

# Kevin's Review - 85 NCLEX Practice Questions

**1. An 87-year-old client requires long-term ventilator therapy. He has a tracheostomy in place and requires frequent suctioning. Which of the following techniques is correct?**

- A. Using intermittent suction while advancing the catheter.
- B. Using continuous suction while withdrawing the catheter.
- C. Using intermittent suction while withdrawing the catheter.
- D. Using continuous suction while advancing the catheter.

**Correct Answer: C. Using intermittent suction while withdrawing the catheter.**

Intermittent suction should be applied during catheter withdrawal. To prevent hypoxia, suctioning shouldn't last more than 10-seconds at a time. Suction shouldn't be applied while the catheter is being advanced. Ensure preoxygenation with 100% FiO<sub>2</sub> was done with adequate pulse oximetry measurements. Preoxygenation is required because airway suctioning procedure may be associated with significant hypoxemia.

- **Option A:** Suctioning of the lower airways should be done in a sterile manner with single-use gloves and suction catheters to prevent contamination and secondary infection. The catheter should be introduced to a depth no more than the tip of the artificial airway to prevent trauma and bleeding from airway mucosa.
- **Option B:** Suction pressure should be kept less than 200 mmHg in adults. It should be set at 80 mmHg to 120 mmHg in neonates. The catheter size used for suction should be less than 50% of the internal diameter of the endotracheal tube. A common conversion is that a 1 mm diameter is equal to a 3 French.
- **Option D:** The duration of suctioning should be less than 15 seconds per suction attempt. Following airway suction, the patient should be allowed to recover for at least 10 to 15 seconds and re-oxygenate as needed before re-suctioning occurs. Standard precautions should be followed while suctioning by the care provider.

**2. Postpartum blues is said to be normal provided that the following characteristics are present. These are**

- A. Within 3-10 days only
- B. Woman exhibits the following symptoms- episodic tearfulness, fatigue, oversensitivity, poor appetite
- C. Maybe more severe symptoms in primipara
- D. All of the above

**Correct Answer: D. All of the above**

All the symptoms 1-3 are characteristic of postpartal blues. It will resolve by itself because it is transient and is due to a number of reasons like changes in hormonal levels and adjustment to motherhood. If symptoms last more than 2 weeks, this could be a sign of abnormality like postpartum depression and needs treatment.

- **Option A:** Postpartum blues, also known as "baby blues," affect approximately 50% to 80% of new mothers. Symptoms may include mood swings with times of feeling anxious, irritable, or tearful interspersed with times of feeling well. Sleeping difficulties may also occur.

- **Option B:** The symptoms usually begin 3-4 days after delivery, worsen by days 5-7, and tend to resolve by day 12. For symptoms that last longer than 2 weeks, it is important for the individual to seek medical attention since approximately 1 in 5 women with postpartum blues develops postpartum major depression.
- **Option C:** About 60–80% of all new mothers suffer from the PPB which rarely requires medication and normally subsides with support and education. It is significant to carry out the follow-up because up to 20% of these mothers are likely to progress to PPD and an adverse consequence on children's cognitive growth.

**3. A nurse notes that a client with sinus rhythm has a premature ventricular contraction that falls on the T wave of the preceding beat. The client's rhythm suddenly changes to one with no P waves or definable QRS complexes. Instead, there are coarse wavy lines of varying amplitude. The nurse assesses this rhythm to be:**

- A. Ventricular tachycardia
- B. Ventricular fibrillation
- C. Atrial fibrillation
- D. Asystole

**Correct Answer: B. Ventricular fibrillation**

Ventricular fibrillation is characterized by irregular, chaotic undulations of varying amplitudes. Ventricular fibrillation has no measurable rate and no visible P waves or QRS complexes and results from electrical chaos in the ventricles. VF is a WCT caused by irregular electrical activity and characterized by a ventricular rate of usually greater than 300 with discrete QRS complexes on the electrocardiogram (ECG). QRS morphology in VF varies in shape, amplitude, and duration with a prominent irregular rhythm.

- **Option A:** Ventricular tachycardia is characterized by the absence of P waves, wide QRS complexes (usually greater than 0.14 second), and a rate between 100 and 250 impulses per minute. The rhythm is usually regular. Ventricular tachycardia is characterized as a wide complex (QRS duration greater than 120 milliseconds) tachyarrhythmia at a heart rate greater than 100 beats per minute. It is classified by duration as non-sustained or sustained. Non-sustained ventricular tachycardia is defined as more than 3 beats of ventricular origin at a rate greater than 100 beats per minute that lasts less than 30 seconds in duration.
- **Option C:** Atrial fibrillation is characterized by a loss of P waves; an undulating, wavy baseline; QRS duration that is often within normal limits; and an irregular ventricular rate, which can range from 60 to 100 beats per minute (when controlled with medications) to 100 to 160 beats per minute (when uncontrolled). Atrial fibrillation is the most common type of cardiac arrhythmia. It is the leading cardiac cause of stroke. Risk factors for atrial fibrillation include advanced age, high blood pressure, underlying heart and lung disease, congenital heart disease, and increased alcohol consumption.
- **Option D:** Asystole, colloquially referred to as flatline, represents the cessation of electrical and mechanical activity of the heart. Asystole typically occurs as a deterioration of the initial non-perfusing ventricular rhythms: ventricular fibrillation (V-fib) or pulseless ventricular tachycardia (V-tach). Additionally, pulseless electrical activity (PEA) can cease and become asystole.

**4. A 68-year-old woman, recently diagnosed with osteoporosis, is initiated on a therapeutic regimen that includes alendronate (Fosamax). The nurse, familiar with the specific administration guidelines and potential side effects of this medication, prepares to provide the patient with essential instructions and monitoring. Which of the following nursing interventions is pivotal when administering alendronate to this patient?**

- A. Administer the medication with a full glass of water on an empty stomach.
  - B. Encourage the patient to lie flat for 30 minutes after taking the medication.
  - C. Monitor for signs of hypercalcemia.
  - D. Instruct the patient to take the medication with calcium-rich foods.
- **Option B:** Lying flat after taking the medication is not necessary and may increase the risk of esophageal irritation.
  - **Option C:** Monitoring for signs of hypercalcemia is not relevant as alendronate is not associated with increased calcium levels.
  - **Option D:** Taking the medication with calcium-rich foods can interfere with absorption and should be avoided.

**5. What is the priority nursing diagnosis with your patient diagnosed with end-stage renal disease?**

- A. Activity intolerance
- B. Fluid volume excess
- C. Knowledge deficit
- D. Pain

**Correct Answer: B. Fluid volume excess**

Fluid volume excess because the kidneys aren't removing fluid and wastes. The other diagnoses may apply, but they don't take priority. Renal disorder impairs glomerular filtration that results in fluid overload. With fluid volume excess, hydrostatic pressure is higher than the usual pushing excess fluids into the interstitial spaces.

- **Option A:** Schedule care and provide rest periods following an activity; allow the client to set own limits in the amount of exertion tolerated. Promotes autonomy and control of situations as the presence of a chronic disease may encourage independence.
- **Option C:** Review disease process and prognosis and future expectations. Provides a knowledge base from which the patient can make informed choices. If fluid overload is present, diuretic therapy or dialysis will be part of the regimen.
- **Option D:** Perform a comprehensive assessment of pain (location, onset, characteristics, and frequency) to be able to compare changes from previous reports to rule out worsening of underlying condition/developing complications.

**6. A client tells the nurse that the television newscaster is sending a secret message to her. The nurse suspects the client is experiencing:**

- A. A delusion
- B. Flight of ideas
- C. Ideas of reference
- D. Hallucination

**Correct Answer: C. Ideas of reference**

Ideas of reference refers to the mistaken belief that neutral stimuli have special meaning to the individual such as the television newscaster sending a message directly to the individual. In people with bipolar disorder, mania and hypomania can comprise various symptoms, from reckless spending to sexual promiscuity. In addition, some more subtle symptoms may also occur, such as the belief held by some patients that everything occurring around them is related somehow to them when in fact it isn't. This symptom is known as ideas of reference.

- **Option A:** A delusion is a false belief. Delusions are defined as fixed, false beliefs that conflict with reality. Despite contrary evidence, a person in a delusional state can't let go of their convictions. Delusions are often reinforced by the misinterpretation of events. Many delusions also involve some level of paranoia. For example, someone might contend that the government is controlling our every move via radio waves despite evidence to the contrary.
- **Option B:** Flight of ideas is a speech pattern in which the client skips from one unrelated subject to another. A nearly continuous flow of accelerated speech with abrupt changes from topic to topic that are usually based on understandable associations, distracting stimuli, or plays on words. When severe, speech may be disorganized and incoherent. It is part of the DSM -5 criteria for Manic episodes.
- **Option D:** A hallucination is a sensory perception, such as hearing voices and seeing objects, that only the client experiences. Hallucinations involve sensing things such as visions, sounds, or smells that seem real but are not. These things are created by the mind. Common hallucinations can include feeling sensations in the body, such as a crawling feeling on the skin or the movement of internal organs; hearing sounds, such as music, footsteps, windows or doors banging; hearing voices when no one has spoken (the most common type of hallucination). These voices may be positive, negative, or neutral. They may command someone to do something that may cause harm to themselves or others.

***7. A lumbar puncture is performed on a child suspected of having bacterial meningitis. CSF is obtained for analysis. A nurse reviews the results of the CSF analysis and determines which of the following results would verify the diagnosis?***

- A. Cloudy CSF, decreased protein, and decreased glucose.
- B. Cloudy CSF, elevated protein, and decreased glucose.
- C. Clear CSF, elevated protein, and decreased glucose.
- D. Clear CSF, decreased pressure, and elevated protein.

**Correct Answer: B. Cloudy CSF, elevated protein, and decreased glucose.**

A diagnosis of meningitis is made by testing CSF obtained by lumbar puncture. In the case of bacterial meningitis, findings usually include an elevated pressure, turbid or cloudy CSF, elevated leukocytes, elevated protein, and decreased glucose levels.

- **Option A:** Patients presumed to have bacterial meningitis should receive a lumbar puncture to obtain a cerebrospinal fluid (CSF) sample. The CSF should be sent for Gram stain, culture, complete cell count (CBC), and glucose and protein levels. Bacterial meningitis typically results in low glucose and high protein levels in the cerebrospinal fluid.
- **Option C:** As CSF glucose levels are dependent on circulating serum glucose levels, the CSF to serum glucose ratio is considered a more reliable parameter for the diagnosis of acute bacterial meningitis than absolute CSF glucose levels. A neutrophil predominance on cell count would be expected.
- **Option D:** A clear CSF is normal. Symptoms are similar to aseptic meningitis, but clinical presentation is much more severe. Additional symptoms include altered mental status, seizures, and focal neurologic signs. Diagnosis is also possible via LP. CSF is usually cloudy in appearance, with a low glucose level, and potential positive gram stain and culture. Patients presumed to have bacterial meningitis should immediately receive broad-spectrum antibiotics to prevent clinical deterioration.

**8. A female client with suspected renal dysfunction is scheduled for excretory urography. Nurse January reviews the history for conditions that may warrant changes in client preparation. Normally, a client should be mildly hypovolemic (fluid depleted) before excretory urography. Which history finding would call for the client to be well hydrated instead?**

- A. Cystic fibrosis
- B. Multiple myeloma
- C. Gout
- D. Myasthenia gravis

**Correct Answer: B. Multiple myeloma**

Fluid depletion before excretory urography is contraindicated in clients with multiple myeloma, severe diabetes mellitus, and uric acid nephropathy — conditions that can seriously compromise renal function in fluid-depleted clients with reduced renal perfusion. If these clients must undergo excretory urography, they should be well hydrated before the test.

- **Option A:** Cystic fibrosis is not a contraindication for excretory urography. Intravenous pyelography (IVP), or intravenous urography, is a diagnostic test that involves the administration of intravenous contrast and X-ray imaging of the urinary tract. The iodinated contrast flows through the renal vasculature and filtered into the collecting system highlighting the anatomic structures on the X-ray image.
- **Option C:** Gout in a client undergoing excretory urography is not a contraindication. It is often useful for the evaluation of hematuria, and renal stone disease, and as a follow-up after the intervention. The urographic imaging sequence is designed to depict specific parts of the urinary tract optimally. Portions of the urinary system appear opaque when filled with contrast material.
- **Option D:** Myasthenia gravis don't necessitate changes in client preparation for excretory urography. The patient must empty the bladder before the procedure. Images should systematically be obtained to improve the visualization of stones and increase the soft-tissue contrast. Imaging shall include the area from the suprarenal region to below the pubic symphysis.

**9. Ms. Valencia prepares the process standards. Which of the following is not a process standard?**

- A. Initial assessment shall be done to all patients within twenty-four hours upon admission.
- B. Informed consent shall be secured prior to any invasive procedure.
- C. Patients report a 95% satisfaction rate prior to discharge from the hospital.
- D. Patient education about their illness and treatment shall be provided for all patients and their families.

**Correct Answer: C. Patients report a 95% satisfaction rate prior to discharge from the hospital.**

This refers to an outcome standard, which is a result of the care that is rendered to the patient. Outcome standards focus on the end result of the nursing services and activities carried out and the changes which occurred. This approach is based on the belief that structure, process, and outcome are interdependent.

- **Option A:** Fundamentally, process standardization describes the establishment of a set of rules governing how people in an organization are supposed to complete a given task or sequence of tasks.
- **Option B:** When done well, standardization can decrease ambiguity and guesswork, guarantee quality, boost productivity, and increase employee morale. It improves clarity because a standard process will eliminate the need for guesswork or extra searching
- **Option D:** Standardization promotes productivity by eliminating inefficiency. This is the result of eliminating ambiguity and providing quality control: tasks are completed in a more efficient manner, and there are fewer quality control issues from tasks that were not completed correctly the first time around.

