

# Kevin's Review - 100 NCLEX Practice Questions

**1. A 75-year-old client is admitted to the hospital with the diagnosis of dementia of the Alzheimer's type and depression. The symptom that is unrelated to depression would be?**

- A. Apathetic response to the environment.
- B. "I don't know" answer to questions.
- C. Shallow or labile affect.
- D. Neglect of personal hygiene.

**Correct Answer: C. Shallow or labile affect**

With depression, there is little or no emotional involvement therefore little alteration in affect. The common features of all the depressive disorders are sadness, emptiness, or irritable mood, accompanied by somatic and cognitive changes that significantly affect the individual's capacity to function.

- **Option A:** Depression (major depressive disorder) is a common and serious medical illness that negatively affects how you feel, the way you think and how you act. Fortunately, it is also treatable. Depression causes feelings of sadness and/or a loss of interest in activities you once enjoyed. It can lead to a variety of emotional and physical problems and can decrease your ability to function at work and at home.
- **Option B:** A dysphoric mood state may be expressed by patients as sadness, heaviness, numbness, or sometimes irritability and mood swings. They often report a loss of interest or pleasure in their usual activities, difficulty concentrating, or loss of energy and motivation. Their thinking is often negative, frequently with feelings of worthlessness, hopelessness, or helplessness.
- **Option D:** Depression—also called "clinical depression" or a "depressive disorder"—is a mood disorder that causes distressing symptoms that affect how you feel, think, and handle daily activities, such as sleeping, eating, or working. To be diagnosed with depression, symptoms must be present most of the day, nearly every day for at least 2 weeks.

**2. A nurse reviews the arterial blood gas results of a patient and notes the following: pH 7.45; PCO<sub>2</sub> 30 mm Hg; and bicarbonate concentration of 22 mEq/L. The nurse analyzes these results as indicating:**

- A. Metabolic acidosis, compensated.
- B. Metabolic alkalosis, uncompensated.
- C. Respiratory alkalosis, compensated.
- D. Respiratory acidosis, compensated.

**Correct Answer: C. Respiratory alkalosis, compensated.**

The normal pH is 7.35 to 7.45. In a respiratory condition, an opposite (see-saw) will be seen between the pH and the PCO<sub>2</sub>. In this situation, the pH is at the high end of the normal value and the PCO<sub>2</sub> is low. In an alkalotic condition, the pH is up. Therefore, the values identified in the question indicate a respiratory alkalosis. Compensation occurs when the pH returns to a normal value. Because the pH is in the normal range at the high end, compensation has occurred.

- **Option A:** The pCO<sub>2</sub> determines whether an acidosis is respiratory or metabolic in origin. Metabolic acidosis is due to alterations in bicarbonate, so the pCO<sub>2</sub> is less than 40 since it is not

the cause of the primary acid-base disturbance. In metabolic acidosis, the distinguishing lab value is a decreased bicarbonate (normal range 21 to 28 mEq/L). Respiratory compensation is the physiologic mechanism to help normalize a metabolic acidosis, however, compensation never completely corrects acidemia.

- **Option B:** HCO<sub>3</sub> functions as an alkalotic substance. CO<sub>2</sub> functions as an acidic substance. Therefore, increases in HCO<sub>3</sub> or decreases in CO<sub>2</sub> will make blood more alkalotic. The opposite is also true where decreases in HCO<sub>3</sub> or an increase in CO<sub>2</sub> will make blood more acidic. CO<sub>2</sub> levels are physiologically regulated by the pulmonary system through respiration, whereas the HCO<sub>3</sub> levels are regulated through the renal system with reabsorption rates. Therefore, metabolic alkalosis is an increase in serum HCO<sub>3</sub>.
- **Option D:** Respiratory acidosis typically occurs due to failure of ventilation and accumulation of carbon dioxide. The primary disturbance is an elevated arterial partial pressure of carbon dioxide (pCO<sub>2</sub>) and a decreased ratio of arterial bicarbonate to arterial pCO<sub>2</sub>, which results in a decrease in the pH of the blood. To compensate for the disturbance in the balance between carbon dioxide and bicarbonate (HCO<sub>3</sub><sup>-</sup>), the kidneys begin to excrete more acid in the forms of hydrogen and ammonium and reabsorb more base in the form of bicarbonate. This compensation helps to normalize the pH.

### ***3. Direct-acting vasodilators have which of the following effects on the heart rate?***

- A. Heart rate decreases.
- B. Heart rate remains significantly unchanged.
- C. Heart rate increases.
- D. Heart rate becomes irregular.

**Correct Answer: A. Heart rate decreases.**

Heart rate decreases in response to decreased blood pressure caused by vasodilation. Hydralazine and minoxidil act by dilating resistance arterioles, thus reducing peripheral resistance, with no dilating effect on the venous side of the circulation. There is a baroreflex-mediated venoconstriction, resulting in an increase in venous return to the heart, along with a direct catecholamine-mediated positive inotropic and chronotropic stimulation of the heart.

- **Option B:** In general, 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.
- **Option C:** Anticholinergics are used to increase heart rate through vagolytic effects, causing increase in cardiac output. These agents are indicated when symptoms of hypoperfusion exist. They are thought to work centrally by suppressing conduction in the vestibular cerebellar pathways. They may have an inhibitory effect on the parasympathetic nervous system.
- **Option D:** Antiarrhythmic medications have several areas of concern. First and foremost, most agents also have some degree of proarrhythmic potential. Practically speaking, while trying to suppress arrhythmias with the medications, the medications themselves, can lead to other (potentially more dangerous) arrhythmias.

### ***4. The distribution of nurses to areas of “most need” in the time of a nursing shortage is an example of:***

- A. Utilitarianism theory
- B. Deontological theory
- C. Justice
- D. Beneficence

**Correct Answer: C. Justice**

Justice is defined as the fairness of the distribution of resources. However, guidelines for a hierarchy of needs have been established, such as with organ transplantation. Nurses are moved to areas of greatest need when shortages occur on the floors. No floor is left without staff, and another floor that had five staff will give up two to go help the floor that had no staff.

- **Option A:** Utilitarianism is a theory of morality, which advocates actions that foster happiness or pleasure and opposes actions that cause unhappiness or harm. When directed toward making social, economic, or political decisions, a utilitarian philosophy would aim for the betterment of society as a whole.
- **Option B:** In contemporary moral philosophy, deontology is one of those kinds of normative theories regarding which choices are morally required, forbidden, or permitted. In other words, deontology falls within the domain of moral theories that guide and assess our choices of what we ought to do (deontic theories), in contrast to those that guide and assess what kind of person we are and should be (aretaic [virtue] theories).
- **Option D:** 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.

**5. A newly admitted client has started taking bupropion (Wellbutrin). The nurse monitors which of the following side effects would indicate an overdose of the medication?**

- A. Insomnia
- B. Dizziness
- C. Constipation

Correct Answer: D. Seizure.

**Correct Answer: D. Seizure.**

Wellbutrin (bupropion) is an antidepressant medication used to treat major depressive disorder and seasonal affective disorder. Overdose symptoms may include seizure, muscle stiffness, hallucinations, fast or uneven heartbeat, shallow breathing, or fainting.

- **Options A, B, and C:** Insomnia, dizziness, and constipation are the common side effects of the medication.

**6. The nurse is monitoring a client for the early signs of dumping syndrome. Which symptom indicates this occurrence?**

- A. Abdominal cramping and pain

- B. Bradycardia and indigestion
- C. Sweating and pallor
- D. Double vision and chest pain

**Correct Answer: C. Sweating and pallor**

Early manifestations of dumping syndrome occur 5 to 30 minutes after eating. Symptoms include vertigo, tachycardia, syncope, sweating, pallor, palpitations, and the desire to lie down. In early dumping, the symptoms usually occur within 10 to 30 minutes after a meal. The rapid transit of hyperosmolar chyme from the stomach into the duodenum causes fluid to shift from the vasculature to the intestinal lumen, leading to increased volume in the small bowel.

- **Option A:** Late dumping, also known as postprandial hyperinsulinemic hypoglycemia, usually occurs 1 to 3 hours after a high-carbohydrate meal. There is an association with hypoglycemia, but the exact mechanism is unknown. It is proposed that the rapid absorption of carbohydrates exaggerates the glucose-mediated insulin response.
- **Option B:** There may be GI or vasomotor symptoms. GI symptoms include nausea, vomiting, diarrhea, or belching. Vasomotor symptoms include shock, syncope, near-syncope, palpitations, dizziness, desire to lie down, or diaphoresis.
- **Option D:** GI hormones such as enteroglucagon, pancreatic polypeptide, peptide YY, vasoactive intestinal polypeptide, glucagon-like peptide, and neurotensin have been evident with higher values after meals. Hormonal imbalances may cause delayed motility, decreased gastric and intestinal secretions, which delay the digestion and transit of food that arrives at the small bowel.

**7. A female client with a urinary diversion tells the nurse, “This urinary pouch is embarrassing. Everyone will know that I’m not normal. I don’t see how I can go out in public anymore.” The Anxiety related to the presence of urinary diversion. appropriate nursing diagnosis for this patient is:**

- A. Anxiety related to the presence of urinary diversion.
- B. Deficient Knowledge about how to care for the urinary diversion.
- C. Low Self-Esteem related to feelings of worthlessness
- D. Disturbed Body Image related to creation of a urinary diversion.

**Correct Answer: D. Disturbed Body Image related to the creation of a urinary diversion.**

It is normal for clients to express fears and concerns about the body changes associated with a urinary diversion. Allowing the client time to verbalize concerns in a supportive environment and suggest that she discuss these concerns with people who have successfully adjusted to ostomy surgery can help her begin coping with these changes in a positive manner.

- **Option A:** Although the client may be anxious about this situation, it is not the underlying problem. Encourage patient/SO to verbalize feelings regarding the ostomy. Acknowledge normality of feelings of anger, depression, and grief over a loss. Discuss daily “ups and downs” that can occur.
- **Option B:** There is no data to support a diagnosis of Deficient Knowledge. Maintain a positive approach during care activities, avoiding expressions of disdain or revulsion. Do not take angry expressions of the patient and SO personally.
- **Option C:** Self-esteem may be diminished, the underlying problem is a disturbance in body image. Provide opportunities for the patient/SO to view and touch the stoma, using the moment to point out

positive signs of healing, normal appearance, and so forth. Remind the patient that it will take time to adjust, both physically and emotionally.

**8. A client with osteoporosis is asking the nurse regarding the use of Salmon calcitonin (Miacalcin) nasal spray. The nurse tells the client to do the following, except?**

- A. Delivery system contains enough medication for at least 30 doses. Discard any unused solution after 30 doses.
- B. If you do not feel the spray while using it, repeat the dose on the other nostrils.
- C. Miacalcin is usually given as one spray per day into only one of your nostrils.
- D. Take extra vitamin D while you are using Miacalcin.

**Correct Answer: B. If you do not feel the spray while using it, repeat the dose on the other nostrils.**

Miacalcin spray delivers a fine mist into the nose. Even if the client does not feel the spray while using it, the medication is still being absorbed by the nasal passages.

- **Option A:** Discard any unused solution after 30 doses because spray may not deliver the correct dose.
- **Option C:** Use the other nostril the next day and continue alternating back and forth for each daily dose.
- **Option D:** Vitamin D helps in treating osteoporosis by helping in maintaining healthy bones.

**9. A nurse is caring for a client admitted to the ER with DKA. In the acute phase the priority nursing action is to prepare to:**

- A. Administer regular insulin intravenously
- B. Administer 5% dextrose intravenously
- C. Correct the acidosis
- D. Apply an electrocardiogram monitor

**Correct Answer: A. Administer regular insulin intravenously**

Lack (absolute or relative) of insulin is the primary cause of DKA. Intravenous insulin by continuous infusion is the standard of care. A more recent prospective randomized trial demonstrated that a bolus is not necessary if patients are given hourly insulin infusion at 0.14 U/kg/hr.

- **Option B:** Isotonic fluids have been well established for more than 50 years as preferred fluids. Colloids vs. crystalloids were compared for critically ill patients, in a 2013 meta-analysis, and crystalloid was found to be non-inferior.
- **Option C:** Treatment consists of insulin administration (regular insulin), IV fluid administration (normal saline initially), and potassium replacement, followed by correcting acidosis. Immediate fluid resuscitation is vital to correct hypovolemia, restore tissue perfusion, and to clear ketones. Hydration improves glycemic control independent of insulin.

- **Option D:** Applying an electrocardiogram monitor is not a priority action. Hourly point-of-care testing (POCT) glucose should be performed. Initial VBG or ABG monitoring, followed by as-needed precipitating events.

**10. A client is to begin taking rifampin (Rifadin). The nurse correctly teaches the client this medication:**

- A. Is to be discontinued after three months.
- B. Is to be taken with food and antacids.
- C. Take an additional dose once with skip dose.
- D. Will cause orange discoloration of sweat, urine, and feces.

**Correct Answer: D. Will cause orange discoloration of sweat, urine, and feces.**

Rifampin causes red-orange discolorations of bodily secretions such as sweat, urine, tears, and feces.

- **Option A:** The client should not stop the therapy unless with a doctor's advice.
- **Option B:** The medication is taken on an empty stomach.
- **Option C:** Doses are not to be doubled or skipped.

**11. In the cardiology unit, a nurse closely monitors a 33-year-old male client diagnosed with heart failure. The client, a previously active triathlete, was recently started on furosemide due to increased fluid retention. The client mentions a few changes he's noticed over the past week. Which of the following statements from the client would suggest he may be experiencing a negative side effect from the furosemide?**

- A. "I was surprised to see my weight jump up by 5 pounds in just a few days."
- B. "I've noticed some swelling around my ankles by the end of the day."
- C. "My stomach has been feeling upset lately, especially after I take the pill."
- D. "I haven't been as hungry this past week, even for my favorite foods."

**Correct Answer: D. "I haven't been as hungry this past week, even for my favorite foods."**

Furosemide is a loop diuretic that is used for pulmonary edema, edema in heart failure, nephrotic syndrome, and hypertension. Furosemide causes potassium loss unless a supplement or a potassium-rich diet is taken. A decrease in appetite is caused by hypokalemia. Signs and symptoms of hypokalemia include anorexia, fatigue, nausea, decreased GI motility, muscle weakness, dysrhythmias, reduced urine osmolality, and altered level of consciousness.

- **Option A:** While weight gain is concerning in heart failure as it can indicate worsening fluid retention, this is not a direct side effect of furosemide. Rather, it may suggest the medication is not effectively managing the heart failure symptoms.
- **Option B:** Edema, or swelling, especially in the ankles, can be a symptom of worsening heart failure. This does not directly indicate a side effect from furosemide but suggests the drug may not be optimal in this client's case.
- **Option C:** Gastric irritability is not a side effect of furosemide.

**12. A vaginal exam reveals that the cervix is 4cm dilated, with intact membranes and a fetal heart tone rate of 160–170 bpm. The nurse decides to apply an external fetal monitor. The rationale for this implementation is:**

- A. The cervix is closed.
- B. The membranes are still intact.
- C. The fetal heart tones are within normal limits.
- D. The contractions are intense enough for insertion of an internal monitor.

**Correct Answer: B. The membranes are still intact.**

The nurse decides to apply an external monitor because the membranes are intact. The test is used to determine if a fetus is at risk for intrauterine death or neonatal complications, usually secondary to high-risk pregnancies or suspected fetal hypoxemia. The frequency of use is based on clinical judgment, but is common because it is non-invasive and presents a low maternal and fetal risk; however, the test does not hold predictive value and only indicates fetal hypoxia at time of the test.

- **Option A:** The cervix is dilated enough to use an internal monitor, if necessary. Fetal heart rate is monitored using the Doppler ultrasound transducer, and the tocodynamometer is applied to detect uterine contractions or fetal movement. Fetal activity may be recorded by the patient using an event marker or noted by the staff performing the test.
- **Option C:** An internal monitor can be applied if the client is at 0-station. The Non-Stress Test (NST) is an assessment tool used from 32 weeks of gestation to term to evaluate fetal health through the use of electronic fetal monitors that continuously record the fetal heart rate (FHR). The test is used to determine if a fetus is at risk for intrauterine death or neonatal complications, usually secondary to high-risk pregnancies or suspected fetal hypoxemia.
- **Option D:** Contraction intensity has no bearing on the application of the fetal monitor. The NST involves 20 minutes of monitoring the FHR while assessing the number, amplitude, and duration of accelerations that usually correlate with fetal movement. A normal test result, as defined by the American College of Obstetrics and Gynecologist, is one in which two or more accelerations peak at 15 bpm or more above baseline, each lasting 15 seconds or more, and all occurring within 20 minutes of beginning the test.

**13. Archie is a child with iron deficiency anemia. He is required to receive elemental iron therapy at 6 mg/kg/day in three divided doses. He weighs 44 lbs. How many milligrams of iron should he receive per dose?**

- A. 20 mg/dose
- B. 40 mg/dose
- C. 60 mg/dose
- D. 120 mg/dose

**Correct Answer: B. 40 mg/dose**

The child weighs 44 lbs, which is equal to 20 kg (1 kg=2.2 lb;44/2.2=20kg). Elemental iron therapy is ordered at 6 mg/kg/day in three doses. Therefore, the child receives 120 mg/day (6 mg/20 kg/day=120), divided into three doses (120/3), which is equal to 40 mg/dose.

