

Kevin's Review - 100 NCLEX Practice Questions

1. Which of the following clients is at greatest risk for digitalis toxicity?

- A. A 25-year-old client with congenital heart disease.
- B. A 50-year-old client with CHF.
- C. A 60-year-old client after myocardial infarction.
- D. An 80-year-old client with CHF.

Correct Answer: D. An 80-year-old client with CHF.

Extremely old clients are at greater risk for digitalis toxicity. Remember when it comes to adversity, the very old and very young are always at the highest risk. There are no evidence-based guidelines for the management of mild to moderate toxicity so there is a wide variation in treatment. Severe toxicity requires hospital admission and consideration of the need for digoxin-specific antibody fragments. Although digoxin-specific antibody fragments are safe and effective, randomized trials have not been performed.

- **Option A:** Digoxin toxicity can emerge during long-term therapy as well as after an overdose. It can occur even when the serum digoxin concentration is within the therapeutic range.
- **Option B:** The clinical features of toxicity are often non-specific. They commonly include lethargy, confusion, and gastrointestinal symptoms (anorexia, nausea, vomiting, diarrhea, and abdominal pain). Visual effects (blurred vision, color disturbances, halos, and scotomas) are rarer in contemporary practice. Cardiac arrhythmias account for most deaths.
- **Option C:** Digoxin increases intracellular calcium in myocardial cells indirectly, by inhibiting the sodium-potassium pump in the cell membrane. Increased intracellular calcium increases cardiac contractility, but also the risk of tachyarrhythmias. Inhibition of this pump causes hyperkalemia commonly seen in toxicity. Digoxin also causes an increase in vagal activity, reducing activity in the sinus node and prolonging conduction in the atrioventricular node.

2. The school nurse assesses for anorexia nervosa in an adolescent girl. Which of the following findings are characteristic of this disorder? Select all that apply.

- A. Bradycardia
- B. Hypotension
- C. Chronic pain in one or more sites
- D. Fear of having a serious illness
- E. Irregular or absent menses
- F. Refusal to maintain a minimally normal weight

Correct Answer: A, B, E, F

These are all characteristics of anorexia nervosa. Anorexia nervosa is an eating disorder defined by restriction of energy intake relative to requirements, leading to a significantly low body weight. Patients will have an intense fear of gaining weight and distorted body image with the inability to recognize the seriousness of their significantly low body weight.

- **Option A:** Cardiac complications are arguably one of the most severe medical issues stemming from anorexia. Bradycardia (heart rate less than 60 beats per minute) and hypotension (blood

pressure less than 90/50) are among the most common physical findings in anorexia, with bradycardia seen in up to 95 percent of patients.

- **Option B:** Bradycardia (pulse <60) and hypotension are among the most common physical findings in patients with anorexia nervosa, with bradycardia seen in up to 95% of patients. Anorexia nervosa should be considered in the differential for unexplained bradycardia in the outpatient setting. Low blood pressure and heart rate universally increase to normal levels after refeeding and restoration of normal weight.
- **Option C:** Chronic pain in one or more sites is common for somatoform pain disorder. The Diagnostic and Statistical Manual for Mental Disorders, Fifth Edition (DSM-5) category of Somatic Symptom Disorders and Other Related Disorders represents a group of disorders characterized by thoughts, feelings, or behaviors related to somatic symptoms. This category represents psychiatric conditions because the somatic symptoms are excessive for any medical disorder that may be present.
- **Option D:** Fear of having a serious illness is common in hypochondriasis. Illness anxiety disorder (IAD) is a recent term for what used to be diagnosed as hypochondriasis, or hypochondria. People diagnosed with IAD strongly believe they have a serious or life-threatening illness despite having no, or only mild, symptoms. Yet IAD patients' concerns are to them very real. Even if they go to doctors and no illnesses are found, they are generally not reassured and their obsessive worry continues.
- **Option E:** Of patients with anorexia nervosa, 20–25 percent may experience amenorrhea before the onset of significant weight loss, and 50–75 percent will experience amenorrhea during the course of dieting and its weight loss. In some patients with anorexia nervosa, amenorrhea occurs only after more marked weight loss. Overall, the development of amenorrhea is most strongly correlated to loss of body weight.
- **Option F:** Many exercise compulsively for extended periods of time. Patients with anorexia nervosa develop multiple complications related to prolonged starvation and purging behaviors.

3. Gold sodium thiomalate is prescribed to a client with rheumatoid arthritis. Which of the following side effects indicates an overdose of the medication?

- A. Flushing
- B. Dizziness
- C. Joint pain
- D. Metallic taste

Correct Answer: D. Metallic taste.

Gold sodium thiomalate toxicity signs are pruritus, diarrhea, dermatitis, stomatitis, and metallic taste.

- **Options A and B:** Flushing and dizziness are the side effects that may occur soon after the injection.
- **Option C:** Increased joint pain may occur 1-2 days after the injection.

4. A male client is admitted to the hospital with blunt chest trauma after a motor vehicle accident. The first nursing priority for this client would be to:

- A. Assess the client's airway.

- B. Provide pain relief.
- C. Encourage deep breathing and coughing.
- D. Splint the chest wall with a pillow.

Correct Answer: A. Assess the client's airway.

The first priority is to evaluate airway patency before assessing for signs of obstruction, sternal retraction, stridor, or wheezing. Airway management is always the nurse's first priority. Blunt trauma, on the whole, is a more common cause of traumatic injuries and can be equally life-threatening. It is important to know the mechanism as management may be different. Most blunt trauma is managed non-operatively, whereas penetrating chest trauma often requires operative intervention. Pain management and splinting are important for the client's comfort but would come after airway assessment.

- **Option B:** Pain control greatly affects mortality and morbidity in patients with chest trauma. Pain leads to splints which worsen or prevent healing. In many cases, it can lead to pneumonia. Early analgesia should be considered to decrease splinting. In the acute setting, push doses of short-acting narcotics should be used.
- **Option C:** Coughing and deep breathing may be contraindicated if the client has internal bleeding and other injuries. Minor injuries may simply require close monitoring and pain control. Care should be taken in the young and the elderly. Patients with 3 or more rib fractures, a flail segment, and any number of rib fractures with pulmonary contusions, hemopneumothorax, hypoxia, or pre-existing pulmonary disease should be monitored at an advanced level of care.
- **Option D:** Immediate life-threatening injuries require prompt intervention, such as emergent tube thoracostomy for large pneumothoraces, and initial management of hemothorax. For cases of hemothorax, adequate drainage is imperative to prevent retained hemothorax. Retained hemothorax can lead to empyema requiring video-assisted thoracoscopic surgery.

5. The nurse is aware that the most common assessment finding in a child with ulcerative colitis is:

- A. Intense abdominal cramps
- B. Profuse diarrhea
- C. Anal fissures
- D. Abdominal distention

Correct Answer: B. Profuse diarrhea

The most common assessment finding in a child with ulcerative colitis is profuse diarrhea. The main symptom of ulcerative colitis is bloody diarrhea, with or without mucus. Other symptoms include blood in the toilet, on toilet paper, or in the stool. Characteristically, it involves inflammation restricted to the mucosa and submucosa of the colon. Typically, the disease starts in the rectum and extends proximally in a continuous manner.

- **Option A:** Ulcerative colitis causes intense abdominal cramps. Associated symptoms also include urgency or tenesmus, abdominal pain, malaise, weight loss, and fever, depending on the extent and severity of the disease. The onset of the disease is typically gradual, and patients will likely experience periods of spontaneous remission and subsequent relapses.
- **Option C:** Ulcerative colitis causes anal fissures. There are some extraintestinal manifestations (EIMs) that are also present in 10% to 30% of patients with ulcerative colitis. Extraintestinal

manifestations associated with disease activity include episcleritis, scleritis, and uveitis, peripheral arthropathies, erythema nodosum, and pyoderma gangrenosum.

- **Option D:** Abdominal distensions are more common in Crohn's disease. Patients with flare-ups of Crohn's disease typically present with abdominal pain (right lower quadrant), flatulence/bloating, diarrhea (can include mucus and blood), fever, weight loss, anemia. In severe cases, perianal abscess, perianal Crohn's disease, and cutaneous fistulas can be seen.

6. Which question is helpful in determining the study's credibility?

- A. Do the participants recognize the experience as their own?
- B. What strategies were used to analyze the data?
- C. How were human subjects protected?
- D. Are the findings applicable outside the study situation?

Correct Answer: A. Do the participants recognize the experience as their own?

Credibility is the truth of findings as judged by the participants. To help establish, the researcher should return to the original participants and get them to validate the findings. Others within the discipline may also help establish by review of the data and findings.

- **Option B:** Auditability assists the reader to judge the appropriateness of the interview questions posed. Auditability is established by the reader being able to follow the steps of the research from the research questions, to the data collection, to the data, and then to the findings (categories, themes, model).
- **Option C:** Fittingness is the meaningfulness of the everyday findings to everyday reality of that situation. Are the results described in enough detail so that one may evaluate them for their own practice?
- **Option D:** This question will critique the auditability of a research project. Understand the purpose and problem, while determining if the design and methodology are consistent with the purpose.

7. Routine laboratory monitoring in clients taking β blockers should include:

- A. Sodium
- B. Glucose
- C. Thyrotropin
- D. Creatine phosphokinase

Correct Answer: B. Glucose

β blockers influence glucose metabolism. Beta-3 receptors induce the breakdown of fat cells and are less clinically relevant at present. Blockade of these receptors by beta-blocking medicines are used to treat a broad range of illnesses. Although A, C, and D are nice to have, there is no indication that routine assessment of thyrotropin, sodium, or creatine phosphokinase is needed.

- **Option A:** Beta-blockers are indicated and have FDA approval for the treatment of tachycardia, hypertension, myocardial infarction, congestive heart failure, cardiac arrhythmias, coronary artery disease, hyperthyroidism, essential tremor, aortic dissection, portal hypertension, glaucoma, migraine prophylaxis, and other conditions.

- **Option C:** They are also used to treat less common conditions such as long QT syndrome and hypertrophic obstructive cardiomyopathy. Beta-blockers are available for administration in three main forms: oral, intravenous, and ophthalmic, and the route of administration often depends on the acuity of the illness (parenteral use in arrhythmias), disease type (topical use in glaucoma), and chronicity of the disease.
- **Option D:** Congestive heart failure patients are treated with beta-blockers if they are in a compensated state. Specifically, the beta-blockers bisoprolol, carvedilol, and metoprolol succinate are the agents chosen.

8. A client who abuses alcohol and cocaine tells a nurse that he only uses substances because of his stressful marriage and difficult job. Which defense mechanisms is this client using?

- A. Displacement
- B. Projection
- C. Rationalization
- D. Sublimation

Correct Answer: C. Rationalization

Rationalization is the defense mechanism that involves offering excuses for maladaptive behavior. The client is defending his substance abuse by providing reasons related to life stressors. This is a common defense mechanism used by clients with substance abuse problems.

- **Option A:** Displacement is transferring one's emotional burden or emotional reaction from one entity to another. This defense mechanism may be present in someone who has a stressful day at work and then lashes out against their family at home.
- **Option B:** Projection is attributing one's own maladaptive inner impulses to someone else. For example, someone who commits an episode of infidelity in their marriage may then accuse their partner of infidelity or may become more suspicious of their partner.
- **Option D:** Sublimation is transforming one's anxiety or emotions into pursuits that are considered by societal or cultural norms to be more useful. This defense mechanism may be present in someone who channels their aggression and energy into playing sports.

9. The nurse is teaching a female client with multiple sclerosis. When teaching the client how to reduce fatigue, the nurse should tell the client to:

- A. Take a hot bath.
- B. Rest in an air-conditioned room.
- C. Increase the dose of muscle relaxants.
- D. Avoid naps during the day.

Correct Answer: B. Rest in an air-conditioned room.

Fatigue is a common symptom in clients with multiple sclerosis. Lowering the body temperature by resting in an air-conditioned room may relieve fatigue; however, extreme cold should be avoided. Other measures to reduce fatigue in the client with multiple sclerosis include treating depression, using

occupational therapy to learn energy conservation techniques, and reducing spasticity.

- **Option A:** A hot bath or shower can increase body temperature, producing fatigue. Assist with physical therapy. Increase patient comfort with massages and relaxing baths. Reduces fatigue and promotes a sense of wellness.
- **Option C:** Muscle relaxants, prescribed to reduce spasticity, can cause drowsiness and fatigue. Amantadine (Symmetrel) and pemoline (Cylert) are useful in treatment of fatigue. Positive antiviral drug effect in 30%–50% of patients. Use may be limited by side effects of increased spasticity, insomnia, paresthesias of hands and feet.
- **Option D:** Planning for frequent rest periods and naps can relieve fatigue. Plan care consistent rest periods between activities. Encourage afternoon naps. Reduces fatigue, aggravation of muscle weakness.

10. A female client with anorexia nervosa describes herself as “a whale.” However, the nurse’s assessment reveals that the client is 5’ 8” (1.7 m) tall and weighs only 90 lb (40.8 kg). Considering the client’s unrealistic body image, which intervention should nurse Angel be included in the plan of care?

- A. Asking the client to compare her figure with magazine photographs of women her age.
- B. Assigning the client to group therapy in which participants provide realistic feedback about her weight.
- C. Confronting the client about her actual appearance during one-on-one sessions, scheduled during each shift.
- D. Telling the client of the nurse’s concern for her health and desire to help her make decisions to keep her healthy.

Correct Answer: D. Telling the client of the nurse’s concern for her health and desire to help her make decisions to keep her healthy

A client with anorexia nervosa has an unrealistic body image that causes consumption of little or no food. Therefore, the client needs assistance with making decisions about health. Respond (confront) with reality when a patient makes unrealistic statements. The patient may be denying the psychological aspects of their own situation and is often expressing a sense of inadequacy and depression.

- **Option A:** Instead of protecting the client’s health, option A may serve to make the client defensive and more entrenched in her unrealistic body image. Allow the patient to draw a picture of self. It provides an opportunity to discuss the patient’s perception of self and body image and realities of an individual situation.
- **Option B:** Encourage personal development program, preferably in a group setting. Provide information about the proper application of makeup and grooming. Learning about methods to enhance personal appearance may be helpful to a long-range sense of self-esteem and image. Feedback from others can promote feelings of self-worth.
- **Option C:** Establish a therapeutic nurse-patient relationship. Within a helping relationship, the patient can begin to trust and try out new thinking and behaviors. Assist the patient to assume control in areas other than dieting and weight loss such as management of their own daily activities, work, and leisure choices. Feelings of personal ineffectiveness, low self-esteem, and perfectionism are often part of the problem. The patient feels helpless to change and requires assistance to problem-solve methods of control in life situations.

11. A client has a diagnosis of primary insomnia. Before assessing this client, the nurse recalls the numerous causes of this disorder. Select all that apply.

- A. Chronic stress
- B. Severe anxiety
- C. Generalized pain
- D. Excessive caffeine
- E. Chronic depression
- F. Environmental noise

Correct Answer: A, D, & F.

Acute or primary insomnia is caused by emotional or physical discomfort not caused by the direct physiologic effects of a substance or a medical condition.

- **Option A:** This type of insomnia is usually idiopathic, although it can be impacted by mild to moderate stress. Idiopathic insomnia is truly without any identifiable contributory factor, while stress-related insomnia can be characterized by mild stress, such as rumination or other thoughts throughout the night.
- **Option B:** Primary idiopathic insomnia occurs without any identifiable cause and in the absence of anxiety. Developmental issues during childhood, for example, separation anxiety, may predispose a child to develop sleep problems. People with certain personality traits like perfectionism, ambitiousness, neuroticism, low extraversion, and susceptibility to depression and worry are more likely to develop insomnia over time.
- **Option C:** Comorbid medical issues like restless legs syndrome, chronic pain, gastroesophageal reflux disease (GERD), respiratory issues, and immobility are associated with the risk of chronic insomnia.
- **Option D:** Excessive caffeine intake is an example of disruptive sleep hygiene; caffeine is a stimulant that inhibits sleep. Coffee, tea, cola, and other caffeinated drinks are stimulants. Drinking them in the late afternoon or evening can keep the client from falling asleep at night.
- **Option E:** The sleep problems of primary insomnia are not associated with lifestyle habits or a medical or psychiatric cause. Individuals who have difficulty coping with a stressful situation or those who report being habitual light sleepers have an elevated propensity to develop chronic insomnia. There is a high rate of association between insomnia and psychiatric disorders like depression, anxiety, and post-traumatic stress disorder.
- **Option F:** Environmental noise causes physical and/or emotional effects and therefore is related to primary insomnia. Poor sleep habits include an irregular bedtime schedule, naps, stimulating activities before bed, an uncomfortable sleep environment, and using the bed for work, eating, or watching TV.

