the investigator. It is the presumed cause.

- **Option D:** Designation of the dependent and independent variable involves unpacking the research problem in a way that identifies a general cause and effect and classifying these variables as either independent or dependent.

20. A client who has frequent watery stools and a possible *Clostridium difficile* infection is hospitalized with dehydration. Which nursing action should the charge nurse delegate to an LPN/LVN?

- A. Assess the client's hydration status
- B. Explain the purpose of ordered stool cultures to the client and family
- C. Administer metronidazole (Flagyl) 500 mg PO as ordered to the client
- D. Review the client's medical history for any risk factors for diarrhea

Correct Answer: C. Administer metronidazole (Flagyl) 500 mg PO as ordered to the client

LPN/LVN education and scope of practice and education include the administration of medications. The administration of medications is recognized as the responsibility of the Registered Nurse (RN) and *Licensed Practical Nurses (LPNs). All orders for medications must be legible, complete, and non-ambiguous.

- **Option A:** The scope of practice for the registered nurse will most likely include the legal ability of the registered professional nurse to perform all phases of the nursing process including assessment, nursing diagnosis, planning, implementation, and evaluation.
- **Option B:** Teaching is a complex activity that should be carried out by a licensed nurse. An LPN can reinforce an RN's patient teaching, but not perform independent patient education or assessments.
- **Option D:** Assessment of risk factors for diarrhea should be done by a licensed nurse. A Licensed Practical Nurse (LPN) may not perform an initial assessment. Initial assessments are to be performed by a Registered Nurse (RN). The initial assessment is to be used to determine a patient's baseline and develop an initial nursing plan of care.

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

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

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

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

- **Option A:** Inserting an indwelling Foley catheter increases the risk for infection and should be avoided. Begin bladder retraining per protocol when appropriate (fluids between certain hours,

digital stimulation of trigger area, contraction of abdominal muscles, Credé's maneuver).

- **Option C:** Proper perineal hygiene decreases the risk of skin irritation or breakdown and the development of ascending infection. The nurse should encourage the client to develop a toileting schedule based on normal urinary habits. However, suggesting bathroom use every 8 hours may be too long an interval to wait.
- **Option D:** Pads or diapers should be used only as a resort. Refer to the urinary continence specialist as indicated. Collaboration with specialists is helpful for developing an individual plan of care to meet a patient's specific needs using the latest techniques, continence products.

22. After insertion of a chest tube for a pneumothorax, a client becomes hypotensive with neck vein distention, tracheal shift, absent breath sounds, and diaphoresis. Nurse Amanda suspects a tension pneumothorax has occurred. What cause of tension pneumothorax should the nurse check for?

- A. Infection of the lung
- B. Kinked or obstructed chest tube
- C. Excessive water in the water-seal chamber
- D. Excessive chest tube drainage

Correct Answer: B. Kinked or obstructed chest tube

Kinking and blockage of the chest tube is a common cause of a tension pneumothorax.

- **Option A:** Infection of the lung won't cause a tension pneumothorax. A tension pneumothorax is a life-threatening condition that develops when air is trapped in the pleural cavity under positive pressure, displacing mediastinal structures and compromising cardiopulmonary function.
- **Option C:** Excessive water won't affect the chest tube drainage. The main purpose of the water seal is to allow air to exit from the pleural space on exhalation and prevent air from entering the pleural cavity or mediastinum on inhalation.
- **Option D:** An excessive chest tube drainage cannot cause tension pneumothorax. Chest tubes drain blood, fluid, or air from around the lungs, heart, or esophagus. The tube around the lung is placed between the ribs and into the space between the inner lining and the outer lining of the chest cavity.

23. Jose is in danger of respiratory arrest following the administration of a narcotic analgesic. An arterial blood gas value is obtained. Nurse Oliver would expect the paco₂ to be which of the following values?

- A. 15 mm Hg
- B. 30 mm Hg
- C. 40 mm Hg
- D. 80 mm Hg

Correct Answer: D. 80 mm Hg

A client about to go into respiratory arrest will have inefficient ventilation and will be retaining carbon dioxide. The value expected would be around 80 mm Hg. All other values are lower than expected.

- **Option A:** 15 mmHg is a low value for a client about to go into respiratory arrest.
- **Option B:** 30 mmHg is lower than the expected value because of inefficient ventilation.
- **Option C:** 40 mmHg is still less than the expected value for a client who is about to go into respiratory arrest.

24. Frequent eye examinations are recommended in clients receiving:

- A. chloroquine
- B. colchicine
- C. penicillamine
- D. gold compounds

Correct Answer: A. chloroquine

Corneal deposits are an adverse reaction associated with chloroquine administration, necessitating frequent eye examination. Although chloroquine has relatively few side effects when taken as prescribed, higher doses of chloroquine have been shown to have severe adverse effects. The most severe adverse effects associated with high doses of chloroquine include retinal toxicity, long and subtle symptoms of reduced visual acuity, diplopia, and bilateral loss of vision.

- **Option B:** The most common adverse reactions are related to the gastrointestinal tract. Diarrhea is the most commonly reported symptom (23%), followed by vomiting (17%) and nausea (4% to 17%). There are reports of central nervous system symptoms such as fatigue and headache. Endocrine and metabolic conditions such as gout have been reported with the use of colchicine, as has pharyngolaryngeal pain.
- **Option C:** Most common adverse effects of penicillamine include diarrhea and dysgeusia. 33% of patients can present with an allergic reaction to the drug. It often presents with a rash that heals on stopping the drug. The patient should stop the medication if the patient presents with fever, arthralgia, and lymphadenopathy.
- **Option D:** The new gold compound triethyl phosphine gold (auranofin) can be partially absorbed in the gut following oral administration due to its higher lipophilic nature. This is probably also the main cause for the differences in kinetic properties versus the parenteral gold compounds. Following administration of auranofin, there are lower concentrations of gold in blood and organs; 95% of the gold is excreted in feces whereas 70% of gold, following gold sodium thiomalate, is excreted in the urine.

25. The nurse receives the client in the postanesthesia care unit (PACU) following a procedure requiring general anesthesia. The most important assessment made by the nurse relates to the client's:

- A. Level of consciousness.
- B. Pain.
- C. Vital signs.
- D. Respiratory status.

Correct Answer: D. Respiratory status.

General anesthesia causes relaxation of all muscles, including respiratory muscles, requiring mechanical ventilation. The client's respiratory status must be monitored closely following general anesthesia. After awakening, patients typically recover in the post-anesthesia care unit (PACU). In more critically ill patients, recovery may occur directly in the intensive care unit.

- **Option A:** Patients recover in the recovery unit until they have met PACU discharge criteria. The criteria for discharge from phase 1 to phase 2 of PACU are often based on the (modified) Aldrete score, which includes adequate activity, circulation, consciousness oxygen saturation, and maintenance of respiration.
- **Option B:** Phase 2 of PACU should be met prior to discharging the patient home. This includes the ability to maintain appropriate surgical site dressings, adequate pain control, normothermia, ambulation ability, absence of nausea, and omitting and stable vital signs.
- **Option C:** All patients undergoing a general anesthetic at a minimum must have a post-operative note that documents many of these items (institution dependent). Ideally, the patient should be queried after return to baseline cognition when more clandestine issues may be addressed (e.g., corneal abrasions and extremely rarely, awareness under anesthesia).

26. A client is prescribed Colchicine. After taking three doses, the client complains of nausea, vomiting, and loose bowel stools. Which of the following should the client do?

- A. Skip the next dose, and take the another dose.
- B. Withhold the medication and the physician is notified.
- C. Continue taking the medication as these symptoms will go away.
- D. Cut in half the next dosage.

Correct Answer: B. Withhold the medication and the physician is notified.

- **Option B:** If gastrointestinal symptoms occur (nausea, vomiting, diarrhea and abdominal pain), the medication is withheld and the physician is notified.
- **Options A and D:** Cutting in half and skipping the next dose will not give the assurance of avoiding these symptoms.
- **Option C:** These side effects are signs of overdose that can be fatal.

27. During the acute phase of a burn, the nurse in-charge should assess which of the following?

- A. Client's lifestyle
- B. Alcohol use
- C. Tobacco use
- D. Circulatory status

Correct Answer: D. Circulatory status

During the acute phase of a burn, the nurse should assess the client's circulatory and respiratory status, vital signs, fluid intake, and output, ability to move, bowel sounds, wounds, and mental status. Information about the client's lifestyle and alcohol and tobacco use may be obtained later when the

client's condition has stabilized.

- **Option A:** Assess color, sensation, movement, peripheral pulses, and capillary refill on extremities with circumferential burns. Compare with findings of unaffected limb. Edema formation can readily compress blood vessels, thereby impeding circulation and increasing venous stasis or edema. Comparisons with unaffected limbs aid in differentiating localized versus systemic problems.
- **Option B:** Obtain BP in unburned extremity when possible. Remove BP cuff after each reading, as indicated. If BP readings must be obtained on an injured extremity, leaving the cuff in place may increase edema formation and reduce perfusion, and convert partial thickness burn to a more serious injury.
- **Option C:** Check for irregular pulses. Cardiac dysrhythmias can occur as a result of electrolyte shifts, electrical injury, or release of myocardial depressant factor, compromising cardiac output.

28. A male client complains of sporadic epigastric pain, yellow skin, nausea, vomiting, weight loss, and fatigue. Suspecting gallbladder disease, the physician orders a diagnostic workup, which reveals gallbladder cancer. Which nursing diagnosis may be appropriate for this client?

- A. Chronic low self-esteem
- B. Disturbed body image
- C. Anticipatory grieving
- D. Impaired swallowing

Correct Answer: C. Anticipatory grieving

- **Option C:** Anticipatory grieving is an appropriate nursing diagnosis for this client because few clients with gallbladder cancer live more than 1 year after diagnosis.
- **Option A:** Chronic low self-esteem isn't an appropriate nursing diagnosis at this time because the diagnosis has just been made.
- **Option B:** Although surgery typically is done to remove the gallbladder and, possibly, a section of the liver, it isn't disfiguring and doesn't cause Disturbed body image.
- **Option D:** Impaired swallowing isn't associated with gallbladder cancer.

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

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

Correct Answer: B. Circumcision

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

avoided; the foreskin is used for surgical repair.

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

30. A nurse is monitoring a client in active labor and notes that the client is having contractions every 3 minutes that last 45 seconds. The nurse notes that the fetal heart rate between contractions is 100 BPM. Which of the following nursing actions is most appropriate?

- A. Encourage the client's coach to continue to encourage breathing exercises.
- B. Encourage the client to continue pushing with each contraction.
- C. Continue monitoring the fetal heart rate.
- D. Notify the physician or nurse-midwife.

Correct Answer: D. Notify the physician or nurse-midwife.

A normal fetal heart rate is 120-160 beats per minute. Fetal bradycardia between contractions may indicate the need for immediate medical management, and the physician or nurse-midwife needs to be notified.

- **Option A:** Steps can be taken to help the fetus get more oxygen, such as having the mother change position. If these procedures do not work, or if further test results suggest the fetus has a problem, the ob-gyn or other health care professional may decide to deliver right away.
- **Option B:** Uterine contractions also may be monitored with a special tube called an intrauterine pressure catheter that is inserted through the vagina into the uterus. Internal monitoring can be used only after the membranes of the amniotic sac have ruptured.
- **Option C:** Fetal heart rate monitoring may help detect changes in the normal heart rate pattern during labor. If certain changes are detected, steps can be taken to help treat the underlying problem. Fetal heart rate monitoring also can help prevent treatments that are not needed.