- **Option A:** There are currently two forms of low-molecular-weight iron dextran available on the market in North America. Both come as injectable solutions [intravenous (IV) or intramuscular (IM)] containing 50 mg/mL of elemental iron. The incidence of toxicity relative to high-molecular-weight preparations is lower with low-molecular-weight iron dextran.
- **Option C:** As per the manufacturer, a test dose of 25 mg (0.5 mL) followed by 1 hour of observation is necessary before administering the remainder of the calculated required dose to monitor for anaphylactoid reactions. Intramuscular injections should be administered to the upper outer quadrant of the buttock using the Z – track technique (lateral displacement of skin prior to injection).
- **Option D:** If total dose calculations exceed the daily allowance of administration, smaller incremental daily doses may be used until the patient achieves the total dose requirement. All doses require administration at a maximum rate of 50 mg (1 mL) per minute. No dosage adjustments are necessary for renal and/or hepatic impairment.

**14. Joey who has a chronic user of cocaine reports that he feels like he has cockroaches crawling under his skin. His arms are red because of scratching. The nurse in charge interprets these findings as possibly indicating which of the following?**

- A. Delusion
- B. Formication
- C. Flashback
- D. Confusion

**Correct Answer: B. Formication**

The feeling of bugs crawling under the skin is termed as formication, and is associated with cocaine use. Formication is the sensation that resembles that of small insects crawling on (or under) the skin when there is nothing there. It is one specific form of a set of sensations known as paresthesias, which also include the more common prickling, tingling sensation known as “pins and needles”.

- **Option A:** Delusions are defined as fixed, false beliefs that conflict with reality. Despite contrary evidence, a person in a delusional state can't let go of their convictions. Delusions are often reinforced by the misinterpretation of events. Many delusions also involve some level of paranoia. For example, someone might contend that the government is controlling our every move via radio waves despite evidence to the contrary.
- **Option C:** Flashbacks are psychological phenomena during which a person relives a past event or fragments of a past experience. They generally occur involuntarily, abruptly entering an individual's awareness without the aid of premeditation or conscious attempts to recall the memory, and they may be intense.
- **Option D:** A mental disturbance characterized by bewilderment, inability to think clearly or act decisively, and disorientation for time, place, and person. Also called mental confusion.

**15. An adolescent with borderline personality is hospitalized with suicidal ideation and self-mutilation. Which goal is both therapeutic and realistic for this client?**

- A. The client will remain in her room when feeling overwhelmed by sadness.
- B. The client will seek out a staff member to verbalize feelings of anger and sadness.
- C. The client will leave group activities to pace when feeling anxious.
- D. The client will request medication when feeling loss of emotional control.

**Correct Answer: B. The client will seek out a staff member to verbalize feelings of anger and sadness.**

- Option B: Verbalizing feelings of anger and sadness to a staff member is an appropriate therapeutic goal for the client with a risk of self-directed violence.
- Options A and C: Placing the client in an isolated situation to deal with her feelings alone will promote more suicidal tendencies.
- Option D: Giving off medication will not allow the client to ventilate her feelings.

**16. Immediately post-op after a prostatectomy, which complications require priority assessment of your patient?**

- A. Pneumonia
- B. Hemorrhage
- C. Urine retention
- D. Deep vein thrombosis

**Correct Answer: B. Hemorrhage**

Hemorrhage is a potential complication. Postoperative hemorrhage is a rare but severe complication in LRP. Bleeding generally originates from injured venous vessels in the prostatectomy area, which is always self-limiting due to tissue compression in the pelvic space. However, it is not easy for slightly larger arteries to stop bleeding automatically.

- **Option A:** Pneumonia may occur if the patient doesn't cough and deep breathe. Postoperative pneumonia is an important cause of morbidity and mortality and represents an important financial burden of \$10.5 billion per year. Patients undergoing surgery, especially complex procedures, are at a greater risk due to intubation, post-surgical atelectasis, and long hospital stays exposing them to hospital-acquired pathogens. It has been estimated that approximately one out of four deaths within six days of surgery is due to its complications.
- **Option C:** Urine retention isn't a problem soon after surgery because a catheter is in place. Although leaving a temporary indwelling catheter is standard practice after radical prostatectomy to allow anastomotic healing, urinary catheterization represents a source of infection, significant discomfort, and anxiety for the patient following radical prostatectomy.
- **Option D:** Thrombosis may occur later if the patient doesn't ambulate. Historically, the reported rate of symptomatic VTEs is low in open prostatectomy series, as well as robot-assisted radical prostatectomy (RARP) series. As a result, it is unclear which patients are at the highest risk of VTEs developing and who would benefit from medical prophylaxis, given the low incidence of VTEs and a possible increase in complications with the use of heparin.

**17. To provide relief from the cytarabine syndrome, which drug is given?**

- A. Dexamethasone
- B. Allopurinol
- C. Alka Seltzer
- D. Aspirin

**Correct Answer: A. Dexamethasone**

- **Option A:** Steroids such as dexamethasone may be prescribed to promote relief from cytarabine syndrome.
- **Option B:** Allopurinol is given for hyperuricemia that will result from taking some chemotherapeutic agent.
- **Options C and D:** Since cytarabine causes platelets to decrease, aspirin and aspirin-containing products are not advised unless prescribed by the physician.

**18. Nurse Joan is assigned to come for a client who has just undergone eye surgery. Nurse Joan plans to teach the client activities that are permitted during the postoperative period. Which of the following is best recommended for the client?**

- A. Watching circus
- B. Bending over
- C. Watching TV
- D. Lifting objects

**Correct Answer: C. Watching TV**

Watching TV is permissible because the eye does not need to move rapidly with this activity, and it does not increase intraocular pressure. Once the patient gets home, it is recommended that they rest their eyes and nap. Several hours post-surgery, most people are able to watch some television or look at a computer screen for a short period of time. Because cataract surgery is only performed on one eye at a time, the patient may notice an imbalance in the vision until the second eye is operated on (usually 1–4 weeks later).

- **Option A:** Watching a circus would require a lot of eye movement and might strain the eyes. It is normal for vision to be blurry in the beginning – the eye needs to heal and adjust. Vision will normally begin to improve within a few days of the surgery. It's also normal for the eye to feel itchy and to experience mild discomfort for a couple of days – the doctor will ask the client to wear an eye patch or protective shield at night to ensure they don't rub their eye while they sleep. This discomfort should disappear after a few days.
- **Option B:** Bending over increases intraocular pressure. Immediately after the procedure, avoid bending over to prevent putting extra pressure on the eye. If at all possible, don't sneeze or vomit right after surgery. Don't rub the eye after surgery.
- **Option D:** Lifting objects could cause an increase in intraocular pressure. Don't do any heavy lifting or strenuous activity for a few weeks. Be careful walking around after surgery, and don't bump into doors or other objects. Don't expose the eye to irritants such as dust, dirt, wind, and pollen during the first few weeks after surgery.

**19. What are the critiquing criteria used to judge the worth of a research study? Select all that apply.**

- A. Measures
- B. Objectives
- C. Standards
- D. Effectiveness
- E. Evaluation guides
- F. Questions

**Correct Answers: A, C, E, F**

Critiquing is a systematic process for evaluating research studies and the results reported. A research critique is an analysis of a research undertaking that focuses on its strengths and limitations.

- **Option A:** Physiological measurement: Is a rationale given for why a particular instrument or method was selected? If so, what is it? What provision is made for maintaining the accuracy of the instrument and its use, if any?
- **Option B:** Research objectives describe concisely what the research is trying to achieve. They summarize the accomplishments a researcher wishes to achieve through the project and provide direction to the study.
- **Option C:** Academic research standards are ethical guidelines that researchers are expected to follow in the course of conducting and reporting research. They are moral principles that guide researchers on how to carry out research activities ethically, without causing harm to the integrity of science and to human or animal life.
- **Option D:** Effectiveness is a measure of the extent to which a specific intervention, procedure, regimen, or service, when deployed in the field in routine circumstances, does what it is intended to do for a specified population.
- **Option E:** Read the research article or report in its entirety to get a sense of the study and its contribution to knowledge development. Read the article or report again, paying attention to the questions appropriate to each stage of the critiquing process.
- **Option F:** The current paper suggests that the following guidelines be used when a qualitative research paper is being examined: the topic must be appropriate for qualitative inquiry; the specific qualitative research method chosen must "fit"; the literature reviewed should be consistent with the method chosen.

**20. A staff nurse who is promoted to assistant nurse manager may feel uncomfortable initially when supervising her former peers. She can best decrease this discomfort by:**

- A. Writing down all assignments.
- B. Making changes after evaluating the situation and having discussions with the staff.
- C. Telling the staff nurses that she is making changes to benefit their performance.
- D. Evaluating the clinical performance of each staff nurse in a private conference.

**Correct Answer: B. Making changes after evaluating the situation and having discussions with the staff.**

A new assistant nurse manager should not make changes until she has had a chance to evaluate staff members, patients, and physicians. Changes must be planned thoroughly and should be based on a need to improve conditions, not just for the sake of change.

- **Option A:** Written assignments allow all staff members to know their own and others' responsibilities and serve as a checklist for the manager, enabling her to gauge whether the unit is being run effectively and whether patients are receiving appropriate care.
- **Option C:** Telling the staff nurses that she is making changes to benefit their performance should occur only after the nurse has made a thorough evaluation.
- **Option D:** Evaluations are usually done on a yearly basis or as needed.

**21. A nurse is making initial rounds at the beginning of the shift and notices that the parenteral nutrition (PN) bag of an assigned client is empty. Which of the following solutions readily available on the nursing unit should the nurse hang until another PN solution is mixed and delivered to the nursing unit?**

- A. 10% dextrose in water.
- B. 5% dextrose in water.
- C. 5% dextrose in normal saline.
- D. 5% dextrose in lactated Ringer solution.

**Correct Answer: A. 10% dextrose in water.**

The client is at risk of hypoglycemia. Hence the nurse will hang a solution that has the highest amount of glucose until the new parenteral nutrition solution becomes readily available. Crystalloid fluids are a subset of intravenous solutions that are frequently used in the clinical setting. Crystalloid fluids are the first choice for fluid resuscitation in the presence of hypovolemia, hemorrhage, sepsis, and dehydration.

- **Option B:** Option B is also a crystalloid fluid, but contains less glucose than option A. Other clinical applications include acting as a solution for intravenous medication delivery, to deliver maintenance fluid in patients with limited or no enteral nutrition, blood pressure management, and to increase diuresis to avoid nephrotoxic drug or toxin-mediated end-organ damage.
- **Option C:** Dextrose 5 in .9 Sodium Chloride is a prescription medicine used to treat the symptoms of hypoglycemia. Dextrose 5 in .9 Sodium Chloride may be used alone or with other medications. Dextrose 5 in .9 Sodium Chloride belongs to a class of drugs called Glucose-Elevating Agents; Metabolic and Endocrine, Other.
- **Option D:** 5% Dextrose in Lactated Ringer's Injection provides electrolytes and calories, and is a source of water for hydration. It is capable of inducing diuresis depending on the clinical condition of the patient. This solution also contains lactate which produces a metabolic alkalizing effect.

**22. The catheter slips into the vagina during a straight catheterization of a female client. The nurse does which action?**

- A. Leaves the catheter in place and gets a new sterile catheter.
- B. Leaves the catheter in place and asks another nurse to attempt the procedure.

- C. Removes the catheter and redirects it to the urinary meatus.
- D. Removes the catheter, wipes it with a sterile gauze, and redirects it to the urinary meatus.

**Correct Answer: A. Leaves the catheter in place and gets a new sterile catheter.**

The catheter in the vagina is contaminated and can't be reused. If left in place, it may help avoid mistaking the vaginal opening for the urinary meatus. A single failure to catheterize the meatus doesn't indicate that another nurse is needed although sometimes a second nurse can assist in visualization of the meatus. Urinary bladder catheterization is performed for both therapeutic and diagnostic purposes. Based on the dwell time, the urinary catheter can be either intermittent (short-term) or indwelling (long-term).

- **Option B:** After exposing the urethral meatus, a lubricated catheter tip is advanced in the meatus until there is a spontaneous return of urine. The catheter balloon is then inflated as per the manufacturer's recommendations.
- **Option C:** In the event a catheter is inserted in the vagina, it should be left there until a new sterile catheter is successfully inserted into the meatus. Analgesia is of no proven clinical use in women. Lubrication jelly should be applied to the tip of the catheter. The application of lubricant to the urethral meatus is associated with difficulty in catheter insertion.
- **Option D:** Urinary tract infection (UTI) is the most common complication that occurs as a result of long-term catheterization. The normal urinary flow prevents the ascension of microbes from the periurethral skin avoiding the infection. Alteration of the defensive mechanism from the catheter results in an increased risk of UTIs. Escherichia coli and Klebsiella pneumonia are the most common organisms implicated in UTIs. Recurrent UTIs are associated with increased antibiotic resistance.

**23. A nurse assesses a client who has episodes of autonomic dysreflexia. Which of the following conditions can cause autonomic dysreflexia?**

- A. Headache
- B. Lumbar spinal cord injury
- C. Neurogenic shock
- D. Noxious stimuli

**Correct Answer: D. Noxious stimuli**

Noxious stimuli, such as a full bladder, fecal impaction, or a decubitus ulcer, may cause autonomic dysreflexia. Dysregulation of the autonomic nervous system leads to an uncoordinated autonomic response that may result in a potentially life-threatening hypertensive episode when there is a noxious stimulus below the level of the spinal cord injury. In about 85% of cases, this stimulus is from a urological source such as a UTI, a distended bladder, or a clogged Foley catheter.

- **Option A:** A headache is a symptom of autonomic dysreflexia, not a cause. Autonomic dysreflexia should be strongly suspected in any spinal cord injured patient with a lesion above T6 who complains of a headache. A blood pressure reading should be taken immediately, and corrective treatment starts if the patient's blood pressure is significantly elevated as most spinal cord injured patients have low blood pressure.
- **Option B:** Autonomic dysreflexia is most commonly seen with injuries at T10 or above. Spinal cord injuries below T10 rarely result in autonomic dysreflexia because the splanchnic innervation remains intact and allows for compensatory parasympathetic dilation of the splanchnic vascular

bed. The etiology is a spinal cord injury, usually above the T6 level. It is unlikely to occur if the level is below T10. The higher the injury level, the greater the severity of the cardiovascular dysfunction.

- **Option C:** Neurogenic shock isn't a cause of dysreflexia. The severity and frequency of autonomic dysreflexia episodes are also associated with the completeness of the spinal cord injury. Patients usually develop autonomic dysreflexia one month to one year after their injury. However, it has also been described in the first days or weeks after the original trauma. Objectively, an episode is defined as an increase in systolic blood pressure of 25 mm Hg.

**24. The LPN/LVN, under your supervision, is providing nursing care for a patient with GBS. What observation would you instruct the LPN/LVN to report immediately?**

- A. Complaints of numbness and tingling.
- B. Facial weakness and difficulty speaking.
- C. Rapid heart rate of 102 beats per minute.
- D. Shallow respirations and decreased breath sounds.

**Correct Answer: D. Shallow respirations and decreased breath sounds**

The priority interventions for the patient with GBS are aimed at maintaining adequate respiratory function. These patients are at risk for respiratory failure, which is urgent. Upon presentation, 40% of patients have a respiratory or oropharyngeal weakness. Ventilatory failure with required respiratory support occurs in up to one-third of patients at some time during the course of their disease.

- **Option A:** These findings should be reported to the nurse but it is not an urgent matter. The typical patient with Guillain-Barré syndrome (GBS), which in most cases will manifest as acute inflammatory demyelinating polyradiculoneuropathy (AIDP), presents 2-4 weeks following a relatively benign respiratory or gastrointestinal illness with complaints of finger dysesthesias and proximal muscle weakness of the lower extremities.
- **Option B:** Facial weakness and difficulty of speaking are common signs of GBS and must be reported, but it is not a priority. The classic clinical picture of weakness is ascending and symmetrical in nature. The lower limbs are usually involved before the upper limbs. Proximal muscles may be involved earlier than the more distal ones. Trunk, bulbar, and respiratory muscles can be affected as well.
- **Option C:** A rapid heart rate is important and should be reported to the nurse, but it is not life-threatening. Autonomic nervous system involvement with dysfunction in the sympathetic and parasympathetic systems can be observed in patients with GBS.

**25. A baby is born precipitously in the ER. The nurse's initial action should be to:**

- A. Establish an airway for the baby
- B. Ascertain the condition of the fundus
- C. Quickly tie and cut the umbilical cord
- D. Move mother and baby to the birthing unit

**Correct Answer: A. Establish an airway for the baby.**

- **Option A:** The nurse should position the baby with head lower than chest and rub the infant's back to stimulate crying to promote oxygenation.
- **Option C:** There is no haste in cutting the cord.

**26. Which client statement informs the nurse that his teaching about the proper use of an incentive spirometer was effective?**

- A. "I should breathe out as fast and as hard as possible into the device."
- B. "I should inhale slowly and steadily to keep the balls up."
- C. "I should use the device three times a day, after meals."
- D. "The entire device should be washed thoroughly in sudsy water once a week."

**Correct Answer: B. "I should inhale slowly and steadily to keep the balls up."**

Proper use of an SMI requires the client to take slow, steady inhalations, every hour or two, 5 to 10 reps each time. Spirometry is one of the most readily available and useful tests for pulmonary function. It measures the volume of air exhaled at specific time points during complete exhalation by force, which is preceded by a maximal inhalation. The most important variables reported include total exhaled volume, known as the forced vital capacity (FVC), the volume exhaled in the first second, known as the forced expiratory volume in one second (FEV1), and their ratio (FEV1/FVC).