12. A primigravida is receiving magnesium sulfate for the treatment of pregnancy induced hypertension (PIH). The nurse who is caring for the client is performing assessments every 30 minutes. Which assessment finding would be of most concern to the nurse?

- A. Urinary output of 20 ml since the previous assessment

- B. Deep tendon reflexes of 2+
- C. Respiratory rate of 10 BPM
- D. Fetal heart rate of 120 BPM

Correct Answer: C. Respiratory rate of 10 BPM.

Magnesium sulfate depresses the respiratory rate. If the respiratory rate is less than 12 breaths per minute, the physician or other health care provider needs to be notified, and continuation of the medication needs to be reassessed.

- **Option A:** A urinary output of 20 ml in a 30 minute period is adequate; less than 30 ml in one hour needs to be reported. The kidneys face remarkable demands during pregnancy, and it is critical that the practicing nephrologist understands the normal kidney adaptations to pregnancy. GFR rises early to a peak of 40% to 50% that of prepregnancy levels, resulting in lower levels of serum creatinine, urea, and uric acid. There is a net gain of sodium and potassium, but a greater retention of water, with gains of up to 1.6 L.
- **Option B:** Deep tendon reflexes of 2+ are normal. With preeclampsia, a woman's reflexes become unusually active. Increasing blood pressure will lead to increasing hyperreflexia until uncontrollable seizures eventually result. Testing for this change is difficult in the field setting; in a clinic setting an overactive patellar response is a good indicator.
- **Option D:** The fetal heart rate is WNL for a resting fetus. Current international guidelines recommend for the normal fetal heart rate (FHR) baseline different ranges of 110 to 150 beats per minute (bpm) or 110 to 160 bpm.

13. Which is the best indicator of success in the long-term management of the client?

- A. His symptoms are replaced by indifference to his feelings.
- B. He participates in diversionary activities.
- C. He learns to verbalize his feelings and concerns.
- D. He states that his behavior is irrational.

Correct Answer: C. He learns to verbalize his feelings and concerns.

The client is encouraged to talk about his feelings and concerns instead of using body symptoms to manage his stressors. Accurate measurement and improvement of population mental health require the recording of indicators that capture the full spectrum of disease severity.

- **Option A:** The client is encouraged to acknowledge feelings rather than being indifferent to her feelings. Mental health surveillance will require a conglomerate of indicators, and would best be served by including upstream determinants of mental health in addition to downstream symptomatic outcomes.
- **Option B:** Participation in activities diverts the client's attention away from his bodily concerns but this is not the best indicator of success. The stigma associated with mental health disorders may lead to underreporting of symptoms by participants in the CCHS survey data, as well as by physicians in their billing practices, and thus create problems in predicting the need for mental health services.
- **Option D:** Help the client recognize that his physical symptoms occur because of or are exacerbated by a specific stressor, not as irrational. The use of a standardized set of indicators that

takes into account health determinants, the severity of symptoms, and the use of healthcare services would permit more useful international comparisons.

14. A female adult patient is taking a progestin-only oral contraceptive or mini pill. Progestin use may increase the patient's risk for:

- A. Endometriosis
- B. Female hypogonadism
- C. Premenstrual syndrome
- D. Tubal or ectopic pregnancy

Correct Answer: D. Tubal or ectopic pregnancy

Women taking the mini pill have a higher incidence of tubal and ectopic pregnancies, possibly because progestin slows ovum transport through the fallopian tubes.

- **Option A:** Progestins are widely regarded as effective treatments for the symptoms of endometriosis despite not all being indicated for the treatment of the disease. It is not yet fully understood how progestins relieve the symptoms of endometriosis, but they probably work by suppressing the growth of endometrial implants in some way, causing them to gradually waste away.
- **Option B:** Hypogonadism is a condition in which the male testes or the female ovaries produce little or no sex hormones. Treatment may involve estrogen and progesterone pills or skin patches, GnRH injections, or HCG injections.
- **Option C:** Premenstrual syndrome is defined as the recurrence of psychological and physical symptoms in the luteal phase, which remit in the follicular phase of the menstrual cycle. The rationale for the use of progesterone and progestogens in the management of premenstrual syndrome is based on the unsubstantiated premise that progesterone deficiency is the cause.

15. Which of the following systems is the most likely origin of pain the client describes as knifelike chest pain that increases in intensity with inspiration?

- A. Cardiac
- B. Gastrointestinal
- C. Musculoskeletal
- D. Pulmonary

Correct Answer: D. Pulmonary

Pulmonary pain is generally described by these symptoms. Pain may originate from several different structures within the chest, including the skin, ribs, intercostal muscles, pleura, esophagus, heart, aorta, diaphragm, or thoracic vertebrae. The pain may be transmitted by intercostal, sympathetic, vagus, and phrenic nerves. The innervations of the deep structures of the thorax follow common pathways to the central nervous system, making it difficult to localize the source of pain.

- **Option A:** In cardiac pain, respirations are usually unaffected. Various schemes have been used to classify the etiologies of chest pain, but the most useful is to distinguish between acute and chronic patterns of pain. Patients with acute pain include those whose episodes are of recent onset or those who have had a recent increase in the intensity or frequency of recurrent pain. Patients with

chronic pain include those who have recurrent episodes of pain occurring in a relatively stable pattern.

- **Option B:** GI pains don't change with respiration. The findings suggest that pain influences respiration by increasing its flow, frequency, and volume. Furthermore, paced slow breathing is associated with pain reduction in some of the studies, but evidence elucidating the underlying physiological mechanisms of this effect is lacking.
- **Option C:** Musculoskeletal pain only increases with movement. The SNS is concerned with the regulation of vascular tone, blood flow, and blood pressure, as sympathetic nerves have stimulating effects on the heart (improving circulation) and respiratory system (increasing oxygen intake). Pain, therefore, increases heart rate, blood pressure, and respiratory rate.

16. Which of the following would the nurse identify as a classic sign of PIH?

- A. Edema of the feet and ankles
- B. Edema of the hands and face
- C. Weight gain of 1 lb/week
- D. Early morning headache

Correct Answer: B. Edema of the hands and face

Edema of the hands and face is a classic sign of PIH. Aggressive volume resuscitation may lead to pulmonary edema, which is a common cause of maternal morbidity and mortality. Pulmonary edema occurs most frequently 48-72 hours postpartum, probably due to mobilization of extravascular fluid. Because volume expansion has no demonstrated benefit, patients should be fluid restricted when possible, at least until the period of postpartum diuresis.

- **Option A:** Many healthy pregnant women experience foot and ankle edema. During pregnancy, the extra fluid in the body and the pressure from the growing uterus can cause swelling (or "edema") in the ankles and feet. The swelling tends to get worse as a woman's due date nears, particularly near the end of the day and during hotter weather.
- **Option C:** A weight gain of 2 lb or more per week indicates a problem. High pregnancy weight gain was more strongly associated with term preeclampsia than early preterm preeclampsia (eg, 64% versus 43% increased odds per 1 z score difference in weight gain in normal-weight women, and 30% versus 0% in obese women, respectively).
- **Option D:** Early morning headache is not a classic sign of PIH. Dull or severe, throbbing headaches, often described as migraine-like that just won't go away are cause for concern.

17. A client is wearing a continuous cardiac monitor, which begins to sound its alarm. A nurse sees no electrocardiogram complexes on the screen. The first action of the nurse is to:

- A. Check the client status and lead placement.
- B. Press the recorder button on the electrocardiogram console.
- C. Call the physician.
- D. Call a code blue.

Correct Answer: A. Check the client status and lead placement.

Sudden loss of electrocardiogram complexes indicates ventricular asystole or possible electrode displacement. Accurate assessment of the client and equipment is necessary to determine the cause and identify the appropriate intervention. Unlike invasive procedures, no preparation is needed, but the patient should be advised to keep the monitor away from other electrical devices while wearing the device. Physicians should recommend not to put lotion or moisturizer on the chest as it will affect the attachment of leads.

- **Option B:** After continuous improvement and progress, the Holter is now the size of a small cell phone and gives two types of primary data to analyze. One is the QRS complex, and the other is the R-R interval. It continuously records until it is detached from the patient or it runs out of power, although it is usually used for 24-48Hrs. The power supply lasts 80-100 hours with a tape recording capacity of ten hours.
- **Option C:** There is no need to call the physician immediately. Mobile electrocardiographic monitoring is contraindicated if it delays urgent treatment, hospitalization, or a procedure. For example, it should not be part of the initial investigation for angina, where a stress test would be more appropriate.
- **Option D:** Calling a code blue is unnecessary. The ACC/AHA guidelines discouraged the use of ambulatory ECG for either arrhythmia detection or analysis of heart rhythm variability for risk assessment in patients without symptoms of arrhythmia, even if they had cardiovascular conditions such as left ventricular hypertrophy, or valvular heart disease.

18. Knowing that gluconeogenesis helps to maintain blood glucose levels, a nurse should:

- A. Document weight changes because of fatty acid mobilization.
- B. Evaluate the patient's sensitivity to low room temperatures because of decreased adipose tissue insulation.
- C. Protect the patient from sources of infection because of decreased cellular protein deposits.
- D. Do all of the above.

Correct answer: D. Do all of the above

All measures ensure gluconeogenesis in maintaining glucose homeostasis. The purpose of gluconeogenesis is to maintain blood glucose levels during a fast. In the human body, some tissues rely almost exclusively on glucose as a metabolic fuel source.

- **Option A:** Fatty acid oxidation is indispensable for gluconeogenesis; although fatty acid carbon cannot be used for glucose, fat oxidation provides both an energy source (ATP) to support gluconeogenesis and acetyl coenzyme A (acetyl-CoA) to activate pyruvate carboxylase.
- **Option B:** Cold exposure is associated with hypothalamic signals to constrict the peripheral blood vessels, minimize sweat production, and increase metabolic heat production (i.e., shivering and nonshivering thermogenesis) during prolonged and/or severe cold exposure to prevent dangerous drops in core temperature.
- **Option C:** A protein deficit can also take its toll on the immune system. Impaired immune function may increase the risk or severity of infections, a common symptom of severe protein deficiency.

19. You're discharging Nathaniel with hepatitis B. Which statement suggests understanding by the patient?

- A. "Now I can never get hepatitis again."
- B. "I can safely give blood after 3 months."
- C. "I'll never have a problem with my liver again, even if I drink alcohol."
- D. "My family knows that if I get tired and start vomiting, I may be getting sick again."

Correct Answer: D. "My family knows that if I get tired and start vomiting, I may be getting sick again."

Hepatitis B can recur. Patients infected with HBV could be asymptomatic initially and, depending on the particular genotype, might not be symptomatic throughout the infected state. In these particular cases, careful history taking is important to establish a diagnosis. However, when symptomatic from acute HBV infection, patients can present with serum sickness-like syndrome manifested as fever, skin rash, arthralgia, and arthritis. This syndrome usually subsides with the onset of jaundice. Patients may also have fatigue, abdominal pain, nausea, and anorexia.

- **Option A:** Unlike hepatitis A and hepatitis E, in which there is no chronic state, HBV infection has the potential for the development of a chronic state. Chronic hepatitis B predisposes a patient to the development of portal hypertension, cirrhosis, and its complications or hepatocellular carcinoma (HCC).
- **Option B:** Patients who have had hepatitis are permanently barred from donating blood. HBsAg is transmitted via blood contact or body secretions, and the risk of acquiring hepatitis B is considerably higher in individuals with close contact with HBsAg-positive patients.
- **Option C:** Alcohol is metabolized by the liver and should be avoided by those who have or had hepatitis B. As such, patients with HBV infection should be monitored closely, and a referral to a specialist is highly recommended. Fulminant liver failure from HBV infection requires an emergent liver transplant evaluation at a liver transplant center.

20. The nurse is doing pre-op teaching with the client who is about to undergo the creation of a Kock pouch. The nurse interprets that the client has the best understanding of the nature of the surgery if the client makes which of the following statements?

- A. "I will need to drain the pouch regularly with a catheter."
- B. "I will need to wear a drainage bag for the rest of my life."
- C. "The drainage from this type of ostomy will be formed."
- D. "I will be able to pass stool from my rectum eventually."

Correct Answer: A. "I will need to drain the pouch regularly with a catheter."

A Kock pouch is a continent ileostomy. As the ileostomy begins to function, the client drains it every 3 to 4 hours and then decreases the draining to about 3 times a day or as needed when full. In this new operation, a pouch or reservoir is fashioned out of terminal ileum with a valve mechanism at its exit to the skin surface. This allows storage of the liquid bowel contents in an expandable container with no leakage of stool or gas and therefore no skin problems.

- **Option B:** The client does not need to wear a drainage bag but should wear an absorbent dressing to absorb mucus drainage from the stoma. There is no need for appliances or bags, no embarrassment from the involuntary noise and smell of flatus through the ileostomy. The stoma is created flush and within the bikini line. The patient catheterizes the pouch an average of three

times a day.

- **Option C:** Ileostomy drainage is liquid. Ileostomy output will be liquid to pasty, depending on what the client eats, his medicines, and other factors. Because the output is constant, the client will need to empty the pouch 5 to 8 times a day.
- **Option D:** The client would be able to pass stool only from the rectum if an ileal-anal pouch or anastomosis were created. This type of operation is a two-stage procedure. Not only does this procedure solve many of the complications of a conventional ileostomy, but it helps decrease the amount of emotional trauma suffered by the young ileostomist, greatly improving the quality of life.

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

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

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

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

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

22. A client with diabetes mellitus has an above-knee amputation because of severe peripheral vascular disease, Two days following surgery, when preparing the client for dinner, it is the nurse's primary responsibility to:

- A. Check the client's serum glucose level
- B. Assist the client out of bed to the chair
- C. Place the client in a High-Fowler's position
- D. Ensure that the client's residual limb is elevated

Correct Answer: A. Check the client's serum glucose level

Because the client has diabetes, it is essential that the blood glucose level is determined before meals to evaluate the success of control of diabetes and the possible need for insulin coverage. Integrating CGMs as part of a glycemic control protocol can lead to better management of glucose levels with fewer hyperglycemia episodes and lower glucose level variability resulting in better post-surgical outcome.

- **Option B:** Physical therapy will begin soon after surgery when the client's condition is stable and the doctor clears the client for rehabilitation. The first 2 to 3 days of treatment may include gentle stretching and range-of-motion exercises, learning to roll in bed, sit on the side of the bed, and move safely to a chair.
- **Option C:** In clients who have undergone transtibial and transfemoral amputations, prolonged sitting with the hip and knee flexed should be avoided. Clients who have undergone transfemoral amputations should be instructed to lie in the prone position multiple times during the day to stretch the hip musculature.
- **Option D:** Elevate the stump for the first 24 to 48 hours. Move and turn the client gently and slowly to prevent severe muscle spasms. Reposition the client every 2 hours, turning the patient from side to side and prone, if possible.

23. A 64-year-old female patient, post 3 weeks from a left hemispheric ischemic stroke, is admitted to the rehabilitation unit. She has made significant improvements in her motor functions but continues to face challenges with eating and speaking. The speech therapist identified dysphagia, and the patient was kept on a modified diet. During the interdisciplinary rounds, the nursing educator, emphasizing the intricate functions of the oral cavity, presents a didactic moment for the nursing interns. Given the patient's challenges post-stroke, the nurse quizzes them on the various functions associated with the tongue. In the context of this patient's clinical presentation and the fundamental role of the tongue in maintaining oral functions, which of the following functions should the nurse ask the students to identify as associated with the tongue? Select all that apply.

- A. Crucial organ for speech
- B. Primary organ for taste
- C. Vital for swallowing food
- D. Manipulates food for mastication
- E. Salivary enzyme secretion

Correct Answer: A, B, C, and D

The tongue is a large, muscular organ that occupies most of the oral cavity. It moves food in the mouth and, in cooperation with the lips and cheeks, holds the food in place during mastication. It also plays a major role in the process of swallowing. The tongue is a major sensory organ for taste, as well as being one of the major organs of speech.