31. General anesthetics potentiate the effects of which of the following drugs?

- A. Depolarizing agents
- B. Skeletal muscle relaxants
- C. Volatile liquids
- D. Inhalation anesthetics

Correct Answer: B. Skeletal muscle relaxants

The effects of skeletal muscle relaxants are potentiated with the use of general anesthetics. Skeletal muscle relaxants are drugs that are used to relax and reduce tension in muscles. They are more simply referred to as muscle relaxants. Some work in the brain or spinal cord to block or dampen down excessively stimulated nerve pathways.

- **Option A:** Depolarizing agents do not interact with general anesthetics. Depolarizing agents produce their block by binding to and activating the ACh receptor, at first causing muscle contraction, then paralysis. They bind to the receptor and cause depolarization by opening channels just like acetylcholine does.
- **Option C:** Desflurane, isoflurane, and sevoflurane are the most widely used volatile anesthetics today. They are often combined with nitrous oxide. Older, less popular, volatile anesthetics include halothane, enflurane, and methoxyflurane.
- **Option D:** Inhalation anesthetics (nitrous oxide, halothane, isoflurane, desflurane, sevoflurane most commonly used agents in practice today) are used for induction and maintenance of general anesthesia in the operating room. The volatile anesthetics (halothane, isoflurane, desflurane, and sevoflurane) are liquids at room temperature and require the use of vaporizers for inhalational administration.

32. During a clinical rotation in an orthopedic clinic, a nursing student encounters a patient undergoing rehabilitation for a hip injury. The physical therapist emphasizes the need to strengthen a certain muscle to regain optimal function and aesthetics of the lower body, especially the buttocks. This muscle is essential for hip extension and plays a crucial role when sitting or standing. Intrigued, the nursing student inquires about the name of this specific muscle. Which muscle is the physical therapist referring to that primarily contributes to the rounded appearance of the buttocks?

- A. Gluteus maximus
- B. Gastrocnemius
- C. Iliopsoas
- D. Sartorius

Correct Answer: A. Gluteus maximus

The gluteus maximus, also known collectively with the gluteus medius and minimus, as the gluteal muscles, and sometimes referred to informally as the “glutes,” is the main extensor muscle of the hip. Its thick fleshy mass, in a quadrilateral shape, forms the prominence of the buttocks.

- **Option B:** The gastrocnemius is a very powerful superficial bipennate muscle that is in the back part of the lower leg. It runs from its two heads just above the knee to the heel, a two joint muscle. It is also known as the “toe dancer’s” muscle.
- **Option C:** The iliopsoas is the strongest of the hip flexors. It is important for standing, walking, and running. It is known as the prime mover of hip flexion.
- **Option D:** The sartorius is the longest muscle in the human body. It is a long, thin, superficial muscle that runs down the length of the thigh in the anterior compartment.

33. A nurse is developing a plan of care for a client experiencing dystocia and includes several nursing interventions in the plan of care. The nurse prioritizes the plan of care and selects which of the following nursing interventions as the highest priority?

- A. Keeping the significant other informed of the progress of the labor.
- B. Providing comfort measures.
- C. Monitoring fetal heart rate.
- D. Changing the client's position frequently.

Correct Answer: C. Monitoring fetal heart rate.

The priority is to monitor the fetal heart rate. The continuous monitoring of the external fetal heart rate provides insight into fetal well-being. The assessment of the fetal heart rate could be performed utilizing external or internal fetal heart rate monitoring. An alternative is fetal heart rate auscultation every 15 minutes in the first stage of labor and after each contraction during the second stage of labor. In the interpretation of the fetal heart rate strip millimeters considered are baseline viability, basal heart rate, cardiac accelerations or decelerations, endocrine activity. Strip abnormalities are characterized based on consideration of the above parameters.

- **Option A:** At admission to labor and delivery, prenatal records and obstetric history should be reviewed because these optimally inform the provider to the best intrapartum obstetric care. This care includes the determination of the static gestational age.
- **Option B:** Most labor and delivery units will have an established protocol for administration of oxytocin that entails the administration of the proper medication and dosage, as well as criteria for an incremental increase as clinically warranted. The protocols also include monitoring maternal and fetal vital signs, as well as the atria, for discontinuation of the medication in the event of concern for tachycardia systole all fetal well-being.
- **Option D:** The uterine activity is assessed by external tocometry and targeted at 3 to 5 contractions in the 10-minute window. The contractions should last 30 to 40 seconds to be effective. Internal intrauterine pressure assessment using a catheter could be utilized, in which case marked medial units are used and targeted at more than 200 Montevideo units in a 10-minute window. The monitoring of uterine contractions should be continuous during labor.

34. A 25-year-old woman is in her fifth month of pregnancy. She has been taking 20 units of NPH insulin for diabetes mellitus daily for six years. Her diabetes has been well controlled with this dosage. She has been coming for routine prenatal visits, during which diabetic teaching has been implemented. Which of the following statements indicates that the woman understands the teaching regarding her insulin needs during her pregnancy?

- A. "Are you sure all this insulin won't hurt my baby?"
- B. "I'll probably need my daily insulin dose raised."
- C. "I will continue to take my regular dose of insulin."
- D. "These finger sticks make my hand sore. Can I do them less frequently?"

Correct Answer: B. "I'll probably need my daily insulin dose raised."

The client starts to need increased insulin in the second trimester. As a result of placental maturation and placental production of lactogen, insulin requirements begin increasing in the second trimester and may double or quadruple by the end of pregnancy. Insulin doses depend on blood glucose levels. Extra testing can be an extreme burden on patients but may be necessary for a short time for aggressive insulin treatment to achieve glycemic goals in a timely manner. Regardless of the method of initiating or adjusting insulin, aggressive management is necessary to attain quick glucose control. Maintaining tight control throughout pregnancy will require close and frequent monitoring to prescribe appropriate doses.

- **Option A:** This statement indicates a lack of understanding. Insulin has long been considered the standard of care to attain optimal glucose control in pregnancy, although multiple methods are available to initiate insulin. Weight-based dosing, weight plus gestational age-based dosing, and even a “one-dose-for-all” type of dosing have been used.
- **Option C:** Insulin isophane (NPH) is a U-100, intermediate-acting insulin. It is produced in *E. coli*. It is identical to human insulin and is in a suspension. Its onset of action is 1–2 hours, with an average peak of 4 hours (range: 4–8 hours). Duration of action is 10–20 hours. Vials are good for 31 days at room temperature, and pens are good for 14 days.
- **Option D:** Finger sticks for glucose levels must be continued. Accurate and timely adjustments depend on accurate blood glucose testing, type of insulin used, and consistent carbohydrate levels for meals. Fasting, preprandial, 1-hour postprandial, and bedtime blood glucose levels are all important to monitor all types of diabetes during pregnancy.

35. During a prenatal visit at 38 weeks, a nurse assesses the fetal heart rate. The nurse determines that the fetal heart rate is normal if which of the following is noted?

- A. 80 BPM
- B. 100 BPM
- C. 150 BPM
- D. 180 BPM

Correct Answer: C. 150 BPM.

The fetal heart rate depends on gestational age and ranges from 160-170 BPM in the first trimester but slows with fetal growth to 120-160 BPM near or at term. At or near term, if the fetal heart rate is less than 120 or more than 160 BPM with the uterus at rest, the fetus may be in distress.

- **Option A:** Data from a recently published study in a different context (Serra et al., 2009) is compatible with the findings of our exploratory analysis with a lower limit of 115 or 120 bpm for the gestational ages. Data for the 97th and 99th percentiles are not shown in this study. But shifting the lower limit to 120 will increase the number of false alarms whereas a lower limit of 115 will inevitably increase the risk to misinterpret maternal heart rates as fetal heart rate.
- **Option B:** A lower limit of 120 bpm leads only near term to more false alarms since normal FHR decreases further, and is more appropriate, to avoid misinterpretation of maternal heartbeat as FHR.
- **Option D:** The upper limit of 160 bpm raised concerns in the FIGO meeting in 1985, as Saling described abnormal findings in 24% of scalp blood analyses if the baseline was higher than 160 bpm. It could be shown that the current FIGO guidelines based on computerized analyses of the CTG show a high sensitivity to detect fetal acidosis in case of a suspect or pathological classification of the baseline level.

36. A male client is diagnosed with gonorrhea. When teaching the client about this disease, the nurse should include which instruction?

- A. "Avoid sexual intercourse until you've completed treatment, which takes 14 to 21 days."
- B. "Wash your hands thoroughly to avoid transferring the infection to your eyes."
- C. "If you have intercourse before treatment ends, tell sexual partners of your status and have them wash well after intercourse."
- D. "If you don't get treatment, you may develop meningitis and suffer widespread central nervous system (CNS) damage."

Correct Answer: B. "Wash your hands thoroughly to avoid transferring the infection to your eyes."

Adults and children with gonorrhea may develop gonococcal conjunctivitis by touching the eyes with contaminated hands. In populations other than neonates, transmission can occur via direct sexual contact with infective secretions or indirectly, for example via manual or fomite transmission, though this is thought to be less likely since *N. gonorrhoeae* does not typically survive more than a few minutes outside the human body.

- **Option A:** The client should avoid sexual intercourse until treatment is completed, which usually takes 4 to 7 days, and a follow-up culture confirms that the infection has been eradicated. Untreated cases can result in severe complications such as vision loss if the bacteria penetrate further and cause corneal ulceration and scarring. Timely ophthalmology consultation is warranted due to the significant risks to the patient's vision.
- **Option C:** A client who doesn't refrain from intercourse before treatment is completed should use a condom in addition to informing sex partners of the client's health status and instructing them to wash well after intercourse. Furthermore, attention should be given to appropriate treatment since fluoroquinolone resistance has become a growing issue, which is part of the reason why cephalosporins have become the mainstay of gonococcal treatment.
- **Option D:** Meningitis and widespread CNS damage are potential complications of untreated syphilis, not gonorrhea. The main concept is that *N. gonorrhoeae* can attach to and penetrate the epithelial cells of mucosal surfaces such as the conjunctiva. Once inside, the bacteria can proliferate and induce pro-inflammatory mechanisms. However, there is evidence that *N. gonorrhoeae* have developed methods for evading and even modulating immune responses, which can potentially lead to disseminated infection, for example, bacteremia or meningitis.

37. In the late 1950s, consumers and health care professionals began challenging the routine use of analgesics and anesthetics during childbirth. Which of the following was an outgrowth of this concept?

- A. Labor, delivery, recovery, postpartum (LDRP)
- B. Nurse-midwifery
- C. Clinical nurse specialist
- D. Prepared childbirth

Correct Answer: D. Prepared childbirth

Prepared childbirth was the direct result of the 1950s challenging the routine use of analgesic and anesthetics during childbirth.

- **Option A:** The LDRP was a much later concept and was not a direct result of the challenging of routine use of analgesics and anesthetics during childbirth.
- **Option B:** A nurse-midwife is a licensed healthcare professional who specializes in women's reproductive health and childbirth. In addition to attending births, they perform annual exams, give counseling, and write prescriptions. According to the ACNM, the vast majority of midwives in the U.S. are CNMs.
- **Option C:** Clinical nurse specialists (CNS) are advanced practice registered nurses (APRNs) that serve as experts in evidence-based nursing practice within one of a number of different specialty areas. They integrate their advanced knowledge of disease processes in assessing, diagnosing, and treating patient illnesses, but their role extends beyond providing patient care.