**10. The nurse who volunteers at a senior citizens center is planning activities for the members who attend the center. Which activity would best promote health and maintenance for these senior citizens?**

- A. Gardening every day for an hour
- B. Aerobics 3 times a week for 30 minutes
- C. Sculpting twice a week for 60 minutes
- D. Walking 3 to 5 times a week for 30 minutes

**Correct Answer: D. Walking three (3) to five (5) times a week for 30 minutes.**

Exercise and activity are essential for health promotion and maintenance in older adults and to achieve an optimal level of functioning. About half of the physical deterioration of the older client is caused by disuse rather than by the aging process or disease. One of the best exercises for an older adult is walking, progressing to a 30 minutes session three (3) to five (5) times each week. Swimming and dancing are also beneficial.

- **Option A:** Gardening is a muscle-strengthening activity that can be done by an older adult for at least 2 or more days a week. Everyday gardening is not advisable. Some physical, mental, and age-related conditions must be considered when older people work in the garden, but they should not prevent people from enjoying the garden.

- **Option B:** Aerobic activity considered a vigorous-intensity activity should be done for 75 minutes a week in 10 minutes duration. Aerobics or cardio exercises pretty much fit everyone but the frequency and intensity of each exercise should be considered before sticking to a particular regime.
- **Option C:** Body sculpting for 60 minutes is an activity that is too vigorous for an adult. These popular workouts are well-suited for younger adults looking to bulk up or shed weight in a hurry, but they may put an unhealthy strain on older adults with joint pain, atrophied muscles, posture problems, or issues with balance.

**11. Situation: A 35-year-old male has an intense fear of riding an elevator. He claims “As if I will die inside.” This has affected his studies The client is suffering from:**

- A. Agoraphobia
- B. Social phobia
- C. Claustrophobia
- D. Xenophobia

**Correct Answer: C. Claustrophobia**

Claustrophobia is fear of closed space. Claustrophobia is a type of specific phobia, where one has a fear of closed spaces. Examples of closed spaces are engine rooms, MRI machines, elevators, etc. Those with specific phobias generally will report avoidance behaviors regarding the particular object or situation that triggers their fear. The fear can be expressed as a danger of harm, disgust, or experience of the physical symptoms in a phobic scenario.

- **Option A:** Agoraphobia is fear of open space or being a situation where escape is difficult. Agoraphobia is the anxiety that occurs when one is in a public or crowded place, from which a potential escape is difficult, or help may not be readily available. It is characterized by the fear that a panic attack or panic-like symptoms may occur in these situations. Individuals with agoraphobia, therefore, strive to avoid such situations or locations.
- **Option B:** Social phobia is fear of performing in the presence of others in a way that will be humiliating or embarrassing. Social anxiety disorder (SAD) is characterized by excessive fear of embarrassment, humiliation, or rejection when exposed to possible negative evaluation by others when engaged in a public performance or social interactions. It is also known as social phobia. With the publication of DSM-5, the diagnostic criteria for SAD have been broadened from previous editions to include fear of acting in a way or show anxiety symptoms that offend others or lead to rejection in addition to fear of humiliation or embarrassment. Additionally, the latest edition of DSM removed the generalized subtype and added the “performance only” specifier.
- **Option D:** Xenophobia is fear of strangers. Xenophobia, or fear of strangers, is a broad term that may be applied to any fear of someone who is different from us. Hostility towards outsiders is often a reaction to fear. It typically involves the belief that there is a conflict between an individual's ingroup and an outgroup. Xenophobia often overlaps with forms of prejudice including racism and homophobia, but there are important distinctions. Where racism, homophobia, and other forms of discrimination are based on specific characteristics, xenophobia is usually rooted in the perception that members of the outgroup are foreign to the ingroup community.

**12. A client has been taking flunisolide (Aerobid), two inhalations a day, for treatment of asthma. He tells the nurse that he has painful, white patches in his mouth. Which response by the nurse would be the most appropriate?**

- A. "This is an anticipated side-effect of your medication. It should go away in a couple of weeks."
- B. "You are using your inhaler too much and it has irritated your mouth."
- C. "You have developed a fungal infection from your medication. It will need to be treated with an antifungal."
- D. "Be sure to brush your teeth and floss daily. Good oral hygiene will treat this problem."

**Correct Answer: C. "You have developed a fungal infection from your medication. It will need to be treated with an antifungal."**

Use of oral inhalant corticosteroids, such as flunisolide, can lead to the development of oral thrush, a fungal infection. Oral candidiasis (thrush) is another common complaint among users of inhaled corticosteroids (ICS). This risk increases in elderly patients and patients who are also taking oral steroids, high dose ICS, or antibiotics.

- **Option A:** Once developed, thrush must be treated by antibiotic therapy; it will not resolve on its own. It is advisable to have the patient rinse their mouth out after ICS use to prevent oral candidiasis. Treatments for candidiasis include clotrimazole, miconazole, and nystatin.
- **Option B:** Fungal infections can develop even without overuse of the corticosteroid inhaler. Attention to dosage is required as the amount of Candida increased with dose of fluticasone. Gargling with a 1:50 dilution of amphotericin B is effective in treating oral candidiasis of asthmatic patients treated with inhaled steroids.
- **Option D:** Although good oral hygiene can help prevent the development of a fungal infection, it cannot be used alone to treat the problem. Most cases of oral thrush will clear up in a couple of weeks. In general, a single dose of antifungal medication may be enough to cure the infection.

**13. Which of the following treatments is used for rectal cancer but not for colon cancer?**

- A. Chemotherapy
- B. Colonoscopy
- C. Radiation
- D. Surgical resection

**Correct Answer: C. Radiation**

A client with rectal cancer can expect to have radiation therapy in addition to chemotherapy and surgical resection of the tumor. Radiation therapy isn't usually indicated in colon cancer. Neoadjuvant combined CRT is recommended for locally advanced resectable colon cancer (cT3-4N0-2M0). Adjuvant therapy is strongly suggested for all pathological T3 and/or N positive tumors.

- **Option A:** Palliative systemic chemotherapy is offered to non-surgical candidates with unresectable locally advanced disease or high metastatic burden to improve quality of life and prolongs life expectancy. Rectal cancer has strong recommendations for neoadjuvant therapy for stage II (T3 or T4 node-negative) and III (node-positive), although the best regimen has not been established.



- **Option B:** A colonoscopy is performed to diagnose the disease. The initial evaluation may involve barium enema or computed tomography (CT) colonography, but endoscopy is ultimately required for tissue biopsy. Flexible sigmoidoscopy is no replacement for a complete diagnostic colonoscopy; still, it is a screening modality that reduces CRC mortality.
- **Option D:** Endoscopic resection (ER) is reserved for selected candidates with favorable-risk and early-stage (cT1N0M0) found in a completely excised rectal polyp. Upfront Rca surgical resection is appropriate for lesions that do not invade the muscularis propria and negative lymphatic nodes (cT2N0M0) on appropriate surgical candidates.

**14. The patient who had a stroke needs to be fed. What instruction should you give to the nursing assistant who will feed the patient?**

- A. Position the patient sitting up in bed before you feed her.
- B. Check the patient's gag and swallowing reflexes.
- C. Feed the patient quickly because there are three more waiting.
- D. Suction the patient's secretions between bites of food.

**Correct Answer: A. Position the patient sitting up in bed before you feed her.**

Positioning the patient in a sitting position decreases the risk of aspiration.

- **Option B:** The nursing assistant is not trained to assess gag or swallowing reflexes.
- **Option C:** The patient should not be rushed during feeding.
- **Option D:** A patient who needs to be suctioned between bites of food is not handling secretions and is at risk for aspiration. This patient should be assessed further before feeding.

**15. Blurred vision or halos are signs of:**

- A. Subtherapeutic digoxin levels.
- B. Digoxin toxicity.
- C. Nothing related to digoxin.
- D. Corneal side effects of digoxin.

**Correct Answer: B. Digoxin toxicity.**

Halos is a hallmark sign of digoxin toxicity. Digoxin exhibits its therapeutic and toxic effects by poisoning the sodium-potassium ATPase. The subsequent increase in intracellular sodium leads to increased intracellular calcium by decreasing calcium expulsion through the sodium-calcium, cation exchanger. A, C and D are incorrect because subtherapeutic digoxin levels have no such effects.

- **Option A:** Digoxin's therapeutic half-life is between 30 to 40 hours, but this may change in overdose. Digoxin excretion is primarily renal, and for this reason, patients with poor or worsening renal function, such as patients who are elderly or have CKD, are more likely to develop toxicity.
- **Option C:** Digoxin levels start to plateau at 6 hours, which is after tissue redistribution has occurred; earlier levels may thus be misleadingly high. Cardiovascular toxicity may have delayed manifestation of up to 8 to 12 hours post-ingestion.

- **Option D:** Visual side effects might include color changes, also known as xanthopsia. But yellow or green-tinted vision is usually associated with digoxin toxicity. Patients may also highlight blurry vision or photopsia.

**16. The nursing theorist who developed transcultural nursing theory is**

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

**Correct Answer: B. Madeleine Leininger**

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

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

**17. An elderly client is hospitalized for transurethral resection of the prostate (TURP). Which finding postoperatively should be reported to the doctor immediately?**

- A. Hourly urinary output of 40–50 cc
- B. Bright red urine output with many clots
- C. Dark red urine output with few clots
- D. Requests for pain med q 4 hrs.

**Correct Answer: B. Bright red urine with many clots**

- **Option B:** Transurethral resection of the prostate (TURP) is a surgical procedure that involves the removal of a section of the prostate. It is indicated for people with an enlarged prostate. After the procedure, a urinary catheter with continuous bladder irrigation is done to remove and prevent

blood clots in the bladder. Bright red bleeding with many clots may indicate the need to increase the rate of irrigation infusion per physician's order.

- Option A: A urine output measuring 40-50 cc is within normal limits.
- Option C: Dark red urine with few clots is normal for a few days after surgery.
- Option D: This does not indicate an excessive need for pain management that requires the doctor's attention.

**18. Alexandra is tasked to organize the new wing of the hospital. She was given the authority to do as she deems fit. She is aware that the director of nursing has substantial trust and confidence in her capabilities, communicates through downward and upward channels, and usually uses the ideas and opinions of her staff. Which of the following is her style of management?**

- A. Benevolent –authoritative
- B. Consultative
- C. Exploitive-authoritative
- D. Participative

**Correct Answer: B. Consultative**

A consultative manager is almost like a participative manager. The participative manager has complete trust and confidence in the subordinates, always uses the opinions and ideas of subordinates, and communicates in all directions. Consultative leadership is a leadership style that targets team building and uses the skills of others to create plans and make decisions. Leaders consult with their team to obtain their suggestions and opinions to help them make informed and strategic decisions.

- **Option A:** In the benevolent-autocratic leadership style, the manager has condescending confidence and trust in subordinates, motivates with rewards and some punishments, permits some upward communication, solicits some ideas and opinions from subordinates, and allows some delegation of decision making but with close policy control.
- **Option C:** In the exploitive-authoritative leadership style, the manager has no confidence or trust in subordinates. Subordinates feel no freedom to discuss things about the job with their superiors. In solving job problems, the manager seldom gets the ideas and opinions of subordinates.
- **Option D:** Participative leadership is a style of leadership in which all members of the organization work together to make decisions. Participative leadership is also known as democratic leadership, as everyone is encouraged to participate. The participative leadership decision-making process can take many forms, but the key element is collective input from all members of the organization.

**19. The following are signs and symptoms of fetal distress EXCEPT:**

- A. Fetal heart rate (FHR) decreases during a contraction and persists even after the uterine contraction ends.
- B. The FHR is less than 120 bpm or over 160 bpm.
- C. The pre-contraction FHR is 130 bpm, FHR during contraction is 118 bpm, and FHR after uterine contraction is 126 bpm.

D. FHR is 160 bpm, weak and irregular.

**Correct Answer: C. The pre-contraction FHR is 130 bpm, FHR during contraction is 118 bpm, and FHR after uterine contraction is 126 bpm.**

The normal range of FHR is 120-160 bpm, strong and regular. During a contraction, the FHR usually goes down but must return to its pre-contraction rate after the contraction ends.

- **Option A:** Usually, doctors identify fetal distress based on an abnormal heart rate pattern in the fetus. Throughout labor, the fetus's heart rate is monitored. It is usually monitored continuously with electronic fetal heart monitoring. Or a handheld Doppler ultrasound device may be used to check the heart rate every 15 minutes during early labor and after each contraction during late labor.
- **Option B:** Contractions that are too strong and/or too close together may cause fetal distress. If oxytocin was used to stimulate contractions, it is stopped immediately. The woman may be repositioned and given analgesics. If no drug was used to stimulate contractions, the woman may be given a drug that can slow labor (such as terbutaline, given by injection) to stop or slow the contractions.
- **Option D:** Fetal rhythm abnormalities, which include fetal heart rates that are irregular, too fast or too slow, occur in up to 2% of pregnancies and account for 10–20% of the referrals to fetal cardiologists.

**20. The patient with migraine headaches has a seizure. After the seizure, which action can you delegate to the nursing assistant?**

- A. Document the seizure
- B. Perform neurologic checks
- C. Take the patient's vital signs
- D. Restrain the patient for protection

**Correct Answer: C. Take the patient's vital signs.**

Taking vital signs is within the education and scope of practice for a nursing assistant.

- **Option A:** Documentation is one of the nursing responsibilities.
- **Option B:** The nurse should perform neurologic checks.
- **Option D:** Patients with seizures should not be restrained; however, the nurse may guide the patient's movements as necessary. Focus: Delegation/supervision

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

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

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

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

- **Option A:** Asymptomatic patients with non-sustained ventricular tachycardia (VT) and no underlying cardiac comorbidities require no additional therapy. Patients that are symptomatic and without cardiac comorbidities should be started on a beta-blocker due to favorable efficacy and safety profile.
- **Option C:** If these patients continue to have episodes of non-sustained VT despite beta-blocker therapy, or cannot tolerate beta-blocker therapy, a calcium channel with atrioventricular nodal action such as verapamil or diltiazem can be used.
- **Option D:** Patients with sustained monomorphic ventricular tachycardia (SMVT) that are unstable should be managed following advanced cardiac life support (ACLS) guidelines. Hemodynamically stable patients should be pharmacologically cardioverted using an antiarrhythmic medication. Intravenous amiodarone or procainamide can be used for this purpose.

