

Kevin's Review - 35 NCLEX Practice Questions

1. The newly admitted client has a large burned area on the right arm. The burned area appears red, has blisters, and is very painful. How should this injury be categorized?

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

Correct Answer: B. Partial-thickness superficial

The characteristics of the wound meet the criteria for a superficial partial-thickness injury (color that is pink or red; blisters; pain present and high). Superficial partial-thickness (second-degree) involves the superficial dermis. It appears red with blisters and is wet. The erythema blanches with pressure. The pain associated with superficial partial-thickness is severe. Healing typically occurs within 3 weeks with minimal scarring.

- **Option A:** Superficial (first-degree) involves the epidermis of the skin only. It appears pink to red, there are no blisters, and it is dry. It is moderately painful. Superficial burns heal without scarring within 5 to 10 days.
- **Option C:** Deep partial-thickness (second-degree) involves the deeper dermis. It appears yellow or white, is dry, and does not blanch with pressure. There is minimal pain due to a decreased sensation. Healing occurs in 3 to 8 weeks with scarring present.
- **Option D:** Third-degree involves the full thickness of skin and subcutaneous structures. It appears white or black/brown. With pressure, no blanching occurs. The burn is leathery and dry. There is minimal to no pain because of decreased sensation. Full-thickness burns heal by contracture and take greater than 8 weeks. Full-thickness burns require skin grafting.

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

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

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

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

- **Option A:** Digoxin toxicity can emerge during long-term therapy as well as after an overdose. It can occur even when the serum digoxin concentration is within the therapeutic range.
- **Option B:** The clinical features of toxicity are often non-specific. They commonly include lethargy, confusion, and gastrointestinal symptoms (anorexia, nausea, vomiting, diarrhea, and abdominal pain). Visual effects (blurred vision, color disturbances, halos, and scotomas) are rarer in

contemporary practice. Cardiac arrhythmias account for most deaths.

- **Option C:** Digoxin increases intracellular calcium in myocardial cells indirectly, by inhibiting the sodium-potassium pump in the cell membrane. Increased intracellular calcium increases cardiac contractility, but also the risk of tachyarrhythmias. Inhibition of this pump causes hyperkalemia commonly seen in toxicity. Digoxin also causes an increase in vagal activity, reducing activity in the sinus node and prolonging conduction in the atrioventricular node.

3. A 24-year-old client comes into the clinic complaining of right-sided chest pain and shortness of breath. He reports that it started suddenly. The assessment should include which of the following interventions?

- A. Auscultation of breath sounds
- B. Chest x-ray
- C. Echocardiogram
- D. Electrocardiogram (ECG)

Correct Answer: A. Auscultation of breath sounds

Because the client is short of breath, listening to breath sounds is a good idea. He may need a chest x-ray and an ECG, but a physician must order these tests.

- **Option B:** A chest x-ray is one of the first diagnostic tests that should be utilized in evaluating dyspnea. If abnormal the disease process is likely cardiac or a primary pulmonary process. If the chest x-ray is normal, then spirometry is needed to determine lung function.
- **Option C:** Unless a cardiac source for the client's pain is identified, he won't need an echocardiogram. An echocardiogram is needed to evaluate cardiac function and valvular function.
- **Option D:** Additionally, an electrocardiogram should be obtained to evaluate for myocardial infarction or right-sided heart pattern strain. Elevated proBNP levels can further a congestive heart disease diagnosis.

4. At a prenatal visit at 36 weeks' gestation, a client complains of discomfort with irregularly occurring contractions. The nurse instructs the client to:

- A. Lie down until they stop.
- B. Walk around until they subside.
- C. Time contraction for 30 minutes.
- D. Take 10 grains of aspirin for the discomfort.

Correct Answer: B. Walk around until they subside.

Ambulation relieves Braxton Hicks. Braxton Hicks contractions are thought to play a role in toning the uterine muscle in preparation for the birth process. Sometimes Braxton Hicks contractions are referred to as "practice for labor." Braxton Hicks contractions do not result in dilation of the cervix but may have a role in cervical softening.

- **Option A:** Braxton Hicks contractions may stop with a change in activity level or as the woman changes position. If she can sleep through the contraction, it is a Braxton Hicks contraction. True labor contractions continue and may even become stronger with movement or position change.

- **Option C:** Braxton Hicks contractions are unpredictable. They may last less than 30 seconds or up to 2 minutes. True labor contractions last between 30 to less than 90 seconds and become longer over time.
- **Option D:** There is no medical treatment for Braxton Hicks contractions. However, taking action to change the situation that triggered the Braxton Hicks contractions is warranted.

5. A nurse is assigned to the pediatric rheumatology clinic and is assessing a child who has just been diagnosed with juvenile idiopathic arthritis. Which of the following statements about the disease is most accurate?