38. The nurse enters the room of a client with a cognitive impairment disorder and asks what day of the week it is; what the date, month, and year are; and where the client is. The nurse is attempting to assess:

- A. Confabulation
- B. Delirium
- C. Orientation
- D. Perseveration

Correct Answer: C. Orientation

The initial, most basic assessment of a client with cognitive impairment involves determining his level of orientation (awareness of time, place, and person). Interviews to assess memory, behavior, mood and functional status (especially complex actions such as driving and managing money are best conducted with the patient alone, so that family members or companions cannot prompt the patient. Information can also be gleaned from the patient's behavior on arrival in the doctor's office and interactions with staff.

- **Option A:** Confabulation is a type of memory error in which gaps in a person's memory are unconsciously filled with fabricated, misinterpreted, or distorted information. When someone confabulates, they are confusing things they have imagined with real memories. Cognitive impairment in older adults has a variety of possible causes, including medication side effects, metabolic and/or endocrine derangements, delirium due to intercurrent illness, depression and dementia, with Alzheimer's dementia being most common. Some causes, like medication side effects and depression, can be reversed with treatment. Others, such as Alzheimer's disease, cannot be reversed, but symptoms can be treated for a period of time and families can be prepared for predictable changes.
- **Option B:** Delirium is a type of cognitive impairment; however, other symptoms are necessary to establish this diagnosis. Delirium, also known as the acute confusional state, is a clinical syndrome that usually develops in the elderly. It is characterized by an alteration of consciousness and cognition with reduced ability to focus, sustain, or shift attention. It develops over a short period and fluctuates during the day. The clinical presentation can vary, but usually, it flourishes with psychomotor behavioral disturbances such as hyperactivity or hypoactivity with increased sympathetic activity and impairment in sleep duration and architecture.
- **Option D:** The nurse may also assess for perseveration in a client with cognitive impairment, but the questions in this situation would not elicit the symptom response. Many people who are developing or have dementia do not receive a diagnosis. One study showed that physicians were unaware of cognitive impairment in more than 40 percent of their cognitively impaired patients.

Another study found that more than half of patients with dementia had not received a clinical cognitive evaluation by a physician. The failure to evaluate memory or cognitive complaints is likely to hinder treatment of underlying disease and comorbid conditions, and may present safety issues for the patient and others. In many cases, the cognitive problem will worsen over time.

39. Nurse Aaron is inserting a nasogastric tube to a stroke client. He understands that the best position for the insertion is?

- A. Low Fowler's.
- B. Sims position.
- C. Trendelenburg.
- D. High Fowler's.

Correct Answer: D. High Fowler's.

The best position during a nasogastric tube insertion is sitting or High Fowler's position in order to prevent the risk of aspiration. Position patient sitting up at 45 to 90 degrees (unless contraindicated by the patient's condition), with a pillow under the head and shoulders. This allows the NG tube to pass more easily through the nasopharynx and into the stomach.

- **Option A:** Low fowler's position is similar to the supine position, and is considered the best position for rest. In a low-Fowler's position, the patient's head is inclined at a 15- or 30-degree angle. Insertion of NGT could be particularly difficult in this position. Low Fowler's position is typically used to reduce lower back pain, during administration of drugs, or during tube feeding.
- **Option B:** Insertion of NGT would be impossible in Sim's position. The Sims position is a standard position in which the patient lies on their left side, with right hip and knees bent. The lower arm is behind the back, the thighs flexed. The left knee is slightly tilted. The right arm is positioned comfortably in front of the body, the right arm is rested behind the body. This is also known as "lateral" position. Sim's position is often used for rectal examination and treatments.
- **Option C:** Placing the patient in Trendelenburg position for NGT insertion is highly inappropriate. In Trendelenburg position, the patient is supine on the table with their head declined below their feet at an angle of roughly 16°. Trendelenburg position is typically used for lower abdominal surgeries including colorectal, gynecological, and genitourinary procedures as well as central venous catheter placement.

40. Cancer can cause changes in what component of Virchow's triad?

- A. Blood coagulability
- B. Vessel walls
- C. Blood flow
- D. Blood viscosity

Correct Answer: A. Blood coagulability

Charles Emile Troisier later recognized the further association of other abdominal cancers as well as testicular cancer with the presence of Virchow's node. Virchow sought to explain the causation of pulmonary thromboembolism and theorized that pulmonary arterial embolus arises from peripheral/distant thrombosis.

- **Option B:** Damage to the endothelial wall of a vessel alters the dynamics of blood flow. Endothelial disturbance can result from insults such as smoking, chronically elevated blood pressure, and atherosclerotic disease secondary to hyperlipidemia. When an insult to the wall occurs, flow disruption or “turbulence” occurs.
- **Option C:** The thinking is that as blood flow slows through vascular beds, flow reduces, and the natural anticoagulant properties from interaction with surface proteins are affected, resulting in thrombi production.
- **Option D:** Hypercoagulability can occur due to a variety of clinical statuses such as pregnancy, use of oral contraceptive medications, cancer, chemotherapy drugs, and inherited thrombophilias.

41. Robert is diagnosed with varicella. He went to a clinic with a mild fever, loss of appetite, and rashes on the chest area. When he asked about the disease. Which statement describes the contagious stage of varicella?

- A. The contagious stage is 1 day before the onset of the rash until all the lesions are crusted.
- B. The contagious stage is 1 day before the onset of the rash until the appearance of vesicles.
- C. The contagious stage lasts during the vesicular and crusting stages of the lesions.
- D. The contagious stage is from the onset of the rash until the rash disappears.

Correct Answer: A. The contagious stage is 1 day before the onset of the rash until all the lesions are crusted.

- Option A: Varicella is a highly contagious disease caused by the varicella-zoster virus. A person is considered to be contagious 24 hours before the onset of the rash and lasts until all the lesions are crusted.

42. Raymund is reviewing cardiovascular drugs for his upcoming exam. For a well-prepared student, he should know that vasodilators are agents that:

- A. Relax smooth muscles.
- B. Are used to treat hypotension.
- C. Stimulate the adrenergic receptors of peripheral sympathetic nerves.
- D. Cause respiratory depression.

Correct Answer: A. Relax smooth muscles.

Vasodilators relax smooth muscle. Vasodilators dilate or prevent constriction of the blood vessels, which allow greater blood flow to various organs in the body. Many vasodilators bind to receptors on endothelial cells of the blood vessel, which stimulate calcium release. Calcium activates the enzyme nitric oxide synthase (NO synthase) and converts L-arginine into NO. It leaves the endothelial cell via diffusion and enters vascular smooth muscle cells. NO activates GTP and converts it into cGMP. cGMP then stimulates myosin-light chain phosphatase, which removes a single phosphate from myosin and actin filaments. The dephosphorylation of myosin and actin filaments allows vascular smooth muscle relaxation.

- **Option B:** They are used to treat hypertension, not hypotension. Vasodilators are useful in treating a variety of medical conditions, most commonly systemic hypertension. Other diseases include myocardial infarction (both ST-segment elevation and non-ST-segment elevation), angina, heart

failure, stroke, chronic kidney disease, preeclampsia, hypertensive emergency.

- **Option C:** Stimulating the adrenergic receptors of peripheral sympathetic nerves causes blood vessels to contract. Nitrates increase the amount of nitric oxide in vascular smooth muscle cells, causing vasodilation. Nitrates dilate veins more than arteries and decrease preload.
- **Option D:** Respiratory depression is not an action of vasodilators. Respiratory depression is among the more serious adverse reactions with opiate use that is especially important to monitor in the postoperative patient population.

43. Referencing the image below, what is the name of the structure marked #7.

- 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: #17 is Option A. Minor calyx

The minor calyces are the smallest of the three divisions of the renal collecting system. They are cup-shaped structures that collect urine from the renal papillae, which are the tips of the renal pyramids. The minor calyces merge to form the major calyces.

44. A nurse educator on a medical unit is reviewing factors that increase the risk of urinary tract infections with a group of assistive personnel. Which of the following should be included in the review? Select all that apply.

- A. Having sexual intercourse on a frequent basis.
- B. Lowering of testosterone levels.
- C. Wiping from front to back.
- D. The location of the vagina in relation to the anus.
- E. Undergoing frequent catheterization.

Correct Answer: A, D, and E

Uncomplicated urinary tract infection (UTI) is a bacterial infection of the bladder and associated structures. These are patients with no structural abnormality and no comorbidities, such as diabetes, immunocompromised, or pregnancy. Uncomplicated UTI is also known as cystitis or lower UTI. E.coli causes the majority of UTI but other organisms of importance include proteus, klebsiella, and enterococcus. The diagnosis of UTI is made from the clinical history and urinalysis, but the proper

collection of the urine sample is important.

- **Option A:** Having sexual intercourse on a frequent basis is a factor that increases the risk of UTI in both males and females. Sexual intercourse and the use of spermicide and diaphragm are also risk factors for UTI. Sexual intercourse is a common cause of a UTI as it promotes the migration of bacteria into the bladder. People who frequently void and empty the bladder have a much lower risk of a UTI.
- **Option B:** The decrease in estrogen levels during menopause increases a woman's susceptibility to UTIs. An uncomplicated UTI usually only involves the bladder. When the bacteria invade the bladder mucosal wall, cystitis is produced. The majority of organisms causing a UTI are enteric coliforms that usually inhabit the periurethral vaginal introitus. These organisms ascend into the bladder and cause a UTI.
- **Option C:** Wiping from front to back decreases a woman's risk of UTIs. After urination, women should wipe from front to back, not from the anal area forward, which seems to drag pathogenic organisms nearer to the urethra. Bacteria that cause UTI have adhesins on their surface which allow the organism to attach to the mucosal surface. In addition, a short urethra also makes it easier for the uropathogen to invade the urinary tract. Premenopausal women have large concentrations of lactobacilli in the vagina and prevent the colonization of uropathogens. However, the use of antibiotics can erase this protective effect.
- **Option D:** The close proximity of the female urethra to the anus is a factor that increases the risk of UTIs. Pathogenic bacteria ascend from the perineum, causing UTI. Women have shorter urethras than men and therefore are more susceptible to UTI. Very few uncomplicated UTIs are caused by blood-borne bacteria. *Escherichia coli* is the most common organism in uncomplicated UTI by a large margin.
- **Option E:** Undergoing frequent catheterization and the use of indwelling catheters are risk factors for UTIs. A major risk factor for UTI is the use of a catheter. In addition, manipulation of the urethra is also a risk factor. In-and-out catheterization of the bladder will cause UTI in uninfected women 1% of the time. Men should start the urine stream to clean the urethra and then obtain a midstream sample. Urine should be sent to the lab immediately or refrigerated because bacteria grow rapidly when a sample is left at room temperature, causing an overestimate of the infection's severity.

45. The nurse is teaching basic infant care to a group of first-time parents. The nurse should explain that a sponge bath is recommended for the first 2 weeks of life because:

- A. New parents need time to learn how to hold the baby.
- B. The umbilical cord needs time to separate.
- C. Newborn skin is easily traumatized by washing.
- D. The chance of chilling the baby outweighs the benefits of bathing.

Correct Answer: B. The umbilical cord needs time to separate.

The umbilical cord needs time to dry and fall off before putting the infant in the tub. The first bath will be a sponge bath. Pick a warm room with a flat surface, like a bathroom or kitchen counter, a changing table, or a bed. Cover the surface with a thick towel. Make sure the room temperature is at least 75 degrees Fahrenheit, because babies chill easily.