- **Option A:** The patient must breathe in as much air as they can with a pause lasting for less than 1s at the total lung capacity. The mouthpiece is placed just inside the mouth between the teeth, soon after the deep inhalation. The lips should be sealed tightly around the mouthpiece to prevent air leakage. Exhalation should last at least 6 seconds, or as long as advised by the instructor. If only the forced expiratory volume is to be measured, the patient must insert the mouthpiece after performing step 1 and must not breathe from the tube.
- **Option C:** The procedure is repeated in intervals separated by 1 minute until two matching, and acceptable results are acquired. Spirometry has proved to be a crucial tool in diagnosing lung disease, monitoring patients for their pulmonary function, and assessing their fitness for various procedures.
- **Option D:** Only the mouthpiece can be successfully rinsed or wiped clean. The device should not be submerged in water. Spirometry is an apparatus used to assess pulmonary function for diagnostic or monitoring purposes. The procedure must be explained thoroughly to the subject patient by competent personnel who underwent training under supervision by a specialist mentor and will undergo periodic retraining in order to ensure that the results obtained are as accurate as possible and the complications are kept to a minimum.

**27. Atherosclerosis impedes coronary blood flow by which of the following mechanisms?**

- A. Plaques obstruct the vein
- B. Plaques obstruct the artery
- C. Blood clots form outside the vessel wall
- D. Hardened vessels dilate to allow the blood to flow through

**Correct Answer: B. Plaques obstruct the artery.**

Arteries, not veins, supply the coronary arteries with oxygen and other nutrients. Atherosclerosis is a lipoprotein-driven disease that leads to plaque formation at specific sites of the arterial tree through intimal inflammation, necrosis, fibrosis, and calcification.

- **Option A:** Atherosclerosis is a direct result of plaque formation in the artery. Most often, the culprit morphology is plaque rupture with exposure of highly thrombogenic, red cell-rich necrotic core material. The permissive structural requirement for this to occur is an extremely thin fibrous cap, and thus, ruptures occur mainly among lesions defined as thin-cap fibroatheromas.
- **Option C:** Blood clots form inside the vessel wall and impede circulation. Also common are thrombi forming on lesions without rupture (plaque erosion), most often on pathological intimal thickening or fibroatheromas. However, the mechanisms involved in plaque erosion remain largely unknown, although coronary spasm is suspected.
- **Option D:** Hardened vessels can't dilate properly and, therefore, constrict blood flow. During atherogenesis, the local vessel segment tends to remodel in such a way that the lumen area is usually not compromised until plaques are large (expansive remodeling). Thereafter stenosis formation may occur through continued plaque growth or shrinkage of the local vessel segment (constrictive remodeling) or a combination of the 2 processes.

**28. Clients with chronic illnesses are more likely to get pneumonia when which of the following situations is present?**

- A. Dehydration
- B. Group living
- C. Malnutrition
- D. Severe periodontal disease

**Correct Answer: B. Group living**

Clients with chronic illnesses generally have poor immune systems. Often, residing in group living situations increases the chance of disease transmission. Pneumonia is a fairly prevalent disease and carries a heavy burden in all populations. A study carried out by the US Centers for Disease Control and Prevention (CDC) aimed at estimating its burden in North America found that CAP accounted for the eighth leading cause of mortality in the United States and the seventh leading cause of mortality in Canada after adjusting for various gender and age differences.

- **Option A:** Pneumonia can also cause dehydration from fever and decreased thirst and appetite, which may require treatment with extra fluids intravenously. Potential benefits of fluids are replacing fluid lost because of fever or rapid breathing, treating dehydration, and reducing the viscosity of mucus.
- **Option C:** Pneumonia is common in malnourished children and is frequently associated with fatal outcomes, especially in children younger than 24 months of age. Studies consistently reported a two- to threefold greater risk of mortality in cases with pneumonia associated with malnutrition. Therefore, pneumonia and malnutrition are two of the biggest killers in childhood diseases.
- **Option D:** Various pathogenic bacteria have been found in patients with deep periodontal pockets. The association between periodontal disease and pneumonia may be due to colonization by pathogenic bacteria in the periodontal pocket, as inhalation of a pathogen is considered a risk factor for pneumonia.

**29. Nurse Oliver is attending to a child with Cushing's syndrome. Which of the following nursing interventions would be most necessary?**

- A. Observing the child for signs and symptoms of metabolic acidosis
- B. Handling the child carefully to prevent bruising
- C. Monitoring vital signs for hypertension and tachycardia
- D. Monitoring the child for signs and symptoms of hypoglycemia

**Correct Answer: B. Handling the child carefully to prevent bruising.**

The nurse should handle the child carefully because Cushing's syndrome causes capillary fragility, resulting in easy bruising and calcium excretion, resulting in osteoporosis. Glucocorticoids also increase catabolism of proteinaceous tissues such as collagen, causing skin atrophy fragility with striae and easy bruising.

- **Option A:** Cushing's syndrome causes increased excretion of hydrogen ions, resulting in alkalosis and increased water and sodium retention. High cortisol levels also cause immune disruptions; this hormone leads to a decrease in lymphocyte levels and increases the neutrophils. It causes detachment of the marginating pool of neutrophils in the bloodstream and increases the circulating neutrophil levels although there is no increased production of the neutrophils.
- **Option C:** Cushing's syndrome causes increased excretion of potassium and hypokalemia resulting in a sluggish and irregular heartbeat. Cortisol decreases glomerular filtration rate, and renal plasma flow from the kidneys thus increasing phosphate excretion, as well as increasing sodium and water retention and potassium excretion by acting on mineralocorticoid receptors.
- **Option D:** Cushing's syndrome causes hyperglycemia, not hypoglycemia. The excess of cortisol results in an increased rate of gluconeogenesis, glycogenolysis and increases insulin resistance. Cortisol is a steroid hormone, and it directly affects the transcription and translation of enzyme proteins involved in the metabolism of fats, glycogen, protein synthesis, and Krebs's cycle.

**30. Nurse Cindy is caring for a client who has undergone a vaginal hysterectomy. The nurse avoids which of the following in the care of this client?**

- A. Removal of antiembolism stockings twice daily
- B. Checking placement of pneumatic compression boots
- C. Elevating the knee gatch on the bed
- D. Assisting with range-of-motion leg exercises

**Correct Answer: C. Elevating the knee gatch on the bed**

- **Option C:** The nurse should avoid using the knee gatch in the bed, which inhibits venous return, thus placing the client more at risk for deep vein thrombosis or thrombophlebitis.
- **Options A, B, and D:** The client is at risk of deep vein thrombosis or thrombophlebitis after this surgery, as for any other major surgery. For this reason, the nurse implements measures that will prevent this complication. Range-of-motion exercises, anti-embolism stockings, and pneumatic compression boots are helpful.

**31. 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.

**32. During a routine health examination, a 30-year-old patient tells the nurse about a family history of colon cancer. The nurse will plan to**

- A. Schedule a sigmoidoscopy to provide baseline data about the patient
- B. Teach the patient about the need for a colonoscopy at age 50
- C. Have the patient ask the doctor about specific tests for colon cancer
- D. Ask the patient to bring in a stool specimen to test for occult blood

**Correct Answer: C. Have the patient ask the doctor about specific tests for colon cancer**

- **Option C:** The patient is at increased risk and should talk with the health care provider about needed tests, which will depend on factors such as the exact type of family history and any current symptoms.
- **Option A:** The health care provider will take multiple factors into consideration before determining whether a sigmoidoscopy is needed at age 30.  
**Option B:** Colonoscopy at age 50 is used to screen for individuals without symptoms or increased risk, but earlier testing may be needed for this patient because of family history.
- **Option D:** For fecal occult blood testing, patients use a take-home multiple sample method rather than bring one specimen to the clinic.

**33. A 32-year-old male patient presents to a dental clinic for a routine check-up after several years of neglecting his oral health. The dental hygienist notes that, despite some plaque and minor gum inflammation, the patient seems to have all his permanent teeth, with none missing or extracted. Given the patient's age and dental history, the instructor uses this clinical scenario as an opportunity to gauge the students' knowledge about the normal distribution of permanent teeth in each quadrant of an adult mouth. Reflecting on the oral anatomy of this patient, and considering the standard distribution of adult teeth, the instructor**

**poses the question: Each quadrant of the adult mouth typically holds how many permanent \_\_\_ incisors, \_\_\_ canines, \_\_\_ premolars, and \_\_\_ molars?**

- A. 1, 2, 3, 2
- B. 1, 2, 2, 3
- C. 2, 1, 3, 2
- D. 2, 1, 2, 3

**Correct Answer: D. 2, 1, 2, 3**

There are 32 teeth in the normal adult mouth, located in the mandible and maxillae. The teeth can be divided into quadrants: right upper, left upper, right lower, and left lower. In adults, each quadrant contains one central and one lateral incisor; one canine; first and second premolars; and first, second, and third molars.

- **Option A:** This is incorrect. Adults have 2 incisors (1 central and 1 lateral) in each quadrant. Also, adults do not have 3 premolars in each quadrant; they typically have 2 (1 first premolar and 1 second premolar).
- **Option B:** This is incorrect. Adults have 2 incisors in each quadrant, not 1. Also, there is typically 1 canine in each quadrant, not 2.
- **Option C:** This is incorrect. While adults have 2 incisors and 1 canine in each quadrant, they typically do not have 3 premolars; they have 2 (1 first premolar and 1 second premolar).

**34. Mrs. Thompson, a 68-year-old postmenopausal woman with a BMI of 30, has been recently diagnosed with osteoarthritis of the knees. She has a past medical history significant for hypertension, for which she is on Lisinopril. Mrs. Thompson has mentioned her increased difficulty in getting up from a seated position and has expressed concerns about her weight contributing to her joint pain. Given her clinical scenario, which interventions should the nurse incorporate into a tailored educational plan for Mrs. Thompson to ensure optimal self-management strategies? Select all that apply.**

- A. Encouraging weight loss if the patient is overweight
- B. Teaching proper body mechanics to prevent joint strain
- C. Instructing the patient to avoid all forms of exercise
- D. Demonstrating the use of assistive devices for mobility
- E. Educating on the importance of medication adherence

**Correct answers: A, B, D, and E.**

- **Option A:** Excess weight puts added strain on weight-bearing joints like the knees. Reducing weight can help alleviate some of the symptoms of osteoarthritis.
- **Option B:** Proper body mechanics can reduce the strain on joints, especially during activities like lifting. Educating patients about these techniques can help prevent further joint damage and alleviate some pain associated with osteoarthritis.
- **Option D:** Assistive devices like canes or walkers can help distribute weight and reduce stress on affected joints. They can also prevent falls and provide added stability.

- **Option E:** Medication adherence can help control symptoms and prevent disease progression. In the case of hypertension (as with Mrs. Thompson), it's crucial for overall health and can indirectly affect the severity of osteoarthritis symptoms, as uncontrolled blood pressure can exacerbate many medical conditions.
- **Option C:** Exercise, especially low-impact exercises like swimming or cycling, can help strengthen the muscles around the joint, which can reduce the symptoms of osteoarthritis. Additionally, exercise helps maintain joint mobility and flexibility. It's essential, however, to consult with physical therapists or physicians about appropriate exercises.

**35. While performing a neurodevelopmental assessment on a 3-month-old infant, which of the following characteristics would be expected?**

- A. A strong Moro reflex.
- B. A strong parachute reflex.
- C. Rolling from front to back.
- D. Lifting of head and chest when prone.

**Correct Answer: D. Lifting of head and chest when prone**

A 3-month-old infant should be able to lift the head and chest when prone.

- **Option A:** The Moro reflex typically diminishes or subsides by 3 months. The Moro reflex is a normal primitive, infantile reflex. The Moro reflex is an involuntary protective motor response against abrupt disruption of body balance or extremely sudden stimulation.
- **Option B:** The parachute reflex appears at 9 months. This reflex occurs in slightly older infants when the child is held upright and the baby's body is rotated quickly to face forward (as in falling). The baby will extend his arms forward as if to break a fall, even though this reflex appears long before the baby walks.
- **Option C:** Rolling from front to back usually is accomplished at about 5 months.

**36. A client makes a routine visit to the prenatal clinic. Although she is 14 weeks pregnant, the size of her uterus approximates that in an 18- to 20-week pregnancy. Dr. Charles diagnoses gestational trophoblastic disease and orders ultrasonography. The nurse expects ultrasonography to reveal:**

- A. An empty gestational sac.
- B. Grapelike clusters.
- C. A severely malformed fetus.
- D. An extrauterine pregnancy.

**Correct Answer: B. Grapelike clusters.**

In a client with gestational trophoblastic disease, an ultrasound performed after the 3rd month shows grapelike clusters of transparent vesicles rather than a fetus. The vesicles contain a clear fluid and may involve all or part of the decidual lining of the uterus. Usually, no embryo (and therefore no fetus) is present because it has been absorbed.

- **Option A:** An anembryonic pregnancy is characterized by a gestational sac that forms and grows while an embryo fails to develop. Etiologies include morphological abnormalities of an embryo that prevents implantation or prevents long term survival of the embryo after implantation; chromosomal abnormalities that collectively include autosomal trisomy, polyploidy, sex chromosomal polysomy, and monosomy X likely represent the most common etiologies for early pregnancy loss; and other genetic and chromosomal abnormalities include translocations, inversions, single-gene perturbations, and placental mosaicism.
- **Option C:** Congenital anomalies are also known as birth defects, congenital disorders or congenital malformations. Congenital anomalies can be defined as structural or functional anomalies (for example, a severely malformed fetus) that occur during intrauterine life and can be identified prenatally, at birth, or sometimes may only be detected later in infancy, such as hearing defects.
- **Option D:** Because there is no fetus, there can be no extrauterine pregnancy. An extrauterine pregnancy is seen with an ectopic pregnancy.

**37. A client with frequent urinary tract infections asks the nurse how she can prevent the recurrence. The nurse should teach the client to:**

- A. Douche after intercourse
- B. Void every 3 hours
- C. Obtain a urinalysis monthly
- D. Wipe from back to front after voiding

**Correct Answer: B. Void every 3 hours**

Voiding every 3 hours prevents stagnant urine from collecting in the bladder, where bacteria can grow.

- **Options A and C:** Douching is not recommended and obtaining a urinalysis monthly is not necessary.
- **Option D:** The client should practice wiping from front to back after voiding and bowel movements.

**38. A client enters the ER complaining of chest pressure and severe epigastric distress. His VS are 158/90, 94, 24, and 99°F. The doctor orders cardiac enzymes. If the client were diagnosed with an MI, the nurse would expect which cardiac enzyme to rise within the next 3 to 8 hours?**

- A. Creatine kinase (CK or CPK)
- B. Lactic dehydrogenase (LDH)
- C. LDH-1
- D. LDH-2

**Correct Answer: A. Creatine kinase (CK or CPK)**

Creatine kinase (CK, formally known as CPK) rises in 3-8 hours if an MI is present. When the myocardium is damaged, CPK leaks out of the cell membranes and into the bloodstream. Creatine kinase activity is one of the oldest markers of acute myocardial infarction (AMI). Creatine kinase activity begins to rise within 12 hours of AMI symptoms, peaks at 24 to 36 hours, and normalizes after 48 to 72

hours.

- **Option B:** Lactic dehydrogenase rises in 24-48 hours. Lactate dehydrogenase is an enzyme that is present in almost all body tissues. Because LDH is non-specific and routine isozyme measurement is usually unavailable in clinical laboratories, LDH measurements provide incomplete information, and alternate assays such as CK for muscle, ALT for liver, troponin for heart diseases, etc. are needed.
- **Option C:** Isozyme LDH-1 has four heart subunits (4H) and is the major isozyme present in the heart tissue. The assembly of the enzymes occurs in a defined ratio through a tissue-specific synthesis of subunits, hence providing tissue specificity, i.e., heart-specific LDH (LDH-1) preferentially synthesizes all four H subunits, while liver LDH (LDH-5) is exclusively made of all M-subunits. In acute myocardial infarction, LDH-1 isozyme remains elevated from the second day to up to the 4th day.
- **Option D:** LDH-2 rises in 8-24 hours. Isozyme LDH-2 has three heart and one muscle subunit (3H1M) and is the major isozyme of the reticuloendothelial system and RBC. LDH can be used as a satisfactory marker for the staging of a disease (S-classification), monitor prognosis or response to treatment, and to evaluate body fluids other than blood. The decrease in LDH levels during treatment is indicative of a better prognosis and/or good response to treatment in conditions such as acute myocardial infarction or liver injury.

**39. Ryan who is a chronic alcohol abuser is being assessed by Nurse Gina. Which problems are related to thiamine deficiency?**

- A. Cardiovascular symptoms, such as decreased hemoglobin and hematocrit levels.
- B. CNS symptoms, such as ataxia and peripheral neuropathy.
- C. Gastrointestinal symptoms, such as nausea and vomiting.
- D. Respiratory symptoms, such as cough and sore throat.

**Correct Answer: B. CNS symptoms, such as ataxia and peripheral neuropathy**

Wernicke's encephalopathy is a CNS disorder caused by acute thiamine deficiency in people who abuse alcohol. Other symptoms, besides ataxia and peripheral neuropathy, are acute confusion or delirium. Deficiency of thiamine can affect the cardiovascular, nervous, and immune system, as is commonly seen in wet beriberi, dry beriberi, or as Wernicke-Korsakoff syndrome. Wet and dry beriberi often have overlapping features, and in either condition, paresthesias may be a presenting feature.