- **Option A:** This is correct. The tongue is considered an organ for speech because it plays a role in articulating sounds and shaping the vocal tract during speech production. Its flexibility, mobility, and ability to interact with other speech-related structures like the lips and palate enable it to produce a

wide range of sounds and facilitate clear communication.

- **Option B:** This is correct. The tongue is the primary organ for taste because it houses the majority of taste buds that detect and distinguish various flavors in the foods and liquids we consume.
- **Option C:** This is correct. The tongue is vital for swallowing food as it facilitates the coordinated movement of chewed food particles, shaping them into a bolus and pushing it to the back of the mouth to initiate the swallowing reflex.
- **Option D:** This is correct. The tongue manipulates food for mastication by working in conjunction with the teeth, helping to break down and mix the food with saliva, making it easier to swallow and digest.
- **Option E:** This is incorrect. Salivary enzymes are secreted by salivary glands, not the tongue. The tongue, while crucial for other functions in the oral cavity, does not have the same enzymatic secretion capability as the salivary glands.

24. The nurse is caring for a 20 lbs (9 kg) 6 month-old with a 3-day history of diarrhea, occasional vomiting and fever. Peripheral intravenous therapy has been initiated, with 5% dextrose in 0.33% normal saline with 20 mEq of potassium per liter infusing at 35 ml/hr. Which finding should be reported to the healthcare provider immediately?

- A. 3 episodes of vomiting in 1 hour.
- B. Periodic crying and irritability.
- C. Vigorous sucking on a pacifier.
- D. No measurable voiding in 4 hours.

Correct Answer: D. No measurable voiding in 4 hours.

The concern is possible hyperkalemia, which could occur with continued potassium administration and a decrease in urinary output since potassium is excreted via the kidneys. Successful management of acute hyperkalemia involves protecting the heart from arrhythmias with the administration of calcium, shifting potassium (K+) into the cells, and enhancing the elimination of K+ from the body.

- **Option A:** Episodes of vomiting should be reported, but it is not the priority and is currently being managed with intravenous infusions. Once clinically significant dehydration is present, effective and safe strategies for rehydration are required. Additionally, following rehydration there may be a risk of recurrence of dehydration and appropriate fluid management may reduce the likelihood of that event.
- **Option B:** Crying and irritability is a normal reaction of an infant who is unwell.
- **Option C:** Vigorous sucking is a good sign in an infant who has episodes of vomiting.

25. Which statement indicates that a client with facial burns understands the need to wear a facial pressure garment?

- A. "My facial scars should be less severe with the use of this mask."
- B. "The mask will help protect my skin from sun damage."
- C. "This treatment will help prevent infection."

D. "Using this mask will prevent scars from being permanent."

Correct Answer: A. "My facial scars should be less severe with the use of this mask."

The purpose of wearing the pressure garment over burn injuries for up to 1 year is to prevent hypertrophic scarring and contractures from forming. Hypertrophic burn scars pose a challenge for burn survivors and providers. In many cases, they can severely limit a burn survivor's level of function, including work and recreational activities.

- **Option B:** Although the mask does provide protection of sensitive, newly healed skin and grafts from sun exposure, this is not the purpose of wearing the mask. A widespread modality of prevention and treatment of hypertrophic scarring is the utilization of pressure garment therapy (PGT).
- **Option C:** The pressure garment will not alter the risk of infection. At present, PGT is the standard first-line therapy for hypertrophic burn scars in many centers due to its non-invasive characteristics and presumed desirable treatment effects with few associated complications.
- **Option D:** Scars will still be present. This treatment modality continues to be a clinically accepted practice. It is the most common therapy used for the treatment and prevention of abnormal scars after burn injury particularly in North America, Europe, and Scandinavia where it is considered routine practice and regarded as the preferred conservative management with reported thinning and better pliability ranging from 60% to 85%.

26. Ricky's grandmother has been suffering from persistent vomiting for two days now. She appears to be lethargic and weak and has myalgia. She is noted to have dry mucus membranes and her capillary refill takes >4 seconds. She is diagnosed as having gastroenteritis and dehydration. Measurement of arterial blood gas shows pH 7.5, PaO₂ 85 mm Hg, PaCO₂ 40 mm Hg, and HCO₃ 34 mmol/L. What acid-base disorder is shown?

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

Correct Answer: C. Metabolic Alkalosis, Uncompensated

The primary disorder is uncompensated metabolic alkalosis (high HCO₃⁻). As CO₂ is the strongest driver of respiration, it generally will not allow hypoventilation as compensation for metabolic alkalosis.

27. While palpating a female client's right upper quadrant (RUQ), the nurse would expect to find which of the following structures?

- A. Sigmoid colon
- B. Appendix
- C. Spleen
- D. Liver

Correct Answer: D. Liver

The RUQ contains the liver, gallbladder, duodenum, head of the pancreas, hepatic flexure of the colon, portions of the ascending and transverse colon, and a portion of the right kidney. Begin palpation over the right lower quadrant, near the anterior iliac spine. Palpate for the liver with one or two hands palm down moving upward 2-3 cm at a time towards the lower costal margin.

- **Option A:** The sigmoid colon is located in the left lower quadrant. The 40cm long sigmoid colon is located in the left lower quadrant of the abdomen, extending from the left iliac fossa to the level of the S3 vertebra.
- **Option B:** The appendix is located in the right lower quadrant. The appendix sits at the junction of the small intestine and large intestine. It's a thin tube about four inches long. Normally, the appendix sits in the lower right abdomen.
- **Option C:** The spleen is located in the left upper quadrant. The spleen is a fist-sized organ in the upper left side of the abdomen, next to the stomach and behind the left ribs. It's an important part of the immune system, but one can survive without it.

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

- A. Solitary, irregularly shaped mass
- B. "Pink peel" skin
- C. Firm, nontender, nonmobile mass
- D. Abnormal discharge from the nipple

Correct Answer: B. "Pink peel" skin

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

29. Which of the following findings would be expected when assessing the postpartum client?

- A. Fundus 1 cm above the umbilicus 1 hour postpartum.
- B. Fundus 1 cm above the umbilicus on a postpartum day 3.
- C. Fundus palpable in the abdomen at 2 weeks postpartum.
- D. Fundus slightly to the right; 2 cm above umbilicus on postpartum day 2.

Correct Answer: A. Fundus 1 cm above the umbilicus 1 hour postpartum.

Within the first 12 hours postpartum, the fundus usually is approximately 1 cm above the umbilicus. Immediately postpartum, the uterine fundus is palpable at or near the level of the maternal umbilicus. If the fundus is found above the navel, the mother probably needs to pass urine. Call a midwife if the uterus feels soft or is not descending.

- **Option B:** The fundus should be below the umbilicus by PP day 3. By approximately one-hour post-delivery, the fundus is firm and at the level of the umbilicus. The fundus continues to descend into the pelvis at the rate of approximately 1 cm or finger-breadth per day and should be nonpalpable by 14 days postpartum.
- **Option C:** The fundus shouldn't be palpated in the abdomen after day 10. Thereafter, most of the reduction in size and weight occurs in the first 2 weeks, at which time the uterus has shrunk enough to return to the true pelvis. Over the next several weeks, the uterus slowly returns to its nonpregnant state, although the overall uterine size remains larger than prior to gestation.
- **Option D:** The uterus should feel firm and should feel about the size of a grapefruit for the first few days. The fundus (top portion of the uterus) should be felt at the level of the belly button or lower. The mother can attempt to feel her fundus by gently pressing on her abdomen. The uterus shrinks at about the rate of one cm. per day. By day 10 it can no longer be felt above the pubic bone.

30. Which of the following symptoms is the best indicator of imminent death?

- A. A weak, slow pulse
- B. Increased muscle tone
- C. Fixed, dilated pupils
- D. Slow, shallow respirations

Correct Answer: C. Fixed, dilated pupils

Fixed, dilated pupils are a sign of imminent death. Death is a part of natural life; however, society is notorious for being uncomfortable with death and dying as a topic on the whole. Many caregivers experience a level of burden from their duties during end-of-life care. This burden is multi-faceted and may include performing medical tasks, communicating with providers, decision-making and possibly anticipating the grief of impending loss.

- **Option A:** Pulse becomes weak but rapid. It is important to identify how to know death has occurred and to educate the family of a patient who may be actively dying. This is especially important if the patient is choosing to die at home.
- **Option B:** Muscles become weak and atonic. It is imperative that patients and families have access to the care and support they require when entering a terminal phase of life. This phase is different for each patient, and the needs may differ for each patient and family, but it is vital for healthcare providers to provide care and support in a way that respects the patient's dignity and autonomous wishes.
- **Option D:** In the late stages, an altered respiratory pattern which can be periods of apnea alternated with hyperpnea or irregular breathing can be noticed.

31. A nurse is planning dietary counseling for the client taking triamterene (Dyrenium). The nurse plans to include which of the following in a list of foods that are acceptable?

- A. Baked potato
- B. Bananas
- C. Oranges

D. Pears canned in water

Correct Answer: D. Pears canned in water

Triamterene is a potassium-sparing diuretic, and clients taking this medication should be cautioned against eating foods that are high in potassium, including many vegetables, fruits, and fresh meats. Because potassium is very water-soluble, foods that are prepared in water are often lower in potassium.

- **Option A:** Among the potassium-sparing diuretics, triamterene was the second drug of this class to be FDA approved for use in the US following spironolactone. However, despite these two drugs being within the same class and achieving the same desired result, they have two distinct mechanisms of action. While spironolactone is an aldosterone receptor antagonist operating at the late distal tubule and collecting tubules of the nephron on the apical aspect of these sites, triamterene acts at the same region of the nephrons but specifically at the epithelial sodium channels (ENaC) which are on the luminal side. These channels are transmembrane channels that operate to increase sodium uptake in exchange for secreting potassium.
- **Option B:** Potassium-sparing diuretics overdose is relatively rare, and there are no reports of deaths. With mild to moderate toxicity, there can be the development of nausea, vomiting, diarrhea, mild dehydration, and hyperkalemia. If there is severe toxicity, there can be the development of severe dehydration coupled with hyperkalemia, which may lead to dysrhythmias, tachycardia, hypotension, hyperactive deep tendon reflexes, and possibly changes in mental status.
- **Option C:** With the use of triamterene, it is essential to monitor specific labs and blood pressure of patients taking this drug in either its sole or combination form with HCTZ. BUN/creatinine, blood pressure, urine output, serum uric acid, CBC, and electrolytes in particular serum potassium should be monitored at a baseline when first placed on the drug. Once findings indicate the establishment of a stable tolerance of the drug, it can be periodically monitored, specifically when dose changes are made and during illnesses.

32. A nurse is caring for a client with a history of overdosage of aspirin. The nurse suspects which of the following can be an early sign of aspirin toxicity?

- A. Unsteady gait
- B. Drowsiness
- C. Confusion
- D. Tinnitus

Correct Answer: D. Tinnitus

Acute ingestion of less than 150 mg/kg can result in severe toxicity. The earliest symptoms of acute aspirin poisoning may include ringing in the ears (tinnitus) and impaired hearing.

- **Options A, B, & C:** These are the late signs of aspirin poisoning.

33. Etiologies associated with hypocalcemia may include all of the following except:

- A. Renal failure
- B. Inadequate intake calcium

- C. Metastatic bone lesions
- D. Vitamin D deficiency

Correct Answer: C. Metastatic bone lesions

Metastatic bone lesions are associated with hypercalcemia due to accelerated bone metabolism and release of calcium into the serum. Although more common in adults than pediatric patients, the next important etiology to consider is malignancy. Renal carcinomas, leukemias, lymphomas, and rhabdomyosarcoma can be associated with elevated calcium levels mediated by the action of PTH-related peptides. Renal failure, inadequate calcium intake, and vitamin D deficiency may cause hypocalcemia.

- **Option A:** CKD leads to impaired phosphate excretion which drives PTH secretion and can cause secondary hyperparathyroidism. However, due to impaired Vitamin D metabolism and high phosphorus level, the serum calcium remains low despite the high PTH.
- **Option B:** Serum calcium is normally bound to proteins in the blood most prominently albumin and therefore low albumin states can give a falsely low total serum calcium level. Ionized calcium level is usually normal in these states and thus a correction of adding 0.8 mg/dL to serum calcium level is usually recommended for every 1gm drop in serum albumin below normal (4 gm/dL)
- **Option D:** Absolute or relative Vitamin D deficiency includes lack of active metabolite of vitamin D due to inadequate sun exposure or liver disease or kidney disease. Also, included in this category are familial causes of vitamin D resistance.

34. Lee Angela's lab test just revealed that her chloride level is 96 mEq/L. As a nurse, you would interpret this serum chloride level as:

- A. High
- B. Low
- C. Within normal range
- D. High normal

Correct Answer: C. Within normal range

Normal serum concentrations of chloride range from 95 to 108 mEq/L. Chloride is an anion found predominantly in the extracellular fluid. The kidneys predominantly regulate serum chloride levels. Most of the chloride, which is filtered by the glomerulus, is reabsorbed by both proximal and distal tubules (majorly by proximal tubule) by both active and passive transport.

- **Option A:** Hyperchloremia is an electrolyte disturbance in which there is an elevated level of the chloride ions in the blood. The normal serum range for chloride is 95 to 108 mEq/L, therefore chloride levels at or above 110 mEq/L usually indicate kidney dysfunction as it is a regulator of chloride concentration.
- **Option B:** The most reduced levels of serum chloride (range 45 to 70 mEq/L) are associated with pernicious forms of vomiting due to gastric outlet obstruction, protracted vomiting in alcoholics, or self-induced vomiting. Individuals with hypochloremia secondary to total body chloride depletion will have physical findings that indicate ECF volume contraction (e.g., hypotension, tachycardia, and orthostatic changes in blood pressure).
- **Option D:** Conditions causing an elevation of the serum chloride concentration and a concomitant elevation of the serum sodium concentration result primarily from disorders associated with loss of electrolyte-free fluids (pure water loss); hypotonic fluids (water deficit in excess of sodium and

chloride deficits); or administration of NaCl-containing fluids.

35. When assessing the lower extremities for arterial function, which intervention should the nurse perform?

- A. Assessing the medial malleoli for pitting edema.
- B. Performing Allen's test.
- C. Assessing the Homans' sign.
- D. Palpating the pedal pulses.

Correct Answer: D. Palpating the pedal pulses.

Palpating the client's pedal pulses assists in determining if arterial blood supply to the lower extremities is sufficient. Finding a pedal pulse is part of the trauma patient assessment and performed before and after lower extremity splint application as well as long backboard immobilization. Assessing a pedal pulse is part of the ongoing assessment for a patient on a backboard or a lower extremity splint.

- **Option A:** Assessing the medial malleoli for pitting edema is appropriate for assessing the venous function of the lower extremity. The lower extremity examination should focus on the medial malleolus, the bony portion of the tibia, and the dorsum of the foot. Pitting edema also occurs in the early stages of lymphedema because of an influx of protein-rich fluid into the interstitium, before fibrosis of the subcutaneous tissue; therefore, its presence should not exclude the diagnosis of lymphedema.
- **Option B:** Allen's test is used to evaluate arterial blood flow before inserting an arterial line in an upper extremity or obtaining arterial blood gases. The Allen test is a first-line standard test used to assess the arterial blood supply of the hand. This test is performed whenever intravascular access to the radial artery is planned or for selecting patients for radial artery harvesting, such as for coronary artery bypass grafting or for forearm flap elevation.
- **Option C:** Homans' sign is used to evaluate the possibility of deep vein thrombosis. Homan's sign test also called dorsiflexion sign test is a physical examination procedure that is used to test for Deep Vein Thrombosis (DVT). A positive Homan's A positive Homan's sign in the presence of other clinical signs may be a quick indicator of DVT.

36. The nurse is aware that the following laboratory values support a diagnosis of pyelonephritis?

- A. Myoglobinuria
- B. Ketonuria
- C. Pyuria
- D. Low white blood cell (WBC) count

Correct Answer: C. Pyuria

Pyelonephritis is diagnosed by the presence of leukocytosis, hematuria, pyuria, and bacteriuria. A urinary specimen should be obtained for a urinalysis. On urinalysis, one should look for pyuria as it is the most common finding in patients with acute pyelonephritis.