**22. An 8-year-old is admitted with a sore throat, drooling, muffled phonation, high pitched-sound upon breathing (stridor), and a temperature of 102°F. The nurse should immediately notify the doctor because the child's symptoms are suggestive of:**

- A. Primary Ciliary Dyskinesia
- B. Subglottic hemangioma
- C. Sinusitis
- D. Epiglottitis

**Correct Answer: D. Epiglottitis**

- Option D: The child's symptoms are consistent with those of epiglottitis, an infection of the upper airway that can result in total airway obstruction.
- Option A: Primary ciliary dyskinesia is a rare lung disease that is caused by a defect in cilia (hair-like projections that are responsible for expelling foreign materials such as mucous) resulting in respiratory problems such as excessive mucus, chronic wheezing, cough, and nasal congestion.
- Option B: Subglottic hemangioma is the formation of large masses in the airway causing airway obstructions. Typically symptoms include croup-like cough, difficulty breathing, and stridor.
- Option C: Sinusitis is the inflammation of the tissue that lines the sinuses that cause postnasal drip, runny nose, pain, and tenderness around the face, and nasal congestion.

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

***mmHg, and HCO<sub>3</sub> 38 mEq/L. What acid-base disorder is shown?***

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

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

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

***24. A client with diabetes mellitus type I was prescribed with exenatide (Bydureon). The nurse will take which of the following appropriate actions?***

- A. Withdraw the insulin from the prefilled pen into an insulin syringe
- B. Monitor for signs of nausea, vomiting, and gastric upset
- C. Administer the medication twice a day during pre-meals
- D. Hold the medication and call the physician to question the prescription

**Correct Answer: D. Hold the medication and call the physician to question the prescription**

Exenatide (Bydureon) is only used to treat diabetes mellitus type 2 only. Therefore, holding the medication and calling the physician to question the order.

- **Option A:** Prefilled pens are ready for injection.
- **Options B & C:** Although these are correct about the medication, it should not be administered in this kind of situation.

***25. A child newly diagnosed with diabetes mellitus has been stabilized with insulin injections daily. A nurse prepares a discharge teaching plan regarding the insulin. The teaching plan should reinforce which of the following concepts?***

- A. Always keep insulin vials refrigerated
- B. Increase the amount of insulin before exercise
- C. Ketones in the urine signify a need for less insulin
- D. Systematically rotate injection sites

**Correct Answer: D. Systematically rotate injection sites.**

It is necessary to rotate injection sites because injecting in the same place much of the time can cause hard lumps or extra fat deposits to develop. Insulin delivery is by multiple daily injections (MDI) or an insulin pump to simulate endogenous insulin physiology. Multiple daily injections include basal insulin once or twice daily, and bolus insulin typically is given at meals three or more times daily and is based on carbohydrate content and current blood glucose.

- **Option A:** All insulins are sensitive to temperatures that are too high or too low. Store all the supplies received in the refrigerator. Once a vial is opened, keep it stored in the fridge or at room temperature. Be aware that injecting refrigerated insulin may be painful. Inspect your insulin before each use. Look for changes in color or clarity. Look for clumps, solid white particles, or crystals in the bottle or pen. Insulin that is clear should always be clear and never look cloudy.
- **Option B:** Daily exercise for 60 mins is recommended; check blood glucose before and after exercise to detect hypoglycemia and hyperglycemia. An exercise specialist should teach the child what exercises may be beneficial.
- **Option C:** Monitor for ketones when the child is ill or has an infection. Insufficient insulin and/or poor oral intake may lead to the development of ketosis. If not recognized and treated appropriately, ketoacid increases and causes acidosis which if severe may require hospitalization.

**26. At Joyful Steps Pediatric Center, Nurse Adrian is preparing for the post-operative care of little Isabelle, an 18-month-old who is soon to undergo surgery for her cleft palate repair. The child's parents, both visibly anxious, have been asking multiple questions about the postoperative period. They express their concerns about ensuring Isabelle doesn't hurt herself or disrupt the surgical site. Having assisted in many such surgeries, Nurse Adrian is familiar with the measures to ensure safety and minimize trauma to the operative site, including the use of certain restraints. He gathers the appropriate materials and is prepared to educate the parents on their application and purpose. Considering Isabelle's upcoming cleft palate repair, which type of restraints are typically used post-operatively to ensure the safety and integrity of the surgical site?**

- A. Elbow restraints
- B. Full arm restraints
- C. Wrist restraints
- D. Mummy restraints
- E. Soft mittens
- F. Leg restraints

**Correct Answer: A. Elbow restraints**

These are the most commonly used restraints after cleft palate repair. By preventing full extension of the elbow, these restraints deter the child from touching or disturbing the surgical site with their hands, while still allowing for some arm movement.

- **Option B:** Full arm restraints: These would be overly restrictive and are not typically used for children post cleft palate surgery. The goal is to prevent the child from reaching their mouth, which elbow restraints adequately address.
- **Option C:** Wrist restraints: These restraints are not ideal as they may not effectively prevent the child from reaching up to the surgical site.
- **Option D:** Mummy restraints: These are used for specific procedures where more restrictive immobilization is necessary, but they are not typically used post cleft palate surgery as they are overly restrictive.

- **Option E:** Soft mittens: While these might prevent direct trauma from the fingers, they don't prevent the child from reaching and potentially harming the surgical site. They are not as effective as elbow restraints.
- **Option F:** Leg restraints: These are not relevant to the care for post cleft palate surgery and wouldn't prevent the child from reaching the surgical area.

**27. A patient unable to tolerate oral medications may be prescribed which of the following proton pump inhibitors to be administered intravenously?**

- A. lansoprazole (Prevacid)
- B. omeprazole (Prilosec)
- C. pantoprazole (Protonix)
- D. esomeprazole (Nexium)

**Correct Answer: C. pantoprazole (Protonix)**

Pantoprazole is the only proton pump inhibitor that is available for intravenous administration. For erosive esophagitis associated with gastroesophageal reflux disease, pantoprazole administration can be oral or intravenous. For Zollinger-Ellison syndrome, pantoprazole administration can also be oral or intravenous. Intravenously, the recommendation is to administer 80 mg of pantoprazole every 12 hours. The other medications in this category may only be administered orally.

- **Option A:** As proton pumps recycle periodically in the stomach, it may take a few days for PPIs to achieve a full effect – and of note, their duration of action is slower than some other medications that affect acid production, such as histamine-receptor blockers. These medications are best administered before food intake as proton pumps become activated during meals, and administration of PPIs prior to food intake will enhance the drug's efficacy.
- **Option B:** Omeprazole should be ingested 30 to 60 minutes before meals. It may be taken with antacids. When taken twice daily, the first dose should be before breakfast and the second dose before dinner. The capsule and tablet should be swallowed whole, not crushed or chewed. However, it is permissible to open the capsule and mix the contents with one tablespoon of applesauce, soft enough to be swallowed without chewing.
- **Option D:** Most practitioners recommend that the patient take the PPI first thing in the morning when taken once daily. If twice-daily dosing is employed, then a second dose is usually added approximately 30 minutes before dinner. For some select patients with nighttime predominance of symptoms, the timing of once-daily administration may change to 30 minutes pre-dinner.

**28. A 38-year-old female patient with a diagnosis of hyperthyroidism is scheduled to receive Lugol's iodine solution as a preoperative preparation before undergoing a subtotal thyroidectomy. The patient experiences symptoms including rapid heart rate, weight loss, and anxiety. The nurse is preparing to administer the medication and educates the patient on its purpose. What is the primary reason for administering Lugol's iodine solution to this patient?**

- A. Decrease the total basal metabolic rate.
- B. Maintain the function of the parathyroid glands.



- C. Block the formation of thyroxine by the thyroid gland.
- D. Decrease the size and vascularity of the thyroid gland.
- E. Prevent postoperative hypocalcemia.
- F. Stabilize the patient's heart rate.

**Correct Answer: D. Decrease the size and vascularity of the thyroid gland.**

Lugol's solution provides iodine, which aids in decreasing the vascularity of the thyroid gland, which limits the risk of hemorrhage when surgery is performed.

**29. Which criterion is needed for someone to give consent to a procedure?**

- A. An appointed guardianship
- B. Unemancipated minor
- C. Minimum of 21 years or older
- D. An advocate for a child

**Correct Answer: A. An appointed guardianship**

A guardian has been appointed by a court and has full legal rights to choose management of care. A situation may arise in which a patient cannot make decisions independently but has not designated a decision-maker. In this instance, the hierarchy of decision-makers, which is determined by each state's laws, must be sought to determine the next legal surrogate decision-maker. If this is unsuccessful, a legal guardian may need to be appointed by the court.

- **Option B:** An exception to this rule is a legally emancipated child who may provide informed consent for himself. Some, but not all, examples of an emancipated minor include minors who are (1) under 18 and married, (2) serving in the military, (3) able to prove financial independence, or (4) mothers of children (married or not).
- **Option C:** Children (typically under 17) cannot provide informed consent. As such, parents must permit treatments or interventions. In this case, it is not termed "informed consent" but "informed permission." Legislation regarding minors and informed consent is state-based as well. It is important to understand the state laws.
- **Option D:** An advocate for the child is not legally appointed by the court. Several exceptions to the requirement for informed consent include (1) the patient is incapacitated, (2) life-threatening emergencies with inadequate time to obtain consent, and (3) voluntary waived consent. If the patient's ability to make decisions is questioned or unclear, an evaluation by a psychiatrist to determine competency may be requested.

**30. The nurse is teaching a group of clients about the mood-stabilizing medications lithium carbonate. Which medications should she instruct the clients to avoid because of the increased risk of lithium toxicity?**

- A. Antacids
- B. Antibiotics
- C. Diuretics
- D. Hypoglycemic agents

**Correct Answer: C. Diuretics**

The use of diuretics would cause sodium and water excretion, which would increase the risk of lithium toxicity. Clients taking lithium carbonate should be taught to increase their fluid intake and to maintain normal intake of sodium. Treatment for lithium toxicity is primarily hydration and to stop the drug. Give hydration with normal saline, which will also enhance lithium excretion. Avoid all diuretics. If the patient has severe renal dysfunction or failure, or severely altered mental status, then start with hemodialysis. 20 to 30 mg of propranolol given 2 to 3 times per day may help reduce tremors.

- **Option A:** Antacids are a combination of various compounds with various salts of calcium, magnesium, and aluminum as the active ingredients. The antacids act by neutralizing the acid in the stomach and by inhibiting pepsin, which is a proteolytic enzyme. Each of these cationic salts has a characteristic pharmacological property that determines its clinical use.
- **Option B:** The pharmacology behind antibiotics includes destroying the bacterial cell by either preventing cell reproduction or changing a necessary cellular function or process within the cell. Antimicrobial agents are classically grouped into 2 main categories based on their in vitro effect on bacteria: bactericidal and bacteriostatic.
- **Option D:** FDA approved indications for the use of oral hypoglycemic drugs include type 2 diabetes mellitus. Non-FDA approved indications of oral hypoglycemic drugs, such as metformin, are for the prevention of type 2 diabetes mellitus, treatment of gestational diabetes mellitus, treatment of polycystic ovary syndrome (PCOS) with menstrual irregularities, and prevention of ovarian hyperstimulation syndrome in PCOS patients undergoing intracytoplasmic sperm injection (ICSI) or in vitro fertilization (IVF), and management of antipsychotic-induced weight gain.

**31. He opts to use a self-report method. Which of the following is not true about this method?**

- A. Most direct means of gathering information.
- B. Versatile in terms of content coverage.
- C. Most accurate and valid method of data gathering.
- D. Yields information that would be difficult to gather by another method.

**Correct Answer: C. Most accurate and valid method of data gathering.**

The most serious disadvantage of this method is the accuracy and validity of the information gathered. Self-reporting is a common approach for gathering data in epidemiologic and medical research. This method requires participants to respond to the researcher's questions without his/her interference.

- **Option A:** In general, they are inexpensive and simple to administer, making it possible to collect a broad amount of data in a short time. Today, the possibility of online surveys has made data collection even easier.
- **Option B:** Another important consideration is the relevance of the questions for the specific participants of the survey. If the participant finds the topic interesting and relevant, they are more motivated to respond and complete all the questions.
- **Option D:** In addition, the results can be automatically collected, reducing the risk of errors occurring with manual registration processes. Further, the results are not dependent on an interviewer's interpretation of behavior, which may influence the results from a clinical interview.

**32. Which of the following treatment is appropriate when there is a benzodiazepine overdose. Select all that apply.**

- A. Administration of syrup of ipecac.
- B. Gastric lavage
- C. Activated charcoal and a saline cathartic.
- D. Hemodialysis
- E. Administration of Flumazenil.

**Correct Answers: B, C, and E**

If ingestion is recent, decontamination of the GI system is indicated. Due to their many uses and addictive properties, benzodiazepines have been widely prescribed and abused since their development several decades ago. Today, there are over 50 different agents available on the worldwide market, and the high incidence of benzodiazepine overdose mirrors their widespread use and availability.

- **Option A:** The administration of syrup of ipecac is contraindicated because of aspiration risks related to sedation. Ipecac syrup is not recommended for home use because of the fear of emesis after the onset of respiratory depression.
- **Option B:** Gastric lavage is generally the best and most effective means of gastric decontamination. Initiate gastric lavage for clinically significant recent ingestions (ie, within 30 minutes). Ensure/monitor airway patency/protective reflexes during the above treatment.
- **Option C:** Activated charcoal and a saline cathartic may be administered to remove any remaining drug. Single-dose activated charcoal is not routinely recommended, as the risks far outweigh the benefits. BZD is very rarely fatal in overdoses, and the altered mental status from BZD overdose greatly increases the risk of aspiration following oral charcoal dosing.
- **Option D:** Hemodialysis is not useful in the treatment of benzodiazepine overdose. The mainstay treatment for acute benzodiazepine toxicity is supportive care, which may include endotracheal intubation to provide definitive airway management. Single-dose or multi-dose activated charcoal, hemodialysis, or whole bowel irrigation play no role in managing benzodiazepine toxicity.
- **Option E:** Flumazenil can be used to acutely reverse the sedative effects of benzodiazepines, though this is normally done only in cases of extreme overdose or sedation. Flumazenil is a nonspecific competitive antagonist at the benzodiazepine receptor that can reverse benzodiazepine-induced sedation.