- **Option A:** Cardiovascular symptoms are usually associated with alcohol abuse. The patient may have hypertension (HTN) or insomnia initially. In later stages, the patient may complain of nausea/vomiting, hematemesis, abdominal distension, epigastric pain, weight loss, jaundice, or other symptoms or signs suggestive of liver dysfunction. They may be asymptomatic early on.
- **Option C:** Gastrointestinal symptoms are associated with alcohol abuse; they are not caused by thiamine deficiency. On exam, they may exhibit signs of cerebellar dysfunction, such as ataxia or difficulty with fine motor skills. They may exhibit slurred speech, tachycardia, memory impairment, nystagmus, disinhibited behavior, or hypotension. They may present with tremors, confusion/mental status changes, asterixis, ruddy palms, jaundice, ascites, or other signs of advanced liver disease. There may also be spider angiomas, hepatomegaly/splenomegaly (early; liver becomes cirrhotic and shrunken in advanced disease).
- **Option D:** Respiratory problems are not usually directly related to alcohol. Marijuana smoke can also cause respiratory problems, including chronic bronchitis. Smoking crack cocaine can cause lung damage and severe respiratory problems. The use of some drugs, such as opioids, may

cause breathing to slow, block air from entering the lungs, or make asthma symptoms worse.

**40. A 6-year-old child is scheduled to have measles, mumps, and rubella (MMR) vaccine. Which of the following routes will you expect the nurse to administer the vaccine?**

- A. Intramuscularly in the vastus lateralis muscle.
- B. Intramuscularly in the deltoid muscle.
- C. Subcutaneously in the gluteal area.
- D. Subcutaneously in the outer aspect of the upper arm.

**Correct Answer: D. Subcutaneously in the outer aspect of the upper arm.**

(MMR) the vaccine is administered subcutaneously in the outer aspect of the upper arm. The dosage for both MMR and MMRV is 0.5 mL. Both vaccines are administered by the subcutaneous route.

- **Option A:** The preferred injection site in small children is the anterolateral aspect of the thigh. The posterior triceps aspect of the upper arm is the preferred site for older children and adolescents.
- **Option B:** MMR is not administered intramuscularly. The preferred injection site for adults is the posterior triceps aspect of the upper arm. If a second dose is indicated, the minimum interval between the first and second doses should be separated by at least 4 weeks (28 days).
- **Option C:** Gluteal area is not used as a site. The minimum age for both MMR and MMRV is 12 months of age. The typical age for the second dose of either vaccine is at 4 to 6 years of age. The maximum age for the administration of MMRV is 12 years. It should not be administered to anyone 13 years of age or older.

**41. Which nursing intervention would be a priority during the care of a 2-month-old after surgery?**

- A. Minimize stimuli for the infant.
- B. Restrain all extremities.
- C. Encourage stroking of the infant.
- D. Demonstrate to the mother how she can assist with her infant's care.

**Correct Answer: C. Encourage stroking of the infant.**

Tactile stimulation is imperative for an infant's normal emotional development. After the trauma of surgery, sensory deprivation can cause failure to thrive. Most babies with FTT do not have a specific underlying disease or medical condition to account for their growth failure. This is referred to as Non-organic FTT. Up to 80% of all children with FTT have Non-organic type FTT. Non-organic FTT most commonly occurs when there is inadequate food intake or there is a lack of environmental stimuli.

- **Option A:** Provide sensory stimulation. Attempt to cuddle the child and talk to him or her in a warm, soothing tone and allow for play activities appropriate for the child's age. Feed the child slowly and carefully in a quiet environment; during feeding, the child might be closely snuggled and gently rocked; it may be necessary to feed the child every 2 to 3 hours initially.
- **Option B:** Do not restrain the child. Burp the child frequently during and at the end of each feeding, and then place him or her on the side with the head slightly elevated or held in a chest-to-chest

position.

- **Option D:** If a family caregiver is present, encourage him or her to become involved in the child's feedings. While caring for the child, point out to the caregiver the child's development and responsiveness, noting and praising any positive parenting behaviors the caregiver displays.

**42. Which of the following conditions is most closely associated with weight gain, nausea, and a decrease in urine output?**

- A. Angina pectoris
- B. Cardiomyopathy
- C. Left-sided heart failure
- D. Right-sided heart failure

**Correct Answer: D. Right-sided heart failure**

Weight gain, nausea, and a decrease in urine output are secondary effects of right-sided heart failure. When the right side loses pumping power, blood backs up in the body's veins. This usually causes swelling or congestion in the legs, ankles and swelling within the abdomen such as the GI tract and liver (causing ascites).

- **Option A:** Angina pectoris doesn't cause weight gain, nausea, or a decrease in urine output. Patients with ACS most commonly present with angina, which patients usually describe as pain, pressure, tightness, or heaviness in the chest, with potential radiation to the jaw or left arm. It may be accompanied by shortness of breath, diaphoresis, nausea, or any combination of the above.
- **Option B:** Cardiomyopathy is usually identified as a symptom of left-sided heart failure. Other signs and symptoms may include dizziness; light-headedness; fainting during physical activity; arrhythmias (irregular heartbeats); chest pain, especially after physical exertion or heavy meals; and heart murmurs. (Heart murmurs are extra or unusual sounds heard during a heartbeat.)
- **Option C:** Left-sided heart failure causes primarily pulmonary symptoms rather than systemic ones. Patients with left heart failure may present with complaints of shortness of breath (often on exertion, a sensitivity of 89%), orthopnea (specificity of 89%), paroxysmal nocturnal dyspnea, and/or symptoms of volume overload (e.g., leg swelling, weight gain, increased abdominal girth, or right upper quadrant pain due to liver congestion). Interestingly, some patients with advanced disease might experience weight loss, referred to as "cardiac cachexia."

**43. Spina bifida is one of the possible neural tube defects that can occur during early embryological development. Which of the following definitions most accurately describes meningocele?**

- A. Complete exposure of spinal cord and meninges
- B. Herniation of the spinal cord and meninges into a sac
- C. Sac formation containing meninges and spinal fluid
- D. Spinal cord tumor containing nerve roots

**Correct Answer: C. Sac formation containing meninges and spinal fluid.**

Meningocele is a sac formation containing meninges and cerebrospinal fluid (CSF). Meningocele is the simplest form of open neural tube defects characterized by cystic dilatation of meninges containing cerebrospinal fluid without any neural tissue. A complex meningocele is associated with other spinal anomalies. Meningocele is a typically asymptomatic spinal anomaly and is not associated with acute neurologic conditions.

- **Option A:** Meningocele doesn't involve complete exposure of the spinal cord and meninges; this is a massive defect that's incompatible with life. A simple meningocele composed of meninges and CSF protruded into the subcutaneous tissue through a spinal defect. Skin overlying meningoceles are usually intact.
- **Option B:** Myelomeningocele is a herniation of the spinal cord, meninges, and CSF into a sac that protrudes through a defect in the vertebral arch. Myelomeningocele is the most common open neural tube defect. It is characterized by failure of the neural tube to close in the lumbosacral region during embryonic development (fourth-week post-fertilization), leading to the herniation of the meninges and spinal cord through a vertebral defect.
- **Option D:** Tumor formation is not associated with this defect. Meningocele presents as a swelling over the back covered with skin, present at birth. Defects can present at thoracolumbar, lumbosacral, lumbar, thoracic, sacral, and cervical regions. Neurological involvement and deficits are rare in meningocele.

#### ***44. The respiratory system regulates acid-base balance by:***

- A. Increasing mucus production.
- B. Changing the rate and depth of respiration.
- C. Forming bicarbonate.
- D. Reabsorbing bicarbonate.

#### **Correct Answer: B. Changing the rate and depth of respiration**

Through changes in the rate and depth of respiration, the acid-base balance is achieved via CO<sub>2</sub> elimination and retention. The pulmonary system adjusts pH using carbon dioxide; upon expiration, carbon dioxide is projected into the environment. C and D are responses that refer to ways in which kidneys balance acids and bases.

- **Option A:** Mucus production is not part of the pulmonary regulatory system. Due to carbon dioxide forming carbonic acid in the body when combining with water, the amount of carbon dioxide expired can cause pH to increase or decrease. When the respiratory system is utilized to compensate for metabolic pH disturbances, the effect occurs in minutes to hours.
- **Option C:** If bicarbonate is reabsorbed and/or acid is secreted into the urine, the pH becomes more alkaline (increases). When bicarbonate is not reabsorbed or acid is not excreted into the urine, pH becomes more acidic (decreases). The metabolic compensation from the renal system takes longer to occur: days rather than minutes or hours.
- **Option D:** The renal system affects pH by reabsorbing bicarbonate and excreting fixed acids. Whether due to pathology or necessary compensation, the kidney excretes or reabsorbs these substances which affect pH. The nephron is the functional unit of the kidney.

#### ***45. The client with chronic renal failure returns to the nursing unit following a hemodialysis treatment. On assessment the nurse notes that the client's temperature is 100.2. Which of the following is the most appropriate nursing***

**action?**

- A. Encourage fluids.
- B. Notify the physician.
- C. Monitor the site of the shunt for infection.
- D. Continue to monitor vital signs.

**Correct Answer: D. Continue to monitor vital signs.**

The client may have an elevated temperature following dialysis because the dialysis machine warms the blood slightly. If the temperature is elevated excessively and remains elevated, sepsis would be suspected, and a blood sample would be obtained as prescribed for culture and sensitivity purposes.

- **Option A:** Avoid contamination of the access site. Use aseptic technique and masks when giving shunt care, applying or changing dressings, and when starting or completing the dialysis process. Prevents the introduction of organisms that can cause infection.
- **Option B:** Notify physician and/or initiate declotting procedure if there is evidence of loss of shunt patency. Rapid intervention may save access; however, declotting must be done by experienced personnel.
- **Option C:** Assess skin around vascular access, noting redness, swelling, local warmth, exudate, tenderness. Signs of local infection, which can progress to sepsis if untreated. Monitor temperature. Note presence of fever, chills, hypotension. Signs of infection or sepsis requiring prompt medical intervention.

**46. Which of the following are the most commonly assessed findings in cystitis?**

- A. Frequency, urgency, dehydration, nausea, chills, and flank pain.
- B. Nocturia, frequency, urgency, dysuria, hematuria, fever, and suprapubic pain.
- C. Dehydration, Hypertension, dysuria, suprapubic pain, chills, and fever.
- D. High fever, chills, flank pain nausea, vomiting, dysuria, and frequency.

**Correct Answer: B. Nocturia, frequency, urgency dysuria, hematuria, fever and suprapubic pain**

Manifestations of cystitis include frequency, urgency, dysuria, hematuria nocturia, fever, and suprapubic pain. Based on a systematic review examining history and examination findings of women with uncomplicated UTI, the combination of dysuria and urinary frequency in the absence of vaginal discharge or irritation is highly predictive of uncomplicated cystitis. Symptoms may be subtle or atypical in the very young and the very old. Elderly patients with UTI may present with confusion or altered mental status.

- **Option A:** Cystitis refers to infection of the lower urinary tract, or more specifically the urinary bladder. It may be broadly categorized as either uncomplicated or complicated. Uncomplicated cystitis refers to lower urinary tract infection (UTI) in either men or non-pregnant women who are otherwise healthy. Complicated cystitis, on the other hand, is associated with risk factors that increase the risk of infection or the risk of failing antibiotic therapy.
- **Option C:** Cystitis usually develops due to the colonization of the periurethral mucosa by bacteria from the fecal or vaginal flora and ascension of such pathogens to the urinary bladder. Uropathogens may have microbial virulence factors that allow them to escape host defenses and

invade host tissues in the urinary tract. UTI in males is much less common due to the longer anatomic urethra and antibacterial defenses provided by the prostatic fluid.

- **Option D:** High fever chills, flank pain, nausea, vomiting, dysuria, and frequency are associated with pyelonephritis. Acute pyelonephritis is a bacterial infection causing inflammation of the kidneys and is one of the most common diseases of the kidney. Pyelonephritis occurs as a complication of an ascending urinary tract infection (UTI) which spreads from the bladder to the kidneys and their collecting systems.

**47. Which of the following symptoms indicated diverticulosis?**

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

**Correct Answer: A. No symptoms exist.**

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

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

**48. Nurse Blessy is doing some patient education related to a patient's central venous access device. Which of the following statements will the nurse make to the patient?**

- A. "These types of devices are essentially risk-free."
- B. "These devices seldom work for more than a week or two necessitating replacement."
- C. "The dressing should only be changed by your doctor."
- D. "Heparin is instilled into the lumen of the catheter to decrease the risk of clotting."

**Correct Answer: D. "Heparin is instilled into the lumen of the catheter to decrease the risk of clotting."**

A solution containing heparin is used to reduce catheter clotting and maintain patency. The concentration of heparin used depends on the patient's age, comorbidities, and the frequency of

catheter access/flushing. A common problem that complicates use of central venous access devices (CVADs) is occlusion by thrombosis. Alteplase, a recombinant tissue plasminogen activator, is used to restore line patency when thrombosis occurs. Heparin flush is commonly used to prevent this complication. heparin flush (10 units/mL) decreases thrombotic occlusions of CVADs, resulting in decreased alteplase use and fewer PICC line replacements.

- **Option A:** Although patients have few complications, the device is not risk-free. Patients may develop an infection, catheter clots, vascular obstruction, pneumothorax, hemothorax, or mechanical problems (catheter breakage). A variety of complications are associated with central venous catheters, including those associated with catheter insertion and immediate access-related issues, as well as longer-term (>1 week) complications such as catheter malfunction, central vein stenosis or thrombosis, and catheter-related infection.
- **Option B:** Strict adherence to protocol enhances the longevity of central access devices. They routinely last weeks to months and sometimes years. Ports are typically seen or felt on the chest wall or upper arm as a circular subcutaneous protuberance. They utilize the skin as a natural barrier to infection and patients can swim and bathe without issue. They have the lowest infection rates of all long-term central venous catheters, require little in the way of ongoing care, prolonged flush intervals (three to four weeks), and tend towards longevity. Each port membrane has a quoted survival of 1000–2000 punctures until it risks failure but this depends on needle size, operator skill, and other factors.
- **Option C:** The patient will be taught how to perform dressing changes at home. The Centers for Disease Control recommends changing CVAD dressings in adult patients at least every 2 days for gauze dressings and at least every 7 days for transparent dressings.

**49. The nurse is giving instructions to a client receiving cholestyramine (Prevalite). Which statement made by the client indicates a need for further teachings?**

- A. "This medication will help lower my cholesterol".
- B. "I will continue taking my multivitamins".
- C. "I will sip the cholestyramine powder for a long time for faster absorption".
- D. "I will include a high fiber rich food in my diet".

**Correct Answer: C. "I will sip the cholestyramine powder for a long time for faster absorption".**

Sipping the medication for a long time may cause tooth discoloration or tooth decay. Regular brushing of teeth is therefore recommended.

- **Option A:** Cholestyramine is a bile acid sequestrant. It works by helping the body remove bile acids, which can lower cholesterol levels in the blood.
- **Option B:** Cholestyramine may decrease the absorption of some vitamins such as vitamin K and folate.
- **Option D:** High fiber diet is advised to prevent constipation (a side effect of the medication).

**50. Which medication is commonly used in treatment programs for heroin abusers to produce a non-euphoric state and to replace heroin use?**

- A. Diazepam

- B. Carbamazepine
- C. Clonidine
- D. Methadone

**Correct Answer: D. Methadone**

Methadone maintenance programs are used to provide a heroin-depleted individual with a medically controlled dose of methadone to produce a non euphoric state that will prevent withdrawal symptoms. This method of treatment is advocated to help heroin abusers avoid criminal activities associated with obtaining heroin; it also prevents diseases associated with I.V. use of heroin. Methadone is an alternative in treating patients with opioid-tolerance as they may not respond to traditional analgesic regimens. In such patients, methadone dosages are adjusted, or combined with other opioids as adjuvant treatments to enhance response to analgesic interventions.

- **Option A:** Diazepam is an anxiolytic benzodiazepine, first patented and marketed in the United States in 1963. It is a fast-acting, long-lasting benzodiazepine commonly used in the treatment of anxiety disorders, as well as alcohol detoxification, acute recurrent seizures, severe muscle spasm, and spasticity associated with neurologic disorders. In the setting of acute alcohol withdrawal, diazepam is useful for symptomatic relief of agitation, tremor, alcoholic hallucinosis, and acute delirium tremens.
- **Option B:** Carbamazepine may be used for withdrawal from alcohol, barbiturates, and benzodiazepines. In patients with moderate to severe alcohol withdrawal syndrome, carbamazepine has shown to have clinical efficacy in treatment. Researchers proposed that carbamazepine keeps sodium channels in inactivated states, leading to fewer channels to open, and thus inhibits the generation of action potentials.
- **Option C:** Clonidine can be used in acute withdrawal from heroin to avoid norepinephrine rebound when opiates are stopped. Clonidine has multiple off-label uses such as the management of withdrawal symptoms from opioids, benzodiazepines, and alcohol, and for treatment of anxiety, insomnia, and post-traumatic stress disorder (PTSD). Clonidine hydrochloride is an imidazoline derivative that acts centrally on alpha-2 adrenergic as an agonist. The chemical name for clonidine is 2-((2,6-dichlorophenyl) amino)-2-imidazoline hydrochloride.