- **Option A:** As the name suggests, myoglobinuria means the presence of an abnormally excessive amount of myoglobin in the urine. As myoglobin is present in the muscle cells, myoglobinuria is

associated with damage to the cell membranes of myocytes. Numerous etiologies can lead to the rupture of the myocytes' cell membranes.

- **Option B:** Ketonuria indicates a diabetic state. Nitrite production will indicate that the causative bacteria is E.coli. Proteinuria and microscopic hematuria may be present as well on urinalysis. If hematuria is present, then other causes may be considered such as kidney stones.
- **Option D:** The client exhibits fever, chills, and flank pain. Because there is often a septic picture, the WBC count is more likely to be high rather than low. Blood work such as a complete blood cell count (CBC) is sent to look for an elevation in white blood cells. The complete metabolic panel can be used to search for aberrations in creatinine and BUN to assess kidney function.

37. A 58-year-old male patient was diagnosed with pneumonia and was brought under your care. The patient complains of difficulty of breathing, chest pain of 5/10, and coughing with phlegm. Your initial assessment reveals a respiratory rate of 33 bpm, temperature of 38.1°C, heart rate of 90 bpm, and blood pressure of 110/80. His physician ordered an infusion of 1,000 mL of normal saline to be administered over the next eight (8) hours using a macroset with a drop factor of 10 drops per mL. You initiated the IV at 1:00 PM during your shift. With the current rate, at what time would you hang the next bag?

- A. 9:00 PM the next day.
 - B. 10:00 PM the next day
 - C. 9:00 PM of the same day.
 - D. 10:00 PM of the same day.
- C. 9:00 PM of the same day.
 - If the IV bag was started at 1:00 PM, add 8 hours more to get 9:00 PM of the same day.

38. An adult woman is admitted to an isolation unit in the hospital after tuberculosis was detected during a pre-employment physical. Although frightened about her diagnosis, she is anxious to cooperate with the therapeutic regimen. The teaching plan includes information regarding the most common means of transmitting the tubercle bacillus from one individual to another. Which contamination is usually responsible?

- A. Eating utensils
- B. Hands
- C. Milk products
- D. Droplet nuclei

Correct Answer: D. Droplet nuclei.

The most frequent means of transmission of the tubercle bacillus is by droplet nuclei. The bacillus is present in the air as a result of coughing, sneezing, and expectoration of sputum by an infected person. Although usually a lung infection, tuberculosis is a multi-system disease with protean manifestation. The principal mode of spread is through inhalation of infected aerosolized droplets.

- **Option A:** The tubercle bacillus is not transmitted by eating utensils. Some exogenous microbes can be transmitted via reservoirs such as linens or eating utensils. The TB bacteria are put into the air when a person with TB disease of the lungs or throat coughs, speaks or sings. People nearby may breathe in these bacteria and become infected.
- **Option B:** Hands are the primary method of transmission of the common cold. When a person breathes in TB bacteria, the bacteria can settle in the lungs and begin to grow. From there, they can move through the blood to other parts of the body, such as the kidney, spine, and brain.
- **Option C:** The tubercle bacillus is not transmitted by means of contaminated food. Contact with contaminated food or water could cause outbreaks of salmonella, infectious hepatitis, typhoid, or cholera.

39. A nurse is caring for a client who has returned to the recovery unit following a craniotomy. The nurse can safely place the client in which position?

- A. Trendelenburg position.
- B. Fowler's position with the head leaning on the left side.
- C. Semi-fowler's position with the head in a midline position.
- D. Supine position with the neck flexed.

Correct Answer: C. Semi-Fowler's position with the head in a midline position.

Post-craniotomy clients should be placed in a semi-Fowler's position and the head is in a midline position to facilitate venous drainage from the head. For nearly all types of craniotomy, the patient is observed for at least the first 24 hours in a neurological intensive care unit (NICU) or general surgical ICU. Basic laboratory tests are sent (complete blood cell count and basic metabolic panel). Neurological examinations are performed by the nursing staff every 1-2 hours and any changes in neurologic status.

- **Option A:** Placing the client in a Trendelenburg position may increase the swelling of the brain. Frequent neurological checks will be done by the nursing and medical staff to test the brain function and to make sure the body systems are functioning properly after the surgery. The client will be asked to follow a variety of basic commands, such as moving the arms and legs, to assess brain function.
- **Option B:** The client's head must be placed in a midline position to facilitate venous drainage from the head and reduce the swelling. The recovery process will vary depending upon the type of procedure done and the type of anesthesia given. Once the client's blood pressure, pulse, and breathing are stable and he is alert, he may be taken to the ICU or the hospital room.
- **Option D:** The head of the bed may be elevated to prevent swelling of the face and head. Some swelling is normal. The client will be encouraged to move around as tolerated while in bed and to get out of bed and walk around, with assistance at first, as his strength improves. A physical therapist (PT) may be asked to evaluate the client's strength, balance, and mobility, and give him suggestions for exercises to do both in the hospital and at home.

40. Johnny, a firefighter, was involved in extinguishing a house fire and is being treated for smoke inhalation. He developed severe hypoxia 48 hours after the incident, requiring intubation and mechanical ventilation. He most likely has developed which of the following conditions?

- A. Adult respiratory distress syndrome (ARDS)
- B. Atelectasis
- C. Bronchitis
- D. Pneumonia

Correct Answer: A. Adult respiratory distress syndrome (ARDS)

Severe hypoxia after smoke inhalation is typically related to ARDS.

- **Option B:** Atelectasis is not associated with smoke inhalation. Inhaling harmful smoke can inflame the lungs and airway, causing them to swell and block oxygen. This can lead to acute respiratory distress syndrome and failure.
- **Option C:** Bronchitis does not develop due to smoke inhalation. However, if the client already has bronchitis, inhalational injuries can worsen its condition.
- **Option D:** Pneumonia isn't typically associated with smoke inhalation and severe hypoxia.

41. A female client with a history of pheochromocytoma is admitted to the hospital in an acute hypertensive crisis. To reverse hypertensive crisis caused by pheochromocytoma, nurse Lyka expects to administer:

- A. mannitol (Osmitrol)
- B. methyldopa (Aldomet)
- C. phentolamine (Regitine)
- D. felodipine (Plendil)

Correct Answer: C. phentolamine (Regitine)

Pheochromocytoma causes excessive production of epinephrine and norepinephrine, natural catecholamines that raise the blood pressure. Phentolamine, an alpha-adrenergic blocking agent given by I.V. bolus or drip, antagonizes the body's response to circulating epinephrine and norepinephrine, reducing blood pressure quickly and effectively.

- **Option A:** Mannitol, a diuretic, isn't used to treat hypertensive emergencies. Mannitol can be used for the reduction of intracranial pressure and brain mass, to reduce intraocular pressure if this is not achievable by other means, to promote diuresis for acute renal failure to prevent or treat the oliguric phase before irreversible damage, and to promote diuresis to promote excretion of toxic substances, materials, and metabolites.
- **Option B:** Although methyldopa is an antihypertensive agent available in parenteral form, it isn't effective in treating hypertensive emergencies. Methyldopa is a medication used in the management and treatment of hypertension. It is in the centrally acting anti-hypertensive class of drugs.
- **Option D:** Felodipine, an antihypertensive agent, is available only in extended-release tablets and therefore doesn't reduce blood pressure quickly enough to correct hypertensive crisis. Felodipine is an agent in the dihydropyridine class of calcium channel blockers. Felodipine is FDA approved and indicated in the treatment of essential hypertension. Reduction in blood pressure lowers the risk of cardiovascular morbidity and mortality.

42. The following are teaching guidelines regarding radiation therapy except:

- A. The therapy is painless
- B. To promote safety, the client is assisted by therapy personnel while the machine is in operation
- C. The client may communicate all his concerns or needs or discomforts while the machine is operating
- D. Safety precautions are necessary only during the time of actual irradiation

Correct Answer: B. To promote safety, the client is assisted by therapy personnel while the machine is in operation

- **Option B:** To promote safety to the personnel, the client will remain alone in the treatment room while the machine is in operation.
- **Options A and D:** There is no residual radioactivity after radiation therapy. Safety precautions are necessary only during the time of actual irradiation. The client may resume normal activities of daily living afterward.
- **Option C:** The client may voice out any concern throughout the treatment because a technologist is just outside the room observing through a window or closed-circuit TV.

43. The nurse is giving instructions to a mother with a child receiving a liquid oral iron supplement. The nurse tells the mother to:

- A. Take it with meals.
- B. Mix it with food.
- C. Mix it with milk.
- D. Administer it using a straw.

Correct Answer: D. Administer it using a straw.

An oral liquid iron supplement should be given with a straw because the medicine will stain the teeth. Mix each dose in water, fruit juice, or tomato juice. You may use a drinking tube or straw to help keep the iron supplement from getting on the teeth.

- **Option A:** Taking it with meals will decrease the absorption. Iron is best absorbed on an empty stomach (usually if taken 1 hour before or 2 hours after meals).
- **Option B:** Iron is best absorbed when taken on an empty stomach, with water or fruit juice (adults: full glass or 8 ounces; children: ½ glass or 4 ounces), about 1 hour before or 2 hours after meals. However, to lessen the possibility of stomach upset, iron may be taken with food or immediately after meals.
- **Option C:** Iron is not mixed with any drink. Avoid taking antacids, dairy products, tea, or coffee within 2 hours before or after this medication because they will decrease its effectiveness.

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

- A. Arimidex (anastrozole)
- B. Emcyt (estramustine)
- C. Taxol (paclitaxel)

D. Camptosar (irinotecan)

Correct Answer: B. Emcyt (estramustine)

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

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

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

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

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

- **Option A:** A face-to-face evaluation must be performed every hour. After restraint placement, patients should be reevaluated every hour and moved at regular intervals to prevent sequelae such as pressure ulcers, rhabdomyolysis, and paresthesias.
- **Option B:** Restraints should be tied in knots that can be released quickly and easily. Physical restraints encompass hand mitts, soft cloth limb restraints, leather limb restraints, enclosed beds, belts, and vests.
- **Option C:** Restraints should never be secured to side rails because doing so can cause injury if the side rail is lowered without untying the restraint. Ideally, a restraint team should include at least five people, including the team leader.
- **Options D, E, and F:** The nurse should document the client's condition, any alternative methods used before the restraints were applied, and the client's response to the interventions. Document appropriate clinical indication and have a standardized checklist prepared for staff to monitor and supply patient needs effectively.

46. A teenage client is diagnosed with “strep throat.” Which clinical manifestation would the nurse expect of the client?

- A. A fiery red pharyngeal membrane and fever.
- B. Pain over the sinus area and purulent nasal secretions.
- C. Foul-smelling breath and noisy respirations.
- D. Weak cough and high-pitched noise on respirations.

Correct Answer: A. A fiery red pharyngeal membrane and fever.

Strep throat, or acute pharyngitis, results in a red throat, edematous lymphoid tissues, enlarged lymph nodes, fever, and sore throat. Physical exam findings including cervical lymphadenopathy, pharyngeal inflammation, and tonsillar exudate. Palatine petechiae and uvular edema are also suggestive.

- **Option B:** Pain over the sinus area and purulent nasal secretions would be evident with sinusitis. Major factors include facial pain/pressure, facial congestion/fullness, nasal obstruction, nasal or postnasal purulence, hyposmia, and fever.
- **Option C:** Foul-smelling breath and respirations indicate adenoiditis. Physical findings include purulent rhinorrhea, post-nasal drip, nasal obstruction, snoring, fever, mouth breathing, and halitosis. Indirect mirror exam may allow the practitioner to observe enlarged adenoids with exudates, though this can be a very challenging exam to perform in children.
- **Option D:** A weak cough and high-pitched noisy respirations are associated with foreign-body aspiration. Sudden onset of cough, choking, and/or dyspnea have been found to be the most common symptoms. One prospective study has cited a sensitivity of 91.1% and specificity of 45.2% for choking and acute cough. Wheeze on auscultation has been found to be a major physical finding and in one study was documented in 60% of cases.

47. Nurse Kate would expect that a client with vascular dementia would experience:

- A. Loss of remote memory related to anoxia.
- B. Loss of abstract thinking related to emotional state.
- C. Inability to concentrate related to decreased stimuli.
- D. Disturbance in recalling recent events related to cerebral hypoxia.

Correct Answer: D. Disturbance in recalling recent events related to cerebral hypoxia.

Cell damage seems to interfere with registering input stimuli, which affects the ability to register and recall recent events; vascular dementia is related to multiple vascular lesions of the cerebral cortex and subcortical structure. Second only to Alzheimer disease (AD), vascular dementia (VD) is one of the most common causes of dementia affecting the elderly (aged greater than 65 years), with a variable presentation and unpredictable disease progression. The diagnosis of VD is obtained by a thorough history and physical examination, including a measure of cognitive performance. VD is diagnostically challenging and not precise given the many causes of dementia, including the potential for a mixed dementia syndrome

- **Option A:** A thorough history should be obtained from the patient, focusing on cognitive and functional deficits, onset, and progression of symptoms. Interviewing family members and caregivers is important as patients with cognitive decline rarely have insight into their cognitive and

functional limitations. Caregivers may report an abrupt or stepwise onset of cognitive decline, or the appearance of symptoms may be subtle without connection to an ischemic event.

- **Option B:** The functional assessment should evaluate for impairments in instrumental activities of daily living (IADLs), such as cooking, driving, and financial and medication management, and basic activities of daily living (ADLs), such as dressing, bathing, and toileting. Additionally, patient past medical history, current medications, and surgical history should be obtained. Regarding physical examination, one should assess patients for focal neurologic deficits.
- **Option C:** VD is preventable by modifying the risk factors like diabetes, hypertension, smoking, and hyperlipidemia. The one very important risk factor that should be modified is hypertension. Countless studies show that the use of antihypertensive medications can reduce the risk of vascular dementia. In addition, the patient's coronary artery disease, atrial fibrillation, and ischemic heart disease have to be appropriately managed.

48. A nurse is monitoring a client who is taking carvedilol (Coreg CR). Which of the following assessment made by the nurse would warrant a possible complication with the use of this medication?

- A. Baseline blood pressure of 160/100 mm hg followed by a blood pressure of 120/70 mm hg after 3 doses.
- B. Baseline heart rate of 97 bpm followed by a heart rate of 62 bpm after 3 doses.
- C. Complaints of nightmares and insomnia.
- D. Complaints of dyspnea.

Correct Answer: D. Complaints of dyspnea.

A complaint of dyspnea is a sign of bronchospasm which is one of the serious complications of beta-blockers.

- **Options A & B:** The following show a decrease in blood pressure and heart rate which are expected in this therapy.
- **Option C:** Complaints of nightmares and insomnia is a side effect of this medication.

49. Methergine or Pitocin is prescribed for a woman to treat PP hemorrhage. Before administration of these medications, the priority nursing assessment is to check the:

- A. Amount of lochia
- B. Blood pressure
- C. Deep tendon reflexes
- D. Uterine tone

Correct Answer: B. Blood pressure

Methergine and Pitocin are agents that are used to prevent or control postpartum hemorrhage by contracting the uterus. They cause continuous uterine contractions and may elevate blood pressure. A priority nursing intervention is to check blood pressure. The physician should be notified if hypertension is present. Methergine is in a group of drugs called ergot alkaloids. It affects the smooth muscle of a

woman's uterus, improving the muscle tone as well as the strength and timing of uterine contractions. Methergine is used just after a baby is born, to help deliver the placenta (also called the "afterbirth").

- **Option A:** Methergine is administered in the postpartum period to help deliver the placenta and to help control bleeding and other uterine problems after childbirth. It is indicated following delivery of the placenta, for routine management of uterine atony, hemorrhage, and subinvolution of the uterus. For control of uterine hemorrhage in the second stage of labor following delivery of the anterior shoulder.
- **Option C:** Methergine (methylergonovine maleate) acts directly on the smooth muscle of the uterus and increases the tone, rate, and amplitude of rhythmic contractions. Thus, it induces a rapid and sustained titanic uterotonic effect which shortens the third stage of labor and reduces blood loss.
- **Option D:** Caution should be exercised in the presence of sepsis, obliterative vascular disease. Also, use caution during the second stage of labor. The necessity for manual removal of a retained placenta should occur only rarely with proper technique and adequate allowance of time for its spontaneous separation.