**33. Which is the correct procedure for collecting a sputum specimen for culture and sensitivity testing?**

- A. Have the patient place the specimen in a container and enclose the container in a plastic bag.
- B. Have the patient expectorate the sputum while the nurse holds the container.
- C. Have the patient expectorate the sputum into a sterile container.
- D. Offer the patient an antiseptic mouthwash just before he expectorate the sputum.

**Correct Answer: C. Have the patient expectorate the sputum into a sterile container**

Placing the specimen in a sterile container ensures that it will not become contaminated. A sputum specimen is obtained for culture to identify the microorganism responsible for lung infections; identify cancer cells shed by lung tumors; or aid in the diagnosis and management of occupational lung diseases. The other answers are incorrect because they do not mention sterility and because antiseptic mouthwash could destroy the organism to be cultured (before sputum collection, the patient may use only tap water for nursing the mouth).

- **Option A:** Using the sterile collection container provided, instruct the patient to take three deep breaths, then force a deep cough and expectorate into a sterile screw-top container. To prevent contamination by particles in the air, keep the container closed until the patient is ready to spit into it.
- **Option B:** Ten to 15 ml of sputum is typically needed for laboratory analysis. A specimen will be rejected by the laboratory if it contains excessive numbers of epithelial cells from the mouth or throat or if it fails to show adequate numbers of neutrophils on gram staining. If the patient cannot cough up a specimen, the respiratory therapist can use sputum induction techniques such as heated aerosol (nebulization), followed in some instances by postural drainage and percussion.
- **Option D:** Don't allow the patient to brush his teeth or use mouthwash. Doing so could kill bacteria in the sputum, rendering it useless. For best results, obtain the sample first thing in the morning. If it can't be obtained before the patient has breakfast, though, wait at least an hour after he's eaten before trying. Before beginning, describe the procedure to him.

**34. A client is prescribed by the physician to undergo an escharotomy. Which of the following statements made by the nurse is true regarding this procedure?**

- A. "It is the surgical removal of a thin layer of the client's own unburned skin."
- B. "A lengthwise incision is made through the burn eschar to relieve vasodilation."
- C. "It is performed at the bedside and without anesthesia."
- D. "It is the application of topical enzyme agents directly to the wound, and these agents digest necrotic collagen tissue."

**Correct Answer: C. "It is performed at the bedside and without anesthesia".**

An escharotomy is performed at the bedside and without anesthesia since nerve endings have been destroyed by the burn injury. An escharotomy is an emergency surgical procedure involving incising through areas of burnt skin to release the eschar and its constrictive effects, restore distal circulation, and allow adequate ventilation.

- **Option A:** A skin graft, also known as an autograft, involves taking skin from an unburned part of the patient's body and placing it on the wound after the burn has been removed.
- **Option B:** Escharotomy involves making a lengthwise incision through the burn eschar to relieve vasoconstriction. The incisions should extend from unburnt skin to unburnt skin ideally, or at least into areas of more superficial burns, down to subcutaneous fat, and release any constrictions.
- **Option D:** This is a selective method for debridement of necrotic tissue using an exogenous proteolytic enzyme, collagenase, to debride Clostridium bacteria. Collagenase digests the collagen in the necrotic tissue allowing it to detach.

**35. A 35-year-old female patient presents to the clinic with fatigue, pallor, and shortness of breath on exertion. Laboratory tests reveal a decreased**

**hemoglobin level, indicating anemia. The physician explains to the patient that a specific component of the musculoskeletal system plays a crucial role in the production of red blood cells. Which of the following components is responsible for this function?**

- A. Bones
- B. Muscles
- C. Ligaments
- D. Tendons

**Correct Answer: A. Bones**

Bones, as part of the musculoskeletal system, contribute to the production of red blood cells due to their unique capability of hosting bone marrow, where red blood cell formation takes place. This function of bones ensures a consistent supply of oxygen-transporting cells in the body.

- **Option B:** Muscles are not primarily responsible for producing red blood cells because their primary function is generating force and facilitating movement, rather than hematopoiesis.
- **Option C:** Ligaments, unlike bones, do not participate in the production of red blood cells because their main role is to connect bones to other bones, providing stability and limiting excessive joint movement.
- **Option D:** Tendons, in contrast to bones, do not have a role in producing red blood cells as their primary function is to attach muscles to bones, enabling the transmission of muscular force to move the skeletal system.

**36. A client with a history of chest pain is admitted to irritable bowel syndrome. As a nurse, which of the following medicines will you least expect to be a part of the medical management?**

- A. alosetron (Lotronex)
- B. tegaserod (Zelnorm)
- C. lubiprostone (Amitiza)
- D. loperamide (Imodium)

**Correct Answer: B. Tegaserod (Zelnorm).**

The use of tegaserod is restricted to patients with IBS due to the serious cardiovascular adverse effect that may happen such as heart attack and stroke.

- **Option A:** Alosetron (Lotronex) is a selective 5-HT<sub>3</sub> receptor antagonist used specifically for women with irritable bowel syndromes.
- **Option B:** Tegaserod (Zelnorm) is a serotonin type 4 receptor partial agonist used for women below 65 years old who have irritable bowel syndrome with constipation.
- **Option C:** Lubiprostone (Amitiza) is a chloride channel activator used to treat irritable bowel syndrome with constipation among women 18 years of age and older.

**37. Which type of diabetes mellitus (DM) most likely results from heterogenous risk factors, making it preventable?**

- A. Type 1
- B. Type 2
- C. Type 1 and 2
- D. Gestational diabetes

**Correct Answer: B. Type 2**

Type 2 DM is a complex disorder of various causes with social, behavioral, and environmental risk factors. The disorder may be prevented by encouraging lifestyle modification for children at risk. Hyperglycemia results when there is a relative lack of insulin compared to glucose in the blood. In type 2 diabetes mellitus, insulin resistance first leads to increased insulin production by the beta cells of the pancreas. When the beta cells are unable to produce enough insulin to maintain euglycemia, hyperglycemia results.

- **Option A:** Type 1 diabetes is an autoimmune condition that leads to the destruction of pancreatic beta cells which in turn causes insufficient insulin production, resulting in hyperglycemia. Both genetic and environmental contributions lead to immune-mediated loss of beta-cell function resulting in hyperglycemia and life-long insulin dependence.
- **Option C:** With insulin replacement, type 1 diabetes is a chronic disease requiring intensive effort on the part of the person with diabetes and caregivers. There is an emphasis on reducing hyperglycemia while minimizing the risk of hypoglycemia. The complex balance of glucose is affected by food, insulin doses, body stresses, exercise, and dozens of other factors.
- **Option D:** Gestational diabetes etiology is apparently related to 1) the pancreatic beta-cell dysfunction or the delayed response of the beta cells to the glycemic levels, and 2) the marked insulin resistance secondary to placental hormonal release. The human placental lactogen is the main hormone related to increased insulin resistance in GDM.

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

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

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

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

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

**39. A client has a positive reaction to the PPD test. The nurse correctly interprets this reaction to mean that the client has:**

- A. Active TB
- B. Had contact with *Mycobacterium tuberculosis*.
- C. Developed a resistance to tubercle bacilli.
- D. Developed passive immunity to TB.

**Correct Answer: B. Had contact with *Mycobacterium tuberculosis*.**

A positive PPD test indicates that the client has been exposed to tubercle bacilli. Exposure does not necessarily mean that active disease exists. If the infection risk is very high, the PPD test need not be repeated. The positive PPD test is usually followed by TB symptom assessment, physical exam, and chest radiograph. If there are no TB symptoms and no evidence of active tuberculosis infection on physical exam and chest radiograph, the patient most likely has latent TB. The treatment of latent TB should be encouraged once detected.

- **Option A:** A person with active infection usually presents with symptoms of the part affected and constitutional symptoms such as unexplained weight loss, fever, fatigue, loss of appetite, and night sweats. The latent TB, however, is asymptomatic and non-infectious. Early diagnosis of active TB is crucial to managing the disease in time and preventing its spread. The latent TB infection is non-infectious and asymptomatic, with a significant worldwide prevalence (33%).
- **Option C:** The benefit to the PPD test is the rapid identification of the presence of TB infection and, thus, the rapid diagnosis of TB. Although sometimes the infection may not be active, the detection of latent TB allows for treatment and decreases the risk of progression to active TB. It is a very simple and inexpensive skin test (not routinely recommended).
- **Option D:** Some individual's ability to react to tuberculin antigen wanes over time, which results in a false-negative reaction. In individuals with very old tuberculosis infection (many years), sensitization to tuberculin is weak, and the PPD test may be a false negative. However, if a subsequent test is administered, the tuberculin PPD may stimulate the immune system.

**40. While monitoring a male client several hours after a motor vehicle accident, which assessment data suggest increasing intracranial pressure?**

- A. Blood pressure has decreased from 160/90 to 110/70.

- B. Pulse is increased from 87 to 95, with an occasional skipped beat.
- C. The client is oriented when aroused from sleep and goes back to sleep immediately.
- D. The client refuses dinner because of anorexia.

**Correct Answer: C. The client is oriented when aroused from sleep and goes back to sleep immediately.**

This finding suggests that the level of consciousness is decreasing.

- **Option A:** A blood pressure level of 110/70 mmHg is within normal limits. Increased intracranial pressure is caused by an increase in blood pressure.
- **Option B:** A pulse rate of 95 bpm is within the normal range. When arterial blood pressure exceeds the intracranial pressure, blood flow to the brain is restored. The increased arterial blood pressure caused by the CNS ischemic response stimulates the baroreceptors in the carotid bodies, thus slowing the heart rate drastically often to the point of bradycardia.
- **Option D:** Anorexia is not related to increased intracranial pressure. Anorexia is an eating disorder characterized by abnormally low body weight, an intense fear of gaining weight, and a distorted perception of weight.

**41. The nurse prepares to administer buccal medication. The medicine should be placed in what area?**

- A. On the client's skin.
- B. Between the client's cheeks and gums.
- C. Under the client's tongue.
- D. On the client's conjunctiva.

**Correct Answer: B. Between the client's cheeks and gums**

Buccal administration involves placing a drug between the gums and cheek, where it also dissolves and is absorbed into the blood. Because the medication absorbs quickly, these types of administration can be important during emergencies when you need the drug to work right away, such as during a heart attack.

- **Option A:** An advantage of a transdermal drug delivery route over other types of medication delivery such as oral, topical, intravenous, intramuscular, etc. is that the patch provides a controlled release of the medication into the patient, usually through either a porous membrane covering a reservoir of medication or through body heat melting thin layers of medication embedded in the adhesive.
- **Option C:** Sublingual administration involves placing a drug under the tongue to dissolve and absorb into the blood through the tissue there. These drugs do not go through the digestive system, so they aren't metabolized through the liver. This means you may be able to take a lower dose and still get the same results.
- **Option D:** The three primary methods of delivery of ocular medications to the eye are topical, local ocular (ie, subconjunctival, intravitreal, retrobulbar, intracameral), and systemic. The most appropriate method of administration depends on the area of the eye to be medicated. The conjunctiva, cornea, anterior chamber, and iris usually respond well to topical therapy. The eyelids can be treated with topical therapy but more frequently require systemic therapy. The posterior segment always requires systemic therapy, because most topical medications do not penetrate to



the posterior segment. Retrobulbar and orbital tissues are treated systemically.

**42. A nurse is caring for a client who has a tracheostomy. Which of the following actions should the nurse take each time he provides tracheostomy care? Select all that apply.**

- A. Apply the oxygen source loosely if the SPO2 increases during the procedure.
- B. Use surgical asepsis to remove and clean the inner cannula.
- C. Clean the outer surfaces in a circular motion from the stoma site outward.
- D. Replace the tracheostomy ties with new ties.
- E. Cut a slit in gauze squares to place beneath the tube holder.

**Correct Answer: A, B, & C**

A tracheostomy is an opening (made by an incision) through the neck into the trachea (windpipe). A tracheostomy opens the airway and aids breathing. A tracheostomy may be required in an emergent setting to bypass an obstructed airway, or (more commonly) may be placed electively to facilitate mechanical ventilation, to wean from a ventilator, or to allow more efficient management of secretions (referred to as pulmonary toilet), among other reasons.

- **Option A:** The nurse must be prepared to provide supplemental oxygen in response to any decline in oxygenation saturation while performing tracheostomy care. Nurses need to understand all aspects of tracheostomy care, including routine and emergency airway management, safe decannulation, weaning and safe discharge into the community. The patient's airway requires close monitoring 24 hours a day using a tracheostomy care chart to record care.
- **Option B:** The nurse should use a sterile disposable tracheostomy cleaning kit or sterile supplies and maintain surgical asepsis throughout this part of the procedure. The NTSP (2013) recommends that all patients with a tracheostomy have a bed-head label with information regarding their tube and airway, including whether it is surgical or percutaneous, the tube type, size and suction-catheter size, patency of the upper airway and whether the tracheostomy is temporary, permanent or involves a laryngectomy (removal of the larynx).
- **Option C:** This action helps move mucus and contaminated material away from the stoma for easy removal. The stoma site should be checked at least once a day, or more frequently if required, and this requires two nurses: one to hold the tube and one to clean the stoma site. The site should be cleaned using a tracheostomy wipe or with 0.9% sodium chloride solution, and dried thoroughly.
- **Option D:** To help keep the skin clean and dry, the nurse should replace the tracheostomy ties if they are wet or soiled. There is a risk of two dislodgements replacing the ties, so he should not replace them routinely. Leaving the old ties in place while securing the clean ties prevents inadvertent dislodging of the tracheostomy tube. Securing tapes in this manner avoids the use of knots, which can come untied or cause pressure and irritation.
- **Option E:** The nurse should use a commercially prepared tracheostomy dressing with a slit in it. Cutting gauze squares can loosen lint or cause fibers the client could aspirate. Use a commercially prepared tracheostomy dressing of non-raveling material or open and refold a 4-in. X 4-in. Gauze dressing into a V shape. Avoid using cotton-filled gauze squares or cutting the 4x4 gauze. Cotton lint or gauze fibers can be aspirated by the client, potentially creating a tracheal abscess.