- **Option A:** Taking the baby away for a bath too soon can interrupt skin-to-skin care, mother-child bonding, and early breastfeeding success. One study showed a 166% increase in hospital

breastfeeding success after implementing a 12-hour delay in the baby's first bath compared to those bathed within the first couple hours.

- **Option C:** Gentle sponge baths are perfect for the first few weeks until the umbilical cord falls off, the circumcision heals, and the navel heals completely. Once the umbilical cord falls off, and the circumcision and the navel are completely healed, it's time to try a tub bath.
- **Option D:** Although these statements might be important, they are not the primary answer to the question. The World Health Organization (WHO) recommends delaying baby's first bath until 24 hours after birth—or waiting at least 6 hours if a full day isn't possible for cultural reasons. Babies who get baths right away may be more likely to become cold and develop hypothermia. The minor stress of an early bath can also make some babies more likely to have a drop in blood sugar (hypoglycemia).

46. Nurse Jenny of Nurseslabs Medical Center is planning care for a client who had undergone colposcopy. Which of the following actions should the RN take first?

- A. Discuss the client's fear regarding potential cervical cancer.
- B. Assist with silver nitrate application to the cervix to control bleeding.
- C. Give instructions regarding douching and sexual relations.
- D. Administer pain medications.

Correct Answer: B. Assist with silver nitrate application to the cervix to control bleeding.

Colposcopy is a procedure to examine the cervix, vagina, and vulva for signs of disease. The priority nursing action when caring for a client who underwent colposcopy is to assist in controlling potential bleeding by applying silver nitrate to the cervix.

- **Option A:** Colposcopy is a procedure in which a lighted, magnifying instrument called a colposcope is used to examine the cervix, vagina, and vulva. The indications for a colposcopy to be performed are risk-based. Women referred for colposcopy have a variety of underlying risks for cervical pre-cancer based on their cytological results, the HPV testing if it was performed, and personal history of cervical dysplasia.
- **Option C:** There is no required preparation for the patient having the colposcopy; however, it can be difficult to perform if she is on her menstrual cycle due to obscuring blood. Having the room with the proper equipment readily available will expedite the patient's visit.
- **Option D:** The procedure is typically not painful. It does not require local or regional anesthesia. Slight discomfort may be felt when a speculum is inserted into the vagina, which can be minimized by deep breathing during the procedure.

47. The teenager with a fiberglass cast asks the nurse if it will be okay to allow his friends to autograph his cast. Which response would be best?

- A. "It will be alright for your friends to autograph the cast."
- B. "Because the cast is made of plaster, autographing can weaken the cast."
- C. "If they don't use chalk to autograph, it is okay."
- D. "Autographing or writing on the cast in any form will harm the cast."

Correct Answer: A. “It will be alright for your friends to autograph the cast.”

There is no reason that the client’s friends should not be allowed to autograph the cast; it will not harm the cast in any way, so answers B, C, and D are incorrect. Fiberglass has several advantages compared to plaster. It weighs less, so the cast made from it will be lighter. More durable and porous, fiberglass allows air to flow in and out. Fiberglass is the better choice in case the limb must be X-rayed during the healing process. It is also available in a variety of colors.

- **Option B:** Plaster costs less than fiberglass and is more malleable (is more easily shaped) than fiberglass in certain cases. Plaster comes in strips or rolls that are moistened and rolled on over the padding. Plaster materials are made from dry muslin that is treated with starch or dextrose and calcium sulfate.
- **Option C:** Keep the cast clean and dry. A hair dryer with a cool setting may be used to dry a fiberglass cast if it becomes damp. Call a doctor if the cast does not dry or if the skin under the cast becomes wet. Avoid placing pressure or weight on the cast. If you have a leg injury and have a walking cast, make sure that the cast has hardened completely before you attempt to walk on it.
- **Option D:** Like plaster, fiberglass materials come in rolls. Strips are moistened and applied to form the cast. The cast will appear rough after it has dried. Do not place any objects inside the cast. Avoid using lotions or powders on skin underneath the cast.

48. Which of the following terms describes the force against which the ventricle must expel blood?

- A. Afterload
- B. Cardiac output
- C. Overload
- D. Preload

Correct Answer: A. Afterload

Afterload refers to the resistance maintained by the aortic and pulmonic valves, the condition and tone of the aorta, and the resistance offered by the systemic and pulmonary arterioles. The afterload of any contracting muscle is defined as the total force that opposes sarcomere shortening minus the stretching force that existed before contraction. Applying this definition to the heart, afterload can be most easily described as the “load” against which the heart ejects blood.

- **Option B:** Cardiac output is the amount of blood expelled by the heart per minute. Cardiac output (CO) is the amount of blood pumped by the heart minute and is the mechanism whereby blood flows around the body, especially providing blood flow to the brain and other vital organs. The body’s demand for oxygen changes, such as during exercise, and the cardiac output is altered by modulating both heart rate (HR) and stroke volume (SV).
- **Option C:** Overload refers to an abundance of circulating volume. Fluid overload is clinically known as edema. Edema occurs most commonly in soft tissues of the extremities; however, it is possible to occur in any tissue. Edema manifests as swelling in the soft tissues of the limbs and face with a subsequent increase in size and tightness of the skin. Peripheral edema is reducible by increasing the pressure in the interstitial space and is measured by pressing a finger into the tissue, creating a dimple in the edematous skin temporarily.
- **Option D:** Preload is the volume of blood in the ventricle at the end of the diastole. Also termed left ventricular end-diastolic pressure (LVEDP), preload is a measure of the degree of the ventricular stretch when the heart is at the end of diastole. Preload, in addition to afterload and contractility, is

one of the three main factors that directly influence stroke volume (SV), the amount of blood pumped out of the heart in one cardiac cycle.

49. Which of the following characteristics or situations is indicated when a client with borderline personality disorder has a crisis?

- A. Antisocial behavior
- B. Suspicious behavior
- C. Relationship problems
- D. Auditory hallucinations

Correct Answer: C. Relationship problems

Relationship problems can precipitate a crisis because they bring up issues of abandonment. Clients with borderline personality disorder aren't usually suspicious; they're more likely to be depressed or highly anxious.

- **Option A:** Antisocial personality disorder (ASPD) is a deeply ingrained and rigid dysfunctional thought process that focuses on social irresponsibility with exploitive, delinquent, and criminal behavior with no remorse. Disregard for and the violation of others' rights are common manifestations of this personality disorder, which displays symptoms that include failure to conform to the law, inability to sustain consistent employment, deception, manipulation for personal gain, and incapacity to form stable relationships.
- **Option B:** Individuals with paranoid personality disorder typically experience symptoms that interfere with daily life. In general, people with this condition feel suspicious of others. 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 D:** Derived from the Greek 'schizo' (splitting) and 'phren' (mind) with the term first coined by Eugen Bleuler in 1908, schizophrenia is a functional psychotic disorder characterized by the presence of delusional beliefs, hallucinations, and disturbances in thought, perception, and behavior.

50. A client slammed a door on the unit several times. The nurse responds, "You seem angry." The client states, "I'm not angry." What therapeutic communication technique has the nurse employed and what defense mechanism is the client unconsciously demonstrating?

- A. Making observations and the defense mechanism of suppression
- B. Verbalizing the implied and the defense mechanism of denial
- C. Reflection and the defense mechanism of projection
- D. Encouraging descriptions of perceptions and the defense mechanism of displacement

Correct Answer: B. Verbalizing the implied and the defense mechanism of denial

This is an example of the therapeutic communication technique of verbalizing the implied. The nurse is putting into words what the client has only implied by words or actions. Denial is the refusal of the client to acknowledge the existence of a real situation, the feelings associated with it, or both.

- **Option A:** Making observations refers to verbalizing what the nurse perceives. Sometimes clients cannot verbalize or make themselves understood, or the client may not be ready to talk. Forcing the unwanted information out of the awareness is known as suppression. In most cases, however, this removal of anxiety-provoking memories from our awareness is believed to occur unconsciously.
- **Option C:** Reflection is directing client actions, thoughts, and feelings back to the client; may use the same words. This encourages the client to recognize and accept his feelings. Projection is a defense mechanism that involves taking our own unacceptable qualities or feelings and ascribing them to other people.
- **Option D:** Encouraging descriptions of perceptions refers to asking the client to verbalize what he or she perceives. To understand the client, the nurse must see things from the client's perspective. Displacement involves taking out our frustrations, feelings, and impulses on people or objects that are less threatening.

51. When performing nursing care for a neonate after birth, which intervention has the highest nursing priority?

- A. Obtain a dextrostix
- B. Give the initial bath
- C. Give the vitamin K injection
- D. Cover the neonates head with a cap

Correct Answer: D. Cover the neonate's head with a cap.

- **Option D:** Covering the neonate's head with a cap helps prevent cold stress due to excessive evaporative heat loss from the neonate's wet head.
Option C: Vitamin K can be given up to 4 hours after birth.

52. A nurse is caring for a client with unstable ventricular tachycardia. The nurse instructs the client to do which of the following, if prescribed, during an episode of ventricular tachycardia?

- A. Breathe deeply, regularly, and easily.
- B. Inhale deeply and cough forcefully every 1 to 3 seconds.
- C. Lie down flat in bed.
- D. Remove any metal jewelry.

Correct Answer: B. Inhale deeply and cough forcefully every 1 to 3 seconds.

Cough Cardiopulmonary Resuscitation (CPR) sometimes is used in the client with unstable ventricular tachycardia. The nurse tells the client to use cough CPR, if prescribed, by inhaling deeply and coughing forcefully every 1 to 3 seconds. Cough CPR may terminate the dysrhythmia or sustain the cerebral and coronary circulation for a short time until other measures can be implemented. A nurse or physician can instruct and coach the patients to cough forcefully every one to three seconds during the initial seconds of a sudden arrhythmia. But because it's not effective in all patients, it shouldn't delay definitive treatment.

- **Option A:** Asymptomatic patients with non-sustained ventricular tachycardia (VT) and no underlying cardiac comorbidities require no additional therapy. Patients that are symptomatic and

without cardiac comorbidities should be started on a beta-blocker due to favorable efficacy and safety profile.

- **Option C:** If these patients continue to have episodes of non-sustained VT despite beta-blocker therapy, or cannot tolerate beta-blocker therapy, a calcium channel with atrioventricular nodal action such as verapamil or diltiazem can be used.
- **Option D:** Patients with sustained monomorphic ventricular tachycardia (SMVT) that are unstable should be managed following advanced cardiac life support (ACLS) guidelines. Hemodynamically stable patients should be pharmacologically cardioverted using an antiarrhythmic medication. Intravenous amiodarone or procainamide can be used for this purpose.

53. Which nursing action is most appropriate when trying to diffuse a client's impending violent behavior?

- A. Place the client in seclusion.
- B. Leaving the client alone until he can talk about his feelings.
- C. Involving the client in a quiet activity to divert attention.
- D. Helping the client identify and express feelings of anxiety and anger.