50. Which of the following would be an expected nutritional outcome for a client who has undergone a subtotal gastrectomy for cancer?

- A. Regain weight loss within 1 month after surgery.
- B. Resume normal dietary intake of three meals per day.
- C. Control nausea and vomiting through regular use of antiemetics.
- D. Achieve optimal nutritional status through oral or parenteral feedings.

Correct Answer: D. Achieve optimal nutritional status through oral or parenteral feedings.

An appropriate expected outcome is for the client to achieve optimal nutritional status through the use of oral feedings or total parenteral nutrition (TPN). TPN may be used to supplement oral intake, or it may be used alone if the client cannot tolerate oral feedings. Maintain patency of NG tube. Notify the physician if the tube becomes dislodged. This provides rest for the GI tract during the acute postoperative phase until the return of normal function.

- **Option A:** The client would not be expected to regain lost weight within 1 month after surgery. Note admission weight and compare with subsequent readings. This provides information about the adequacy of dietary intake and determination of nutritional needs.
- **Option B:** The client would not be expected to tolerate a normal dietary intake of three meals per day. Monitor tolerance to fluid and food intake, noting abdominal distension, reports of increased pain, cramping, nausea, and vomiting. Complications of paralytic ileus, obstruction, delayed gastric emptying, and gastric dilation may occur, possibly requiring reinsertion of the NG tube.
- **Option C:** Nausea and vomiting would not be considered an expected outcome of gastric surgery, and regular use of antiemetics would not be anticipated. Progress diet as tolerated, advancing from clear liquid to bland diet with several small feedings. Usually, the NG tube is clamped for specified periods of time when peristalsis returns to determine tolerance. After the NG tube is removed, intake is advanced gradually to prevent gastric irritation and distension.

51. Nurse Penny is aware that the symptoms that distinguish post-traumatic stress disorder from other anxiety disorder would be:

- A. Avoidance of situation & certain activities that resemble the stress.
- B. Depression and a blunted affect when discussing the traumatic situation.
- C. Lack of interest in family & others.
- D. Re-experiencing the trauma in dreams or flashbacks.

Correct Answer: D. Re-experiencing the trauma in dreams or flashback

Experiencing the actual trauma in dreams or flashbacks is the major symptom that distinguishes post-traumatic stress disorder from other anxiety disorders. The symptoms of PTSD include persistently re-experiencing the traumatic event, intrusive thoughts, nightmares, flashbacks, dissociation (detachment from oneself or reality), and intense negative emotional (sadness, guilt) and physiological reaction on being exposed to the traumatic reminder.

- **Option A:** Problems with sleep and concentration, irritability, increased reactivity, increased startle response, hypervigilance, avoidance of traumatic triggers also occur. There is a significant impairment in social, occupational, and other areas of functioning. However, the symptoms of PTSD overlap with acute stress disorder. For a patient to be diagnosed as PTSD, the duration of the symptoms must be more than one month.
- **Option B:** Posttraumatic stress disorder is a complex phenomenon, and it is necessary to evaluate for any co-existing psychiatric illness in the patient. After a detailed history is obtained, the next step is to have a thorough mental status examination, which helps confirm the behavioral, emotional, and cognitive aspects of PTSD. On the mental status examination, the patient would likely mention poor sleep and concentration, frequent nightmares and flashbacks related to the event, guilt or negative emotions associated with the reminder, avoidance, and increased vigilance.
- **Option C:** The initial step in the diagnosis of posttraumatic stress disorder is to obtain a detailed history. It is challenging for the patient at times to describe the nature and severity of the traumatic event, and they may choose to avoid mentioning it. However, the presentation and the duration of the symptoms are useful in making an accurate diagnosis. The health care workers must inquire about any depressive or anxiety symptoms, suicidal ideation or previous attempts, substance abuse, access to firearms.

52. When evaluating a client's adaptation to pain, which behavior indicates appropriate adaptation?

- A. The client distracts himself during pain episodes.
- B. The client denies the existence of any pain.
- C. The client reports no need for family support.
- D. The client reports pain reduction with decreased activity.

Correct Answer: A. The client distracts himself during pain episodes.

Distraction is an appropriate method of reducing pain. This technique involves heightening one's concentration upon non-painful stimuli to decrease one's awareness and experience of pain. Drawing the person away from the pain lessens the perception of pain. Examples include reading, watching TV, playing video games, and guided imagery.

- **Option B:** Denying the existence of any pain is inappropriate and not indicative of coping. It is essential to assist patients to express as factually as possible (i.e., without the effect of mood, emotion, or anxiety) the effect of pain relief measures. Inconsistencies between behavior or appearance and what the patient says about pain relief (or lack of it) may be more a reflection of

other methods the patient is using to cope with the pain rather than pain relief itself.

- **Option C:** Exclusion of family members and other sources of support represents a maladaptive response. Nurses have the duty to ask their clients about their pain and believe their reports of pain. Challenging or undermining their pain reports results in an unhealthy therapeutic relationship that may hinder pain management and deteriorate rapport.
- **Option D:** Range-of-motion exercises and at least mild activity, not a decreased activity, can help reduce pain and are important to prevent complications of immobility. Nonpharmacologic methods in pain management may include physical, cognitive-behavioral strategies, and lifestyle pain management. These methods are used to provide comfort by altering psychological responses to pain.

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

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

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

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

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

54. The nurse is admitting a male client with laryngeal cancer to the nursing unit. The nurse assesses for which most common risk factor for this type of

cancer?

- A. Alcohol abuse
- B. Cigarette smoking
- C. Use of chewing tobacco
- D. Exposure to air pollutants

Correct Answer: B. Cigarette smoking

- **Option B:** Cigarette use is the most common risk factor for head and neck cancers such as laryngeal cancer. The smoke that comes from a cigarette contains harmful chemicals such as nicotine, carbon monoxide, ammonia, and hydrogen cyanide that passes through the larynx on its way to the lungs.
- **Options A and C:** Combined use of alcohol and tobacco enhances the risk.
- **Option D:** Another risk factor is exposure to environmental pollutants (e.g., paint fumes, wood dust, coal dust) but cigarette smoking remains the most common.

55. When the nurse completes the patient's admission nursing database, the patient reports that he does not have any allergies. Which acceptable medical abbreviation can the nurse use to document this finding?

- A. NA
- B. NDA
- C. NKA
- D. NPO

Correct Answer: C. NKA

The nurse can use the medical abbreviation NKA, which means no known allergies, to document this finding. NKA is the abbreviation for "no known allergies," meaning no known allergies of any sort. By contrast, NKDA stands exclusively for "no known drug allergies."

- **Option A:** NA is an abbreviation for not applicable.
- **Option B:** NDA is an abbreviation for no known drug allergies.
- **Option D:** NPO is an abbreviation that means nothing by mouth.

56. The nurse is aware that the side effect of electroconvulsive therapy that a client may experience:

- A. Loss of appetite
- B. Postural hypotension
- C. Confusion for a time after treatment
- D. Complete loss of memory for a time

Correct Answer: C. Confusion for a time after treatment

The electrical energy passing through the cerebral cortex during ECT results in a temporary state of confusion after treatment. Cerebral blood flow and intracranial pressure both increase with ECT therapy. Clinically, patients may exhibit confusion, delirium, disorientation, and memory loss. ECT is classified as a low-risk procedure by the AHA-ACC guidelines because it is well-tolerated, and demonstrates only transient hemodynamic lability and low mortality rate.

- **Option A:** Bilateral or bitemporal ECT causes more cognitive impairment than unilateral ECT, although this effect is transient. A meta-analysis of 1415 depressed patients treated with ECT revealed that global cognition, verbal memory, and autobiographical memory were worse with bilateral treatment three days after treatment.
- **Option B:** The clonic phase of the seizure correlates with a catecholamine surge that causes tachycardia and hypertension, which lasts temporally with seizure duration. Hypertension and tachycardia resolve within 10 to 20 minutes of the seizure, although some patients exhibit persistent hypertension that requires medical intervention.
- **Option D:** According to the American Psychiatric Association, patients receiving ECT are at higher risk if they show evidence of unstable or severe cardiovascular disease, a space-occupying intracranial lesion with evidence of elevated intracranial pressure, history of an acute cerebral hemorrhage or stroke, an unstable vascular aneurysm, severe pulmonary disease, or qualify as American Society of Anesthesiologists (ASA) Class 4 or 5.

57. A male client with extreme weakness, pallor, weak peripheral pulses, and disorientation is admitted to the emergency department. His wife reports that he has been “spitting up blood.” A Mallory-Weiss tear is suspected, and the nurse begins taking the client’s history from the client’s wife. The question by the nurse that demonstrates her understanding of Mallory-Weiss tearing is:

- A. “Tell me about your husband’s alcohol usage.”
- B. “Is your husband being treated for tuberculosis?”
- C. “Has your husband recently fallen or injured his chest?”
- D. “Describe spices and condiments your husband uses on food.”

Correct Answer: A. “Tell me about your husband’s alcohol usage.”

A Mallory-Weiss tear is associated with massive bleeding after a tear occurs in the mucous membrane at the junction of the esophagus and stomach. There is a strong relationship between ethanol usage, resultant vomiting, and a Mallory-Weiss tear. Mallory-Weiss tears account for an estimated 1-15% of cases of upper gastrointestinal bleeding. Although the age range varies widely, affected individuals are generally in middle age (40s-50s), and men reportedly have a higher incidence than women by a ratio of 2-4:1.

- **Option B:** The bleeding is coming from the stomach, not from the lungs as would be true in some cases of tuberculosis. The presence of a hiatal hernia is a predisposing factor and is found in 35-100% of patients with Mallory-Weiss tears. During retching or vomiting, the transmural pressure gradient is greater within the hernia than the rest of the stomach, and it is the location most likely to sustain a tear
- **Option C:** A Mallory-Weiss tear doesn’t occur from chest injuries or falls. Precipitating factors include retching, vomiting, straining, hiccupping, coughing, primal scream therapy, blunt abdominal trauma, and cardiopulmonary resuscitation. In a few cases, no apparent precipitating factor can be identified. One study reported that 25% of patients had no identifiable risk factor.

- **Option D:** A Mallory-Weiss tear isn't associated with eating spicy foods. Mallory-Weiss tears are usually associated with other mucosal lesions. In one study, 83% of patients had additional mucosal abnormalities potentially contributing to bleeding or actually causing retching and vomiting that would induce these tears.

58. A client who frequently exhibits angry outbursts is diagnosed with antisocial personality disorder. Which appropriate feedback should a nurse provide when this client experiences an angry outburst?

- A. "Why do you continue to alienate your peers by your angry outbursts?"
- B. "You accomplish nothing when you lose your temper like that."
- C. "Showing your anger in that manner is very childish and insensitive."
- D. "During group, you raised your voice, yelled at a peer, left, and slammed the door."

Correct Answer: D. "During the group, you raised your voice, yelled at a peer, left, and slammed the door."

The nurse is providing appropriate feedback when stating, "During the group, you raised your voice, yelled at a peer, left, and slammed the door." Giving appropriate feedback involves helping the client consider a modification of behavior. Feedback should give information to the client about how he or she is perceived by others. Feedback should not be evaluative in nature or be used to give advice.

- **Option A:** Requesting an explanation or asking the client to provide reasons for thoughts, feelings, behaviors or events is nontherapeutic. There is a difference between asking the client to describe what is occurring or has taken place and asking him to explain why. Usually, a "why" question is intimidating.
- **Option B:** Telling the client what to do or giving an opinion or making decisions for the client is inappropriate and nontherapeutic. It implies that the client cannot handle life decisions and only the nurse knows what is best for the client.
- **Option C:** Disapproving or denouncing the client's behavior is nontherapeutic. Disapproval implies that the nurse has a right to pass judgement on the client's actions. It further implies that the client is expected to please the nurse.

59. 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.

60. A 23-year-old patient with a recent history of encephalitis is admitted to the medical unit with new-onset generalized tonic-clonic seizures. Which nursing activities included in the patient's care will be best to delegate to an LPN/LVN whom you are supervising? Select all that apply.

- A. Document the onset time, nature of seizure activity, and postictal behaviors for all seizures.
- B. Administer phenytoin (Dilantin) 200 mg PO daily.
- C. Teach the patient about the need for good oral hygiene.
- D. Develop a discharge plan, including physician visits and referral to the Epilepsy Foundation.
- E. Gather information about the seizure activity

Correct Answer: B & E

Administration of medications that are not a high risk is included in LPN education and scope of practice. Collection of data about the seizure activity may be accomplished by an LPN/LVN who observes initial seizure activity. An LPN/LVN would know to call the supervising RN immediately if a patient started to seize.

- **Option A:** Documentation is a nursing responsibility.
- **Option C:** Patient education must be accomplished by the registered nurse because it is within their scope of practice.
- **Option D:** Planning of care is a complex activity that requires RN level education and scope of practice.

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

- A. "Stop taking the nitroglycerin and see if the headaches improve."
- B. "Go to the emergency department to be checked because nitroglycerin can cause bleeding in the brain."
- C. "Headaches are a frequent side effect of nitroglycerine because it causes vasodilation."

D. "The headaches are unlikely to be related to the nitroglycerin, so you should see your doctor for further investigation."

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

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

- **Option A:** The patient should not stop the medication.
- **Option B:** Nitroglycerine does not cause bleeding in the brain.
- **Option D:** Headaches are one of the side effects of nitroglycerin.

62. Albert, a 35-year-old insulin-dependent diabetic, is admitted to the hospital with a diagnosis of pneumonia. He has been febrile since admission. His daily insulin requirement is 24 units of NPH. Every morning Albert is given NPH insulin at 0730. Meals are served at 0830, 1230, and 1830. The nurse expects that the NPH insulin will reach its maximum effect (peak) between the hours of:

- A. 1130 and 1330
- B. 1330 and 1930
- C. 1530 and 2130
- D. 1730 and 2330

Correct Answer: B. 1330 and 1930

The peak time of insulin is the time it is working the hardest to lower blood glucose. NPH insulin is an intermediate-acting insulin that has an onset of 1 to 3 hours after injection, peaks 4 to 12 hours later, and is effective for about 12 to 16 hours.

- **Option A:** NPH human insulin has an onset of insulin effect of 1 to 2 hours, a peak effect of 4 to 6 hours, and a duration of action of more than 12 hours. Very small doses will have an earlier peak effect and shorter duration of action, while higher doses will have a longer time to peak effect and prolonged duration.
- **Option C:** Regular human insulin has an onset of action of 1/2 hour to 1 hour, peak effect in 2 to 4 hours, and duration of action of 6 to 8 hours. The larger the dose of regular the faster the onset of action, but the longer the time to peak effect and the longer the duration of the effect.
- **Option D:** Long-acting insulin analogs have an onset of insulin effect in 1 1/2-2 hours. The insulin effect plateaus over the next few hours and is followed by a relatively flat duration of action that lasts 12-24 hours for insulin detemir and 24 hours for insulin glargine.

63. The nurse is assessing vital signs for a patient just admitted to the hospital. Ideally, and if there are no contraindications, how should the nurse position the patient for this portion of the admission assessment?

- A. Sitting upright.

- B. Lying flat on the back with knees flexed.
- C. Lying flat on the back with arms and legs fully extended.
- D. Side-lying with the knees flexed.

Correct Answer: A. Sitting upright.

If the patient is able, the nurse should have the patient sit upright to obtain vital signs in order to allow the nurse to easily access the anterior and posterior chest for auscultation of heart and breath sounds. It allows for full lung expansion and is the preferred position for measuring blood pressure. Additionally, patients might be more comfortable and feel less vulnerable when sitting upright (rather than lying down on the back) and can have direct eye contact with the examiner. However, other positions can be suitable when the patient's physical condition restricts the comfort or ability of the patient to sit upright.

- **Option B:** Lying flat on the back with knees flexed or supine horizontal recumbent is most commonly used during breast exam.
- **Option C:** Lying flat on the back with arms and legs fully extended can make the patient feel uncomfortable.
- **Option D:** Sim's position is usually used to obtain rectal temperature.

64. While making a visit to the home of a postpartum woman 1 week after birth, the nurse should recognize that the woman would characteristically:

- A. Express a strong need to review the events and her behavior during the process of labor and birth.
- B. Exhibit a reduced attention span, limiting readiness to learn.
- C. Vacillate between the desire to have her own nurturing needs met and the need to take charge of her own care and that of her newborn.
- D. Have reestablished her role as a spouse or partner.