**43. Some institutions will not infuse a fat emulsion, such as Intralipid, into central venous access devices (CVAD) because:**

- A. Lipid residue may accumulate in the CVAD and occlude the catheter.
- B. If the catheter clogs, there is no treatment other than removal and replacement.
- C. Lipids are necessary only in the most extreme cases to prevent essential fatty acid (EFA) deficiency
- D. Fat emulsions are very caustic.

**Correct Answer: A. Lipid residue may accumulate in the CVAD and occlude the catheter.**

Occlusion occurs with slow infusion rates and concurrent administration of some medications. A deficiency can quickly develop. Daily essential fatty acids are necessary for constant prostaglandin production. The management of an occluded central line is challenging as the cause of the occlusion is often not known. Most blockages are caused by fibrin clots, therefore the installation of alteplase should be attempted first if the cause of the occlusion is unknown. A blocked line may be due to the precipitation of poorly soluble components in IV solutions such as calcium or certain drugs.

- **Option B:** Infusion of lipids (fat emulsion) especially with TPN, can result in blockage from a gradually thickening deposit of lipid in the line. In these cases, a 70% ethanol instillation may be helpful. Lipid occlusions may be treated with 70 percent ethanol or with 0.1 mmol/mL NaOH.
- **Option C:** Lipids provide essential fatty acids. It is recommended that approximately 4 percent of daily calories be EFAs. The infusion of lipid emulsions allows a high energy supply, facilitates the prevention of high glucose infusion rates, and is indispensable for the supply of essential fatty acids. The administration of lipid emulsions is recommended within 7 days after starting PN (parenteral nutrition) to avoid deficiency of essential fatty acids.
- **Option D:** Lipids are almost isotonic with blood. Since IV lipids are isotonic and calorically dense, they are a good source of calories for hypermetabolic patients or patients with volume or carbohydrate restrictions. Lipids can provide up to 60% of non-protein calories.

**44. The client asks whether her diet would change on CAPD. Which of the following would be the nurse's best response?**

- A. "Diet restrictions are more rigid with CAPD because standard peritoneal dialysis is a more effective technique."
- B. "Diet restrictions are the same for both CAPD and standard peritoneal dialysis."
- C. "Diet restrictions with CAPD are fewer than with standard peritoneal dialysis because dialysis is constant."
- D. "Diet restrictions with CAPD are fewer than with standard peritoneal dialysis because CAPD works more quickly."

**Correct Answer: C. "Diet restrictions with CAPD are fewer than with standard peritoneal dialysis because dialysis is constant."**

Dietary restrictions with CAPD are fewer than those with standard peritoneal dialysis because dialysis is constant, not intermittent. The constant slow diffusion of CAPD helps prevent accumulation of toxins and allows for a more liberal diet.

- **Option A:** Both types of peritoneal dialysis are effective. CAPD is peritoneal dialysis that can be done manually, without a machine, throughout the day. The patient fills his or her abdomen with

dialysis solution and later drains the fluid. Gravity moves the fluid through the tube and into and out of the belly.

- **Option B:** Exchanges can be done at home, work or any clean place. During CAPD, patients are free to go about their normal activities while the dialysis solution dwells in their abdomen between exchanges.
- **Option D:** CAPD does not work more quickly, but more consistently. Each exchange includes filling the abdomen with dialysate fluid, letting the fluid dwell in the abdomen, and then draining the fluid. Patients may need three to four exchanges during the day and one with a longer dwell time while sleeping.

**45. The client newly diagnosed with chronic renal failure recently has begun hemodialysis. Knowing that the client is at risk for disequilibrium syndrome, the nurse assesses the client during dialysis for:**

- A. Hypertension, tachycardia, and fever.
- B. Hypotension, bradycardia, and hypothermia.
- C. Restlessness, irritability, and generalized weakness.
- D. Headache, deteriorating level of consciousness, and twitching.

**Correct Answer: D. Headache, deteriorating level of consciousness, and twitching.**

Disequilibrium syndrome is characterized by headache, mental confusion, decreasing level of consciousness, nausea, and vomiting, twitching, and possible seizure activity. Disequilibrium syndrome is caused by the rapid removal of solutes from the body during hemodialysis. At the same time, the blood-brain barrier interferes with the efficient removal of wastes from brain tissue. As a result, water goes into cerebral cells because of the osmotic gradient, causing brain swelling and the onset of symptoms. The syndrome most often occurs in clients who are new to dialysis and is prevented by dialyzing for shorter times or at reduced blood flow rates.

- **Option A:** Symptoms are commonly seen in patients with high blood urea nitrogen levels, in patients with chronic kidney disease (CKD) versus acute kidney injury, and with aggressive urea removal after initial dialysis treatment. In severe cases, symptoms can progress to seizure, somnolence, stupor, or coma leading to mortality.
- **Option B:** Some symptoms, such as dizziness and muscle cramps that occur towards the latter part of dialysis, are also considered to be part of DDS. Rarely, DDS can present as increased intraocular pressure. Dialysis disequilibrium syndrome is usually self-limited, with symptoms resolving in a short interval. The prognosis is generally favorable, and dialysis does not need to be stopped in the majority of cases.
- **Option C:** Most cases of DDS can be mild and self-limited, with patients reporting headache, nausea, or blurred vision as well as other CNS symptoms such as restlessness and confusion. These symptoms usually begin soon after the initiation of dialysis and resolve within hours in most cases. The complications of dialysis disequilibrium syndrome include consequences from delay in recognition of the condition and delay in implementing prevention strategies.

**46. He is hopeful that his unit will make a big turnaround in the succeeding months. Which of the following actions of Henry demonstrates that he has reached the third stage of change?**

- A. Wonders why things are not what they used to be.
- B. Finds solutions to the problems.
- C. Integrate the solutions to his day-to-day activities.
- D. Selects the best change strategy.

**Correct Answer: C. Integrate the solutions to his day-to-day activities.**

Integrate the solutions to his day-to-day activities is expected to happen during the third stage of change when the change agent incorporates the selected solutions into his system and begins to create a change. In the third and final stage, freezing, the new mindset of the change begins to become the standard, and people's comfort levels return to normal.

- **Option A:** The first stage (unfreezing) involves overcoming inertia and dismantling the existing mindset. It involves getting over the initial defense mechanisms that people exhibit to avoid making a change. People eventually realize that change is necessary and urgent, and this realization allows them to move on to the next stage.
- **Option B:** In the second stage, the actual change occurs. During this stage, an organization's leaders need to focus on clearly communicating to employees the reasons for change and the steps needed to achieve it.
- **Option D:** The second stage is typically a period of confusion and transition in which people are unsure about the change and what may happen in the future. People are aware that the old ways are being challenged, but they do not yet have a clear picture as to what these ways will be replaced with.

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

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

**Correct Answer: D. Normal intestinal bacteria are destroyed.**

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

- **Option A:** A drug that rendered food indigestible could not be given because it would cause severe malnutrition. Thousands of species of bacteria, yeast, and other microorganisms live on our skin, in our intestines, and on other body surfaces. They're known as our "normal flora." When it is in balance, these microbes stay put and many of them contribute to good health. Bacteria in the gut, for example, help break down food.
- **Option B:** This is incorrect because there is no gastric flora. About one in three people who take antibiotics develop diarrhea. The symptoms usually start on the last day or two of antibiotic therapy, or a day or so after it has ended. The diarrhea is usually mild, with two to four loose stools lasting for a couple days. In most cases, it gets better quickly without treatment. That said, antibiotic-associated diarrhea makes some people very sick. The most severe form, called C.

difficile colitis, can be life-threatening.

- **Option C:** There is no way to add fluid into the intestine. Almost all antibiotics, particularly those that act on anaerobes, can cause diarrhea, but the risk is higher with aminopenicillins, a combination of aminopenicillins and clavulanate, cephalosporins, and clindamycin.<sup>1,4,5</sup> Host factors for antibiotic-associated diarrhea include age over 65, immunosuppression, being in an intensive care unit, and prolonged hospitalization.

**48. Gregory is a 52-year-old man identified as high-risk for diabetes mellitus. Which laboratory test should a nurse anticipate a physician would order for him? Select all that apply.**

- A. Fasting Plasma Glucose (FPG)
- B. Two-hour Oral Glucose Tolerance Test (OGTT)
- C. Glycosylated hemoglobin (HbA1C)
- D. Fingerstick glucose three times daily
- E. Urinalysis and urine culture

**Correct Answer: A & B.**

When an older person is identified as high-risk for diabetes, appropriate testing would include FPG and OGTT. An FPG greater than 140 mg/dL usually indicates diabetes. The OGTT is to determine how the body responds to the ingestion of carbohydrates in a meal.

- **Option A:** Current laboratory recommendations for plasma glucose measurement are to draw fasting blood samples in the morning rather than later in the day, as glucose levels tend to be higher in the morning than in the afternoon.
- **Option B:** The OGTT requires a fasting blood glucose measurement in the morning. After the measurement, the patient receives oral glucose (usually a glucose load of 75g anhydrous glucose dissolved in water) that the patient consumes. The plasma glucose levels are measured again at 1-hour and 2-hours to analyze the glucose level changes.
- **Option C:** HbA1C evaluates long-term glucose control. The hemoglobin A1c (glycated hemoglobin, glycosylated hemoglobin, HbA1c, or A1c) test is used to evaluate a person's level of glucose control. The test shows an average of the blood sugar level over the past 90 days and represents a percentage. The test can also be used to diagnose diabetes.
- **Option D:** A fingerstick glucose three times daily spot-checks blood glucose levels. The use of glucose meters is common in physician offices or by patients to monitor blood glucose levels and establish patterns of glucose fluctuations over time with regular use and recording.
- **Option E:** Urinalysis and urine cultures, in which bacteria from a urine sample are grown in a laboratory, are done to diagnose a urinary tract infection. Urine should be cultured in all men and all patients with diabetes mellitus, who are immunosuppressed, and women who are pregnant. Classic teaching on urine culture sets the gold standard for infected urine at greater than 10 colony forming units (CFU).

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

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

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

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

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

**50. Findings during an endoscopic exam include a cobblestone appearance of the colon in your patient. The findings are characteristic of which disorder?**

- A. Ulcer
- B. Crohn's disease
- C. Chronic gastritis
- D. Ulcerative colitis

**Correct Answer: B. Crohn's disease**

Crohn's disease penetrates the mucosa of the colon through all layers and destroys the colon in patches, which creates a cobblestone appearance. As the inflammation progresses, non-caseating granulomas form involving all layers of the intestinal wall. It can develop into the classic cobblestone mucosal appearances and skip lesions along the length of the intestine sparing areas with normal mucosa.

- **Option A:** In a gastric ulcer, on histopathology, one will see an ulcer base with clear margins that penetrate the muscularis propria and into the submucosa. Inflammatory debris on the epithelial

surface is often present. In the submucosa, one will see fibrosis and thickened blood vessels.

- **Option C:** H. pylori infection's first appearance of gastritis tends to be antral. The inflammation, composing mainly of mononuclear inflammatory cells and plasma cells are superficial and mostly in the upper layers of the mucosa of the corpus (body of the stomach). The chronic inflammation of gastric mucosa is associated with neutrophilic inflammation; the effects are dependent on the cytotoxicity of the H. pylori strain.
- **Option D:** Histologically, the mucosal layer of the colon in a patient with ulcerative colitis includes infiltrates of varying density and composition, depending on the stage of the disease. These infiltrates primarily consist of lymphocytes, plasma cells, and granulocytes, with the latter being more prominent during acute flares of the disease.

**52. To respect a client's personal space and territoriality, the nurse:**

- A. Avoids the use of touch.
- B. Explains nursing care and procedures.
- C. Keeps the curtains pulled around the client's bed.
- D. Stands 8 feet away from the bed, if possible.

**Correct Answer: B. Explains nursing care and procedures**

The respect of territory and personal space represents an ethical and respectful approach to patients, which can permit them to maintain their dignity even under vulnerable conditions, favoring their recovery, as most studies have highlighted. The patients reported that requesting permission to manipulate their body, to examine them, or to perform other care/procedures shows consideration and attention on the part of the professional, which makes the patient feel valued and in control of the situation. This approach may minimize the effects of the invasion and the feeling of being seen as an object.

- **Option A:** The greater perception of territorial invasion is probably due to the fact that patients are somehow prepared for personal invasion in the hospital as they are aware that the approximation by unknown people to perform procedures and to touch their body is part of the treatment. However, territorial invasion is less tolerated since the instinctive drive is stronger, directing the control to personal possessions.
- **Option C:** Touching the patient's possessions without permission, changing the bedside table to a position that cannot be reached, and raising or lowering the window blinds without consulting the patient are attitudes of the nursing staff that cause much discomfort. Healthcare providers need to be more attentive to the patient's space and respect the territoriality established by them, often with their personal objects and possessions.
- **Option D:** In the hospital setting, most procedures and interventions are performed at this distance, the intimate zone, often without due affectivity and permission. Within this context of the cultural and personal use of space, healthcare providers need to know and respect the limits of the physical distance that should be maintained in different situations of interaction with the patient so that both feel comfortable.

**53. The mother of a 2-month-old infant brings the child to the clinic for a well-baby check. She is concerned because she feels only one testis in the scrotal sac. Which of the following statements about the undescended testis is the most accurate?**

- A. Normally, the testes are descended by birth.
- B. The infant will likely require surgical intervention.
- C. The infant probably has only one testis.
- D. Normally, the testes descend by one year of age.