Correct Answer: D. Helping the client identify and express feelings of anxiety and anger

In many instances, the nurse can diffuse impending violence by helping the client identify and express feelings of anger and anxiety. Such statements as "What happened to get you this angry?" may help the client verbalize feelings rather than act on them. 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 A:** Alert staff if a potential for seclusion appears imminent. Usual priority of interventions would be: firmly setting limits; chemical restraints (tranquilizers); or seclusion. If nursing interventions (quiet environment and firm limit setting) and chemical restraints (tranquilizers—e.g., haloperidol [Haldol]) have not helped dampen escalating manic behaviors, then seclusion might be warranted.
- **Option B:** Maintain a consistent approach, employ consistent expectations, and provide a structured environment. Clear and consistent limits and expectations minimize potential for client's manipulation of staff. 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:** 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. Decrease environmental stimuli (e.g., by providing a calming environment or assigning a private room); helps decrease escalation of anxiety and manic symptoms.

54. Nurse Pippy is reviewing a client's fluid intake and output record. Fluid intake and urine output should relate in which way?

- A. Fluid intake should double the urine output.
- B. Fluid intake should be approximately equal to the urine output.
- C. Fluid intake should be half the urine output.

D. Fluid intake should be inversely proportional to the urine output.

Correct Answer: B. Fluid intake should be approximately equal to the urine output.

Normally, fluid intake is approximately equal to the urine output. Any other relationship signals an abnormality. The core principle of fluid balance is that the amount of water lost from the body must equal the amount of water taken in; for example, in humans, the output (via respiration, perspiration, urination, defecation, and expectoration) must equal the input (via eating and drinking, or by parenteral intake).

- **Option A:** Fluid intake that is double the urine output indicates fluid retention. Fluid retention (edema) occurs when the fluid isn't removed from the tissues. The two broad categories of fluid retention include generalized edema, when swelling occurs throughout the body, and localized edema when particular parts of the body are affected.
- **Option C:** Fluid intake that is half the urine output indicates dehydration. Body water is lost through the skin, lungs, kidneys, and GI tract. The loss of body water without sodium causes dehydration. Water is lost from the skin, lungs, gastrointestinal tract, and kidneys. Dehydration results when water losses from the body exceed water replacement. It may be caused by failure to replace obligate water losses.
- **Option D:** Normally, fluid intake isn't inversely proportional to the urine output. One general principle for all patient scenarios is to replace whatever fluid is being lost as accurately as possible. These fluid losses can differ depending on patients' medical conditions and differ by both volume and composition.

55. A nurse is caring for a client who is disoriented to time, place, and person and is attempting to get out of bed and pull out an intravenous (I.V.) line that is supplying hydration and antibiotics. The client has a vest restraint and bilateral soft wrist restraints. Which nursing actions would be appropriate? Select all that apply.

- A. Perform a face-to-face behavior evaluation every hour.
- B. Tie the restraints in quick-release knots.
- C. Tie the restraints to the side rails of the bed.
- D. Document the client's condition.
- E. Document alternative methods used before the restraints were applied.
- F. Document the client's response to the intervention.

Correct Answer: A, B, D, E, & F.

Preventing a client from falling or harming him- or herself is of utmost importance. Applying restraints should be a last resort when all other alternative interventions have been attempted.

- **Option A:** A face-to-face evaluation must be performed every hour. After restraint placement, patients should be reevaluated every hour and moved at regular intervals to prevent sequelae such as pressure ulcers, rhabdomyolysis, and paresthesias.
- **Option B:** Restraints should be tied in knots that can be released quickly and easily. Physical restraints encompass hand mitts, soft cloth limb restraints, leather limb restraints, enclosed beds, belts, and vests.

- **Option C:** Restraints should never be secured to side rails because doing so can cause injury if the side rail is lowered without untying the restraint. Ideally, a restraint team should include at least five people, including the team leader.
- **Options D, E, and F:** The nurse should document the client's condition, any alternative methods used before the restraints were applied, and the client's response to the interventions. Document appropriate clinical indication and have a standardized checklist prepared for staff to monitor and supply patient needs effectively.

56. A medication nurse is about to give insulin to a patient with diabetes mellitus. Upon reviewing the medications of the patient, which of the following would cause a further decrease in the blood glucose level of the patient?

- A. hydrochlorothiazide (Microzide)
- B. levothyroxine (Synthroid)
- C. carvedilol (Coreg)
- D. hydrocortisone (SoluCortef)

Correct Answer: C. carvedilol (Coreg)

Carvedilol (Coreg) is a beta-blocker when given together with insulin would cause an increased hypoglycemic effect of insulin, resulting in a further decrease in the serum blood glucose level. Carvedilol has hyperglycemic potential when given orally for 5 days in normal albino rats. Though it may be beneficial in diabetics for various comorbid conditions, the glycemic control may worsen during its use in subjects with prediabetes, diabetes, high risk diabetes.

- **Option A:** Thiazide antihypertensive drugs (e.g., hydrochlorothiazide) and thiazide-like drugs (e.g., metolazone) are often prescribed to control blood pressure in people with diabetes. Thiazide diuretics are known to promote hyperglycemia and in some cases contribute to the new onset of diabetes.
- **Option B:** It is likely that glucose levels will stabilize during hypothyroidism treatment. But when thyroid function is normalized, this may lead to higher blood glucose levels and adverse effects on glycemic control.
- **Option D:** Hydrocortisone-induced hyperglycemia and it is possible that continuous hydrocortisone infusion would reduce the fluctuations in blood glucose levels and that tight blood glucose control could be better achieved with this approach.

57. A male client is admitted with a cervical spine injury sustained during a diving accident. When planning this client's care, the nurse should assign the highest priority to which nursing diagnosis?

- A. Impaired physical mobility
- B. Ineffective breathing pattern
- C. Disturbed sensory perception (tactile)
- D. Self-care deficit: Dressing/grooming

Correct Answer: B. Ineffective breathing pattern

Because a cervical spine injury can cause respiratory distress, the nurse should take immediate action to maintain a patent airway and provide adequate oxygenation. Maintain patent airway: keep head in neutral position, elevate head of bed slightly if tolerated, use airway adjuncts as indicated. Patients with high cervical injury and impaired gag and cough reflexes require assistance in preventing aspiration and maintaining patient airway.

- **Option A:** Continually assess motor function (as spinal shock or edema resolves) by requesting the patient to perform certain actions such as shrug shoulders, spread fingers, squeeze, release examiner's hands. Evaluates status of individual situation (motor-sensory impairment may be mixed or not clear) for a specific level of injury, affecting type and choice of interventions.
- **Option C:** Assess and document sensory function or deficit (by means of touch, pinprick, hot or cold, etc.), progressing from an area of deficit to a neurologically intact area. Changes may not occur during acute phase, but as spinal shock resolves, changes should be documented by dermatome charts or anatomical landmarks ("2 in above nipple line"). Provide tactile stimulation, touching the patient in intact sensory areas (shoulders, face, head).
- **Option D:** The other options may be appropriate for a client with a spinal cord injury — particularly during the course of recovery — but don't take precedence over a diagnosis of ineffective breathing pattern. Plan activities to provide uninterrupted rest periods. Encourage involvement within individual tolerance and ability. Prevents fatigue, allowing opportunity for maximal efforts and participation by patient.

58. A client taking a beta-adrenergic blocker for HTN can experience interference with sleep patterns such as:

- A. Nocturia
- B. Increased daytime sleepiness.
- C. Increased awakening from sleep.
- D. Increased difficulty falling asleep.

Correct Answer: B. Increased daytime sleepiness.

Beta-Blockers can cause nightmares, insomnia, and awakenings from sleep. Sleep disorders are the common side effects of beta-blockers. Beta-blockers have been shown to reduce the production of melatonin via specific inhibition of adrenergic beta1-receptors.

- **Option A:** Results of two placebo-controlled studies of hypertensive patients, investigating the relationship between beta-blocker induced central nervous system (CNS) side effects and the nightly urinary excretion of melatonin, demonstrated that the CNS side effects (sleep disorder, nightmares) during beta-blockade are related to a reduction of melatonin levels.
- **Option C:** Beta-blockers have been shown to reduce the production of melatonin via specific inhibition of beta-1 adrenergic receptors. Although atenolol had no effect on subjective measures of sleep this hydrophilic drug also reduced REM frequency, suggesting that either it has some central effect, or that REM reduction is due to a peripheral 'shielding' effect.
- **Option D:** Beta-blockers have long been associated with sleep disturbances, including awakenings at night and nightmares. They are thought to do this by inhibiting the nighttime secretion of melatonin, a hormone involved in regulating both sleep and the body's circadian clock. Low levels of melatonin have sometimes been observed in chronic insomnia.

59. The nurse is assessing an infant with Hirschsprung's disease. The nurse can expect the infant to:

- A. Fixed plantar flexion (equinus) of the ankle
- B. Sonorous seal-bark cough
- C. Strawberry tongue
- D. Abdominal distention

Correct Answer: D. Abdominal distention

- Option D: Hirschsprung's disease (aganglionic megacolon) is a condition where certain nerve cells in the wall of the colon do not form properly, which results in the blockage of the intestine. Symptoms in infants will show an absence of bowel movement in the first 48 hours and abdominal distention.
- Option A: Fixed plantar flexion (equinus) of the ankle is a classic sign of clubfoot.
- Option B: A sonorous seal-bark cough in an infant is a sign of croup or transesophageal atresia.
- Option C: A strawberry tongue is indicative of Kawasaki disease.

60. For a morbidly obese patient, which intervention should the nurse choose to counteract the pressure created by the skin folds?

- A. Cover the mattress with a sheepskin.
- B. Keep the linens wrinkle free.
- C. Separate the skin folds with towels.
- D. Apply petrolatum barrier creams.

Correct Answer: C. Separate the skin folds with towels.

Separating the skin folds with towels relieves the pressure of skin rubbing on skin. Skin folds, in particular, may be difficult for the patient to clean thoroughly; the abdominal folds and groins may be ignored, leading to an increased risk of skin breakdown in these areas.

- **Option A:** Sheepskins are not recommended for use at all. Skin folds present a challenge in the management of patients who are morbidly obese. The weight from excess adipose tissue in skinfold areas can have an increased risk of skin injury such as friction, maceration, skin tears and pressure ulcer development.
- **Option B:** Skin folds and areas vulnerable to skin injury should be cleaned and dried several times a day. Alcohol-based lotions and harsh soaps, as well as talcum powders, should be avoided in these areas. If necessary, dry cloths to absorb moisture can be left in skin folds in between washing and drying of the skin folds.
- **Option D:** Petrolatum barrier creams are used to minimize moisture caused by incontinence. Patient hydration should also be considered in the nutrition plan for the patients and the health of their skin.

61. Nurse Donna is aware that the shift of body fluids associated with Intravenous administration of albumin occurs in the process of:

- A. Osmosis
- B. Diffusion
- C. Active transport
- D. Filtration

Correct Answer: A. Osmosis

Osmosis is the movement of fluid from an area of lesser solute concentration to an area of greater solute concentration. In physiology, osmosis (Greek for push) is the net movement of water across a semipermeable membrane. Across this membrane, water will tend to move from an area of high concentration to an area of low concentration. It is important to emphasize that ideal osmosis requires only the movement of pure water across the membrane without any movement of solute particles across the semipermeable membrane.