**51. Situation: In a home visit done by the nurse, she suspects that the wife and her child are victims of abuse. Which of the following is the most appropriate for the nurse to ask?**

- A. "Are you being threatened or hurt by your partner?"
- B. "Are you frightened of your partner?"
- C. "Is something bothering you?"
- D. "What happens when you and your partner argue?"

**Correct Answer: A. "Are you being threatened or hurt by your partner?"**

The nurse validates her observation by asking simple, direct questions. This also shows empathy. Some survivors may be hesitant to discuss certain aspects of their experience, while others may be more willing to share. Let the survivor share their story in their own words. While paraphrasing may be a helpful technique to understand the interviewee, it runs the risk of generalizing their experience.

- **Option B:** Try not to make assumptions. Recognize that every survivor has had a different experience, and may be at different points in their healing process. Try not to assume something

has already taken place, such as reporting to law enforcement, or that the survivor may feel a certain way.

- **Option C:** Ask for additional input. Ask the survivor if there is anything else they would like to share with you. Some aspects of their experience might not have been addressed as a direct answer to your questions. Give the survivor the opportunity to share any additional information.
- **Option D:** Be mindful and respect boundaries. Ask if there is anything the survivor would prefer not to discuss. Let the survivor know that it's OK if they don't want to answer every question you ask. Avoid giving advice. It's natural to try to give people solutions, especially if you have dealt with a similar situation. Keep in mind that survivors may have already taken action, or may not be looking for another solution. Instead of saying, "You should report," or "You should find a therapist," take a more supportive approach by asking, "Would you be interested in resources that may help with healing and recovery?"

**52. A client is admitted to the emergency room with a spinal cord injury. The client is complaining of lightheadedness, flushed skin above the level of the injury, and headache. The client's blood pressure is 160/90 mm Hg. Which of the following is a priority action for the nurse to take?**

- A. Loosen tight clothing or accessories
- B. Assess for any bladder distention
- C. Raise the head of the bed
- D. Administer antihypertensive

**Correct Answer: C. Raise the head of the bed**

The client is experiencing an autonomic dysreflexia, a life-threatening medical emergency that affects individuals with spinal injuries. Usually an individual with SCI has a blood pressure reading of 20 mm to 40 mm Hg above baseline. If this condition is suspected, the priority nursing action is to raise the head of bed or place the client in high Fowler's position. This promotes adequate ventilation and prevents the occurrence of hypertensive stroke.

- **Options A & B:** After positioning the client in high Fowler's position, the nurse should remove any noxious stimuli that may trigger autonomic dysreflexia by loosening any tight clothing or objects that might be tight-fitting such as a bracelet, shoes, or stockings and check the bladder if it is too full.
- **Option D:** Antihypertensive medication may be prescribed such as nifedipine and nitrates to decrease cerebral hypertension.

**53. The nursing intervention to relieve pain in breast engorgement while the mother continues to breastfeed is**

- A. Apply cold compress on the engorged breast.
- B. Apply warm compress on the engorged breast.
- C. Massage the breast.
- D. Apply analgesic ointment.

**Correct Answer: B. Apply warm compress on the engorged breast**

Warm compress is applied if the purpose is to relieve pain but ensure lactation to continue. If the purpose is to relieve pain as well as suppress lactation, the compress applied is cold.

- **Option A:** Using cold packs on the affected breast can help reduce swelling and relieve pain. Use warm packs just before a feed (for up to a few minutes) to help trigger the let-down reflex to help clear the blockage and may relieve pain.
- **Option C:** Gentle massage by stroking toward the nipple while the baby feeds may help in draining the breast of too much milk.
- **Option D:** The doctor may recommend an over-the-counter pain reliever, such as acetaminophen or ibuprofen. Ointments may interfere with the infant's breastfeeding.

**54. Which of the following should be included in a plan of care for a client who is lactose intolerant?**

- A. Remove all dairy products from the diet.
- B. Frozen yogurt can be included in the diet.
- C. Drink small amounts of milk on an empty stomach.
- D. Spread out selection of dairy products throughout the day.

**Correct Answer: B. Frozen yogurt can be included in the diet.**

Clients who are lactose intolerant can digest frozen yogurt. Yogurt products are formed by bacterial action, and this action assists in the digestion of lactose. The freezing process further stops bacterial action so that limited lactase activity remains. Some people who are lactose-intolerant can eat some kinds of yogurt without problems, especially yogurt with live cultures.

- **Option A:** Elimination of all dairy products can lead to significant clinical deficiencies of other nutrients. Be sure to get enough calcium in the diet, especially if the client avoids milk products completely. To get enough calcium, the client would need to eat calcium-rich foods as often as someone would drink milk. Calcium is very important because it keeps bones strong and reduces the risk of osteoporosis.
- **Option C:** Drinking milk on an empty stomach can exacerbate clinical symptoms. Drinking milk with a meal may benefit the client because other foods, (especially fat) may decrease transit time and allow for increased lactase activity. Limit the amount of milk and milk products in the diet. Try to drink 1 glass of milk each day. Drink small amounts several times a day. All types of milk contain the same amount of lactose.  
**Option D:** Although individual tolerance should be acknowledged, spreading out the use of known dairy products will usually exacerbate clinical symptoms. Eat or drink milk and milk products along with other foods. For some people, combining solid food (like cereal) with a dairy product (like milk) can reduce symptoms.

**55. The hormone responsible for a positive pregnancy test is:**

- A. Estrogen
- B. Progesterone
- C. Human Chorionic Gonadotropin
- D. Follicle Stimulating Hormone

**Correct Answer: C. Human Chorionic Gonadotropin**

Human chorionic gonadotropin (HCG) is the hormone secreted by the chorionic villi which is the precursor of the placenta. In the early stage of pregnancy, while the placenta is not yet fully developed, the major hormone that sustains the pregnancy is HCG.

- **Option A:** Estrogen helps control the menstrual cycle and is important for childbearing. Estrogen also has other functions: it keeps cholesterol in control and protects bone health for both women and men.
- **Option B:** Progesterone prepares the endometrium for the potential of pregnancy after ovulation. It triggers the lining to thicken to accept a fertilized egg. It also prohibits the muscle contractions in the uterus that would cause the body to reject an egg.
- **Option D:** In women, FSH helps control the menstrual cycle and stimulates the growth of eggs in the ovaries. FSH levels in women change throughout the menstrual cycle, with the highest levels happening just before an egg is released by the ovary. This is known as ovulation. In men, FSH helps control the production of sperm.

**56. Nurse Sue teaches a patient about pursed lip breathing. The nurse identifies that the teaching is affected when the patient says its purpose is to:**

- A. Precipitate coughing
- B. Help maintain open airways
- C. Decrease intrathoracic pressure
- D. Facilitate expectoration of mucus

**Correct Answer: B. Help maintain open airways**

Pursed-lip breathing involves deep inspiration and prolonged expiration against slightly closed lips. The pursed lips create a resistance to the air flowing out of the lungs, which prolongs exhalation and maintains positive airway pressure, thereby maintaining an open airway and preventing airway collapse. Pursed lip breathing is beneficial for people with chronic lung disease. It can help strengthen the lungs and make them more efficient.

- **Option A:** Deep breathing and huff coughing, not pursed-lip breathing, stimulate effective coughing. Deep breathing prevents air from getting trapped in the lungs, which can cause the client to feel short of breath. As a result, the client can breathe in a more fresh air.
- **Option C:** Pursed lip breathing increases, not decreased intrathoracic pressure. Pursed lip breathing is a simple technique for slowing down a person's breathing and getting more air into their lungs. With regular practice, it can help strengthen the lungs and make them work more efficiently. The technique involves breathing in through the nose and breathing out slowly through the mouth.
- **Option D:** The huff coughing stimulates the natural cough reflex and is effective for clearing the central airways of sputum. Saying the word huff with short forceful exhalations keeps the glottis open, mobilizes sputum, and stimulates a cough. When one has COPD, mucus can build up more easily in the lungs. The huff cough is a breathing exercise designed to help one cough up mucus effectively without making one feel too tired. A huff cough should be less tiring than a traditional cough, and it can keep one from feeling worn out when coughing up mucus.

**57. Three-year-old Adrian is admitted to the hospital with a diagnosis of asthma and respiratory distress syndrome. The mother of the child reports to the nurse on duty that she has witnessed slight tremors and behavioral changes in her child over the past four days. The attending physician orders routine ABGs following an assessment of the ABCs. The ABG results are pH 7.35, PaCO<sub>2</sub> 72 mmHg, and HCO<sub>3</sub> 38 mEq/L. What acid-base disorder is shown?**

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

**Correct Answer: B. Respiratory Acidosis, Fully Compensated**

The patient has respiratory acidosis (raised carbon dioxide) resulting from asthma and respiratory distress syndrome, with compensation having normal pH value within 7.35 to 7.45, increased PaCO<sub>2</sub> which is acidic and increased HCO<sub>3</sub> which is basic.

**58. When a client with chronic obstructive pulmonary disease is taking theophylline also receives ciprofloxacin (Cipro), which of the following interactions would occur?**

- A. Cipro Toxicity
- B. Ineffectiveness of ciprofloxacin
- C. Theophylline toxicity
- D. Ineffective theophylline

**Correct Answer: C. Theophylline toxicity**

Theophylline toxicity may occur because the action of theophylline is increased when given with Ciprofloxacin. Theophylline has an extremely narrow therapeutic window. Theophylline toxicity occurs when serum theophylline levels surpass the levels in the therapeutic range. This can occur by intentional overdose or unintentionally when metabolism and/or clearance of theophylline is altered due to certain physiological stressors.

- **Option A:** There is no such thing as Cipro toxicity. Toxic doses of theophylline can be as low as 7.5 mg/kg. When taken orally, 80% to 100% of theophylline is absorbed in the gastrointestinal tract. Peak serum levels can occur from 30 to 120 minutes for immediate release formulations. Sustained-release formulations have peak levels between 6 and 10 hours.
- **Option B:** One mechanism is that theophylline blocks adenosine receptors, which has both therapeutic and toxic effects such as bronchodilation, tachycardia, cardiac arrhythmias, seizures, and cerebral vasoconstriction. At larger doses, theophylline inhibits phosphodiesterase causing increased cyclic adenosine monophosphate resulting in increased levels of adrenergic activation and catecholamine release.
- **Option D:** In theophylline toxicity, epinephrine levels can be 4- to 8-times higher than normal, and norepinephrine concentrations can be 4- to 10-times higher than normal. Increased catecholamine concentrations have a variety of adverse effects such as cardiac arrhythmias, metabolic acidosis, hyperglycemia, and hypokalemia. Chronic theophylline toxicity can occur when there is an

accumulation of the drug due to metabolism being overwhelmed or inhibited. It can also occur when clearance is decreased.

**59. Methotrexate is a folate antagonist. It inhibits enzymes required for DNA base synthesis. To prevent harm to normal cells, a fully activated form of folic acid known as leucovorin (folinic acid; citrovorum factor) can be administered. Administration of leucovorin is known as:**

- A. Induction therapy.
- B. Consolidation therapy.
- C. Pulse therapy.
- D. Rescue therapy.

**Correct Answer: B. Consolidation therapy.**

Leucovorin is used to save or “rescue” normal cells from the damaging effects of chemotherapy allowing them to survive while the cancer cells die. Therapy to rapidly reduce the number of cancerous cells is the induction phase. Consolidation therapy seeks to complete or extend the initial remission and often uses a different combination of drugs than that used for induction.

- **Option A:** The first treatment given for a disease. It is often part of a standard set of treatments, such as surgery followed by chemotherapy and radiation. When used by itself, induction therapy is the one accepted as the best treatment. If it doesn't cure the disease or it causes severe side effects, other treatment may be added or used instead. Also called first-line therapy, primary therapy, and primary treatment.
- **Option C:** Chemotherapy is often administered in intermittent courses called pulse therapy. Pulse therapy allows the bone marrow to recover function before another course of chemotherapy is given. Pulse therapy means the administration of large (supra pharmacologic) doses of drugs in an intermittent manner to enhance the therapeutic effects and reduce the side-effects.
- **Option D:** Salvage therapy, also known as rescue therapy, is a form of therapy given after an ailment does not respond to standard therapy. The most common diseases that require salvage therapy are HIV and various cancers. The term is not clearly defined; it is used both to mean a second attempt and a final attempt.

**60. A police officer brings in a homeless client to the ER. A chest x-ray suggests he has TB. The physician orders an intradermal injection of 5 tuberculin units/0.1 ml of tuberculin purified derivative. Which needle is appropriate for this injection?**

- A. 5/8" to 1/2" 25G to 27G needle.
- B. 1" to 3" 20G to 25G needle.
- C. 1/2" to 3/8" 26 or 27G needle.
- D. 1" 20G needle.

**Correct Answer: C. 1/2" to 3/8" 26 or 27G needle.**

Intradermal injections like those used in TN skin tests are administered in small volumes (usually 0.5 ml or less) into the outer skin layers to produce a local effect. A TB syringe with a ½" to 3/8" 26G or 27G needle should be inserted about 1/8" below the epidermis.

- **Option A:** For neonates (first 28 days of life) and preterm infants, a 5/8" needle is recommended if the skin is stretched flat between the thumb and forefinger and the needle is inserted at a 90-degree angle to the skin.
- **Option B:** The deltoid muscle is most often used as the site for IM injections in adults. Needle length is usually 1"–1½", 22–25 gauge, but a longer or shorter needle may be needed depending on the patient's weight. An alternate site for IM injection in adults is the anterolateral thigh muscle. The needle length and gauge are the same as when the deltoid muscle is used, i.e., 1"–1½" length, 22–25 gauge.
- **Option D:** For adults weighing less than 130 lbs (60 kg), use of a 1" needle is recommended. However, a 5/8" needle may be used for IM injection in the deltoid muscle if the fatty tissue overlying the deltoid muscle is flattened (i.e., not bunched between thumb and fingers during the injection) and the needle is inserted at a 90-degree angle to the skin.

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

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

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

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

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

**62. The nurse would analyze an arterial pH of 7.46 as indicating:**

- A. Acidosis
- B. Alkalosis
- C. Homeostasis

D. Neutrality

**Correct Answer: B. Alkalosis**

Alkalosis is indicated by a pH above 7.45. A pH below 7.35 is an acidemia, and a pH above 7.45 is an alkalemia. Due to the importance of sustaining a pH level in the needed narrow range, the human body contains compensatory mechanisms.

- **Option A:** The human body experiences four main types of acid-based disorders: metabolic acidosis, metabolic alkalosis, respiratory acidosis, and respiratory alkalosis. If one of these conditions occurs, the human body should induce a counterbalance in the form of an opposite condition.
- **Option C:** To maintain homeostasis, the human body employs many physiological adaptations. One of these is maintaining an acid-base balance. In the absence of pathological states, the pH of the human body ranges between 7.35 to 7.45, with the average at 7.40.
- **Option D:** Arterial blood gas (ABG) sampling, is a test often performed in an inpatient setting to assess the acid-base status of a patient. A needle is used to draw blood from an artery, often the radial and the blood is analyzed to determine parameters such as the pH, pCO<sub>2</sub>, pO<sub>2</sub>, HCO<sub>3</sub>, oxygen saturation, and more.

**63. Drug distribution is affected by which of the following?**

- A. Biotransformation
- B. Excretion
- C. Protein binding
- D. Lipid binding

**Correct Answer: C. Protein binding**

Distribution depends on protein binding as well as circulation. Some drugs leave the bloodstream very slowly because they bind tightly to proteins circulating in the blood. Others quickly leave the bloodstream and enter other tissues because they are less tightly bound to blood proteins. Some or virtually all molecules of a drug in the blood may be bound to blood proteins.

- **Option A:** Biotransformation is the act of metabolizing the drug. Biotransformation is the process by which a substance changes from one chemical to another (transformed) by a chemical reaction within the body. Metabolism or metabolic transformations are terms frequently used for the biotransformation process.
- **Option B:** Excretion describes the act of eliminating the drug. Drug excretion is the removal of drugs from the body, either as a metabolite or unchanged drug. There are many different routes of excretion, including urine, bile, sweat, saliva, tears, milk, and stool. By far, the most important excretory organs are the kidney and liver.
- **Option D:** There is no such thing as lipid binding. The protein-bound part is generally inactive. As unbound drugs are distributed to tissues and its level in the bloodstream decreases, blood proteins gradually release the drug bound to them. Thus, the bound drug in the bloodstream may act as a reservoir for the drug.

**64. A client with diabetes insipidus is taking antidiuretic hormone. Which of the following symptoms would alert the need to decrease the dosage?**

- A. Alopecia
- B. Jaundice
- C. Diarrhea
- D. Drowsiness

**Correct Answer: D. Drowsiness**

One of the side effects of taking antidiuretic hormone is water intoxication which is manifested by a headache, drowsiness, light-headedness, and shortness of breath. This could indicate the need to reduce the dosage.

- **Options A, B, & C:** These are not related signs to this medication.

**65. A nurse is evaluating a postoperative patient and notes a moderate amount of serous drainage on the dressing 24 hours after surgery. Which of the following is the appropriate nursing action?**

- A. Notify the surgeon about evidence of infection immediately.
- B. Leave the dressing intact to avoid disturbing the wound site.
- C. Remove the dressing and leave the wound site open to air.
- D. Change the dressing and document the clean appearance of the wound site.

**Correct Answer: D. Change the dressing and document the clean appearance of the wound site.**

A moderate amount of serous drainage from a recent surgical site is a sign of normal healing. Serous drainage is clear, thin, and watery. The production of serous drainage is a typical response from the body during the normal inflammatory healing stage.