**Correct Answer: D. Normally, the testes descend by one year of age.**

Normally, the testes descend by one year of age. In young infants, it is common for the testes to retract into the inguinal canal when the environment is cold or the cremasteric reflex is stimulated. About 3% of full-term and 30% of premature male infants are born with one or both testicles undescended. Approximately 80% of cryptorchid testes descend by the third month of life. This makes the true incidence around 1%.

- **Option A:** Normally, the testes descend by one year of age. One contributing mechanism for the reduced function of cryptorchid testes is temperature. It is also likely that transient hormone deficiencies may lead to a lack of testicular descent and impair the development of spermatogenic tissue.
- **Option B:** If it does not descend by a year, a full assessment will determine the appropriate treatment. The undescended testicle can usually be palpated in the inguinal canal. In a minority of patients, the missing testicle may be located in the abdomen or be nonexistent.
- **Option C:** It is most likely that both testes are present and will descend by a year. Without surgical correction, an undescended testicle is likely to descend during the first three months of life. If it remains undescended, to reduce risks and minimize infertility, the testis should be brought into the scrotum with an orchiopexy starting at age six months.

**54. The philosophy sometimes called the code of ethics of care suggests that ethical dilemmas can best be solved by attention to:**

- A. Relationships
- B. Ethical principles
- C. Clients
- D. Code of ethics for nurses

**Correct Answer: A. Relationships.**

The ethic of care explores the notion of care as a central activity of human behavior. Those who write about the ethics of care advocate a more female-biased theory that is based on understanding relationships, especially personal narratives.

- **Option B:** Normatively, care ethics seeks to maintain relationships by contextualizing and promoting the well-being of caregivers and care-receivers in a network of social relations. Most often defined as a practice or virtue rather than a theory as such, “care” involves maintaining the world of, and meeting the needs of, yourself and others.
- **Option C:** It builds on the motivation to care for those who are dependent and vulnerable, and it is inspired by both memories of being cared for and the idealizations of self. Following in the sentimental tradition of moral theory, care ethics affirms the importance of caring motivation, emotion, and the body in moral deliberation, as well as reasoning from particulars.



- **Option D:** The Code of Ethics for Nurses developed by the American Nurses Association (ANA) makes explicit the primary goals, values, and obligations of the profession. Nursing encompasses the prevention of illness, the alleviation of suffering, and the protection, promotion, and restoration of health in the care of individuals, families, groups, and communities. Individuals who become nurses are expected not only to adhere to the ideals and moral norms of the profession but also to embrace them as a part of what it means to be a nurse.

**55. Reye's syndrome is a rare and severe illness affecting children and teenagers. Its development has been linked with the use of aspirin and which of the following?**

- A. Meningitis
- B. Encephalitis
- C. Strep throat
- D. Varicella

**Correct Answer: D. Varicella**

Reye's syndrome has been linked with the ingestion of aspirin in children with viral infections like varicella. Epidemiologic studies found a link between the use of salicylate and the development of Reye syndrome. While less than 0.1% of children who took aspirin developed Reye syndrome, more than 80% of children diagnosed with Reye syndrome had taken aspirin in the preceding 3 weeks.

- **Option A:** Reye syndrome is most commonly precipitated by viral pathogens such as influenza A and B as well as varicella. Center for Disease Control and Prevention (CDC) surveillance data between 1980 and 1997 found that cases of Reye syndrome were preceded by influenza infection 73%, varicella infection 21%, and gastroenteritis infections 14% of the time.
- **Option B:** Encephalitis is a component of Reye's syndrome. Features such as lack of viral prodrome, family history of IEM, a family history of unexplained encephalopathy, preexisting neurologic symptoms, and patient age less than one year make the diagnosis of Reye syndrome less likely.
- **Option C:** There is no association between bacterial infections such as strep throat and the development of Reye's syndrome. Serum salicylate concentrations were detectable in 82% of cases. Less commonly associated viral associations are seen with coxsackie, parainfluenza, Epstein-Barr (EBV), cytomegalovirus (CMV), adenovirus, and hepatitis. Bacterial pathogens such as Chlamydia, Bordetella pertussis, Mycoplasma, and Shigella have also been associated with the development of Reye syndrome.

**56. Amphetamines and amphetamine-like compounds are most commonly used for:**

- A. Narcolepsy
- B. Attention deficit disorder
- C. Exogenous obesity
- D. All of the above

**Correct Answer: D. All of the above**

The most common uses of amphetamines and amphetamine-like compounds are narcolepsy, exogenous obesity, and attention deficit disorder. Amphetamine is FDA-approved for the treatment of attention-deficit/hyperactivity disorder (ADHD) and narcolepsy. It has indications as a first-line agent for ADHD in adults and children six years of age and older. Amphetamine is also a second-line agent for the treatment of narcolepsy.

- **Option A:** Patients with narcolepsy generally benefit from divided doses and may require an early afternoon dose to control daytime sleepiness. Dosages usually range from 5 mg to 40 mg daily and should not exceed 60 mg, which is the maximum dose for certain adults.
- **Option B:** The choice of agent for initial therapy is based on cost, patient preference, and concern for abuse. Dextroamphetamine is the only amphetamine medication FDA-approved for use in children younger than six years, but most current guidelines recommend behavioral therapy alone in preschool-aged children with ADHD symptoms.
- **Option C:** Lisdexamfetamine, a long-acting amphetamine medication, is FDA-approved for the treatment of a binge-eating disorder. Lisdexamfetamine may be preferred if there is increased concern for abuse by the patient or a household member, as its chemically-phased release allows for once-daily dosing and may theoretically deter abuse. Lisdexamfetamine is available as capsules or chewable tablets, and typical daily dosages range from 20 mg to 70 mg.

**57. When assessing a lesion diagnosed as malignant melanoma, the nurse in charge most likely expects to note which of the following?**

- A. An irregular shaped lesion
- B. A small papule with a dry, rough scale
- C. A firm, nodular lesion topped with crust
- D. A pearly papule with a central crater and a waxy border

**Correct Answer: A. An irregular shaped lesion**

Melanoma is an irregularly shaped pigmented papule or plaque with a red-, white-, or blue-toned color.

- **Option B:** Actinic keratosis, a premalignant lesion, appears as a small macule or papule with a dry, rough, adherent yellow or brown scale.
- **Option C:** Squamous cell carcinoma is a firm, nodular lesion topped with a crust or a central area of ulceration.
- **Option D:** Basal cell carcinoma appears as a pearly papule with a central crater and rolled waxy border.

**58. A nurse is providing instructions to a client in the first trimester of pregnancy regarding measures to assist in reducing breast tenderness. The nurse tells the client to:**

- A. Avoid wearing a bra.
- B. Wash the nipples and areola area daily with soap and massage the breasts with lotion.
- C. Wear tight-fitting blouses or dresses to provide support.
- D. Wash the breasts with warm water and keep them dry.

**Correct Answer: D. Wash the breasts with warm water and keep them dry.**

The pregnant woman should be instructed to wash the breasts with warm water and keep them dry. Breasts can become sore in early pregnancy for several reasons, but one of the primary causes is changing hormone levels (such as estrogen, progesterone, and prolactin).

- **Option A:** Wearing a supportive bra with wide adjustable straps can decrease breast tenderness. Back closures rather than front closures will give you the ability to adjust as necessary.
- **Option B:** The woman should be instructed to avoid using soap on the nipples and areola area to prevent the drying of tissues.
- **Option C:** Tight-fitting blouses or dresses will cause discomfort. The woman might instinctually do everything she can to avoid allowing anything to touch her breasts. For example, if the seatbelt is uncomfortable, adjust the strap that zigzags across the torso so that it runs between the breasts and not across the top of one of them.

**59. You are preparing to change the linens on the bed of a client who has a draining sacral wound infected by MRSA. Which PPE items will you plan to use. Select all that apply**

- A. N95 respirator
- B. Surgical Mask
- C. Gloves
- D. Goggles
- E. Gown

**Correct Answer: C & E**

A gown and gloves should be used when coming in contact with linens that may be decontaminated by the client's wound secretions.

- **Options A, B, and D:** The other items are not necessary because transmission by splashes, droplets, or airborne means will not occur when the bed is changed.

**60. A client is about to receive metolazone (Zaroxolyn). The nurse in charge understands which of the following laboratory results are related to the administration of the medication?**

- A. Hyperkalemia and hypocalcemia
- B. Hyperkalemia and hypoglycemia
- C. Hypouricemia and hypoglycemia
- D. Hypokalemia and hyperglycemia

**Correct Answer: D. Hypokalemia and hyperglycemia**

Metolazone is a thiazide diuretic that may put the client's risk for hypokalemia, hyperglycemia, hyperlipidemia, hypercalcemia, and hyperuricemia.

**61. During the home visit of a client with dementia, the nurse notes that an adult daughter persistently corrects her father's misperceptions of reality, even when the father becomes upset and anxious. Which intervention should the nurse teach the caregiver?**

- A. Anxiety-reducing measures
- B. Positive reinforcement
- C. Reality orientation techniques
- D. Validation techniques

**Correct Answer: D. Validation techniques**

Validation techniques are useful measures for making emotional connections with a client who can no longer maintain reality orientation. These measures are also helpful in decreasing anxiety. The basic idea behind validation therapy is that people who are in the late stages of life may have unresolved issues that drive their behaviors and emotions. The way caregivers or family members respond to these behaviors and emotions can either make them worse or help resolve them.

- **Option A:** Anxiety-reducing measures and positive reinforcements will also be appropriate, but validation techniques will provide both anxiety reduction and positive reinforcement for the client. Assess a patient's feelings about his behavioral problems, negative feelings about self, ability to communicate, anxiety, depression, and feeling of powerlessness. Determines extent of loneliness and isolation and reasons for it.
- **Option B:** Nonpharmacologic treatments may include a general approach (caregiver education and training in problem-solving, communication and task simplification skills, patient exercise, and/or activity programs), or a targeted approach in which precipitating conditions of a specific behavior are identified and modified (eg, implementing nighttime routines to address sleep disturbances).
- **Option C:** Reality orientation techniques are not useful when the client can no longer maintain reality contact and becomes upset when misperceptions are corrected. Avoid or terminate emotionally charged situations or conversations. Avoid anger and expectation of the patient to remember or follow instructions. Do not expect more than the patient is capable of doing. Catastrophic emotional responses are prompted by task failure when the patient feels expected to perform beyond ability and becomes frustrated and angry. Responding calmly to the patient validates feelings and causes less stress.

**62. A diagnosis of pneumonia is typically achieved by which of the following diagnostic tests?**

- A. ABG analysis
- B. Chest x-ray
- C. Blood cultures
- D. Sputum culture and sensitivity

**Correct Answer: D. Sputum culture and sensitivity**

Sputum C & S is the best way to identify the organism causing the pneumonia. If good quality, sputum evaluation may reveal more than 25 WBC per low-power field and less than 10 squamous epithelial

cells. Some bacterial causes present with specific biochemical evidence, such as Legionella, may present with hyponatremia and microhematuria.

- **Option A:** ABG analysis will determine the extent of hypoxia present due to the pneumonia. An arterial blood gas may reveal hypoxia and respiratory acidosis. Pulse oximetry of less than 92% indicates severe hypoxia, and elevated CRP predicts a serious infection.
- **Option B:** Chest x-ray will show the area of lung consolidation. Findings may vary from lobar to interstitial infiltrate, to occasionally cavitory lesions with air-fluid levels suggestive of a more severe disease process.
- **Option C:** Blood cultures will help determine if the infection is systemic. These include a series of tests like blood culture, sputum culture and microscopy, routine blood counts, and lymphocyte count. Special tests such as urinary antigen testing, bronchial aspirate, or induced sputum may be used for certain pathogens.

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

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

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

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

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

**64. A nurse prepares to administer a 3ml injection via intramuscular injection to a 5-year-old child. The nurse selects which site to administer the medication?**

- A. Rectus femoris
- B. Deltoid
- C. Ventrogluteal
- D. Vastus lateralis

**Correct Answer: C. Ventrogluteal**

Intramuscular injection sites are chosen based on the child's age and muscle development. The ventrogluteal muscle is the ideal choice to administer 0.5ml-3ml amount of injection on a 3-12-year-old child. A study found that the muscle in the ventrogluteal site is adequately developed, even in infants between the ages of 1-12 months and that in particular, in children 12-36 months old, the ventrogluteal site is even thicker than the anterolateral.

- **Option A:** This site only allows 2ml of injection. Do not use the inner thigh or back of the thigh. Divide the thigh into thirds; the injection site is in the middle third section. To inject into the thigh, the needle size must be at least 16 mm long but may need to be longer depending on the child's size.
- **Option B:** This allows 0.5-1ml amount of injection. This is the top, upper part of the arm. Only inject on this site if the health-care provider instructs that this is an appropriate injection site for the child. To inject into the deltoid, the needle size must be 16 mm.
- **Option D:** For most infants, the vastus lateralis muscle in the anterolateral thigh is the recommended site for injection because it provides a large muscle mass. The deltoid muscle is preferred for children aged 3 through 18 years. The vastus lateralis muscle in the anterolateral thigh is an alternative site if the deltoid sites cannot be used.

**65. A nurse instructs a client to use the pursed lip method of breathing. The client asks the nurse about the purpose of this type of breathing. The nurse responds, knowing that the primary purpose of pursed lip breathing is:**

- A. Promote oxygen intake.
- B. Strengthen the diaphragm.
- C. Strengthen the intercostal muscles.
- D. Promote carbon dioxide elimination.

**Correct Answer: D. Promote carbon dioxide elimination**

Pursed lip breathing facilitates maximum expiration for clients with obstructive lung disease. This type of breathing allows better expiration by increasing airway pressure that keeps air passages open during exhalation. Pursed-lip breathing is a technique that allows people to control their oxygenation and ventilation. The technique requires a person to inspire through the nose and exhale through the mouth at a slow controlled flow.