- **Option B:** Diffusion is the movement of a substance from an area of high concentration to an area of low concentration. Passive transport, most commonly by diffusion, occurs along a concentration gradient from high to low concentration. No energy is necessary for this mode of transport. Examples will include diffusion of gases across alveolar membranes and diffusion of neurotransmitters such as acetylcholine across the synapse or neuromuscular junction.
- **Option C:** Active transport is the process of transferring substances into, out of, and between cells, using energy. Active transport is an energy-driven process where membrane proteins transport molecules across cells, mainly classified as either primary or secondary, based on how energy is coupled to fuel these mechanisms.
- **Option D:** Filtration is a process used to separate solids from liquids or gases using a filter medium that allows the fluid to pass through but not solid. The term “filtration” applies whether the filter is mechanical, biological, or physical. The fluid that passes through the filter is called the filtrate. The filter medium may be a surface filter, which is a solid that traps solid particles, or a depth filter, which is a bed of material that traps the solid.

62. When developing an initial nursing care plan for a male client with a Bipolar I disorder (manic episode) nurse Ron should plan to?

- A. Isolate his gym time.
- B. Encourage his active participation in unit programs.
- C. Provide foods, fluids, and rest.
- D. Discourage his participation in programs.

Correct Answer: C. Provide foods, fluids, and rest

The client in a manic episode of the illness often neglects basic needs, these needs are a priority to ensure adequate nutrition, fluid, and rest. Decreasing environmental stimulation may assist the client to relax; the nurse must provide a quiet environment without noise, television, and other distractions; finger foods or things the client can eat while moving around are the best options to improve nutrition.

- **Option A:** A primary nursing responsibility is to provide a safe environment for the client and others; for clients who feel out of control, the nurse must establish external controls emphatically and nonjudgmentally. The nurse can direct their need for movement into socially acceptable, large motor activities such as arranging chairs for a community meeting or walking.

- **Option B:** When less manic, the client might join one or two other clients in quiet, non stimulating activities (e.g., drawing, board games, cards). As mania subsides, involvement in activities that provide a focus and social contact becomes more appropriate. Competitive games can stimulate aggression and can increase psychomotor activity. When possible, provide an environment with minimum stimuli (e.g., quiet, soft music, dim lighting). Reduction in stimuli lessens distractibility.
- **Option D:** Solitary activities requiring short attention spans with mild physical exertion are best initially (e.g., writing, taking photos, painting, or walks with staff). Solitary activities minimize stimuli; mild physical activities release tension constructively.

63. Nurse Meredith is observing 8-year-old Anna during a community visit. Which of the following findings would lead the nurse to suspect that Anna is a victim of sexual abuse?

- A. The child is fearful of the caregiver and other adults.
- B. The child has a lack of peer relationships.
- C. The child has self-injurious behavior.
- D. The child has an interest in things of a sexual nature.

Correct Answer: D. The child has an interest in things of a sexual nature.

An 8-year-old child is in the latency phase of development; in this stage, the child's interest in peers, activities, and school is the priority. Interest in sex and things of a sexual nature would occur appropriately during the age of puberty, not at this time. A child who is the victim of sexual abuse, however, may show an unusual interest in sex. The assessments in the other answer choices may indicate abuse, but not necessarily sexual abuse.

- **Option A:** Another consequence of sexual abuse, according to Finkelhor and Browne (1985), is powerlessness, in which a child learns that his or her needs or requests are ignored by others; the child thus fails to develop self-efficacy to stop unwanted sexual advances. More severe sexual abuse, particularly sexual abuse involving force or penetration, may lead to greater feelings of powerlessness. Perhaps because they lack the interpersonal skills or the self-efficacy to stop unwanted sexual advances, these individuals may be less likely to refuse intercourse with aggressive partners, resulting in more sexual partners.
- **Option B:** Powerlessness could help explain findings linking more severe sexual abuse to more adult sexual risk behavior (e.g., Cinq-Mars et al., 2003; Fergusson et al., 1997). In this regard, Kallstrom-Fuqua, Weston, and Marshall (2004) found that sexual abuse severity had an indirect effect on maladaptive relationships, mediated through powerlessness; thus, having many sexual partners could be a consequence of difficulty forming close relationships.
- **Option C:** Patients with a history of childhood sexual abuse showed a marked clustering of four major risk factors for repeat Deliberate Self-Harm or DSH (unemployment, past deliberate self-poisoning, self-injury and psychiatric illness) and were significantly more likely to repeat DSH within the 6-month follow-up period.

64. The half-life of morphine is:

- A. 4 to 6 hours
- B. 2 to 4 hours

C. 6 to 8 hours

D. 30 minutes to 1 hour

Correct Answer: B. 2 to 4 hours

The half-life of morphine is 2 to 4 hours. Other choices are incorrect because they are either longer or shorter than the true half-life of morphine. Oral formulations are available in both immediate and extended-release for the treatment of acute and chronic pain. Pain that is more severe and not well controlled may be manageable with single or continuous doses of IV, epidural, and intrathecal formulations.

- **Option A:** Infusion dosing can vary significantly between patients and largely depends on how naive or tolerant they are to opiates. It is interesting to point out that IV morphine formulation is also commonly given intramuscularly (IM). Morphine is also available as a suppository.
- **Option C:** Morphine is considered the classic opioid analgesic with which other painkillers are compared. Like other medications in this class, morphine has an affinity for delta, kappa, and mu-opioid receptors. This drug produces the majority of its analgesic effects by binding to the mu-opioid receptor within the central nervous system (CNS) and the peripheral nervous system.
- **Option D:** The net effect of morphine is the activation of descending inhibitory pathways of the CNS as well as inhibition of the nociceptive afferent neurons of the PNS, which leads to an overall reduction of the nociceptive transmission.

65. A male client with type 1 diabetes mellitus has a highly elevated glycosylated hemoglobin (Hb) test result. In discussing the result with the client, nurse Sharmaine would be most accurate in stating:

A. "The test needs to be repeated following a 12-hour fast."

B. "It looks like you aren't following the prescribed diabetic diet."

C. "It tells us about your sugar control for the last 3 months."

D. "Your insulin regimen needs to be altered significantly."

Correct Answer: C. "It tells us about your sugar control for the last 3 months."

The glycosylated Hb test provides an objective measure of glycemic control over a 3-month period. The test helps identify trends or practices that impair glycemic control, and it doesn't require a fasting period before blood is drawn. The nurse can't conclude that the result occurs from poor dietary management or inadequate insulin coverage.

- **Option A:** The hemoglobin A1c (glycated hemoglobin, glycosylated hemoglobin, HbA1c, or A1c) test is used to evaluate a person's level of glucose control. The test shows an average of the blood sugar level over the past 90 days and represents a percentage. The test can also be used to diagnose diabetes.
- **Option B:** The venous sample A1c test may be used as a diagnostic tool in clinical practice when determining diabetes risk or onset. Due to the variability of capillary point of care testing, any A1c done by capillary sample should be confirmed with a venous sample before rendering the diagnosis.
- **Option D:** There are several conditions where the A1c test can produce inaccurate results. People diagnosed with sickle cell anemia, thalassemia, anemia, kidney failure, liver disease, or patients receiving blood transfusions can experience altered results due to the longevity of the red blood cell. A1c tests in these patients must be interpreted with caution and should be confirmed with

plasma glucose samples to diagnose diabetes.

66. What effect does hemoglobin amount have on oxygenation status?

- A. No effect
- B. More hemoglobin reduces the client's respiratory rate.
- C. Low hemoglobin levels cause reduced oxygen-carrying capacity.
- D. Low hemoglobin levels cause increased oxygen-carrying capacity.

Correct Answer: C. Low hemoglobin levels cause reduces oxygen-carrying capacity

Hemoglobin carries oxygen to all tissues in the body. If the hemoglobin level is low, the amount of oxygen-carrying capacity is also low. More hemoglobin will increase oxygen-carrying capacity and thus increase the total amount of oxygen available in the blood. If the client has been tachypneic during exertion, or even at rest, because oxygen demand is higher than the available oxygen content, then an increase in hemoglobin may decrease the respiratory rate to normal levels.

- **Option A:** Hemoglobin behavior is concerted in that hemoglobin with three sites occupied by oxygen is in the quaternary structure associated with the R state. The remaining open binding site has an affinity for oxygen more than 20-fold as great as that of fully deoxygenated hemoglobin binding its first oxygen.
- **Option B:** The vast majority of oxygen transported in the blood is bound to hemoglobin within red blood cells, while a small amount is carried in blood in the dissolved form. The unloading of oxygen from hemoglobin at target tissues is regulated by a number of factors including oxygen concentration gradient, temperature, pH, and concentration of the compound 2,3-Bisphosphoglycerate.
- **Option D:** The most important measures of effective oxygen transportation are hemoglobin concentration and the oxygen saturation level, the latter often measured clinically using pulse oximetry. Insults to oxygen-carrying capacity or oxygen delivery must be rapidly corrected to prevent irreversible damage to tissues.

67. During the assessment of a laboring client, the nurse notes that the FHT are loudest in the upper-right quadrant. The infant is most likely in which position?

- A. Right breech presentation
- B. Right occiput anterior presentation
- C. Left sacral anterior presentation
- D. Left occiput transverse presentation

Correct Answer: A. Right breech presentation

If the fetal heart tones are heard in the right upper abdomen, the infant is in a breech presentation. A breech position is not ideal for delivery. Though the majority of breech babies are born healthy, they may have a higher risk of birth defects or trauma during delivery. This position can also be problematic because it increases the risk of forming a loop in the umbilical cord that could cause injury to the baby if they're delivered vaginally.

- **Option B:** If the infant is positioned in the right occiput anterior presentation, the FHTs will be located in the right lower quadrant, so answer B is incorrect. The baby is head down, with their face

facing the mother's back. The baby's chin is tucked into their chest and their head is ready to enter the pelvis. The baby is able to flex their head and neck, and tuck their chin into their chest. This is usually referred to as occipito-anterior, or the cephalic presentation.

- **Option C:** If the fetus is in the sacral position, the FHTs will be located in the center of the abdomen, so answer C is incorrect. Left Sacrum Anterior (LSA) means the fetal sacrum is closest to the mother's symphysis and rotated slightly to the mother's left (clockwise from direct SA).
- **Option D:** If the FHTs are heard in the left lower abdomen, the infant is most likely in the left occiput transverse position, making answer D incorrect. This LOT (Left, Occiput, Transverse) position and its' mirror image, ROT, are common in early labor. As labor progresses and the fetal head descends, the occiput usually rotates anteriorly, converting this LOT to an LOA or OA as the head delivers.

68. Nurse Amy is speaking to a group of women about early detection of breast cancer. The average age of the women in the group is 47. Following the American Cancer Society guidelines, the nurse should recommend that the women:

- A. Have a mammogram annually
- B. Perform breast self-examination annually
- C. Have a hormonal receptor assay annually
- D. Have a physician conduct a clinical examination every 2 years

Correct Answer: A. Have a mammogram annually

- **Option A:** The American Cancer Society guidelines state, "Women older than age 40 should have a mammogram annually and a clinical examination at least annually [not every 2 years]."
- **Option B:** All women should perform breast self-examination monthly [not annually].
- **Option C:** The hormonal receptor assay is done on a known breast tumor to determine whether the tumor is estrogen- or progesterone-dependent.
- **Option D:** A physician checkup every 2 years will not detect early signs of breast cancer.

69. The nurse is reviewing the physician's orders written for a male client admitted to the hospital with acute pancreatitis. Which physician order should the nurse question if noted on the client's chart?

- A. NPO status
- B. Nasogastric tube inserted
- C. Morphine sulfate for pain
- D. An anticholinergic medication

Correct Answer: C. Morphine sulfate for pain

Meperidine (Demerol) rather than morphine sulfate is the medication of choice to treat pain because morphine sulfate can cause spasms in the sphincter of Oddi. Histological data show that treatment with morphine after induction of acute pancreatitis exacerbates the disease with increased pancreatic neutrophilic infiltration and necrosis in all three models of acute pancreatitis. Morphine also

exacerbated acute pancreatitis-induced gut permeabilization and bacteremia.