- **Option A:** Purulent drainage would indicate the presence of infection. Purulent drainage is milky, typically thicker in consistency, and can be gray, green, or yellow in appearance. If the fluid becomes very thick, this can be a sign of infection. Yet, if there is a large amount of serous drainage, it can be the result of a high bioburden count.
- **Option B:** A soiled dressing should be changed to avoid bacterial growth and to examine the appearance of the wound. Overall, it should be noted that the dressing selection should be based on the individual patient and wound characteristics. If the wound is not in the normal inflammatory phase of healing, the clinician must investigate what is the root cause and how to manage the drainage.
- **Option C:** The surgical site is typically covered by gauze dressings for a minimum of 48-72 hours to ensure that initial healing has begun. Changing the dressing less allows the wound bed to be left undisturbed, which allows for the migration of new cells. When wound beds are left undisturbed in an optimal moist environment, they are able to heal at a faster rate.

**66. During chemotherapy for lymphocytic leukemia, Mathew develops abdominal pain, fever, and “horse barn” smelling diarrhea. It would be most important for the nurse to advise the physician to order:**

- A. Enzyme-linked immunosuppressant assay (ELISA) test.
- B. Electrolyte panel and hemogram.

- C. Stool for Clostridium difficile test.
- D. Flat plate X-ray of the abdomen.

**Correct Answer: C. Stool for Clostridium difficile test.**

Immunosuppressed clients — for example, clients receiving chemotherapy, — are at risk for infection with *C. difficile*, which causes “horse barn” smelling diarrhea. Successful treatment begins with an accurate diagnosis, which includes a stool test.

- **Option A:** The ELISA test is diagnostic for human immunodeficiency virus (HIV) and isn’t indicated in this case.
- **Option B:** An electrolyte panel and hemogram may be useful in the overall evaluation of a client but aren’t diagnostic for specific causes of diarrhea.
- **Option D:** A flat plate of the abdomen may provide useful information about bowel function but isn’t indicated in the case of “horse barn” smelling diarrhea.

**67. A student nurse is caring for a 75-year-old client who is very confused. The student’s communication tools should include:**

- A. Written directions for bathing.
- B. Speaking very loudly.
- C. Gentle touch while guiding ADLs (activities of daily living).
- D. Flat facial expression.

**Correct Answer: C. Gentle touch while guiding ADLs (activities of daily living).**

Nonverbal, gentle touch is an important tool here. Providing appropriate forms of touch to reinforce caring feelings. Because tactile contacts vary considerably among individuals, families, and cultures, the nurse must be sensitive to the differences in attitudes and practices of clients and self.

- **Option A:** Assess the patient for reversible or irreversible dementia, causes, ability to interpret environment, intellectual thought processes, memory loss, disturbances with orientation, behavior, and socialization. Determines type and extent of dementia to establish a plan of care to enhance cognition and emotional functioning at optimal levels. Assist with establishing cues and reminders for patient’s assistance. Assists patients with early AD to remember location of articles and facilitates some orientation.
- **Option B:** Avoid or terminate emotionally charged situations or conversations. Avoid anger and expectation of the patient to remember or follow instructions. Do not expect more than the patient is capable of doing. Catastrophic emotional responses are prompted by task failure when the patient feels expected to perform beyond ability and becomes frustrated and angry. Responding calmly to the patient validates feelings and causes less stress.
- **Option D:** Maintain consistent scheduling with allowances for patient’s specific needs, and avoid frustrating situations and overstimulation. Prevents patient agitation, erratic behaviors, and combative reactions. Scheduling may need revision to show respect for the patient’s sense of worth and to facilitate completion of tasks.

**68. In an acute care medical unit, Nurse Jeremy is meticulously evaluating the fluid balance of Mr. Thompson, a 72-year-old male client with a history of congestive heart failure and recently diagnosed acute kidney injury. It’s crucial**

**for Nurse Jeremy to ensure that Mr. Thompson's fluid intake and output are closely monitored and managed to prevent any further deterioration of his renal and cardiac functions. The medical team has crafted a meticulous fluid management plan to optimize Mr. Thompson's renal perfusion while preventing fluid overload which could exacerbate his heart failure. As part of this endeavor, Nurse Jeremy is tasked with educating Mr. Thompson and his family about the importance of fluid balance and how it should ideally be maintained. Amidst this backdrop, Nurse Jeremy is keen on elucidating the standard relationship between fluid intake and urine output to Mr. Thompson's family to foster better understanding and compliance with the fluid management plan. Which of the following statements should Nurse Jeremy utilize to explain the typical relationship between fluid intake and urine output?**

- A. Fluid intake should be 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.
- E. Fluid intake should be proportionate to the client's body weight.
- F. Fluid intake should exceed urine output by 500ml to maintain homeostasis.
- G. Fluid intake should be guided by the client's thirst mechanism.

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

Under normal physiological conditions, fluid intake should be approximately equal to urine output to maintain homeostasis and prevent dehydration or fluid overload. This equilibrium supports optimal renal function and overall fluid balance.

- **Option A:** Doubling the fluid intake in relation to urine output could lead to fluid overload, especially in clients with compromised renal or cardiac function.
- **Option C:** Having fluid intake as half the urine output would indicate a negative fluid balance which could lead to dehydration and potentially compromise renal function.
- **Option D:** Fluid intake being inversely proportional to urine output does not align with physiological norms and could result in improper fluid balance.
- **Option E:** While fluid requirements may be influenced by body weight, the direct comparison between fluid intake and urine output should still follow the principle of equilibrium.
- **Option F:** A predetermined excess of fluid intake over urine output does not adhere to the individualized nature of fluid balance and could potentially lead to fluid overload.
- **Option G:** While the thirst mechanism can be a guide, it may not be reliable, especially in elderly or ill clients, or those on certain medications that may impair thirst perception or fluid balance. Hence, relying solely on the thirst mechanism without monitoring actual intake and output could be perilous.

**69. The dominant value orientation in North American society is:**

- A. Use of rituals symbolizing the supernatural.

- B. Group reliance and interdependence.
- C. Healing emphasizing naturalistic modalities.
- D. Individualism and self-reliance in achieving and maintaining health.

**Correct Answer: D. Individualism and self-reliance in achieving and maintaining health.**

The most important thing to understand about US Americans is probably their devotion to “individualism.” They have been trained from early in their lives to consider themselves separate individuals who are responsible for their own situations in life and their own destinies. They have not been trained to see themselves as members of a close-knit, tightly interdependent family, religious group, tribe, nation, or other groups.

- **Option A:** US Americans are generally less concerned about history and tradition than are people from older societies. They look ahead. They have the idea that what happens in the future is within their control, or at least subject to their influences. They believe that people, as individuals or working cooperatively together, can change most aspects of the physical and social environment if they decide things to do and a schedule for doing them.
- **Option B:** Americans have not been trained to see themselves as members of a close-knit, tightly interdependent family, religious group, tribe, nation, or other groups. People who grow up in a particular culture share certain values and assumptions. This means that most of them, most of the time, agree with each others’ ideas about what is right and wrong, desirable and undesirable.
- **Option C:** Cultural, social, and family influences shape attitudes and beliefs and therefore influence health literacy. Social determinants of health are well documented regarding the conditions over which the individual has little or no control but that affect his or her ability to participate fully in a health-literate society.

**70. The nurse teaches a patient with cancer of the liver about high-protein, high-calorie diet choices. Which snack choice by the patient indicates that the teaching has been effective?**

- A. Fresh fruit salad
- B. Orange sherbet
- C. French fries
- D. Strawberry yogurt

**Correct Answer: D. Strawberry yogurt**

- **Option D:** Yogurt has high biologic value because of the protein and fat content.
- **Option A:** Fruit salad does not have high amounts of protein or fat.
- **Option B:** Orange sherbet is lower in fat and protein than yogurt.
- **Option C:** French fries are high in calories from fat but low in protein.

**71. The primary nurse asked a clinical nurse specialist (CNS) to consult on a difficult nursing problem. The primary nurse is obligated to:**

- A. Implement the specialist's recommendations.

- B. Report the recommendations to the primary physician.
- C. Clarify the suggestions with the client and family members.
- D. Discuss and review advised strategies with CNS.

**Correct Answer: D. Discuss and review advised strategies with CNS.**

The primary nurse requested the consultation, it is important that they communicate and discuss recommendations. The primary nurse can then accept or reject the CNS recommendations. Effective clinical practice thus involves many instances where critical information must be accurately communicated. Team collaboration is essential.

- **Option A:** Some of the recommendations may not be appropriate for this client. The primary nurse would know this information. A consultation requires review of the recommendations, but not immediate implementation. Collaboration in health care is defined as health care professionals assuming complementary roles and cooperatively working together, sharing responsibility for problem-solving, and making decisions to formulate and carry out plans for patient care
- **Option B:** This would be appropriate after first talking with the CNS about recommended changes in the plan of care and the rationale. Then the primary nurse should call the physician. Collaboration between physicians, nurses, and other health care professionals increases team members' awareness of each others' type of knowledge and skills, leading to continued improvement in decision making.
- **Option C:** The client and family do not have the knowledge to determine whether new strategies are appropriate or not. Better to wait until the new plan of care is agreed upon by the primary nurse and physician before talking with the client and/or family. A study determined that improved teamwork and communication are described by health care workers as among the most important factors in improving clinical effectiveness and job satisfaction.

**72. The multigravida mother with a history of rapid labor who is in active labor calls out to the nurse, "The baby is coming!" Which of the following would be the nurse's first action?**

- A. Inspect the perineum.
- B. Time the contractions.
- C. Auscultate the fetal heart rate.
- D. Contact the birth attendant.

**Correct Answer: A. Inspect the perineum**

When the client says the baby is coming, the nurse should first inspect the perineum and observe for crowning to validate the client's statement. If the client is not delivering precipitously, the nurse can calm her and use appropriate breathing techniques.

- **Option B:** The woman has a history of rapid labor and is already experiencing true labor contractions. There is no need to time the contractions experienced.
- **Option C:** Fetal heart rate monitoring is being consistently monitored during labor. The client's concerns about the delivery of the baby must be prioritized.
- **Option D:** Before contacting a birth attendant or the physician, validate the client's claims first. If she is not yet delivering, instruct about breathing techniques that may ease her discomfort.

**73. The nurse is caring for the client with a 5-year-old diagnosis of plumbism. Which information in the health history is most likely related to the development of plumbism?**

- A. The client has traveled out of the country in the last 6 months.
- B. The client's parents are skilled stained-glass artists.
- C. The client lives in a house built in one.
- D. The client has several brothers and sisters.

**Correct Answer: B. The client's parents are skilled stained-glass artists.**

Plumbism is lead poisoning. One factor associated with the consumption of lead is eating from pottery made in Central America or Mexico that is unfired. The child lives in a house built after 1976 (this is when lead was taken out of paint), and the parents make stained glass as a hobby. Stained glass is put together with lead, which can drop on the work area, where the child can consume the lead beads.

- **Option A:** Traveling out of the country does not increase the risk of plumbism. Because lead is not biodegradable, it demonstrates remarkable environmental persistence. Despite the fact that the amount of lead in paint intended for use in or on residential buildings, furniture, or children's toys in the United States has been restricted to 0.06% since 1978 and was further reduced to 0.009% in 2008, lead-based paint continues to be a major source of lead exposure in young children.
- **Option C:** The house was built after the lead was removed with the paint. Several million young children in the United States live in older homes in which lead-based paint was previously used, and as this old paint ages, it peels, flakes, and crumbles into dust that settles on the interior surfaces of homes and in the soil surrounding the exterior of the home. The dust and soil containing these tiny paint particles inevitably make their way into children's mouths as a result of normal childhood exploratory hand-to-mouth behavior.
- **Option D:** Having several siblings is unrelated to the stem. A variety of occupations and hobbies may expose adults to lead, and working parents may inadvertently bring lead home where they can expose their children second-hand. Some of the highest risk occupations and hobbies include metal welding, battery manufacturing, and recycling, shipbuilding and shipbreaking, firing range use or instruction as well as bullet salvaging, lead smelting and refining, painting and construction work, and pipefitting and plumbing.

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

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

**Correct Answer: A. 3.5**

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

evaluation of the gastric tube placement. In interpreting the results, pH  $\geq 5.5$  points to correct placement, and values  $> 5.5$  require radiological confirmation.

- **Option B:** 7.0 indicates a slightly acidic pH. There is evidence that the use of histamine H<sub>2</sub> receptor antagonist drugs may increase the pH value and cause confusion in the evaluation of gastric tube placement.
- **Option C:** 7.35 indicates a neutral pH. Verifying the pH of the aspirated secretion using reagent strips is a quick bedside test. Currently, there is a consensus among experts that this is the safest method available and is recommended as the first choice when verifying gastric tube placement in adults and children.
- **Option D:** 7.5 indicates an alkaline pH. The use of pH reagent strips is a sensitive but non-specific test to verify the placement of the gastric tube in newborns in the sample studied. That is, pH values  $\geq 5.5$  in the aspirated gastric tube secretion are sensitive indicators of the correct positioning of the tip of the tube.

**75. As a competent nurse, you know that the most significant contraindication for therapy with lipid-lowering agent is:**

- A. Renal disease.
- B. Diabetes.
- C. Liver disease.
- D. Cardiac disease.

**Correct Answer: C. Liver disease.**

All lipid-lowering agents except the bile acid sequestrants are potentially hepatotoxic, so the most significant contraindication is liver disease. Contraindications to statins include use by patients with active hepatic disease or unexplained persistent elevations in aminotransferase levels. Ezetimibe is contraindicated in patients who are using an HMG-CoA reductase inhibitor (statin) in patients with active liver disease or otherwise unexplained elevated serum transaminase values. Ezetimibe alone is not contraindicated in patients with mild to moderate hepatic impairment.

- **Option A:** Fibrate use requires monitoring with liver function tests, renal function tests, and also CBC due to risk for pancytopenia. Ezetimibe, when used with a statin, can increase the risk of muscle toxicity, especially in advanced age over 65 years old, renal impairment, or hypothyroidism. Patients taking ezetimibe with cyclosporine are at an increased risk of ezetimibe toxicity as it can result in a 2.3- to 12-fold increase in ezetimibe concentration.
- **Option B:** Statins have an increased risk of developing diabetes mellitus; thus, caution is necessary for patients with already increased blood glucose levels or increased HbA<sub>1c</sub> levels.
- **Option D:** Statin-induced muscle injury can vary from myalgias to rarely myonecrosis or rhabdomyolysis. A meta-analysis of 42 randomized trials of statins found little or no excess risk of myalgias, CK elevations, rhabdomyolysis, or discontinuation of therapy versus placebo; however, in clinical practice muscle side effects are relatively common and the explanation for this difference is uncertain.

**76. Which of the following conditions most commonly results in CAD?**

- A. Atherosclerosis

- B. DM
- C. MI
- D. Renal failure

**Correct Answer: A. Atherosclerosis**

Atherosclerosis, or plaque formation, is the leading cause of CAD.

- **Option B:** DM is a risk factor for CAD but isn't the most common cause. Near-normal glycemic control for a median of 3.5 to 5 years does not reduce cardiovascular events. Thus, the general goal of HbA1c <7% appears reasonable for the majority of patients. Iatrogenic hypoglycemia is the limiting factor in the glycemic management of diabetes and is an independent cause of excess morbidity and mortality.
- **Option D:** Renal failure doesn't cause CAD, but the two conditions are related. Chronic kidney disease (CKD) accelerates the course of coronary artery disease, independent of conventional cardiac risk factors. In addition, CKD has been shown to confer inferior clinical outcomes following successful coronary revascularisation, which may be offset by arterial grafting.
- **Option C:** Myocardial infarction is commonly a result of CAD. Myocardial infarction occurs when a coronary artery is so severely blocked that there is a significant reduction or break in the blood supply, causing damage or death to a portion of the myocardium (heart muscle).

**77. A client is scheduled for a percutaneous transluminal coronary angioplasty (PTCA). The nurse knows that a PTCA is the**

- A. Surgical repair of a diseased coronary artery.
- B. Placement of an automatic internal cardiac defibrillator.
- C. Procedure that compresses plaque against the wall of the diseased coronary artery to improve blood flow.
- D. Non-invasive radiographic examination of the heart.

**Correct Answer: C. Procedure that compresses plaque against the wall of the diseased coronary artery to improve blood flow**

PTCA is performed to improve coronary artery blood flow in a diseased artery. It is performed during a cardiac catheterization. Aorta coronary bypass graft is the surgical procedure to repair a diseased coronary artery.

- **Option A:** Coronary artery bypass grafting is the surgical repair of a diseased coronary artery.
- **Option B:** Angioplasty does not involve the placement of an internal cardiac defibrillator. An internal cardiac defibrillator is needed if the client has ventricular tachycardia or ventricular fibrillation because they detect and stop abnormal heartbeats or arrhythmias.
- **Option D:** PTCA is not a radiographic examination of the heart.

**78. A client has a percutaneous endoscopic gastrostomy tube inserted for tube feedings. Before starting a continuous feeding, the nurse should place the client in which position?**

- A. Semi-Fowlers

- B. Supine
- C. Reverse Trendelenburg
- D. High Fowler's

**Correct Answer: A. Semi-Fowlers**

To prevent aspiration of stomach contents, the nurse should place the client in semi-Fowler's position. Keep the head of the bed elevated when feeding and for at least a half-hour afterward. Maintaining a sitting position after meals may help decrease aspiration pneumonia in the elderly.