Correct Answer: C. Vacillate between the desire to have her own nurturing needs met and the need to take charge of her own care and that of her newborn.

One week after birth the woman should exhibit behaviors characteristic of the dependent-independent or taking-hold stage. She still has needs for nurturing and acceptance by others.

- **Option A:** Wanting to discuss the events of her labor and delivery are characteristics of the taking-in stage; this stage lasts from the first 24 hours until 2 days after delivery.
- **Option B:** A reduced attention span and limiting readiness to learn is also characteristic of the taking-in stage. This dependence is mainly due to her physical discomfort from hemorrhoids or the after pains, from the uncertainty of how she could care for the newborn, and also from the extreme tiredness she feels that follows childbirth.
- **Option D:** Having reestablished her role as a spouse reflects the letting-go stage, which indicates that psychosocial recovery is complete.

65. A 65-year-old male patient presents to the neurology clinic for a comprehensive neurological examination after reporting episodes of facial numbness and weakness. The neurologist, wanting to assess cranial nerve function and facial muscle integrity, requests the patient to make various facial expressions. When asked to raise his eyebrows and produce forehead wrinkles,

the patient demonstrates the ability, indicating the functionality of a specific facial muscle. Which muscle is being tested in this context? “By raising your eyebrows and creating forehead wrinkles, you’re showcasing the functionality of a particular facial muscle. Can you identify which muscle this is from the following options?”

- A. Orbicularis oculi
- B. Orbicularis oris
- C. Occipitofrontalis
- D. Levator labii superioris
- E. Zygomaticus

Correct Answer: C. Occipitofrontalis

The occipitofrontalis muscle complex, consisting of the frontalis and occipitalis muscles, functions to raise the eyebrows and create horizontal wrinkles on the forehead, enabling expressions of surprise, curiosity, and attention. It also contributes to scalp tension regulation and facial expressions, aiding in non-verbal communication.

- **Option A:** The orbicularis oculi encircle the eyes, tightly close the eyelids, and cause “crow’s feet” wrinkles in the skin at the lateral corners of the eyes.
- **Option B:** The orbicularis oris, which encircles the mouth, and the buccinator are sometimes called the kissing muscles because they pucker the mouth. The buccinator also flattens cheeks as in whistling or blowing a trumpet and is therefore sometimes called the trumpeter’s muscle.
- **Option D:** Sneering is accomplished by the levator labii superioris because the muscle elevates one side of the upper lip, and frowning or pouting largely by the depressor anguli oris, which depresses the corner of the mouth.

66. A 30-year old client experiences weight loss, abdominal distention, crampy abdominal pain, and intermittent diarrhea after the birth of her 2nd child. Diagnostic tests reveal gluten-induced enteropathy. Which foods must she eliminate from her diet permanently?

- A. Milk and dairy products
- B. Protein-containing foods
- C. Cereal grains (except rice and corn)
- D. Carbohydrates

Correct Answer: C. Cereal grains (except rice and corn)

To manage gluten-induced enteropathy, the client must eliminate gluten, which means avoiding all cereal grains except for rice and corn. In initial disease management, clients eat a high-calorie, high-protein diet with mineral and vitamin supplements to help normalize nutritional status. Gluten is a group of proteins found in certain grains, such as wheat, rye, and barley.

- **Option A:** Most dairy products are naturally gluten-free. However, those that are flavored and contain additives should always be double-checked for gluten. Some common gluten-containing ingredients that may be added to dairy products include thickeners, malt, and modified food starch.

- **Option B:** Many foods contain protein, including animal and plant-based sources. Most are naturally gluten-free. However, gluten-containing ingredients, such as soy sauce, flour, and malt vinegar are often used as fillers or flavorings. They may be added to sauces, rubs, and marinades that are commonly paired with protein sources.
- **Option D:** Wheat, rye, and barley are the major foods that need to be avoided while following a gluten-free diet. Gluten is also commonly added to processed foods, such as canned and boxed items.

67. A 60-year-old male with a history of hypertension and diabetes is admitted to the urology unit with symptoms of fatigue, decreased urine output, and nausea. He has a known diagnosis of chronic renal failure (CRF). The nurse reviews his recent laboratory test results. Which result is most consistent with a diagnosis of CRF?

- A. Increased pH with decreased hydrogen ions.
- B. Increased serum levels of potassium, magnesium, and calcium.
- C. Blood urea nitrogen (BUN) 100 mg/dl and serum creatinine 6.5 mg/ dl.
- D. Uric acid analysis 3.5 mg/dl and phenolsulfonphthalein (PSP) excretion 75%.

Correct Answer: C. Blood urea nitrogen (BUN) 100 mg/dl and serum creatinine 6.5 mg/dl.

The normal BUN level ranges 8 to 23 mg/dl; the normal serum creatinine level ranges from 0.7 to 1.5 mg/dl. The test results in option C are abnormally elevated, reflecting CRF and the kidneys' decreased ability to remove nonprotein nitrogen waste from the blood.

- **Option A:** CRF causes decreased pH and increased hydrogen ions — not vice versa.
- **Option B:** CRF also increases serum levels of potassium, magnesium, and phosphorus, and decreases serum levels of calcium.
- **Option D:** A uric acid analysis of 3.5 mg/dl falls within the normal range of 2.7 to 7.7 mg/dl; PSP excretion of 75% also falls with the normal range of 60% to 75%.

68. Which of the following tests can be performed to diagnose a hiatal hernia?

- A. Colonoscopy
- B. Lower GI series
- C. Barium swallow
- D. Abdominal x-rays

Correct Answer: C. Barium swallow

A barium swallow with fluoroscopy shows the position of the stomach in relation to the diaphragm. A barium swallow involves drinking a special liquid, then taking X-rays to help see problems in the esophagus (such as swallowing disorders) and the stomach (such as ulcers and tumors). It also shows how big the hiatal hernia is and if there is twisting of the stomach as a result of the hernia.

- **Option A:** A colonoscopy shows disorders of the intestine. Colonoscopy is a diagnostic as well as a therapeutic procedure performed to evaluate the large intestine (i.e., colon, rectum, and anus) as well as the distal portion of the small intestine (terminal ileum). It is performed using a hand-held

flexible tube-like device called the colonoscope, which has a high definition camera mounted at the tip of the scope, as well as accessory channels that allow insertion of equipment and fluids to cleanse the colonoscope lense and colonic mucosa

- **Option B:** A lower GI series shows disorders of the intestine. A lower GI series is a procedure in which a doctor uses X-rays and a chalky liquid called barium to view the large intestine. The barium will make the large intestine more visible on an x-ray. A lower GI series is also called a barium enema.
- **Option D:** Abdominal x-ray uses a very small dose of ionizing radiation to produce pictures of the inside of the abdominal cavity. It is used to evaluate the stomach, liver, intestines, and spleen and may be used to help diagnose unexplained pain, nausea, or vomiting.

69. When the bag of waters ruptures spontaneously, the nurse should inspect the vaginal introitus for possible cord prolapse. If there is part of the cord that has prolapsed into the vaginal opening the correct nursing intervention is:

- A. Push back the prolapsed cord into the vaginal canal.
- B. Place the mother in a semi fowlers position to improve circulation.
- C. Cover the prolapsed cord with sterile gauze wet with sterile NSS and place the woman in Trendelenburg position.
- D. Push back the cord into the vagina and place the woman in Sim's position.

Correct Answer: C. Cover the prolapsed cord with sterile gauze wet with sterile NSS and place the woman in Trendelenburg position.

The correct action of the nurse is to cover the cord with sterile gauze wet with sterile NSS. Observe strict asepsis in the care of the cord to prevent infection. The cord has to be kept moist to prevent it from drying. Don't attempt to put back the cord into the vagina but relieve pressure on the cord by positioning the mother either on Trendelenburg or Sims position

- **Option A:** Avoid handling the cord to reduce vasospasm. Manually elevate the presenting part by lifting the presenting part of the cord by vaginal digital examination. Alternatively, if in the community, fill the maternal bladder with 500ml of normal saline (warmed if possible) via a urinary catheter and arrange immediate hospital transfer.
- **Option B:** Encourage into left lateral position with head down and a pillow placed under left hip OR knee-chest position. This will relieve pressure off the cord from the presenting part.
- **Option D:** Umbilical cord prolapse is an acute obstetric emergency that requires immediate delivery of the baby. The route of delivery is usually by cesarean section. The doctor will relieve cord compression by manually elevating the fetal presentation part until a cesarean section is performed.

70. Norma asks for information about osteoarthritis. Which of the following statements about osteoarthritis is correct?

- A. Osteoarthritis is rarely debilitating.
- B. Osteoarthritis is a rare form of arthritis.
- C. Osteoarthritis is the most common form of arthritis.

D. Osteoarthritis affects people over 60.

Correct Answer: C. Osteoarthritis is the most common form of arthritis

Osteoarthritis is the most common form of arthritis and can be extremely debilitating. It can afflict people of any age, although most are elderly.

- **Option A:** Osteoarthritis is an extremely debilitating disease. The cartilage within a joint begins to break down and the underlying bone begins to change.
- **Option B:** It is the most common form of arthritis. It affects over 32.5 million US adults.
- **Option D:** Osteoarthritis can affect people of any age, but are most common among the elderly. Women are more likely to develop OA than men, especially after the age of 50.

71. Nurse Emma is planning a client education program for sickle cell disease (SCD); What topic should be included in the plan of care?

- A. Aerobic exercise to improve oxygenation
- B. Fluid restraint to 1 qt (1 L)/day
- C. A high-iron, high-protein diet
- D. Proper hand washing and infection avoidance

Correct Answer: D. Proper handwashing and infection avoidance

Prevention of infection is vital in the prevention of sickle cell crisis. Patients with SCD are especially at risk for infections with encapsulated organisms because of their functional asplenia, as well as because of functionally immunocompromised state (increased bone marrow turnover and altered complement activation).

- **Option A:** Strenuous activities and exercises should be withdrawn to lessen the risk of increased tissue ischemia. Because acute intense exercise may alter these pathophysiological mechanisms, physical activity is usually contraindicated in patients with SCD.
- **Option B:** Proper hydration should be encouraged to prevent crises secondary to dehydration. Erythrocytes are more likely to sickle and become rigid in the presence of dehydration. This process is in large part caused by changes in cation homeostasis, specifically increased potassium and water efflux mediated by potassium-chloride cotransport and Gardos channels (calcium-dependent potassium channel).
- **Option C:** A high-iron, high-protein diet would have no impact on the disease or prevention of a crisis. Patients with sickle cell anemia have greater than average requirements for both calories and micronutrients and therefore need to eat more to avoid being deficient in immune-boosting nutrients.

72. Which of the following liquids would nurse Leng administer to a female client who is intoxicated with phencyclidine (PCP) to hasten excretion of the chemical?

- A. Shake
- B. Tea
- C. Cranberry Juice

D. Grape juice

Correct Answer: C. Cranberry Juice

An acid environment aids in the excretion of PCP. The nurse will definitely give the client with PCP intoxication cranberry juice to acidify the urine to a pH of 5.5 & accelerate excretion. PCP begins to cause symptoms at a dose of 0.05mg/kg, and a dose of 20 mg or more can cause seizures, coma, and death. It is mainly metabolized by the liver, and 10% is excreted in the kidneys. Inhalation (the most common route of administration) and intravenous routes of administration produce symptoms in 2 to 5 minutes. Oral ingestion produces symptoms in 30 to 60 minutes.

- **Option A:** Most patients survive PCP intoxication with supportive care. Airway, breathing, circulation, and hemodynamic monitoring are essential to the care of patients with PCP toxicity. Intubation with ventilatory support may be required for airway protection. Sedation with medication and physical restraints may be required to control agitation, violent behavior, and psychosis due to PCP intoxication. Placing the patient in a calm environment such as a quiet room with the lights dimmed may be helpful. Benzodiazepines are the preferred medication for chemical sedation in patients with PCP toxicity.
- **Option B:** Patients with mild symptoms can be discharged one to 2 hours after they become symptom-free and have no other medical complications or behavioral issues that need to be addressed. Patients with severe symptoms or medical complications should be admitted to a monitored bed. Patients who are asymptomatic who present to the emergency department after PCP use should be observed for at least 6 hours before being discharged.
- **Option D:** PCP is available as a powder, crystal, liquid, and tablet. It produces both stimulation and depression of the CNS. PCP is a non-competitive antagonist to the NMDA receptor, which causes analgesia, anesthesia, cognitive defects, and psychosis. PCP blocks the uptake of dopamine and norepinephrine, leading to sympathomimetic effects such as hypertension, tachycardia, bronchodilation, and agitation. PCP can also cause sedation, muscarinic, and nicotinic signs by binding to acetylcholine receptors and GABA receptors. Sigma receptor stimulation by PCP causes lethargy and coma.

73. A paradoxical pulse occurs in a client who had a coronary artery bypass graft (CABG) surgery two (2) days ago. Which of the following surgical complications should the nurse suspect?

- A. Left-sided heart failure
- B. Aortic regurgitation
- C. Complete heart block
- D. Pericardial tamponade

Correct Answer: D. Pericardial tamponade

A paradoxical pulse (a palpable decrease in pulse amplitude on quiet inspiration) signals pericardial tamponade, a complication of CABG surgery. Cardiac tamponade is a medical or traumatic emergency that happens when enough fluid accumulates in the pericardial sac compressing the heart and leading to a decrease in cardiac output and shock.

- **Option A:** Left-sided heart failure can cause pulsus alternans (pulse amplitude alternation from beat to beat, with a regular rhythm). Right ventricular alternans occur as a result of right ventricular strain, often precipitated by a pulmonary embolism or pulmonary hypertension. Other potential etiologies of right ventricular alternans include reactive airway disease, mitral stenosis, or left-sided

heart failure.

- **Option B:** Aortic regurgitation may cause bisferious pulse (an increased arterial pulse with a double systolic peak). The most common causes of pulsus bisferiens are mixed aortic valve disease (infective endocarditis, rheumatic heart disease, Marfan syndrome, bicuspid aortic valve) and hypertrophic cardiomyopathy with obstruction (HOCM). Pulsus bisferiens a single central pulse wave with two peaks separated by a distinct mid-systolic dip. An early component percussion wave results from rapid left ventricular ejection. The late component tidal wave represents a reflected wave from the periphery due to an artery's recoil effect.
- **Option C:** Complete heart block may cause a bounding pulse (a strong pulse with increased pulse pressure). The physical exam is usually remarkable for bradycardia. JVP examination often demonstrates cannon A-waves owing to the simultaneous contraction of the atria and ventricles. Thus a very large pressure wave is felt up against the vein.

74. A nurse is collecting data on a client with severe preeclampsia. Choose the findings that would be noted in severe preeclampsia. Select all that apply.

- A. Oliguria
- B. Seizures
- C. Contractions
- D. Proteinuria 3+
- E. Muscle cramps
- F. Blood pressure 168/116 mm Hg

Correct Answer: A, D, & F.

Severe preeclampsia is characterized by blood pressure higher than 160/110 mmHg, proteinuria 3+ or higher, and oliguria. Preeclampsia is a hypertensive disease that occurs during pregnancy. This disease encompasses 2% to 8% of pregnancy-related complications, greater than 50,000 maternal deaths, and over 500,000 fetal deaths worldwide.

- **Option A:** Women with preeclampsia commonly have transient oliguria (less than 100 mL over 4 hours) in labor or the first 24 hours postpartum. Patients at the severe end of the disease spectrum may have urine output <500 mL/24 hours.
- **Option B:** Seizures (convulsions) are present in eclampsia and are not a characteristic of severe preeclampsia. The hallmark physical exam finding for eclampsia is generalized tonic-clonic seizures, which typically last 60 to 90 seconds in duration. A postictal state is often present after seizure activity.
- **Option C:** A pregnant woman should immediately call her health care provider if any of the signs or symptoms of severe disease develop, or if she has decreased fetal activity, vaginal bleeding, abdominal pain, or frequent uterine contractions. The only cure for preeclampsia is delivery of the fetus and placenta.
- **Option D:** Proteinuria in preeclampsia can be defined as any of the following [2]: ≥0.3 g protein in a 24-hour urine specimen. The completeness of the 24-hour urine collection can be estimated from creatinine excretion, which should be 15 to 20 mg/kg (133 to 177 micromol/kg) of lean body weight in women.
- **Option E:** Muscle cramps are not findings noted in severe preeclampsia, although the client is monitored for these occurrences. Leg cramps may be caused by the additional weight gain of

pregnancy and changes in circulation. Pressure from the growing baby may also be placed on the nerves and blood vessels that go to the legs. This pressure or pinching may be the cause of the leg cramps.