- **Option A:** Deep breathing prevents air from getting trapped in the lungs, which can cause the client to feel short of breath. As a result, he can breathe in more fresh air. It's best to do this exercise with other daily breathing exercises that can be performed for 10 minutes at a time, 3 to 4 times per day.

- **Option B:** Diaphragmatic breathing, or “belly breathing,” engages the diaphragm, which is supposed to do most of the heavy lifting when it comes to breathing. This technique is particularly helpful in people with COPD, as the diaphragm isn’t as effective in these individuals and could be strengthened. The technique best used when feeling rested.
- **Option C:** Breathing exercises which slowly fill the lungs with air to expand the chest and work the intercostal muscles. To do this exercise, it is typically recommended to sit or stand with the back straight, then take a full breath from the bottom of the lungs. It can help to think of breathing from the diaphragm, by slowly expanding the abdominal muscles while inhaling, then pushing air from the lungs using these same muscles.

**66. The nurse has conducted discharge teaching for a client who had a fenestration procedure for the treatment of otosclerosis. Which of the following, if stated by the client, would indicate that teaching was effective?**

- A. “I should drink liquids through a straw for the next 2-3 weeks.”
- B. “It’s ok to take a shower and wash my hair.”
- C. “I will take stool softeners as prescribed by my doctor.”
- D. “I can resume my tennis lessons starting next week.”

**Correct Answer: C. “I will take stool softeners as prescribed by my doctor.”**

Following ear surgery, the client needs to avoid straining while having a bowel movement. The fenestration operation for improving the hearing in otosclerosis rests on a very simple principle: the creation of a new window into the labyrinth to take the place of the oval window which has become occluded by the otosclerotic bone proliferation.

- **Option A:** The client needs to be instructed to avoid drinking through a straw for 2-3 weeks, air travel, and coughing excessively. The first postoperative visit is usually scheduled after 2 weeks, which allows time for the tympanomeatal flap to heal in place. The canal may be débrided at this time.
- **Option B:** The client needs to avoid getting his or her hair wet, washing hair, showering for 1 week. The patient should be counseled as to the surgeon’s specific postoperative instructions, including avoidance of nose blowing, sneezing, and allowance of water into the ear canal.
- **Option D:** The client should avoid rapidly moving the head, bouncing, and bending over for 3 weeks. Cotton balls are placed in the meatus 2-3 times per day to collect discharge from the canal over the first several days after the surgery. Postoperative audiometrics are typically performed 3-6 weeks after surgery.

**67. A client who is taking Methotrexate (Trexall) asks the nurse on what is the appropriate activity while taking the medication. The nurse advised the client to play which activity?**

- A. Basketball
- B. Ice hockey
- C. Football
- D. Tennis

**Correct Answer: D. Tennis**

Avoid contact sports or other situations where bruising or injury could occur because the medication can lower the number of platelets, which are necessary for proper blood clotting.

- **Options A, B, and C:** Basketball, ice hockey, and football are all contact sports.

**68. Malingering is different from somatoform disorder because the former:**

- A. Has evidence of an organic basis.
- B. It is a deliberate effort to handle upsetting events.
- C. Gratification from the environment is obtained.
- D. Stress is expressed through physical symptoms.

**Correct Answer: B. It is a deliberate effort to handle upsetting events**

Malingering is a conscious simulation of an illness while somatoform disorder occurs unconsciously. Malingering is falsification or profound exaggeration of illness (physical or mental) to gain external benefits such as avoiding work or responsibility, seeking drugs, avoiding trial (law), seeking attention, avoiding military services, leave from school, paid leave from a job, among others.

- **Option A:** Both disorders do not have an organic or structural basis. It is not a psychiatric illness according to DSM-5 (Diagnostic and Statistical Manual of Mental Diseases, Fifth edition). The DSM-IV-TR failed to provide any precise criteria because malingering is not considered a psychiatric diagnosis, but the manual does state it is a “condition that may be a focus of clinical attention.”
- **Option C:** Both have primary gains. External (secondary) gain is necessary for differentiating malingering from factitious disorder (a disorder in which a patient consciously creates physical or psychological symptoms to assume a sick role, the primary gain). Malingers show poor compliance with treatment and stop complaining about the assumed illness only after gaining the external benefit.
- **Option D:** This is a characteristic of the somatoform disorder. The unexplained symptoms of somatoform disorders often lead to general health anxiety; frequent or recurrent and excessive preoccupation with unexplained physical symptoms; inaccurate or exaggerated beliefs about somatic symptoms; difficult encounters with the health care system; disproportionate disability; displays of strong, often negative emotions toward the physician or office staff; unrealistic expectations; and, occasionally, resistance to or noncompliance with diagnostic or treatment efforts.

**69. Which of the following diets is most commonly associated with colon cancer?**

- A. Low-fiber, high fat
- B. Low-fat, high-fiber
- C. Low-protein, high-carbohydrate
- D. Low carbohydrate, high protein

**Correct Answer: A. Low-fiber, high fat**



A low-fiber, high-fat diet reduces motility and increases the chance of constipation. The metabolic end products of this type of diet are carcinogenic. A high-fat, low-fiber diet is implicated in the development of colorectal cancer. Specifically, people who ingest a diet high in saturated animal fats and highly saturated vegetable oils (eg, corn, safflower) have a higher incidence of colorectal cancer.

- **Option B:** A low-fat, high-fiber diet is recommended to prevent colon cancer. The ingestion of a high-fiber diet may be protective against colorectal cancer. Fiber causes the formation of a soft, bulky stool that dilutes carcinogens; it also decreases colonic transit time, allowing less time for harmful substances to contact the mucosa. The decreased incidence of colorectal cancer in Africans is attributed to their high-fiber, low–animal-fat diet.
- **Option C:** Saturated fats from dairy products do not have the same carcinogenic effect, nor do oils containing oleic acid (eg, olive, coconut, fish oils). Omega-3 monounsaturated fatty acids and omega-6 monounsaturated fatty acids also appear to be less carcinogenic than unsaturated or polyunsaturated fats. In fact, epidemiologic data suggest that high fish consumption may provide a protective effect against the development of colorectal cancer. Long-term diets high in red meat or processed meats appear to increase the risk of distal colon and rectal cancers.
- **Option D:** Increased dietary intake of calcium appears to have a protective effect on colorectal mucosa by binding with bile acids and fatty acids. The resulting calcium salts may have antiproliferative effects, decreasing crypt cell production in the mucosa. A double-blind placebo-controlled study showed a statistically significant reduction in the incidence of metachronous colorectal adenomas.

**70. A newborn's mother is alarmed to find small amounts of blood on her infant girl's diaper. When the nurse checks the infant's urine it is straw colored and has no offensive odor. Which explanation to the newborn's mother is most appropriate?**

- A. "It appears your baby has a kidney infection"
- B. "Breast-fed babies often experience this type of bleeding problem due to lack of vitamin C in the breast milk"
- C. "The baby probably passed a small kidney stone"
- D. "Some infants experience menstruation like bleeding when hormones from the mother are not available"

**Correct Answer: D. "Some infants experience menstruation like bleeding when hormones from the mother are not available".**

- **Option D:** Most dramatically, at 2 or 3 days of age, a girl infant may have a little bit of bleeding from her vagina. This is perfectly normal; it is caused by the withdrawal of the hormones she was exposed to in the womb. It will be her first and last menstrual period for another decade or so.

**71. A male patient is admitted to the healthcare facility for treatment of chronic obstructive pulmonary disease. Which nursing diagnosis is most important for this patient?**

- A. Activity intolerance related to fatigue.
- B. Anxiety related to actual threat to health status.

- C. Risk for infection related to retained secretions.
- D. Impaired gas exchange related to airflow obstruction.

**Correct Answer: D. Impaired gas exchange related to airflow obstruction.**

A patient airway and an adequate breathing pattern are the top priority for any patient, making "impaired gas exchange related to airflow obstruction" the most important nursing diagnosis. Monitor O<sub>2</sub> saturation and titrate oxygen to maintain SpO<sub>2</sub> between 88% to 92%. Pulse oximetry reading of 87% below may indicate the need for oxygen administration while a pulse oximetry reading of 92% or higher may require oxygen titration. The other options also may apply to this patient but less important.

- **Option A:** Patients with COPD experience progressive activity and exercise intolerance. Evaluation of the patient's activity tolerance and limitations helps create strategies to promote independent ADLs. Assess the patient's respiratory response to activity which includes monitoring of respiratory rate and depth, oxygen saturation, and use of accessory muscles for respiration.
- **Option B:** Ineffective Coping may be related to decreased socialization, depression, anxiety, and inability to work. Provide instructions for self-management of COPD. Assessment of the patient's knowledge and including family members about the therapeutic regimen increases adherence to treatment regimen.
- **Option C:** Respiratory infections that are minor in nature may be threatening to people with COPD. Bronchopulmonary infections must be controlled or prevented to diminish inflammatory edema. Review the importance of breathing exercises, effective cough, frequent position changes, and adequate fluid intake.

**72. Which of the following clients is most at risk for developing multiple myeloma?**

- A. A 60-year-old African-American man
- B. A 52-year-old Hispanic woman
- C. A 35-year-old White man
- D. A 25-year-old Asian woman

**Correct Answer: A. A 60-year-old African-American man**

- **Option A:** Multiple myeloma is more common in middle-aged and older clients (the median age at diagnosis is 60 years) and is twice as common in Blacks as Whites. It occurs most often in Black men.

**73. The physician has ordered several laboratory tests to help diagnose an infant's bleeding disorder. Which of the following tests, if abnormal, would the nurse interpret as most likely to indicate hemophilia?**

- A. Bleeding time
- B. Tourniquet test
- C. Clot retraction test
- D. Partial thromboplastin time (PTT)

**Correct Answer: D. Partial thromboplastin time (PTT)**

PTT measures the activity of thromboplastin, which is dependent on intrinsic clotting factors. In hemophilia, the intrinsic clotting factor VIII (antihemophilic factor) is deficient, resulting in a prolonged PTT. The PTT could be as prolonged as 2 to 3 times the high normal range. Once PTT is found to be prolonged, it should be followed by a mixing study. In a mixing study, the PTT should normalize if factor deficiency is suspected.

- **Option A:** Bleeding time reflects platelet function. Bleeding time is a clinical laboratory test performed to evaluate platelet function. It involves the creation of a standardized incision and timing the cessation of bleeding. The historical indications were the pre-operative assessment of patients taking aspirin or NSAIDs and screening for von-Willebrand disease.
- **Option B:** The tourniquet test measures vasoconstriction and platelet function. The tourniquet test is part of the new WHO case definition for dengue. The test is a marker of capillary fragility and it can be used as a triage tool to differentiate patients with acute gastroenteritis, for example, from those with dengue.
- **Option C:** Clot retraction test measures capillary fragility. All of these are unaffected in people with hemophilia. Clot retraction is a process driven by outside-in signaling by platelet integrin  $\alpha IIb\beta 3$  that results in the contraction of the fibrin mesh. The contraction of the fibrin clot results in the blood clot becoming smaller and excess fluid is extruded.

**74. In a university hospital's grand rounds, a complex case of a 30-year-old patient with recurrent Neisserial infections is presented. The immunologists highlight the patient's inherited deficiency in the complement system, underscoring the pivotal role it plays in bolstering the immune response against certain bacterial pathogens. The case elucidates how the complement cascade, once triggered, orchestrates a series of reactions that aim to neutralize the invading pathogens through opsonization, chemotaxis, and the formation of Membrane Attack Complexes (MAC) leading to cell lysis. This clinical narrative unravels into a comprehensive immunology lecture, where the professor delves into the array of proteins comprising the complement system and their indispensable contributions to both innate and adaptive immunity. The students are then prompted to identify which among the following options accurately encapsulates the essence of the complement system, a conglomeration of approximately 20 proteins found in plasma pivotal for inflammation, phagocytosis, and cell lysis.**

- A. Interferons
- B. Complement
- C. Prostaglandins
- D. Natural killer cells

**Correct Answer: B. Complement**

The complement system is a complex network of about 20 proteins that work together to help the immune system destroy foreign invaders, trigger inflammation, promote phagocytosis, and cause cell lysis through the formation of Membrane Attack Complexes (MAC).

- **Option A:** Interferons are a group of signaling proteins made and released by host cells in response to the presence of several viruses. While interferons have antiviral properties and modulate the immune system, they do not represent the complement system which is specifically a

group of proteins that act in a cascade to defend against bacterial infections.

- **Option C:** Prostaglandins are lipid compounds that perform several functions in the body including inducing fever, inflammation, and pain, aiding the healing process. However, they do not correspond to the complement system which is a distinct set of proteins involved in immune defense.
- **Option D:** Natural Killer (NK) cells are a type of white blood cell that have the ability to recognize and destroy virus-infected cells and tumor cells. However, they are not associated with the complement system which is primarily a group of plasma proteins acting in a cascade to defend against pathogens.

**75. Which of the following medications decreases their action while taking thyroid hormone?**

- A. Metformin
- B. Warfarin
- C. Zoloft
- D. Epinephrine

**Correct Answer: A. Metformin**

Metformin, an oral hypoglycemic drug when taken with a thyroid hormone decreases their action.

- **Options B, C, & D:** Warfarin (an anticoagulant), Zoloft (an antidepressant), and Epinephrine (a sympathomimetic) increases their action when taken with a thyroid hormone.

**76. A female client comes into the emergency room complaining of SOB and pain in the lung area. She states that she started taking birth control pills 3 weeks ago and that she smokes. Her VS are: 140/80, P 110, R 40. The physician orders ABG's, results are as follows: pH: 7.50; PaCO<sub>2</sub> 29 mm Hg; PaO<sub>2</sub> 60 mm Hg; HCO<sub>3</sub><sup>-</sup> 24 mEq/L; SaO<sub>2</sub> 86%. Considering these results, the first intervention is to:**

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

**Correct Answer: B. Place the client on oxygen**

The pH (7.50) reflects alkalosis, and the low PaCO<sub>2</sub> indicates the lungs are involved. The client should immediately be placed on oxygen via mask so that the SaO<sub>2</sub> is brought up to 95%. Encourage slow, regular breathing to decrease the amount of CO<sub>2</sub> she is losing.