- **Option B:** Position patients with a decreased level of consciousness on their side. This positioning (rescue positioning) decreases the risk for aspiration by promoting the drainage of secretions out of the mouth instead of down the pharynx, where they could be aspirated.
- **Option C:** In the reverse Trendelenburg group, patients are placed in a supine position, which is inclined at a 30-degree angle, so that the head is higher than the pelvis and the leg is lower than the hip.
- **Option D:** High Fowler's position isn't necessary and may not be tolerated as well as semi-Fowler's. During enteral feedings, position the patient with head of bed elevated 30 to 40 degrees; maintain for 30 to 45 minutes after feeding. Keeping the patient's head elevated helps keep food in the stomach and decreases the incidence of aspiration.

***79. In a complex pediatric oncology unit, a seasoned nurse is faced with the challenge of assessing and managing pain in a non-verbal 3-year-old child undergoing treatment for acute lymphoblastic leukemia. The child's limited communicative ability due to developmental age and the distressing nature of the current clinical situation necessitate a highly nuanced approach to pain assessment. Given these parameters, which pain assessment tool would be most useful for the nurse to accurately gauge the young patient's pain levels?***

- A. McGill-Melzack Pain Questionnaire
- B. Simple Description Pain Intensity Scale
- C. 0-10 Numeric Pain Scale
- D. Faces Pain-Rating Scale
- E. FLACC (Face, Legs, Activity, Cry, Consolability) Behavioral Pain Assessment Scale
- F. Oucher Pain Scale

**Correct Answer: E. FLACC (Face, Legs, Activity, Cry, Consolability) Behavioral Pain Assessment Scale**

The FLACC Behavioral Pain Assessment Scale is a tool specifically designed for assessing pain in infants and young children who are unable to communicate their pain verbally. It evaluates five categories: Face, Legs, Activity, Cry, and Consolability, each scored from 0 to 2, providing a comprehensive and objective measure of pain based on observable behaviors. This tool is particularly suited for the clinical scenario described.

- **Option A:** The McGill-Melzack Pain Questionnaire is a comprehensive tool that requires verbal communication and abstract thinking abilities to describe pain in various dimensions. It is unsuitable for a young, non-verbal child.

- **Option B:** The Simple Description Pain Intensity Scale, while less complex than the McGill questionnaire, still relies on the child's ability to verbally describe pain, which is not feasible in this clinical scenario.
- **Option C:** The 0-10 Numeric Pain Scale requires the child to understand and quantify their pain on a scale, a task that is developmentally inappropriate for a 3-year-old child.
- **Option D:** The Faces Pain-Rating Scale uses facial expressions to depict varying levels of pain intensity. Although more child-friendly, it still necessitates a degree of abstract reasoning and the ability to match one's own pain with facial expressions, which might be challenging for a non-verbal 3-year-old.
- **Option F:** The Oucher Pain Scale uses photographs of children's faces showing different levels of distress and pain, combined with a numerical scale. While this is more suitable for children who can point to indicate their pain level, it might still be challenging for a non-verbal 3-year-old to use effectively compared to the FLACC Scale.

**80. An agitated, confused female client arrives in the emergency department. Her history includes type 1 diabetes mellitus, hypertension, and angina pectoris. Assessment reveals pallor, diaphoresis, headache, and intense hunger. A stat blood glucose sample measures 42 mg/dl, and the client is treated for an acute hypoglycemic reaction. After recovery, the nurse teaches the client to treat hypoglycemia by ingesting:**

- A. 2 to 5 g of a simple carbohydrate.
- B. 10 to 15 g of a simple carbohydrate.
- C. 18 to 20 g of a simple carbohydrate.
- D. 25 to 30 g of a simple carbohydrate.

**Correct Answer: B. 10 to 15 g of a simple carbohydrate.**

To reverse hypoglycemia, the American Diabetes Association recommends ingesting 10 to 15 g of a simple carbohydrate, such as three to five pieces of hard candy, two to three packets of sugar (4 to 6 tsp), or 4 oz of fruit juice. If necessary, this treatment can be repeated in 15 minutes. Patients should be advised to wear a medical alert bracelet and to carry a glucose source like gel, candy, or tablets on their person in case symptoms arise.

- **Option A:** Ingesting only 2 to 5 g of a simple carbohydrate may not raise the blood glucose level sufficiently. Glucose is the primary metabolic fuel for the brain under physiologic conditions. Unlike other tissues of the body, the brain is very limited in supplying its glucose. Expectedly, the brain requires a steady supply of arterial glucose for adequate metabolic function.
- **Option C:** Ingesting more than 15 g may raise it above normal, causing hyperglycemia. For conscious patients able to take oral (PO) medications, readily absorbable carbohydrate sources (such as fruit juice) should be given. For patients unable to take oral agents, a 1-mg intramuscular (IM) injection of glucagon can be administered.
- **Option D:** Once the patient is more awake, a complex carbohydrate food source should be given to the patient to achieve sustained euglycemia. More frequent blood glucose monitoring should occur to rule out further drops in blood sugar.

**81. When teaching parents about childhood depression Nurse Victoria should say?**

- A. It may appear acting out behavior.
- B. Does not respond to conventional treatment.
- C. Is short on duration & resolves easily.
- D. Looks almost identical to adult depression.

**Correct Answer: A. It may appear acting out behavior**

Children have difficulty verbally expressing their feelings, acting out behavior, such as temper tantrums, may indicate underlying depression. Early medical studies focused on “masked” depression, where a child’s depressed mood was evidenced by acting out or angry behavior. While this does occur, particularly in younger children, many children display sadness or low mood similar to adults who are depressed. The primary symptoms of depression revolve around sadness, a feeling of hopelessness, and mood changes.

- **Option B:** Treatment options for children with depression are similar to those for adults, including psychotherapy (counseling) and medication. The child’s doctor may suggest psychotherapy first, and consider antidepressant medicine as an additional option if there is no significant improvement. The best studies to date indicate that a combination of psychotherapy and medication is most effective at treating depression.
- **Option C:** If the symptoms of depression in a child have lasted for at least two weeks, they should schedule a visit with their doctor to make sure there are no physical reasons for the symptoms and to make sure that the child receives proper treatment. A consultation with a mental health care professional who specializes in children is also recommended. Keep in mind that the pediatrician may ask to speak with the child alone.
- **Option D:** Although some children may continue to function reasonably well in structured environments, most kids with significant depression will suffer a noticeable change in social activities, loss of interest in school and poor academic performance, or a change in appearance. Children may also begin using drugs or alcohol, especially if they are over age 12.

**82. A child weighing 30 kg arrives at the clinic with diffuse itching as the result of an allergic reaction to an insect bite. diphenhydramine (Benadryl) 25 mg 3 times a day is prescribed. The correct pediatric dose is 5 mg/kg/day. Which of the following best describes the prescribed drug dose?**

- A. It is the correct dose.
- B. The dose is too low.
- C. The dose is too high.
- D. The dose should be increased or decreased, depending on the symptoms.

**Correct Answer: B. The dose is too low.**

This child weighs 30 kg, and the pediatric dose of diphenhydramine is 5 mg/kg/day (5 X 30 = 150/day). Therefore, the correct dose is 150 mg/day. Diphenhydramine, which is available as an over-the-counter medication, is a first-generation antihistamine that is used in a variety of conditions to treat and prevent dystonias, insomnia, pruritus, urticaria, vertigo, and motion sickness.

- **Option A:** The correct dose is 150 mg/day. Diphenhydramine acts as an inverse agonist at the H1 receptor, thereby reversing the effects of histamine on capillaries, reducing allergic reaction symptoms. Given that diphenhydramine is a first-generation antihistamine, it readily crosses the blood-brain barrier and inversely agonizes the H1 CNS receptors, resulting in drowsiness, and suppressing the medullary cough center.
- **Option C:** Divided into 3 doses per day, the child should receive 50 mg 3 times a day rather than 25 mg 3 times a day. Diphenhydramine overdose can cause significant toxicity, ranging from agitation to cardiac arrhythmias to rhabdomyolysis and classic anticholinergic toxidrome. Further studies are needed to investigate the potential treatment of diphenhydramine toxicity with the use of sodium bicarbonate and intravenous lipid emulsion therapy.
- **Option D:** Dosage should not be titrated based on symptoms without consulting a physician. Diphenhydramine can be given by tablet, capsule, or in solution by mouth; by intramuscular (IM) or intravenous (IV) injection; or topically. Diphenhydramine is now available over the counter and it is important for the pharmacist and nurse practitioner to educate the patient on the safe use of this agent.

**83. Which of the following groups of characteristics would the nurse expect to see in the client with schizophrenia?**

- A. Loose associations, grandiose delusions, and auditory hallucinations
- B. Periods of hyperactivity and irritability alternating with depression
- C. Delusions of jealousy and persecution, paranoia, and mistrust
- D. Sadness, apathy, feelings of worthlessness, anorexia, and weight loss

**Correct Answer: A. Loose associations, grandiose delusions, and auditory hallucinations**

Loose associations, grandiose delusions, and auditory hallucinations are all characteristic of the classic schizophrenic client. These clients aren't able to care for their physical appearance. They frequently hear voices telling them to do something either to themselves or to others. Additionally, they verbally ramble from one topic to the next. In the Diagnostic and Statistical Manual of Mental Disorders 5 (DSM-5), Two or more of the following symptoms must be present for a significant portion of time during a one-month period: delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behavior, or negative symptoms.

- **Option B:** Periods of hyperactivity and irritability alternating with depression are characteristic of bipolar or manic disease. The defining characteristics of mania are increased talkativeness, rapid speech, decreased the need for sleep (unlike depression or anxiety in which the need for sleep exists, but there is an inability to sleep), racing thoughts, distractibility, increase in goal-directed activity, and psychomotor agitation. Some other hallmarks of mania are an elevated or expansive mood, mood lability, impulsivity, irritability, and grandiosity.
- **Option C:** Delusions of jealousy and persecution, paranoia, and mistrust are characteristics of paranoid disorders. Often, these patients think that others have greatly and irreversibly injured them. They are hypervigilant for potential insults, slights, threats, and disloyalty and look for hidden meanings in remarks and actions. They closely scrutinize others for evidence to support their suspicions. For example, they may misinterpret an offer of help as implication that they are unable to do the task on their own. If they think that they have been insulted or injured in any way, they do not forgive the person who injured them. They tend to counterattack or to become angry in response to these perceived injuries. Because they distrust others, they feel a need to be autonomous and in control.

- **Option D:** Sadness, apathy, feelings of worthlessness, anorexia, and weight loss are characteristics of depression. Depression is a mood disorder that causes a persistent feeling of sadness and loss of interest. The common features of all the depressive disorders are sadness, emptiness, or irritable mood, accompanied by somatic and cognitive changes that significantly affect the individual's capacity to function.

**84. Sterile technique is used whenever:**

- A. Strict isolation is required
- B. Terminal disinfection is performed
- C. Invasive procedures are performed
- D. Protective isolation is necessary

**Correct Answer: C. Invasive procedures are performed**

All invasive procedures, including surgery, catheter insertion, and administration of parenteral therapy, require a sterile technique to maintain a sterile environment. All equipment must be sterile, and the nurse and the physician must wear sterile gloves and maintain surgical asepsis. In the operating room, the nurse and physician are required to wear sterile gowns, gloves, masks, hair covers, and shoe covers for all invasive procedures.

- **Option A:** Strict isolation requires the use of clean gloves, masks, gowns, and equipment to prevent the transmission of highly communicable diseases by contact or by airborne routes. Strict isolation is used for diseases spread through the air and in some cases by contact. Patients must be placed in isolation to prevent the spread of infectious diseases. Those who are kept in strict isolation are often kept in a special room at the facility designed for that purpose.
- **Option B:** Terminal disinfection is the disinfection of all contaminated supplies and equipment after a patient has been discharged to prepare them for reuse by another patient. Terminal disinfection has the objective of preparing complete rooms or areas for subsequent patients or residents for them to be treated or cared for without the risk of acquiring an infection. This disinfection measure is applied in rooms and areas where an infected or colonized patient/resident has been cared for or treated. Depending on the existing disease or type of pathogen all near-patient surfaces/objects or all accessible surfaces (e.g. also floors or walls) are to be disinfected.
- **Option D:** The purpose of protective (reverse)isolation is to prevent a person with seriously impaired resistance from coming into contact with potentially pathogenic organisms. Protective Isolation aims to protect an immunocompromised patient who is at high risk of acquiring micro-organisms from either the environment or from other patients, staff, or visitors.

**85. A 3-year-old is admitted due to suspected intussusception. Which finding is associated with intussusception?**

- A. Projectile vomiting
- B. Loose-foul smelling stools
- C. " Red currant jelly" stools
- D. "Ribbon-like" stools

**Correct Answer: C. "Red currant jelly" stools**

- Option C: An intussusception is a form of bowel obstruction in which a segment of intestine telescopes into the adjoining intestinal lumen. The obstruction causes impairment of the blood supply resulting in ischemia. The intestinal mucosa is sensitive to ischemia and reacts by sloughing off into the bowel creating “red currant jelly” stools (stools that contain blood and mucus).
- Option A: Projectile vomiting is a symptom of pyloric stenosis.
- Option B: Loose-foul-smelling stool is a symptom of infectious gastroenteritis.
- Option D: Ribbon-like stool is a symptom of Hirschsprung’s disease.

**86. Nurse Patricia is aware that the average length of time from human immunodeficiency virus (HIV) infection to the development of acquired immunodeficiency syndrome (AIDS)?**

- A. Less than 5 years
- B. 5 to 7 years
- C. 10 years
- D. More than 10 years

**Correct Answer: C. 10 years**

Epidemiologic studies show the average time from initial contact with HIV to the development of AIDS is 10 years. The interval from HIV infection to the diagnosis of AIDS ranges from about 9 months to 20 years or longer, with a median of 12 years.

- **Option A:** Less than 5 years is too short a time for the development of AIDS.
- **Option B:** 5 to 7 years is not the average time when an HIV infection develops into AIDS.
- **Option D:** More than 10 years is more than the average time for HIV to develop into AIDS.

**87. A nurse is checking the nasogastric tube position of a client receiving a long-term therapy of Omeprazole (Prilosec) by aspirating the stomach contents to check for the PH level. The nurse proves the correct tube placement if the PH level is?**

- A. 7.75.
- B. 7.5.
- C. 6.5.
- D. 5.5.

**Correct Answer: D. 5.5.**

Gastric placement is indicated by a pH of less than 4 but may increase to between pH 4-6 if the patient is receiving acid-inhibiting drugs. Measuring the pH of stomach aspirate is considered more accurate than visual inspection. Stomach aspirate generally has a pH range of 0 to 4, commonly less than 4.

- **Option A:** The aspirate of respiratory contents is generally more alkaline, with a pH of 7 or more. Testing the pH of gastric aspirate to show pH  $\geq 5.5$  is recommended first-line test to confirm correct placement of nasogastric tubes and reduce the risk of potentially fatal aspiration.

- **Option B:** The pH readings between 4.5 and 6.0 provided the greatest overall accuracy, however, there was only moderate agreement between observers at pH readings  $\geq 5.0$ . Compared with studies that have taken aspirate directly from the nasogastric tube, patients undergoing scope procedures had a lower sensitivity at the pH cut-off  $\geq 5.5$  for identifying gastric aspirates for the whole group and in the presence and absence of antacid medications.
- **Option C:** Current healthcare guidelines recommend that the first-line test to confirm correct NGT placement prior to giving food or medications must be that the pH of an NGT aspirate is  $\leq 5.5$  (acidic). Nevertheless, false-positive readings might occur if the tube is misplaced in the esophagus or false-negative readings (pH  $> 5.5$ ) may occur in patients who secrete less gastric acid, because of antacid medications, achlorhydria, or buffering by NGT feeds.

**88. Which of the following is a primary nursing intervention necessary for all patients with a Foley Catheter in place?**

- A. Maintain the drainage tubing and collection bag level with the patient's bladder.
- B. Irrigate the patient with 1% Neosporin solution three times a day.
- C. Clamp the catheter for 1 hour every 4 hours to maintain the bladder's elasticity.
- D. Maintain the drainage tubing and collection bag below bladder level to facilitate drainage by gravity.

**Correct Answer: D. Maintain the drainage tubing and collection bag below bladder level to facilitate drainage by gravity**

To prevent obstruction, the catheter and collecting tube should be kept free from kinking, the collecting bag should be positioned below the level of the bladder at all times and never placed on the floor. The collecting bag should be emptied regularly using a clean collecting container (HICPAC, 2009). In ambulatory patients, collecting bags may be disguised in bags and pouches.

- **Option A:** Maintaining the drainage tubing and collection bag level with the patient's bladder could result in reflux of urine into the kidney. The indwelling catheter should be secured to the thigh or abdomen after insertion to prevent movement and the exertion of excessive force on the bladder neck or urethra (Gray, 2008). Unsecured and displaced catheters can also cause pressure ulcers on the perineum and buttock (Siegel, 2008).
- **Option B:** Irrigating the bladder with Neosporin must be indicated and ordered by the physician. Nash (2003) conducted a recent review of the literature on self-cleaning of catheter training bags. The study showed that patients whose bags were irrigated with vinegar showed a significant reduction of bacteriuria compared with patients whose bags were irrigated with the hydrogen peroxide solutions (Washington, 2001). Authors concluded that more research is needed on the self-cleaning of Foley bags.
- **Option C:** Clamping the catheter for 1 hour every 4 hours must be prescribed by a physician. Patients practicing intermittent catheterization should pay close attention to the catheterization schedule and avoid bladder overdistension and unnecessary catheterizations. As CAUTIs are more prevalent for intermittent catheterization in patients with high residual urine volumes at the time of catheterization, urine volume should determine the catheterization schedule.