- **Option F:** Patients with a systolic blood pressure of 140 mmHg or greater, or a diastolic pressure of 90 mmHg or greater, should increase suspicion for preeclampsia. In patients at greater than 20 weeks gestation, blood pressure readings on two measurements at least 4 hours apart should be evaluated with further diagnostic workup.

75. A 29 y.o. patient has an acute episode of ulcerative colitis. What diagnostic test confirms this diagnosis?

- A. Barium Swallow
- B. Stool examination
- C. Gastric analysis
- D. Sigmoidoscopy

Correct Answer: D. Sigmoidoscopy

Sigmoidoscopy allows direct observation of the colon mucosa for changes, and if needed, biopsy. Colonoscopy or proctosigmoidoscopy might reveal loss of typical vascular pattern, granularity, friability, and ulceration which involve the distal rectum and proceed proximally in a symmetric, continuous, and circumferential pattern. The disease can range from disease isolated to the rectum and sigmoid colon (proctitis) to disease of the entire colon (pancolitis).

- **Option A:** The barium swallow study, also known as a barium esophagogram or esophagram, is a contrast-enhanced radiographic study commonly used to assess structural characteristics of the entire esophagus. It may be used for the diagnosis of a wide range of pathologies including esophageal motility disorders, strictures, and perforations.
- **Option B:** Diagnosis of ulcerative colitis is made clinically with supportive findings on endoscopy, biopsy, and by negative stool examination for infectious causes. Because colonic infection can produce clinical findings indistinguishable from idiopathic ulcerative colitis, microbiologic studies for bacterial infection and parasitic infestation should be included in the initial evaluation.
- **Option C:** Gastric acid analysis is rarely done in current practice. When conducted, samples of stomach contents obtained via nasogastric tube are used to measure gastric acid output in a basal and stimulated state. This information may be useful in a patient who develops a recurrent ulcer after surgical vagotomy for peptic ulcer disease. In this case, a positive acid response to stimulation (sham feeding) indicates an incomplete vagotomy.

76. Nurse Charlotte suspects that a child, age 4, is being neglected physically. To best assess the child's nutritional status, the nurse should ask the parents which question?

- A. "Has your child always been so thin?"
- B. "Is your child a picky eater?"
- C. "What did your child eat for breakfast?"
- D. "Do you think your child eats enough?"

Correct Answer: C. “What did your child eat for breakfast?”

The nurse should obtain objective information about the child's nutritional intake, such as by asking about what the child ate for a specific meal. In order to assess the adequacy of a child's nutritional intake, dietitians require detailed information about all food and drink consumed. As all children admitted to the hospital are at risk of nutritional deficit, a dietary record should be started on all in-patients, although this may subsequently be discontinued when deemed appropriate.

- **Option A:** Children should be weighed on admission to the hospital and subsequently at least once a week. The frequency of weighing requires adjustment according to clinical conditions in discussion with the multidisciplinary team. Repeat weights should be recorded under similar conditions and at the same time of day as the original measurement.
- **Option B:** The dietary record should include details of food and fluids offered and consumed, with quantities expressed in terms of teaspoons, tablespoons, and so on. Owing to the difficulties of providing for the likes and dislikes of individual children any record of dietary intake completed during admission is unlikely to provide an ideal reflection of a child's customary intake.
- **Option D:** A nursing assessment interview conducted on admission should elicit useful information pertaining to feeding history and parental concerns regarding feeding and growth/weight gain.

77. The clinical instructor directed the student nurse to care for a client whose potassium is 6.7 mEq/L. Which intervention is delegated correctly to the student nurse?

- A. Give potassium 10 mEq orally
- B. Give sodium polystyrene sulfonate (Kayexalate) 15 g orally
- C. Give spironolactone (Aldactone) 25 mg orally
- D. Assess the electrocardiogram (ECG) strip for tall T waves

Correct Answer: B. Give sodium polystyrene sulfonate (Kayexalate) 15 g orally

Delegation, supervision. The normal range for potassium is 3.5 to 5 mEq/L. The client's potassium level is high. Kayexalate eliminates potassium from the body through the gastrointestinal system. The right person must be assigned to the right tasks and jobs under the right circumstances. The nurse who assigns the tasks and jobs must then communicate with and direct the person doing the task or job.

- **Option A:** Giving additional potassium may further increase the serum potassium level. The registered nurse determines and analyzes all of the health care needs for a group of clients; the registered nurse delegates care that matches the skills of the person that the nurse is delegating to.
- **Option C:** Spironolactone is a potassium-sparing diuretic that may cause the client's potassium level to go even higher. The delegating registered nurse remains accountable for all client care despite the fact that some of these aspects of care can, and are, delegated to others.
- **Option D:** The beginning nursing student does not have the skill to assess ECG strips. Some client needs are relatively predictable; and other patient needs are unpredictable based on the changing status of the client. Some needs require high levels of professional judgment and skill; and other patient needs are somewhat routine and without the need for high levels of professional judgment and skill.

78. Nurse Clarisse is teaching a patient about a newly prescribed drug. What could cause a geriatric patient to have difficulty retaining knowledge about

prescribed medications?

- A. Decreased plasma drug levels
- B. Sensory deficits
- C. Lack of family support
- D. History of Tourette syndrome

Correct Answer: B. Sensory deficits

Sensory deficits could cause a geriatric patient to have difficulty retaining knowledge about prescribed medications. Age-related decline of the five classical senses (vision, smell, hearing, touch, and taste) poses significant burdens on older adults. The co-occurrence of multiple sensory deficits in older adults is not well characterized and may reflect a common mechanism resulting in global sensory impairment.

- **Option A:** Decreased plasma drug levels do not alter the patient's knowledge about the drug. Aging has long been associated with decline in sensory function, a critical component of the health and quality of life of older people
- **Option C:** A lack of family support may affect compliance, not knowledge retention. Vision impairment is correlated with depression, poor quality of life, cognitive decline, and mortality. Hearing loss is associated with slower gait speed (a marker of physical decline), poor cognition, and mortality. Like smell, taste has been associated with nutritional compromise and in-patient mortality, suggesting that chemosensory function is critical. Tactile discrimination declines with age due to the cumulative effects of decreased nerve conduction velocity, decreased density of Meissner's and Pacinian corpuscles, and gray matter changes within the central nervous system, and is also associated with cognitive decline
- **Option D:** Tourette syndrome is unrelated to knowledge retention. Tourette syndrome referred to as Tourette disorder in the recently updated Diagnostic and Statistical Manual of Mental Disorders (DSM-5), is a common neurodevelopmental disorder affecting up to 1% of the population. It is characterized by multiple motor and vocal tics and starts in childhood.

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

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

Correct Answer: A, B, D, & E

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

- **Option A:** There may be a dull pain with or without motion and sometimes constitutional symptoms such as fever or chills. In subacute presentations, some patients may have generalized malaise, mild pain over several weeks with minimal fever, or other constitutional symptoms.

- **Option B:** Physical examination should focus primarily on finding a possible nidus of infection, assessing sensory function, and peripheral vasculature. Some patients are at high risk for osteomyelitis, and these include those with bacteremia, endocarditis, intravenous drug use, trauma, and open fractures.
- **Option C:** In chronic osteomyelitis, symptoms may occur over a longer duration of time, usually more than two weeks. As with acute osteomyelitis, patients may also present with swelling, pain, and erythema at the site of infection, but constitutional symptoms like fever are less common.
- **Option D:** Tenderness to palpation over vertebral bone may be a significant finding in vertebral osteomyelitis. The ability to probe an ulcer to the bone with a blunt sterile instrument is highly suggestive of osteomyelitis.
- **Option E:** Acute osteomyelitis may present gradually with onset over a few days but usually manifests within two weeks. Patients may have local symptoms such as erythema, swelling, and warmth at the site of infection.

80. A nurse is developing a care plan for a client with an injury to the frontal lobe of the brain. Which nursing interventions should be included as part of the care plan? Select all that apply.

- A. Keep instructions simple and brief because the client will have difficulty concentrating.
- B. Speak clearly and slowly because the client will have difficulty hearing.
- C. Assist with bathing because the client will have vision disturbances.
- D. Orient the client to person, place, and time as needed because of memory problems.
- E. Assess vital signs frequently because vital bodily functions are affected.

Correct Answer: A & D.

Damage to the frontal lobe affects personality, memory, reasoning, concentration, and motor control of speech. The cortex of the frontal lobe is the largest of the four and in many ways the lobe which participates most in making us human.

- **Option A:** The prefrontal cortex is known to be the higher-order association center of the brain as it is responsible for decision making, reasoning, personality expression, maintaining social appropriateness, and other complex cognitive behaviors.
- **Option B:** Damage to the temporal lobe, not the frontal lobe, causes hearing and speech problems. Another study divides the temporal area into 4 major subregions: a) dorsal, mostly language and auditory/somatosensory networks b) ventromedial, mostly visual network c) medial, connected to paralimbic structures and d) anterolateral, associated with a default-semantic network. These areas have many important functions such as processing of language, social cues, and emotions, facial recognition (auditory and visual aspects), emotional processing of different stimuli (auditory, olfactory, and visual), and theory of mind.
- **Option C:** Damage to the occipital lobe causes vision disturbances. The occipital lobe is the visual processing area of the brain. It is associated with visuospatial processing, distance and depth perception, color determination, object and face recognition, and memory formation.
- **Option D:** Research has proven that the dominant (left) superior frontal gyrus is a key component in the neural network of working memory as well as spatial processing. Research has proven that the dominant (left) superior frontal gyrus is a key component in the neural network of working memory as well as spatial processing.

- **Option E:** Damage to the brain stem affects vital functions. The brainstem is the structure that connects the cerebrum of the brain to the spinal cord and cerebellum. It is composed of four sections in descending order: the diencephalon, midbrain, pons, and medulla oblongata. It is responsible for many vital functions of life, such as breathing, consciousness, blood pressure, heart rate, and sleep.

81. Which of the following findings is associated with right-sided heart failure?

- A. Shortness of breath
- B. Nocturnal polyuria
- C. Daytime oliguria
- D. Crackles in the lungs

Correct Answer: B. Nocturnal polyuria

- Option B: A decreased renal perfusion during the day leads to excessive fluid retention. As the patient lies down to sleep, renal perfusion improves, and the kidney starts working by excreting the retained fluid, thus experiencing nocturnal polyuria.
- Options A and D: Shortness of breath and crackles in the lungs are symptoms of left-sided heart failure.
- Option C: Daytime oliguria does not relate to the client's diagnosis.

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

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

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

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

83. Nurse Marie is caring for a 32-year-old client admitted with pernicious anemia. Which set of findings should the nurse expect when assessing the client?

- A. Pallor, bradycardia, and reduced pulse pressure
- B. Pallor, tachycardia, and a sore tongue
- C. Sore tongue, dyspnea, and weight gain
- D. Angina, double vision, and anorexia

Correct Answer: B. Pallor, tachycardia, and a sore tongue

Pallor, tachycardia, and a sore tongue are all characteristic findings in pernicious anemia. Other clinical manifestations include anorexia; weight loss; a smooth, beefy red tongue; a wide pulse pressure; palpitations; angina; weakness; fatigue; and paresthesia of the hands and feet.

- **Option A:** Tachycardia, instead of bradycardia, and reduced pulse pressure are present in a client with pernicious anemia. The heart may start to beat faster to make up for the reduced number of red blood cells in the body.
- **Option C:** Weight loss, instead of weight gain, is a common symptom of pernicious anemia. A B12 deficiency can be counteracted with a dose of the vitamin, causing energy levels to regulate and the metabolism to work harder to burn up fuel. The result is weight loss when the deficiency is mitigated, but adding B12 to a body with sufficient levels doesn't really increase natural effects.
- **Option D:** Double vision isn't a characteristic finding in pernicious anemia. However, vision loss associated with vitamin B12 deficiency can occur even in well-nourished individuals who can't absorb enough B12 to support healthy vision.

84. Nurse Trinity administered neutral protamine Hagedorn (NPH) insulin to a diabetic client at 7 a.m. At what time would the nurse expect the client to be most at risk for a hypoglycemic reaction?

- A. 10:00 am
- B. Noon
- C. 4:00 pm
- D. 10:00 pm

Correct Answer: C. 4:00 pm

NPH is an intermediate-acting insulin that peaks 8 to 12 hours after administration. Because the nurse administered NPH insulin at 7 a.m., the client is at greatest risk for hypoglycemia from 3 p.m. to 7 p.m.

- **Option A:** At 10:00 am, the insulin given would not have reached its peak.
- **Option B:** During noontime, risk for hypoglycemia would still be low.
- **Option D:** 10:00 pm is already a late time for the peak action of insulin.

85. A client is admitted to the labor and delivery unit complaining of vaginal bleeding with very little discomfort. The nurse's first action should be to:

- A. Assess the fetal heart tones
- B. Check for cervical dilation
- C. Check for firmness of the uterus

D. Obtain a detailed history

Correct Answer: A. Assess the fetal heart tones

The symptoms of painless vaginal bleeding are consistent with placenta previa. Assess fetal heart sounds so the mother would be aware of the health of her baby. Assess any bleeding or spotting that might occur to give adequate measures. Most cases are diagnosed early on in pregnancy via sonography and others may present to the emergency room with painless vaginal bleeding in the second or third trimester of pregnancy.

- **Option B:** Cervical check for dilation is contraindicated because this can increase the bleeding. A patient presenting with vaginal bleeding in the second or third trimester should receive a transabdominal sonogram before a digital examination. If there is a concern for placenta previa, then a transvaginal sonogram should be performed to confirm the location of the placenta.
- **Option C:** Checking for firmness of the uterus can be done, but the first action should be to check the fetal heart tones. Painless vaginal bleeding during the second or third trimester of pregnancy is the usual presentation. The bleeding may be provoked from intercourse, vaginal examinations, labor, and at times there may be no identifiable cause. On speculum examination, there may be minimal bleeding to active bleeding.
- **Option D:** A detailed history can be done later. The relationship between advanced maternal age and placenta previa may be confounded by higher parity and a higher probability of previous uterine procedures or fertility treatment. However, it may also represent an altered hormonal or implantation environment.

86. You are initiating a nursing care plan for a patient with pneumonia. Which intervention for cough enhancement should you delegate to a nursing assistant?

- A. Teaching the patient about the importance of adequate fluid intake and hydration.
- B. Assisting the patient to a sitting position with neck flexed, shoulders relaxed, and knees flexed.
- C. Reminding the patient to use an incentive spirometer every 1 to 2 hours while awake.
- D. Encouraging the patient to take a deep breath, hold it for 2 seconds, then cough two or three times in succession.

Correct Answer: C. Reminding the patient to use an incentive spirometer every 1 to 2 hours while awake

A nursing assistant can remind the patient to perform actions that are already part of the plan of care. The right person must be assigned to the right tasks and jobs under the right circumstances. The nurse who assigns the tasks and jobs must then communicate with and direct the person doing the task or job. The nurse supervises the person and determines whether or not the job was done in the correct, appropriate, safe and competent manner.

- **Option A:** Teaching patients about adequate fluid intake requires additional education and skill and is within the scope of practice of the RN. Among the tasks that cannot be legally and appropriately delegated to nonprofessional, unlicensed assistive nursing personnel, such as nursing assistants, patient care technicians, and personal care aides, include assessments, nursing diagnosis, establishing expected outcomes, evaluating care and any and all other tasks and aspects of care including but not limited to those that entail sterile technique, critical thinking, professional judgment and professional knowledge.

- **Option B:** Assisting the patient in the best position to facilitate coughing requires specialized knowledge and understanding that is beyond the scope of practice of the basic nursing assistant. However, an experienced nursing assistant could assist the patient with positioning after the nursing assistant and the patient had been taught the proper technique. The nursing assistant would still be under the supervision of the RN.
- **Option D:** Discussing and teaching require additional education and training. These actions are within the scope of practice of the RN. The client is the center of care. The needs of the client must be competently met with the knowledge, skills and abilities of the staff to meet these needs.