- **Option A:** Historically, patients with acute pancreatitis would be kept without food by mouth (nil per os or NPO) until their physician team deemed them ready to eat again, usually based on blood tests or the reported level of pain.
- **Option B:** NGT is used if vomiting is a problem. The tube can be used for a few weeks. It can be used to remove fluid and air and give the pancreas more time to heal. It can also be used to put liquid food into the stomach as the client heals.
- **Option D:** Anticholinergics are used to a variable extent in the treatment of many gastrointestinal conditions, including acute or relapsing chronic pancreatitis, acid-peptic disorders of the upper gastrointestinal tract, chronic inflammations of the intestines, and so-called functional gastrointestinal disorders caused by excessive or abnormal motility.

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. A 29-year-old female client, who is a professional dancer, presents to the emergency department after a performance complaining of severe lower abdominal pain, fever, and an unusual vaginal discharge. She mentions that she had similar symptoms two months ago and was treated in an urgent care clinic. She also reports having multiple sexual partners in the past year and inconsistent condom use. Given the clinical presentation and her history, which of the following infections is most frequently associated with a recurrence of

pelvic inflammatory disease (PID)?

- A. Trichomoniasis
- B. Chlamydia
- C. Staphylococcus
- D. Streptococcus
- E. Gonorrhea
- F. Escherichia coli

Correct Answer: B. Chlamydia

Pelvic inflammatory disease (PID) is an infection of the female reproductive organs. It's usually caused by a sexually transmitted infection. Chlamydia and gonorrhea are the most common causes of PID. Among these options, Chlamydia is the most frequently associated with PID. It's essential to diagnose and treat Chlamydia promptly as it can lead to serious complications if left untreated, including infertility.

72. The nurse assesses a prolonged late deceleration of the fetal heart rate while the client is receiving oxytocin (Pitocin) IV to stimulate labor. The priority nursing intervention would be to:

- A. Turn off the infusion.
- B. Turn the client to the left.
- C. Change the fluid to Ringer's Lactate.
- D. Increase mainline IV rate.

Correct Answer: A. Turn off the infusion

Stopping the infusion will decrease contractions and possibly remove uterine pressure on the fetus, which is a possible cause of the deceleration. When late decelerations are observed, the nurse should attempt to increase the oxygen delivery to the fetus by turning the mother on her left side and/or administering oxygen. If Oxytocin (Pitocin) is being administered, it should be stopped.

- **Option B:** Variable decelerations are marked by a sharp decrease ("V" shape) in FHR that does not correlate to contractions. Umbilical cord compression is usually the cause of variable decelerations. Repositioning of the mother can relieve this compression if it is minor.
- **Option C:** Late decelerations are shown by the FHR gradually decreasing around the peak of the contraction and gradually increasing when the contraction is over. These decelerations will also have a "U" shape but will not mirror the contractions. The most common cause of late decelerations is uteroplacental insufficiency (insufficient oxygen exchange between the placenta and the fetus).
- **Option D:** Increasing the main IV line would not manage the decelerations. While caring for a patient in labor, one of the important nursing duties is monitoring the variability of the fetal heart rate (FHR) and monitoring the FHR response during contractions. Variability in the FHR during labor is a sign of fetal well-being or fetal activity or both. The expected variability usually includes slight accelerations and decelerations.

73. When the nurse described the client as "that nasty old man in room 201," the nurse is exhibiting which ethical dilemma?

- A. Gender bias and ageism
- B. HIPAA violation
- C. Beneficence
- D. Code of ethics violation

Correct Answer: A. Gender bias and ageism

Stereotyping an “old man” as “nasty” is a gender bias and an ageism issue. The nurse is verbalizing a negative descriptor about the client. Anyone who lives long enough is at risk of experiencing ageism. In Western, industrialized countries, older people are often perceived as unproductive and as using too much of society’s resources (Gullette 2004). As countries’ demographics shift toward larger percentages of older citizens (due to declines in birth rates and increases in longevity), aging is often framed in public policy debates as a social problem, and the hyperbolic language that is frequently used (e.g., “the gray tsunami”) to describe shifting demographics contributes to ageism.

- **Option B:** The Health Insurance Portability and Accountability Act of 1996 is a landmark piece of legislation that was introduced to simplify the administration of healthcare, eliminate wastage, prevent healthcare fraud, and ensure that employees could maintain healthcare coverage when between jobs. A HIPAA violation is a failure to comply with any aspect of HIPAA standards and provisions detailed in 45 CFR Parts 160, 162, and 164.
- **Option C:** Beneficence is defined as an act of charity, mercy, and kindness with a strong connotation of doing good to others including moral obligation. All professionals have the foundational moral imperative of doing right.
- **Option D:** Serious ethical violations are acts that not only disregard codes of medical ethics, but also risk directly harming patients and subjecting the wrongdoer to criminal, tort, or medical board actions.

74. Among the following components thorough pain assessment, which is the most significant?

- A. Effect
- B. Cause
- C. Causing factors
- D. Intensity

Correct Answer: D. Intensity

Intensity is the major indicative of severity of pain and it is important for the evaluation of the treatment. Severity of pain may include the intensity graded by the patient or the impact pain has on function. Intensity may be assessed with certain scales that will be reviewed below. The impact on function may include changes with activities of daily living, activity level, and work-related duties. Pain may have an impact on sleep, mood, appetite, or social relationships.

- **Option A:** The effect of pain is an important factor during assessment, especially on the activities of daily living, but it is not the most significant. Factors that relieve pain should be assessed not only to aid in diagnosis, but also with determining what has been attempted and what helps or does not help with their pain. Determining how the patient alleviates pain may also assess for healthy coping behaviors.

- **Option B:** Various stimuli may exacerbate pain, and determining these factors can aid in establishing the pathophysiologic mechanisms of pain. The history of pain or “pain history” is the physician’s initial tool to assess a patient in pain. A detailed history and physical examination is essential, not only to narrow the diagnoses but also to guide further diagnostic studies, if appropriate.
- **Option C:** Causing factors are not a part of the components in assessing pain. Different disease processes may present with similar pain characteristics. Vascular and neurogenic claudication symptoms are a classic example. However, patients with similar pathology may describe different types of pain or may have no pain at all (eg, spinal cord lesions, diabetic neuropathy).

75. During the shift of a triage nurse in the Emergency Department (ED), the following clients arrive. Which client needs the most rapid response to protect other clients in the ED from infection?

- A. A 72-year-old who must undergo tuberculosis (TB) testing after being exposed to TB during a recent international airplane flight.
- B. A 58-year-old who has a history of a methicillin-resistant *Staphylococcus aureus* (MRSA) abdominal wound infection.
- C. A 7-year-old who has a new pruritic rash and a possible chickenpox infection.
- D. A 4-year-old who has paroxysmal coughing and whose sibling has pertussis.

Correct Answer: C. A 7-year-old who has a new pruritic rash and a possible chickenpox infection

Varicella or chickenpox is spread by airborne means and could be quickly transmitted to other clients in the ED. The child with a rash should be immediately isolated from the other clients through placement in a negative-pressure room.

- **Option A:** The client who has been exposed to TB does not set other clients at risk for infection because there are no symptoms of active TB. In the past few decades, there has been a concerted global effort to eradicate TB. These efforts had yielded some positive dividends especially since 2000 when the World Health Organization (WHO, 2017) estimated that the global incidence rate for tuberculosis has fallen by 1.5% every year.
- **Option B:** Prevention and control of MRSA infections include necessary infection-control steps like strict hand hygiene and adequate contact precautions. Contact precautions include the use of gowns, gloves, and possibly masks during clinical encounters with patients with MRSA infection. Infection control also may include keeping patients in isolated rooms or the same rooms of other patients who have an MRSA infection.
- **Option D:** Droplet precautions should be instituted for the clients with possible pertussis, but this can be achieved after isolating the child with possible chickenpox. Strict isolation is important while the patient remains infectious. Pertussis is contagious throughout the catarrhal phase and for 3 weeks after the onset of the paroxysmal phase.

76. After gastroscopy, an adaptation that indicates major complication would be:

- A. Nausea and vomiting
- B. Abdominal distention

- C. Increased GI motility
- D. Difficulty in swallowing

Correct Answer: B. Abdominal distention

Abdominal distention may be associated with pain, may indicate perforation, a complication that could lead to peritonitis. Bowel perforation occurs in less than 0.3 % of cases, and infection is rarely reported. Complications typically are identified in the first 24 hours after the procedure. Perforation is identified due to fever, tachycardia, abdominal pain or discomfort.

- **Option A:** It is normal to feel nauseous a day or two after surgery. Complications following esophagogastroduodenoscopy (EGD) are rare, occurring in less than 2% of patients. These could be related to sedation, endoscopy, and complications related to diagnostic or therapeutic maneuvers.
- **Option C:** An increase in GI motility is not a cause for concern. The risk of bleeding following EGD with biopsy is 0.3%. Post mucosal biopsy bleeding can occur as intraluminal hemorrhage or intraluminal hematoma. A duodenal hematoma is a rare complication of EGD with an unknown incidence and seems to occur more often in children than adults.
- **Option D:** There would be difficulty in swallowing after the surgery until the local anesthesia fades. Adverse events from over sedation include hypoxemia, hypoventilation, hypotension, airway obstruction, arrhythmias, and aspiration. The complications following diagnostic EGD include infection, bleeding, duodenal hematoma, and bowel perforation.

77. Which of the following planes divides the body longitudinally into anterior and posterior regions?

- A. Frontal plane
- B. Sagittal plane
- C. Midsagittal plane
- D. Transverse plane

Correct Answer: A. Frontal plane

Frontal or coronal plane runs longitudinally at a right angle to a sagittal plane dividing the body in anterior and posterior regions. The coronal plane or frontal plane (vertical) divides the body into dorsal and ventral (back and front, or posterior and anterior) portions. An anatomical plane is a hypothetical plane used to transect the body, in order to describe the location of structures or the direction of movements.

- **Option B:** A sagittal plane runs longitudinally dividing the body into right and left regions. The sagittal plane or lateral plane (longitudinal, anteroposterior) is a plane parallel to the sagittal suture. It divides the body into left and right.
- **Option C:** If exactly midline, it is called a midsagittal plane. The midsagittal or median plane is in the midline; i.e. it would pass through midline structures such as the navel or spine, and all other sagittal planes (also referred to as parasagittal planes) are parallel to it. Median can also refer to the midsagittal plane of other structures, such as a digit.
- **Option D:** A transverse plane runs horizontally at a right angle to the vertical axis, dividing the structure into superior and inferior regions. The transverse plane or axial plane (horizontal) divides the body into cranial and caudal (head and tail) portions.

78. Charina, a college student who frequently visited the health center during the past year with multiple vague complaints of GI symptoms before course examinations. Although physical causes have been eliminated, the student continues to express her belief that she has a serious illness. These symptoms are typically of which of the following disorders?