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

- A. Shunts the combined cardiac output from the pulmonary artery to the aorta going to the lungs

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

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

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

- **Option A:** The right ventricle pumps blood through the right ventricular outflow tract, across the pulmonic valve, and into the pulmonary artery that distributes it to the lungs for oxygenation. In the lungs, the blood oxygenates as it passes through the capillaries, where it is close enough to the oxygen in the alveoli of the lungs.
- **Option C:** This oxygenated blood is collected by the four pulmonary veins, two from each lung. All four of these veins open into the left atrium that acts as a collection chamber for oxygenated blood. As with the right atrium, the left atrium passes the blood onto its ventricle both by passive flow and active pumping.
- **Option D:** Oxygenated blood thus fills the left ventricle, passing through the mitral valve. The left ventricle is the main pumping chamber of the left heart, then pumps, sending freshly oxygenated blood to the systemic circulation through the aortic valve. The cycle is then repeated all over again in the next heartbeat.

**90. Radiation therapy is used to treat colon cancer before surgery for which of the following reasons?**

- A. Reducing the size of the tumor.
- B. Eliminating the malignant cells.
- C. Curing cancer.
- D. Helping the bowel heal after surgery.

**Correct Answer: A. Reducing the size of the tumor**

Radiation therapy is used to treat colon cancer before surgery to reduce the size of the tumor, making it easier to be resected. Radiation therapy is a treatment using high-energy rays (such as x-rays) or particles to destroy cancer cells. For some colon and rectal cancers, treating with chemotherapy at the same time can make radiation therapy work better. Using these 2 treatments together is called chemoradiation.

- **Option B:** Radiation therapy can't eliminate the malignant cells (though it helps define tumor margins). Radiation therapy, often with chemotherapy, is frequently used in the adjuvant or neoadjuvant setting for the treatment of rectal cancers, whereas chemotherapy alone is more common for the adjuvant and neoadjuvant treatment of colon cancers.
- **Option C:** Radiation therapy isn't curative. The progress that has been made in the treatment of colon cancer has resulted from improved development of radiation treatments and surgical techniques and participation in clinical trials.

- **Option D:** Radiation therapy could slow postoperative healing. It's not common to use radiation therapy to treat colon cancer, but it may be used after surgery if cancer has attached to an internal organ or the lining of the belly (abdomen). If this happens, the surgeon can't be sure that all of cancer has been removed. Radiation therapy may be used to try to kill any cancer cells that may have been left behind.

**91. When assessing an 18-month-old, the nurse notes a characteristic protruding abdomen. Which of the following would explain the rationale for this finding?**

- A. Increased food intake owing to age.
- B. Underdeveloped abdominal muscles.
- C. Bow Legged posture.
- D. Linear growth curve.

**Correct Answer: B. Underdeveloped abdominal muscles**

Underdeveloped abdominal musculature gives the toddler a characteristically protruding abdomen. It is generally normal for toddlers to have potbellies. By the time children reach school age, the potbelly will most often disappear and their bodies seem more proportionate. The belly should feel soft and NOT tender.

- **Option A:** During toddlerhood, food intake decreases, not increases. Feeding toddlers (ages 1 to 3) can often be challenging. That's because several developmental changes are happening at this time. Toddlers are striving for independence and control. Their growth rate slows down and with this comes a decrease in appetite.
- **Option C:** Toddlers are characteristically bowlegged because the leg muscles must bear the weight of the relatively large trunk. When babies are born with bow legs it's because some of the bones had to rotate (twist) slightly when they were growing in the womb to fit into the small space. This is called physiological bow legs. It's considered a normal part of a child's growth and development.
- **Option D:** Toddler growth patterns occur in a steplike, not linear pattern. Between ages 1 and 2, a toddler will gain only about 5 pounds (2.2 kilograms). Weight gain will remain at about 5 pounds (2.2 kilograms) per year between ages 2 to 5. Between ages 2 to 10 years, a child will grow at a steady pace. A final growth spurt begins at the start of puberty, sometime between ages 9 to 15.

**92. A nurse is caring for a debilitated female patient with nocturia. Which nursing intervention is the priority when planning to meet this patient's needs?**

- A. Encouraging the use of bladder training exercises.
- B. Providing assistance with toileting every four hours.
- C. Positioning a bedside commode near the bed.
- D. Teaching the avoidance of fluid after 5 PM.

**Correct Answer: C. Positioning a bedside commode near the bed.**

The use of a commode requires less energy than using a bedpan and is safer than walking to the bathroom. Sitting on the commode uses gravity to empty the bladder fully and thus prevent urinary

stasis. Nocturia is defined as the need for a patient to get up at night on a regular basis to urinate. A period of sleep must precede and follow the urinary episode to count as a nocturnal void. This means the first-morning void is not considered when determining nocturia episodes. Use of a bedside commode or urinal can minimize the bother, if not the frequency, of nocturia and may reduce the risk of falls. Remove any obstacles, loose rugs, or furniture between the bed and the nearest commode to reduce fall risk further. Consider using nightlights to help illuminate the passage to the bathroom.

- **Option A:** Although bladder training exercises should be done, it is not the priority. Behavioral therapy, which includes pelvic floor muscle training, urge-suppression techniques, delayed voiding, fluid management, sleep hygiene, Kegel exercises, and peripheral edema management, has been shown to be reasonably efficacious both when used alone or together with pharmacological therapy in controlling nocturia.
- **Option B:** Assisting with toileting may be too often or not often enough for the patient. Care should be individualized for the patient. In particular, older adults with nocturia who make multiple nocturnal trips to the bathroom are at a substantially increased risk of potentially serious falls. A quarter of all the falls that occur in older individuals happen overnight. Of these, 25% are directly related to nocturia. Patients who make at least 2 or more nocturnal bathroom visits a night, have more than double the risk of fractures and fall-related traumas.
- **Option D:** Fluids may be decreased during the last two hours before bedtime, but they should not be avoided completely after 5 PM (opt4). Some fluid intake is necessary for adequate renal perfusion. Drinking large amounts of fluids shortly before going to bed and ingesting caffeine or alcohol late in the day and before bed is likely to contribute to nocturia as well. Be aware that some elderly patients may already be somewhat dehydrated and might require extra fluid intake earlier in the day before they can safely do any evening fluid restriction before bedtime.

**93. The nurse is preparing a discharge teaching plan for the male client who had umbilical hernia repair. What should the nurse include in the plan?**

- A. Irrigating the drain
- B. Avoiding coughing
- C. Maintaining bed rest
- D. Restricting pain medication

**Correct Answer: B. Avoiding coughing.**

Coughing is avoided following umbilical hernia repair to prevent disruption of tissue integrity, which can occur because of the location of this surgical procedure. Splint the stomach by placing a pillow over the abdomen with firm pressure before coughing or movement to help reduce the pain.

- **Option A:** A drain is not used in this surgical procedure, although the client may be instructed in simple dressing changes. Do not soak in a bathtub until the stitches or staples are removed. A small amount of drainage from the incision is normal.
- **Option C:** Bed rest is not required following this surgical procedure. The client may slowly increase his activity. He should get up and walk every hour or so to prevent blood clot formation. After recovery, the client may return to work within 2 or 3 days. There should be no lifting anything above 10 lbs, climbing, or any strenuous activities for 4 to 6 weeks.
- **Option D:** The client should take analgesics as needed and as prescribed to control pain. Most non-opioid analgesics are classified as non-steroidal anti-inflammatory drugs (NSAIDs). They are used to treat mild pain and inflammation or combined with narcotics. Narcotics or opioids are used for severe pain.

**94. Which intervention would be included in the care plan for the client with an acute exacerbation of Ménière's disease?**

- A. Instructing the client on the correct way to remove impacted cerumen.
- B. Speaking slowly and distinctly in a low-pitched, clear voice without yelling
- C. Providing a safe, quiet, dimly lit environment with enforced bed rest.
- D. Instructing the client to pull the top of the ear and back to instill ear drops.

**Correct Answer: C. Providing a safe, quiet, dimly lit environment with enforced bed rest.**

Ménière's disease is a chronic disorder of the inner ear involving sensorineural hearing loss, severe vertigo, and tinnitus. Typically, the client experiences sudden episodes of severe whirling vertigo with an inability to stand or walk, buzzing tinnitus that worsens before and during an episode, nausea, vomiting, and diaphoresis. The client's safety must be ensured along with decreasing exposure to extraneous stimuli. This is accompanied by providing the client with a quiet, dimly lit environment and bed rest.

- **Option A:** Instructions about removing cerumen are appropriate for a client with cerumen impaction. When treatment is appropriate, there are three recommended removal methods: cerumenolytic agents, irrigation, and manual removal. To prevent further accumulation of cerumen in patients with recurrent symptoms greater than one per year, patients may apply mineral oil to the external canal 10 to 20 minutes weekly.
- **Option B:** Speaking slowly and distinctly in a low-pitched, clear voice without yelling is appropriate for clients experiencing hearing loss. Clients with Ménière's disease are not deaf during acute exacerbations. However, hearing loss may occur after repeated episodes.
- **Option D:** Ear drops are not the treatment of choice for an acute attack of Ménière's disease. A Cochrane review found low-level evidence to support the use of betahistine with substantial variability between studies. Medical therapy in many medical centers often starts with betahistine orally.

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

- A. Decrease fluid intake to control the intraocular pressure.
- B. Avoid overuse of the eyes.
- C. Decrease the amount of salt in the diet.
- D. Eye medications will need to be administered lifelong.

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

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

- **Option A:** Discuss dietary considerations (adequate fluid, bulk, or fiber intake). Measures to maintain consistency of stool to avoid constipation and straining during defecation. Stress the importance of routine checkups. It is important to monitor the progression and maintenance of

disease to allow for early intervention and prevent further loss of vision.

- **Option B:** Encourage the patient to make necessary changes in lifestyle. A tranquil lifestyle decreases the emotional response to stress, preventing ocular changes that push the iris forward, which may precipitate an acute attack.
- **Option C:** Review the importance of maintaining a drug schedule like eye drops. Discuss medications that should be avoided such as mydriatic drops (atropine, propantheline bromide), overuse of topical steroids, and additive effects of [beta]-blocking when systemic [beta]-blocking agents are used.

**96. Which type of fluid should the nurse expect to prepare and administer as fluid resuscitation during the emergent phase of burn recovery?**

- A. Colloids
- B. Crystalloids
- C. Fresh-frozen plasma
- D. Packed red blood cells

**Correct Answer: B. Crystalloids**

Although not universally true, most fluid resuscitation for burn injuries starts with crystalloid solutions, such as normal saline and Ringer's lactate. Burn patients receive a larger amount of fluids in the first hours than any other trauma patients. Initial resuscitation is based on crystalloids because of the increased capillary permeability occurring during the first 24 h. After that time, some colloids, but not all, are accepted.

- **Option A:** Colloids are not generally used during the fluid shift phase because these large particles pass through the leaky capillaries into the interstitial fluid, where they increase the osmotic pressure. Increased osmotic pressure in the interstitial fluid can worsen the capillary leak syndrome and make maintaining the circulating fluid volume even more difficult.
- **Option C:** Fresh frozen plasma appears to be a useful and effective immediate burn resuscitation fluid but its benefits must be weighed against its costs, and risks of viral transmission and acute lung injury.
- **Option D:** The burn client rarely requires blood during the emergent phase unless the burn is complicated by another injury that involves hemorrhage. Ongoing blood loss, anemia, hypoxia, and cardiac disease are the most common reasons for blood transfusion in burn patients. Other important causes include age, percentage of burn (TBSA), need for further operation, presence of acute respiratory distress syndrome, sepsis, and evidence of cardiac ischemia.

**97. A client comes into the health clinic 3 years after undergoing resection of the terminal ileum complaining of weakness, shortness of breath, and a sore tongue. Which client statement indicates a need for intervention and client teaching?**

- A. "I have been drinking plenty of fluids."
- B. "I have been gargling with warm salt water for my sore tongue."
- C. "I have 3 to 4 loose stools per day."

D. "I take a vitamin B12 tablet every day."

**Correct Answer: D. "I take a vitamin B12 tablet every day."**

Vitamin B12 combines with intrinsic factor in the stomach and is then carried to the ileum, where it is absorbed in the bloodstream. In this situation, vitamin B12 cannot be absorbed regardless of the amount of oral intake of sources of vitamin B12 such as animal protein or vitamin B12 tablets. Vitamin B12 needs to be injected every month, because the ileum has been surgically removed.

- **Option A:** Replacement of fluids and electrolytes is important when the client has continuous multiple loose stools on a daily basis. Massive small bowel resection can lead to short bowel syndrome (SBS), a condition that is characterized by malnutrition and malabsorption secondary to loss of functional small bowel and more rapid intestinal transit. In addition to weight loss and protein-calorie malnutrition, patients suffer from diarrhea, steatorrhea, electrolyte abnormalities, and deficiencies in fat-soluble vitamins.
- **Option B:** Warm salt water is used to soothe sore mucous membranes. Parenteral nutrition, therefore, is a mainstay of early SBS management to limit malnutrition. Early return to enteral feeds once ileus has resolved is advised, even if a diagnosis of SBS is expected. Enteral feeding is thought to stimulate intestinal adaptation by both directly stimulating enterocytes and by inducing endocrine and paracrine effects signaling for hypertrophy of the remaining small bowel mucosa.
- **Option C:** Crohn's disease and small bowel resection may cause several loose stools a day. Drugs such as loperamide, diphenoxylate and atropine, and opiates will slow gut function, increasing the potential absorptive time of enteral feeds. Reducing gastrointestinal secretion and controlling diarrhea are also important goals for maximizing absorption.

**98. Which of the following statements by the parents of a child with school phobia would indicate the need for further teaching?**

- A. "We'll keep him at home until the phobia subsides."
- B. "We'll work with his teachers and counselors at school."
- C. "We'll try to encourage him to talk about his problem."
- D. "We'll discuss possible solutions with him and his counselor."

**Correct Answer: A. "We'll keep him at home until the phobia subsides."**

The parents need more teaching if they state that they will keep the child home until the phobia subsides. Doing so reinforces the child's feelings of worthlessness and dependency.

- **Option B:** The child should attend school even during resolution of the problem.
- **Option C:** Allowing the child to verbalize helps the child to ventilate feelings and may help to uncover causes and solutions.
- **Option D:** Collaboration with the teachers and counselors at school may lead to uncovering the cause of the phobia and to the development of solutions. The child should participate and play an active role in developing possible solutions.

**99. Miggy, a 6-year-old boy, received a small paper cut on his finger, his mother let him wash it and apply a small amount of antibacterial ointment and bandage. Then she let him watch TV and eat an apple. This is an example of which type of pain intervention?**

- A. Pharmacologic therapy
- B. Environmental alteration
- C. Control and distraction
- D. Cutaneous stimulation

**Correct Answer: C. Control and distraction**

The mother's actions are an example of control and distraction. Involving the child in care and providing distraction took his mind off the pain. The brain can only focus its attention in so many areas at one time. Pain sensations compete for attention with all of the other things going on around. Just how much attention the brain gives each thing depends on a number of factors, including how long you have been hurting and the current mood.

- **Option A:** Pharmacologic agents for pain analgesics — were not used. A wide range of drugs are used to manage pain resulting from inflammation in response to tissue damage, chemical agents/pathogens (nociceptive pain) or nerve damage (neuropathic pain).
- **Option B:** The home environment was not changed. There has recently been heightened recognition that environmental factors can influence pain. Clinicians involved in delivering multidisciplinary pain programs often structure the social environment of their treatment settings to help promote adaptive responses to pain.
- **Option D:** Cutaneous stimulation, such as massage, vibration, or pressure, was not used. Cutaneous stimulation involves stimulation of nerves via skin contact in an effort to reduce pain impulses to the brain, based on the “gate control” theory of pain. A device used to provide electrocutaneous nerve stimulation was studied for its effect on symptoms of peripheral neuropathy.

**100. Which of the following nursing assessments is a late symptom of polycythemia vera?**

- A. Headache
- B. Dizziness
- C. Pruritus
- D. Shortness of breath

**Correct Answer: C. Pruritus**

Pruritus is a late symptom that results from abnormal histamine metabolism. Aquagenic pruritus, which occurs during or after a hot shower, is a complaint in 40% of patients. The mechanism is likely from mast cell and basophil degranulation, causing a histamine surge. In a 2013 study with 1545 patients, pruritus was associated with better survival.

- **Option A:** Symptoms are related to hyperviscosity and thrombosis, impairing oxygen delivery. Physical complaints can include fatigue, headache, dizziness, tinnitus, vision changes, insomnia, claudication, pruritus, gastritis, and early satiety.
- **Option B:** Dizziness is an early symptom of engorged veins. On physical exam, patients can display plethora and flushing of the face and palms, conjunctival injection, and skin excoriation from pruritus. Splenomegaly and hepatomegaly are also often observed.

- **Option D:** Shortness of breath is an early symptom from the congested mucous membrane and ineffective gas exchange. Thrombotic events can include deep venous thrombosis (DVT), pulmonary embolism (PE), Budd-Chiari syndrome, splanchnic vein thrombosis, stroke, and arterial thrombosis.