87. During a home visit, a client with AIDS tells the nurse that he has been exposed to measles. Which action by the nurse is most appropriate?

- A. Administer an antibiotic
- B. Contact the physician for an order for immune globulin
- C. Administer an antiviral
- D. Tell the client that he should remain in isolation for 2 weeks

Correct Answer: B. Contact the physician for an order for immune globulin

The client who is immunosuppressed and is exposed to measles should be treated with medications to boost his immunity to the virus. If the patient knows that he has been exposed to measles and his CD4 count is less than 200, he should talk to his doctor about whether post-exposure prophylaxis (PEP) with immunoglobulin may be an option. PEP may provide some protection or lessen the severity of infection if it occurs. If the CD4 count is 200 or greater, PEP can also include getting the MMR vaccine. Ideally, PEP should be administered within 72 hours of exposure to measles.

- **Option A:** Antibiotics may not be an effective treatment. One important characteristic of measles infection is that it produces more serious illness and increased mortality among immunocompromised individuals, primarily those with defects in T-cell immunity. Because >90% of the human immunodeficiency virus (HIV)-infected children live in regions where measles is still endemic, achieving high rates of measles vaccine coverage is especially important among these populations to suppress excess measles-associated morbidity and mortality.
- **Option C:** Antivirals would not be as effective as immunoglobulins for the client with AIDS. Early identification and antiretroviral treatment of HIV-infected infants and children are critical to maximizing measles vaccine immunogenicity and providing protection against other HIV-related complications.
- **Option D:** The patient should remain in isolation, but the administration of immunoglobulin is a priority. The impact of HIV-related immunocompromise and subsequent effects of antiretroviral therapy (ART) on immune reconstitution and, ultimately, on vaccine immunogenicity is unclear.

88. When prioritizing care, which of the following clients should the nurse Olivia assess first?

- A. A 17-year-old client 24-hours post appendectomy.
- B. A 33-year-old client with a recent diagnosis of Guillain-Barre syndrome.
- C. A 50-year-old client 3 days post myocardial infarction.
- D. A 50-year-old client with diverticulitis.

Correct Answer: B. A 33-year-old client with a recent diagnosis of Guillain-Barre syndrome

Guillain-Barre syndrome is characterized by ascending paralysis and potential respiratory failure. The order of client assessment should follow client priorities, with disorder of airways, breathing, and then circulation.

- **Option A:** The client who is post appendectomy has no signs of hemorrhage or unstable vital signs. Possible complications of appendectomy are bleeding, wound infection, peritonitis, blocked bowels, and injury to nearby organs.
- **Option C:** There's no information to suggest the postmyocardial infarction client has an arrhythmia or other complication. About 90% of patients who have an acute MI develop some form of cardiac arrhythmia during or immediately after the event.
- **Option D:** There's no evidence to suggest perforation for the client with diverticulitis as a priority of care. Diverticula are small, bulging pouches that can form in the lining of the digestive system when one or more of the pouches become inflamed, and in some cases infected, that condition is known as diverticulitis.

89. 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 \leq 5.5 points to correct placement, and values $>$ 5.5 require radiological confirmation.

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

90. During a nonstress test (NST), the electronic tracing displays a relatively flat line for fetal movement, making it difficult to evaluate the fetal heart rate (FHR). To mark the strip, the nurse in charge should instruct the client to push the

control button at which time?

- A. At the beginning of each fetal movement.
- B. At the beginning of each contraction.
- C. After every three fetal movements
- D. At the end of fetal movement.

Correct Answer: A. At the beginning of each fetal movement

An NST assesses the FHR during fetal movement. In a healthy fetus, the FHR accelerates with each movement. By pushing the control button when a fetal movement starts, the client marks the strip to allow easy correlation of fetal movement with the FHR.

- **Option B:** The FHR is assessed during uterine contractions in the oxytocin contraction test, not the NST. 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).
- **Option C:** Pushing the control button after every three fetal movements wouldn't allow accurate comparison of fetal movement and FHR change. Fetal activity may be recorded by the patient using an event marker or noted by the staff performing the test.
- **Option D:** The presence of fetal heart rate acceleration with fetal movement is the principle behind the non-stress test. It is vital to start monitoring the moment the client recognizes a fetal movement. The NST recognizes the coupling of fetal neurological status to cardiovascular reflex responses. It is one of the factors that tends to disappear earliest during progressive fetal compromise.

91. 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.

92. Katherine is a young Unit Manager of the Pediatric Ward. Most of her staff nurses are senior to her, very articulate, confident, and sometimes aggressive. Katherine feels uncomfortable believing that she is the scapegoat of everything

that goes wrong in her department. Which of the following is the best action that she must take?

- A. Identify the source of the conflict and understand the points of friction.
- B. Disregard what she feels and continues to work independently.
- C. Seek help from the Director of Nursing.
- D. Quit her job and look for another employment.

Correct Answer: A. Identify the source of the conflict and understand the points of friction

This involves a problem-solving approach, which addresses the root cause of the problem. Seek to understand the underlying emotions of the employees in conflict. Employers can manage workplace conflict by creating an organizational culture designed to preclude conflict as much as possible and by dealing promptly and equitably with conflicts that employees cannot resolve among themselves.

- **Option B:** Do not ignore conflict, and do not avoid taking steps to prevent it. Unresolved issues of interpersonal tension and conflict can create emotional stress for employees, politicize the workplace and divert attention from the organization's mission.
- **Option C:** Before escalating the conflict to the Director of Nursing, the unit manager should first try to deescalate the problem. If a manager has mechanisms in place to resolve conflict at its early stages, employees will generally see their employer as fair in their dealings with them and will likely be more satisfied with their jobs.
- **Option D:** If the manager does not act, conflicts will escalate into larger problems, discrimination and harassment complaints may increase, and the employer's reputation could be damaged. When employees mistrust management or perceive the organization as acting unfairly, turnover may increase. This can lead to recruiting and training expenses for new hires and the costs attributable to slippage of performance until new employees become fully proficient in their jobs.

93. During a community health assessment at a local school's parent-teacher conference, the nurse encounters several parents and caregivers. Based on their shared histories and lifestyles, the nurse determines the risk factors for hypertension among them. Which of the following individuals is at the HIGHEST risk for developing hypertension?

- A. A 45-year-old African-American attorney with a family history of hypertension, who has a sedentary lifestyle, consumes a diet high in sodium, and recently had a significant weight gain.
- B. A 60-year-old Asian-American shop owner with a BMI of 28, who has well-managed type 2 diabetes, takes medications for high cholesterol, and engages in regular physical activity.
- C. A 40-year-old Caucasian nurse who is a vegetarian, has a healthy BMI, is a non-smoker but reports high levels of work-related stress and consumes excessive amounts of caffeine.
- D. A 55-year-old Hispanic teacher who smokes occasionally, has a healthy BMI, participates in a moderate-intensity exercise program, and recently started taking oral contraceptives.
- E. A 50-year-old Middle Eastern engineer with a BMI of 26, who has a family history of cardiovascular diseases, does not engage in any form of exercise, and has recently been diagnosed with obstructive sleep apnea.

F. A 52-year-old Native American artist with a family history of kidney disease, who smokes a pack of cigarettes daily, drinks alcohol excessively, and reports infrequent physical activity.

G. A 43-year-old European baker who has a BMI of 30, often deals with job-related stress, consumes a diet rich in pastries and sweets, and has a sedentary lifestyle due to long work hours.

Correct Answer: A. A 45-year-old African-American attorney with a family history of hypertension, who has a sedentary lifestyle and consumes a diet high in sodium.

African-American adults have a higher prevalence of hypertension compared to other racial and ethnic groups in the United States. This individual also has a family history of hypertension, a sedentary lifestyle, and a diet high in sodium, which are all risk factors for hypertension. Therefore, this individual is at the greatest risk for developing hypertension among the given choices.

- **Option B. 60-year-old Asian-American shop owner:** Although age is a risk factor for hypertension, this individual has well-managed type 2 diabetes and engages in regular physical activity. Their BMI of 28 suggests being overweight, but the combination of other factors makes this individual's risk lower than the African-American attorney.
- **Option C. 40-year-old Caucasian nurse:** While this individual reports high levels of work-related stress, which can be a risk factor for hypertension, they have a healthy BMI, are a vegetarian, and a non-smoker. These factors help offset their risk, making them less likely to develop hypertension compared to the African-American attorney.
- **Option D. 55-year-old Hispanic teacher:** Although this individual smokes occasionally, which is a risk factor for hypertension, they have a healthy BMI and participate in a moderate-intensity exercise program. These factors help reduce their risk, making them less likely to develop hypertension compared to the African-American attorney.

94. Nurse Johnson is reviewing Mr. Garcia, a 58-year-old client with a history of hypertrophic cardiomyopathy and a recent episode of upper respiratory tract infection. During today's assessment, Nurse Johnson noted that Mr. Garcia's systolic blood pressure has decreased from 145 to 110 mm Hg since his last visit, his heart rate has risen from 72 to 96 beats per minute, and he has been experiencing periodic dizzy spells when standing up. Mr. Garcia mentioned he has been trying to drink less due to concerns about fluid retention. Considering his clinical picture and history, Nurse Johnson should advise Mr. Garcia to:

- A. Increase fluids that are high in protein
- B. Restrict fluids
- C. Force fluids and reassess blood pressure
- D. Limit fluids to non-caffeine beverages

Correct Answer: C. Force fluids and reassess blood pressure

Given the drop in systolic blood pressure, increased heart rate (which could be compensatory mechanisms due to hypovolemia), and dizziness (potentially orthostatic hypotension), it might be appropriate to advise Mr. Garcia to increase his fluid intake. After doing so, reassessing his blood pressure can provide valuable feedback on his volume status. Orthostatic hypotension, a decrease in systolic blood pressure of more than 15 mmHg, and an increase in heart rate of more than 15 percent usually accompanied by dizziness indicate volume depletion, inadequate vasoconstrictor mechanisms, and autonomic insufficiency.

- **Option A:** Fluids may not be necessarily protein-rich.
- **Option B:** Restricting fluids could aggravate the client's dizziness.
- **Option D:** There is no need to restrict the fluid intake of the client.

95. Kelly, a first-time mother, went to the community clinic and asked the nurse what kind of toy would be most appropriate for her 15th-month-old child?

- A. Knitting knits
- B. Board games
- C. Ball Popper Toys
- D. Checkers

Correct Answer: C. Ball popper toys

At 15 months, the child's cognitive development and fine motor skills are growing so provide toys that have cause and effect such as ball popper toys. Their ability to successfully manipulate smaller and smaller objects can place them at risk of choking or swallowing dangerous items.

- **Option A:** School-age children acquire adult-like interests, abilities, and hobbies and may display a passion by becoming a collector. Girls still love doing crafts and writing in diaries, and boys find a computer and video games irresistible.
- **Option B:** School-age is the age when kids often become huge fans of computer games, but they also enjoy having their friends over to play sports, card games, and board games.
- **Option C:** Checkers is appropriate for school-age children and they require a good amount of concentration that a 15th-month-old is not yet ready to have.

96. While assessing a newborn with cleft lip, the nurse would be alert that which of the following will most likely be compromised?

- A. Sucking ability
- B. Respiratory status
- C. Locomotion
- D. GI function

Correct Answer: A. Sucking ability

Because of the defect, the child will be unable to form the mouth adequately around the nipple, thereby requiring special devices to allow for feeding and sucking gratification.

- **Option B:** Respiratory status may be compromised if the child is fed improperly or during the postoperative period
- **Option C:** Locomotion would be a problem for the older infant because of the use of restraints.
- **Option D:** GI functioning is not compromised in the child with a cleft lip. One of the most immediate concerns after birth is feeding. While most babies with cleft lips can breast-feed, a cleft palate may make sucking difficult.

97. When a female client with an indwelling urinary (Foley) catheter insists on walking to the hospital lobby to visit with family members, nurse Rose teaches how to do this without compromising the catheter. Which client action indicates an accurate understanding of this information?

- A. The client sets the drainage bag on the floor while sitting down.
- B. The client keeps the drainage bag below the bladder at all times.
- C. The client clamps the catheter drainage tubing while visiting with the family.
- D. The client loops the drainage tubing below its point of entry into the drainage bag.

Correct Answer: B. The client keeps the drainage bag below the bladder at all times.

To maintain effective drainage, the client should keep the drainage bag below the bladder; this allows the urine to flow by gravity from the bladder to the drainage bag. Make sure that the patient maintains a generous fluid intake. This helps prevent infection and irrigates the catheter naturally by increasing urinary output.

- **Option A:** The client shouldn't lay the drainage bag on the floor because it could become grossly contaminated. Teach the patient the importance of personal hygiene, especially the importance of careful cleaning after having bowel movements and thorough washing of hands frequently.
- **Option C:** The client shouldn't clamp the catheter drainage tubing because this impedes the flow of urine. Plan to change indwelling catheters only as necessary. The usual length of time between catheter changes varies and can be anywhere from 5 days to 2 weeks. The less often a catheter is changed, the less the likelihood that an infection will develop.
- **Option D:** To promote drainage, the client may loop the drainage tubing above — not below — its point of entry into the drainage bag. Report any signs of infection promptly. These include a burning sensation and irritation at the meatus, cloudy urine, a strong odor to the urine, an elevated temperature, and chills.

98. 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.

99. Fetal presentation refers to which of the following descriptions?

- A. Fetal body part that enters the maternal pelvis first.
- B. Relationship of the presenting part to the maternal pelvis.
- C. Relationship of the long axis of the fetus to the long axis of the mother.
- D. A classification according to the fetal part.

Correct Answer: A. Fetal body part that enters the maternal pelvis first.

Presentation is the fetal body part that enters the pelvis first; it's classified by the presenting part; the three main presentations are cephalic/occipital, breech, and shoulder.

- **Option B:** The relationship of the presenting fetal part to the maternal pelvis refers to fetal position.
- **Option C:** The relationship of the long axis of the fetus to the long axis of the mother refers to fetal lie; the three possible lies are longitudinal, transverse, and oblique.
- **Option D:** Fetal station refers to where the presenting part is in the pelvis. The presenting part is the part of the baby that leads the way through the birth canal. Most often, it is the baby's head, but it can be a shoulder, the buttocks, or the feet.

100. The nursing assistant tells nurse Ronald that the client is not in the dining room for lunch. Nurse Ronald would direct the nursing assistant to do which of the following?

- A. Tell the client he'll need to wait until supper to eat if he misses lunch.
- B. Invite the client to lunch and accompany him to the dining room.
- C. Inform the client that he has 10 minutes to get to the dining room for lunch.
- D. Take the client a lunch tray and let the client eat in his room.

Correct Answer: B. Invite the client to lunch and accompany him to the dining room.

The nurse instructs the nursing assistant to invite the client to lunch & accompany him to the dining room to decrease manipulation, secondary gain, dependency and reinforcement of negative behavior while maintaining the client's worth. Staff working with manipulative patients are best prepared when they establish firm rules that are rigidly interpreted and consistently enforced among all members of the health care team. Frequent discussions regarding the patient's progress can help reduce staff frustration and isolation and minimize the patient's attempts at staff splitting.

- **Option A:** Discussing realistic expectations of time and resources available with the patient is of paramount importance. This establishes boundaries and forms a solid foundation on which to build future rapport. The patient will learn that you can be trusted because you will practice with integrity. By putting forth realistic expectations, you can mitigate many manipulative behaviors exhibited in

the healthcare setting.

- **Option C:** One of the best ways to become accountable for exemplary care is to advocate for the patient's autonomy. Giving the patient choices regarding his or her care restores a sense of control that is imperative to feeling secure. Many times the lack of a routine or schedule prompts a patient to allege that the nurse is neglectful. Formulating a schedule and faithfully notifying the manipulative patient of changes will demonstrate that you believe he or she is worthy of your time and efforts.
- **Option D:** There are many specific interventions that may be put into place by an interdisciplinary team caring for a patient who exhibits manipulative behavior. For example, designating one caregiver to be the patient's contact will result in more consistent care. Having two staff members present for all patient interactions will ensure that any claims of misconduct can be evaluated for validity by multiple healthcare professionals.