- A. Conversion disorder
- B. Depersonalization
- C. Hypochondriasis
- D. Somatization disorder

Correct Answer: C. Hypochondriasis

Hypochondriasis, in this case, is shown by the client's belief that she has a serious illness, although pathologic causes have been eliminated. The disturbance usually lasts at least 6 with identifiable life stressor such as, in this case, course examinations. Hypochondriasis, which is now known as illness anxiety disorder, and the other somatic symptom disorders (e.g., factitious disorder, conversion disorder) are among the most difficult and most complex psychiatric disorders to treat in the general medical setting. On the basis of many new developments in this field, the DMS-5 has revised diagnostic criteria to facilitate clinical care and research. While illness anxiety disorder is included in the category of "somatic symptom and related disorders" it continues to have much overlap with obsessive-compulsive disorder and related illness.

- **Option A:** Conversion disorders are characterized by one or more neurologic symptoms. Hypochondriasis, which is now known as illness anxiety disorder, and the other somatic symptom disorders (e.g., factitious disorder, conversion disorder) are among the most difficult and most complex psychiatric disorders to treat in the general medical setting. On the basis of many new developments in this field, the DMS-5 has revised diagnostic criteria to facilitate clinical care and research. While illness anxiety disorder is included in the category of "somatic symptom and related disorders" it continues to have much overlap with obsessive-compulsive disorder and related illness.
- **Option B:** Depersonalization refers to persistent recurrent episodes of feeling detached from one's self or body. Depersonalization is described as feeling disconnected or detached from one's self. Individuals may report feeling as if they are an outside observer of their own thoughts or body, and often report feeling a loss of control over their thoughts or actions.
- **Option D:** Somatoform disorders generally have a chronic course with few remissions. The Diagnostic and Statistical Manual for Mental Disorders, Fifth Edition (DSM-5) category of Somatic Symptom Disorders and Other Related Disorders represents a group of disorders characterized by thoughts, feelings, or behaviors related to somatic symptoms. This category represents psychiatric conditions because the somatic symptoms are excessive for any medical disorder that may be present.

79. Crisis intervention carried out to the client has this primary goal:

- A. Assist the client to express her feelings.
- B. Help her identify her resources.
- C. Support her adaptive coping skills.
- D. Help her return to her pre-rape level of function.

Correct Answer: D. Help her return to her pre-rape level of function.

The goal of crisis intervention is to help the client return to her level of function prior to the crisis. Crisis intervention is a short-term management technique designed to reduce potential permanent damage to an individual affected by a crisis. A crisis is defined as an overwhelming event, which can include divorce, violence, the passing of a loved one, or the discovery of a serious illness.

- **Option A:** A successful intervention involves obtaining background information on the patient, establishing a positive relationship, discussing the events, and providing emotional support. SAFER-R is a common intervention model used, which consists of stabilization, acknowledgment, facilitate understanding, encouragement, recovery, and referral. SAFER-R helps patients return to their mental baseline following a crisis.
- **Option B:** Based on prior studies, it is evident that crisis intervention plays a significant role in enhancing outcomes in psychiatric cases. Community Mental Health Centers and local government agencies often have crisis intervention teams that provide support to the local community at times of mental health crisis.
- **Option C:** Another major concern is what coping strategies are most effective. Social support and problem-solving planning are effective coping mechanisms that are frequently used by school staff following a crisis. The use of humor, emotional support, planning, and acceptance also correlate with superior mental health outcomes compared to substance abuse and denial.

80. A 16-year-old patient involved in a motor vehicle accident arrives in the ED unconscious and severely hypotensive. He's suspected to have several fractures of his pelvis and legs. Which of the following parenteral fluids is the best choice for his current condition?

- A. Packed red blood cells
- B. 0.9% sodium chloride solution
- C. Lactated Ringer's solution
- D. Fresh frozen plasma

Correct Answer: A. Packed red blood cells

In a trauma situation, the first blood product given is unmatched (O negative) packed red blood cells.

- **Options B and C:** Lactated Ringer's solution or 0.9% sodium chloride is used to increase volume and blood pressure, but too much of these crystalloids will dilute the blood and won't improve oxygen-carrying capacity.
- **Option D:** Fresh frozen plasma often is used to replace clotting factors.

81. The nursing theorist who developed transcultural nursing theory is

- A. Dorothea Orem
- B. Madeleine Leininger
- C. Betty Newman
- D. Sr. Callista Roy

Correct Answer: B. Madeleine Leininger

Madeleine Leininger developed the theory on transcultural theory based on her observations on the behavior of selected people within a culture. In the Transcultural Nursing theory, nurses have a responsibility to understand the role of culture in the health of the patient. Not only can a cultural background influence a patient's health, but the patient may be taking home remedies that can affect his or her health, as well.

- **Option A:** Dorothea Orem's Self-Care Deficit Theory focuses on each "individual's ability to perform self-care, defined as 'the practice of activities that individuals initiate and perform on their own behalf in maintaining life, health, and well-being.'" Her theory defined Nursing as "The act of assisting others in the provision and management of self-care to maintain or improve human functioning at the home level of effectiveness."
- **Option C:** In Betty Neuman's nursing theory, patients are cared for from a holistic perspective in order to ensure they are cared for as people and not simply ailments. The Neuman Systems Model is based on the patient's relationship to stress, reaction to it, and reconstitution factors that are dynamic. The Neuman Systems Model is universal in nature, which allows it to be adapted to a variety of situations, and to be interpreted in many different ways.
- **Option D:** Sr. Callista Roy's Adaptation Model of Nursing was developed by Sister Callista Roy in 1976. The prominent nursing theory aims to explain or define the provision of nursing. In her theory, Roy's model sees the individual as a set of interrelated systems that maintain a balance between these various stimuli.

82. The nurse recognizes that additional teaching is necessary when the client who is learning alternative site testing (AST) for glucose monitoring says:

- A. "I need to rub my forearm vigorously until warm before testing at this site."
- B. "The fingertip is preferred for glucose monitoring if hyperglycemia is suspected."
- C. "I have to make sure that my current glucose monitor can be used at an alternate site."
- D. "Alternate site testing is unsafe if I am experiencing a rapid change in glucose levels."

Correct Answer: B. "The fingertip is preferred for glucose monitoring if hyperglycemia is suspected."

The fingertip is preferred for glucose monitoring if hypoglycemia, not hyperglycemia, is suspected. AST (Alternate Site Testing) means using a part of the body other than the fingertips to obtain blood for blood sugar testing.

- **Option A:** Don't squeeze the fingertip vigorously. Instead, hang the hand and arm down, allowing blood to pool in the fingertips. Washing the hands with warm water may also increase blood flow.
- **Option C:** Alternate site testing is not possible with all blood glucose meters. Newer machines only require a smaller drop of blood to provide accurate blood glucose readings from other parts of the body.
- **Option D:** According to reports, routine blood glucose level testing before meals or two or more hours after meals from alternate sites is equivalent to fingertip testing. Therefore, testing when blood glucose is falling rapidly or rising rapidly is likely to be less accurate from alternate sites.

83. A nurse is administering IV furosemide to a patient admitted with congestive heart failure. After the infusion, which of the following symptoms is not

expected?

- A. Increased urinary output
- B. Decreased edema
- C. Decreased pain
- D. Decreased blood pressure

Correct Answer: C. Decreased pain

Furosemide, a loop diuretic, does not alter pain. The Food and Drug Administration (FDA) has approved the use of furosemide in the treatment of conditions with volume overload and edema secondary to congestive heart failure exacerbation, liver failure, or renal failure including the nephrotic syndrome.

- **Option A:** Furosemide acts on the kidneys to increase urinary output. Furosemide inhibits tubular reabsorption of sodium and chloride in the proximal and distal tubules, as well as in the thick ascending loop of Henle by inhibiting sodium-chloride cotransport system resulting in excessive excretion of water along with sodium, chloride, magnesium, and calcium.
- **Option B:** Fluid may move from the periphery, decreasing edema. Careful monitoring of the clinical condition of the patient, daily weight, fluids intake, and urine output, electrolytes, i.e., potassium and magnesium, kidney function monitoring with serum creatinine and serum blood urea nitrogen level is vital to monitor the response to furosemide. Replete electrolytes if indicated as diuresis with furosemide lead to electrolyte depletion, and adjust the dose or even hold off on furosemide if laboratory work shows signs of kidney dysfunction.
- **Option D:** Fluid load is reduced, lowering blood pressure. Furosemide can be a second-line agent in heart failure patients with symptoms, and in patients with advanced kidney disease with an estimated glomerular filtration rate, less than 30 ml per minute the loop diuretics (furosemide) are preferred over thiazide diuretics to treat hypertension.

84. Damage to the VII cranial nerve results in:

- A. Facial pain
- B. Absence of ability to smell
- C. Absence of eye movement
- D. Tinnitus

Correct Answer: A. Facial pain

The facial nerve is cranial nerve VII. If damage occurs, the client will experience facial pain. The sensory portion, or intermediate nerve, has the following components: (1) taste to the anterior two-thirds of the tongue; (2) secretory and vasomotor fibers to the lacrimal gland, the mucous membranes of the nose and mouth, and the submandibular and sublingual salivary glands; (3) cutaneous sensory impulses from the external auditory meatus and region back of the ear.

- **Option B:** Olfactory nerve controls smell, and it is cranial nerve I. The olfactory nerve is the first cranial nerve and is instrumental in our sense of smell. The olfactory nerve contains only afferent sensory nerve fibers and, like all cranial nerves, is paired. The olfactory nerve is the shortest cranial nerve, and along with the optic nerve is one of the only two cranial nerves that do not converge with the brainstem.

- **Option C:** Eye movement is controlled by the Trochlear or C IV. The trochlear nerve is the fourth cranial nerve (CN IV) and one of the ocular motor nerves that controls eye movement. The trochlear nerve, while the smallest of the cranial nerves, has the longest intracranial course as it is the only nerve to have a dorsal exit from the brainstem. It originates in the midbrain and extends laterally and anteriorly to the superior oblique muscle.
- **Option D:** The vestibulocochlear nerve or CN VIII is responsible for hearing loss and tinnitus. The vestibulocochlear nerve, also known as cranial nerve eight (CN VIII), consists of the vestibular and cochlear nerves. Each nerve has distinct nuclei within the brainstem. The vestibular nerve is primarily responsible for maintaining body balance and eye movements, while the cochlear nerve is responsible for hearing.

85. What is the priority nursing diagnosis during the first 24 hours for a client with full-thickness chemical burns on the anterior neck, chest, and all surfaces of the left arm?

- A. Risk for Ineffective Breathing Pattern
- B. Decreased Tissue Perfusion
- C. Risk for Disuse Syndrome
- D. Disturbed Body Image

Correct Answer: C. Risk for Disuse Syndrome

During the emergent phase, fluid shifts into interstitial tissue in burned areas. When the burn is circumferential on an extremity, the swelling can compress blood vessels to such an extent that circulation is impaired distal to the injury, necessitating the intervention of an escharotomy. Chemical burns do not cause inhalation injury.

- **Option A:** Chemical burns do not cause inhalation injury and a disrupted breathing pattern. The most common findings represent structural changes to the tissue directly affected, for example, the eye, oral mucosa, skin, esophagus, and lower intestinal system, especially the stomach and pylorus, respiratory system, among others.
- **Option B:** During the emergent phase, fluid shifts into interstitial tissue in burned areas. When the burn is circumferential on an extremity, the swelling can compress blood vessels to such an extent that circulation is impaired distal to the injury, causing decreased tissue perfusion and necessitating the intervention of an escharotomy.
- **Option D:** Disturbed body image can develop. Assist the patient to identify the extent of actual change in appearance and body function. This helps begin the process of looking to the future and how life will be different.