- **Option A:** Mechanical ventilation may be ordered for acute respiratory acidosis. In patients who are not significantly encephalopathic and have no excessive secretions, noninvasive ventilation with CPAP or BIPAP can be a useful modality to support ventilation and avoid the need for anesthesia and sedation, as well as the risk of nosocomial infection with endotracheal intubation.

- **Option C:** Sodium bicarbonate would be given to reverse acidosis. Sodium bicarbonate infusion reduces plasma ionized calcium concentration in critically ill patients with metabolic acidosis. In vitro, bicarbonate concentration has a major effect reducing ionized calcium level in serum
- **Option D:** This client may have pulmonary embolism, so she should be monitored for this condition, but it is not the first intervention. A timely diagnosis of a pulmonary embolism (PE) is crucial because of the high associated mortality and morbidity, which may be prevented with early treatment. It is important to note that 30% of untreated patients with pulmonary embolism die, while only 8% die after timely therapy.

**77. A hospitalized client, diagnosed with a borderline personality disorder, consistently breaks the unit's rules. This behavior should be confronted because it will help the client:**

- A. Control anger
- B. Reduce anxiety
- C. Set realistic goals
- D. Become more self-aware

**Correct Answer: D. Become more self-aware.**

Client's must first become aware of their behavior before they can change it. Occurs after the client is aware of the behavior and has a desire to change the behavior. Review with the client the types of cognitive distortions that affect self-esteem (e.g., self-blame, mind reading, overgeneralization, selective inattention, all-or-none thinking). These are the most common cognitive distortions people use. Identifying them is the first step to correcting distortions that form one's self-view.

- **Option A:** Maintain a neutral, calm, and respectful manner, although with some clients this is easier said than done. Helps the client see himself or herself as respected as a person even when behavior might not be appropriate. Keep in mind clients with personality disorders might defend against feelings of low-self-esteem through blaming, projection, anger, passivity, and demanding behaviors. Many behaviors seen in PD clients cover a fragile sense of self. Often these behaviors are the crux of clients' interpersonal difficulties in all their relationships.
- **Option B:** Focus questions in a positive and active light; helps client refocus on the present and look to the future. For example, "What can you do differently now?" or "What have you learned from that experience?". Allows the client to look at past behaviors differently, and gives the client a sense that he or she has choices in the future.
- **Option C:** Set goals realistically, and renegotiate goals frequently. Remember that a client's negative self-view and distrust of the world took years to develop. Unrealistic goals can set up hopelessness in clients and frustrations in nurse clinicians. Clients might blame the nurse for not "helping them," and nurses might blame the client for not "getting better".

**78. A client is admitted with a venous stasis leg ulcer. A nurse assesses the ulcer, expecting to note that the ulcer:**

- A. Has a pale colored base.
- B. Is deep, with even edges.
- C. Has little granulation tissue.

D. Has brown pigmentation around it.

**Correct Answer: D. Has brown pigmentation around it.**

Venous leg ulcers, also called stasis ulcers, tend to be more superficial than arterial ulcers, and the ulcer bed is pink. The edges of the ulcer are uneven, and granulation tissue is evident. The skin has a brown pigmentation from the accumulation of metabolic waste products resulting from venous stasis. The client also exhibits peripheral edema.

- **Option A:** Necrotic-base ulcers have a black appearance and are non-viable, indicating a peripheral arterial disease or an infection. Fibrotic-base ulcers have a white to yellowish stringy appearance and tend to halt the formation of the granulation tissue. Granular-base ulcers have a beefy red appearance and indicate a positive healing potential.
- **Option B:** In the visual assessment of the wound, we are looking for any possible erythemas, edema, fluid discharges, crepitations, or abscess collections. Inspect wound edges for any possible formation of hyperkeratotic tissues which tends to halt the tissue healing. A hyperkeratotic border results from increased stress on the tissue; therefore, the focal pressure should be evaluated.
- **Option C:** This is due to tissue malnutrition, and thus an arterial problem. Quantitative measurements should be checked at every clinic visit. A comparison of the wound dimensions, including the width, length, and depth over time allows for the evaluation of the wound contracture. Ulceration discharge cultures can be obtained to target antibiotic therapy in the presence of an infection.

**79. A client diagnosed with chronic cirrhosis who has ascites and pitting peripheral edema also has hepatic encephalopathy. Which of the following nursing interventions are appropriate to prevent skin breakdown? Select all that apply.**

- A. Range of motion every 4 hours
- B. Turn and reposition every 2 hours
- C. Abdominal and foot massages every 2 hours
- D. Alternating air pressure mattress
- E. Sit in chair for 30 minutes each shift

**Correct Answers: B & D**

Edematous tissue must receive meticulous care to prevent tissue breakdown. An air pressure mattress, careful repositioning can prevent skin breakdown. Inspect pressure points and skin surfaces closely and routinely. Gently massage bony prominences or areas of continued stress. Use of emollient lotions and limiting use of soap for bathing may help.

- **Option A:** Range of motion exercises preserve joint function but do not prevent skin breakdown. Encourage and assist the patient with reposition on a regular schedule. Assist with active and passive ROM exercises as appropriate.
- **Option B:** Repositioning reduces pressure on edematous tissues to improve circulation. Exercises enhance circulation and improve and/or maintain joint mobility. Edematous tissues are more prone to breakdown and to the formation of decubitus. Ascites may stretch the skin to the point of tearing in severe cirrhosis.

- **Option C:** Abdominal or foot massage will not prevent skin breakdown but must be cleaned carefully to prevent breaks in skin integrity. Keep linens dry and free of wrinkles. Moisture aggravates pruritus and increases the risk of skin breakdown.
- **Option D:** Use an alternating pressure mattress, egg-crate mattress, waterbed, sheepskins, as indicated. Reduces dermal pressure, increases circulation, and diminishes the risk of tissue ischemia.
- **Option E:** The feet should be kept at the level of the heart or higher so Fowler's position should not be employed. Recommend elevating lower extremities. Enhances venous return and reduces edema formation in extremities.

**80. 1800 ml is equal to how many liters?**

- A. 1.8
- B. 18000
- C. 180
- D. 2800

**Correct Answer: A. 1.8**

1,800 ml is equal to 1.8 liters.

- **Option B:** 18000 liters is equal to 18,000,000 ml.
- **Option C:** 180 liters is equal to 180,000 ml.
- **Option D:** 2800 liters is equal to 280,000 ml.

**81. A child age 7 was unable to receive the measles, mumps, and rubella (MMR) vaccine at the recommended scheduled time. When would the nurse expect to administer the MMR vaccine?**

- A. In a month from now
- B. In a year from now
- C. At age 10
- D. At age 13

**Correct Answer: C. At age 10**

Based on the recommendations of the American Academy of Family Physicians and the American Academy of Pediatrics, the MMR vaccine should be given at the age of 10 if the child did not receive it between the ages of 4 to 6 years as recommended. Immunization for diphtheria and tetanus is required at age 13.

- **Option A:** Children should get two doses of MMR vaccine, starting with the first dose at 12 to 15 months of age, and the second dose at 4 through 6 years of age.
- **Option B:** Children can receive the second dose earlier as long as it is at least 28 days after the first dose.
- **Option D:** MMR vaccine is given later than some other childhood vaccines because antibodies transferred from the mother to the baby can provide some protection from disease and make the

MMR vaccine less effective until about 1 year of age.

**82. The dominant values in American society on individual autonomy and self-determination:**

- A. Rarely has an effect on other cultures.
- B. Do have an effect on health care.
- C. May hinder the ability to get into a hospice program.
- D. May be in direct conflict with diverse groups.

**Correct Answer: D. May be in direct conflict with diverse groups.**

The dominant value in American society of individual autonomy and self-determination may be in direct conflict with diverse groups. Advance directives, informed consent, and consent for hospice are examples of mandates that may violate client's values. Culture influences health care at all levels, including communications and interactions with doctors and nurses, health disparities, health care outcomes, and even the illness experience itself. People in some cultures believe illness is the will of a higher power, and may be more reluctant to receive health care.

- **Option A:** Culture plays a huge role in medical interactions. It influences how an individual might view an illness or treatment, for example, and affects how a physician should address an older patient. Culture may also affect the decision-making process. Cultural beliefs can affect how a patient will seek care and from whom, how he or she will manage self-care, how he will make health choices, and how she might respond to a specific therapy.
- **Option B:** Literacy and language barriers may play a role in poor communication between doctors and patients from different cultures. The communication gap can prevent some seniors and families from getting the health information they need to make informed decisions. They may not know where to access information in another language, or they may not know how to find a health care provider that speaks the language.
- **Option C:** While family caregiving is the norm in the Hispanic community and in other cultures, it is not always a viable option. Some older individuals may not have family living nearby, for example, or the family may be overwhelmed with children or other responsibilities.

**83. It's a busy evening shift, and the hospital has just sounded an alarm for a disaster drill. The unit manager informs the nurse that they need to make room for potential mass casualty admissions. The nurse is given four clients and must decide who to prioritize for discharge to accommodate new admissions. Who should be considered FIRST for discharge?**

- A. A middle-aged client with a history of being ventilator dependent for over seven (7) years and admitted with bacterial pneumonia five days ago.
- B. A young adult with diabetes mellitus Type 2 for over ten (10) years and admitted with antibiotic-induced diarrhea 24 hours ago.
- C. An elderly client with a history of hypertension, hypercholesterolemia, and lupus, and was admitted with Stevens-Johnson syndrome that morning.
- D. An adolescent with a positive HIV test and admitted for acute cellulitis of the lower leg 48 hours ago.



**Correct Answer: A. A middle-aged client with a history of being ventilator dependent for over seven (7) years and admitted with bacterial pneumonia five days ago.**

The best candidate for discharge is one who has had a chronic condition and is most familiar with their care. This client in option A is most likely stable and could continue medication therapy at home.

- **Option B:** The client with antibiotic-induced diarrhea still needs continuous strict monitoring as the blood sugar levels may become unstable and dehydration is still possible.
- **Option C:** Stevens-Johnson syndrome (SJS) is a rare, serious disorder of the skin and mucous membranes. It's usually a reaction to medication that starts with flu-like symptoms, followed by a painful rash that spreads and blisters.
- **Option D:** Cellulitis is often an underestimated complication of HIV disease, but they are responsible for an appreciable morbidity.

**84. A client's medication order reads, "Thioridazine (Mellaril) 200 mg P.O. q.i.d. and 100 mg P.O. p.r.n." The nurse should:**

- A. Administer the medication as prescribed.
- B. Question the physician about the order.
- C. Administer the order for 200 mg P.O. q.i.d. but not for 100 mg P.O. p.r.n.
- D. Administer the medication as prescribed but observe the client closely for adverse effects.

**Correct Answer: B. Question the physician about the order.**

The nurse must question this order immediately. Thioridazine (Mellaril) has an absolute dosage ceiling of 800 mg/day. Any dosage above this level places the client at high risk for toxic pigmentary retinopathy, which can't be reversed. As written, the order allows for administering more than the maximum 800 mg/day; it should be corrected immediately before the client's health is jeopardized.

- **Option A:** Thioridazine is an oral medication taken in tablet form. The tablets come in either 10 mg, 15 mg, 25 mg, 50 mg, 100 mg, 150 mg, or 200 mg. For schizophrenia, recommendations are to initiate thioridazine at 50 mg to 100 mg three times per day and gradually increase the dose as indicated, to a maximum of 800 mg per day. Of import is the risk of inducing dose-dependent QTc prolongation, and so it is suggested to start low and dose slow. Thioridazine also comes in liquid form at 30 mg/mL and 100 mg/mL.
- **Option C:** Thioridazine is a low potency typical antipsychotic, like chlorpromazine. Unlike higher potency antipsychotics, thioridazine has a lower incidence of extrapyramidal side effects. However, lower potency antipsychotics are more likely to be associated with antimuscarinic, antihistaminic, and antiadrenergic side effects. Thioridazine is metabolized through the liver with a half-life of 24 hours and is excreted in the urine, bile, and feces.
- **Option D:** Patients require monitoring for medication side effects during treatment, and it is often necessary to screen patients before treatment to obtain baseline results. Since thioridazine can cause significant ECG (electrocardiogram) changes and arrhythmias, it is important to get a baseline ECG and potassium level. Furthermore, an additional ECG is recommended for any change in dose and periodically after that. Another possible side effect of thioridazine is leukopenia, and thus routine complete blood counts are recommended over the course of the initial weeks.

**85. Which of the following physical assessment findings would the nurse expect to find in a client with advanced COPD?**

- A. Increased anteroposterior chest diameter.
- B. Underdeveloped neck muscles.
- C. Collapsed neck veins.
- D. Increased chest excursions with respiration.

**Correct Answer: A. Increased anteroposterior chest diameter.**

Increased anteroposterior chest diameter is characteristic of advanced COPD. Air is trapped in the overextended alveoli, and the ribs are fixed in an inspiratory position. The result is the typical barrel-chested appearance. In addition, coarse crackles beginning with inspiration may be heard.

- **Option B:** Overly developed, not underdeveloped, neck muscles are associated with COPD because of their increased use in the work of breathing. Use of accessory respiratory muscles and paradoxical indrawing of lower intercostal spaces is evident (known as the Hoover sign).
- **Option C:** Distended, not collapsed, neck veins are associated with COPD as a symptom of the heart failure that the client may experience secondary to the increased workload on the heart to pump into pulmonary vasculature. In advanced disease, cyanosis, elevated jugular venous pulse (JVP), and peripheral edema can be observed.
- **Option D:** Diminished, not increased, chest excursion is associated with COPD. The sensitivity of a physical examination in detecting mild to moderate COPD is relatively poor; however, physical signs are quite specific and sensitive for severe disease. Patients with severe disease experience tachypnea and respiratory distress with simple activities.