- A. The child has a poor chance of recovery without joint deformity.
- B. Most children progress to adult rheumatoid arthritis.
- C. Nonsteroidal anti-inflammatory drugs are the first choice in treatment.
- D. Physical activity should be minimized.

Correct Answer: C. Nonsteroidal anti-inflammatory drugs are the first choice in treatment.

Nonsteroidal anti-inflammatory drugs are an important first-line treatment for juvenile idiopathic arthritis (formerly known as juvenile rheumatoid arthritis). NSAIDs require 3-4 weeks for the therapeutic anti-inflammatory effects to be realized.

- **Options A:** Advances in treatment over the last 20 years—especially the introduction of early use of intra-articular steroids, methotrexate, and biologic medications—have dramatically improved the prognosis for children with arthritis. Almost all children with JIA lead productive lives. However, many patients, particularly those with a polyarticular disease, may have problems with the active disease throughout adulthood, with sustained remission attained in a minority of patients.
- **Option B:** Children with the systemic-onset disease tend to either respond completely to medical therapy or develop a severe polyarticular course that tends to be refractory to medical treatment, with disease persisting into adulthood.
- **Option D:** Physical activity is an integral part of therapy. Encourage patients to be as active as possible. Bed rest is not a part of the treatment. In fact, the more active the patient, the better the long-term prognosis. Children may experience increased pain during routine physical activities. As a result, these children must be allowed to self-limit their activities, particularly during physical education classes. A consistent physical therapy program, with attention to stretching exercises, pain modalities, joint protection, and home exercises, can help ensure that patients are as active as possible.

6. Rosana is in the second stage of Alzheimer's disease who appears to be in pain. Which question by Nurse Jenny would best elicit information about the pain?

- A. "Where is your pain located?"
- B. "Do you hurt? (pause) "Do you hurt?"
- C. "Can you describe your pain?"
- D. "Where do you hurt?"

Correct Answer: B. "Do you hurt? (pause) "Do you hurt?"

When speaking to a client with Alzheimer's disease, the nurse should use close-ended questions. Those that the client can answer with "yes" or "no" whenever possible and avoid questions that require the client to make choices. Repeating the question aids comprehension. Alzheimer's disease and other dementias gradually diminish a person's ability to communicate. Communication with a person with Alzheimer's requires patience, understanding, and good listening skills.

- **Option A:** Alzheimer's, sometimes referred to as moderate Alzheimer's, is typically the longest and can last for many years. As the disease progresses, the person will have greater difficulty communicating and will require more direct care. Ask yes or no questions. For example, "Would you like some coffee?" rather than "What would you like to drink?" Ask one question at a time.
- **Option C:** Engage the person in one-on-one conversation in a quiet space that has minimal distractions. Speak slowly and clearly. Give the person plenty of time to respond so he or she can think about what to say. Be patient and offer reassurance. It may encourage the person to explain his or her thoughts.
- **Option D:** Maintain eye contact. It shows you care about what he or she is saying. Offer clear, step-by-step instructions for tasks. Lengthy requests may be overwhelming. Avoid criticizing or correcting. Instead, listen and try to find the meaning in what the person says. Repeat what was said to clarify.

7. During a school health fair, a nurse is stationed at the vital signs booth. As students from various age groups approach, the nurse takes their vital signs. Later, while reviewing the recorded data, the nurse identifies one set of vital signs that seems abnormal for the age group. Which of the following vital signs taken during the health fair appears to be outside the typical range for the respective age group?

- A. 11-year-old male athlete who just finished a sprint: 90 BPM, 22 RPM, 100/70 mmHg
- B. 13-year-old female who mentioned she was feeling a bit anxious about an upcoming exam: 105 BPM, 22 RPM, 105/50 mmHg
- C. 5-year-old male who was excitedly running around with friends before coming to the booth: 102 BPM, 24 RPM, 90/65 mmHg
- D. 6-year-old female who was calmly coloring a picture before her turn: 100 BPM, 26 RPM, 90/70 mmHg
- E. 14-year-old male who was resting and reading a book: 85 BPM, 20 RPM, 110/70 mmHg
- F. 12-year-old female who was practicing deep breathing exercises: 88 BPM, 18 RPM, 95/60 mmHg

Correct Answer: B. 13-year-old female who mentioned she was feeling a bit anxious about an upcoming exam: 105 BPM, 22 RPM, 105/50 mmHg

The normal range of vital signs for 11 to 14-year-olds: Heart rate: 60-105 BPM; Respiratory rate: 12-20 CPM; Blood pressure: Systolic-85-120, diastolic- 55-80 mmHg; Body temperature: 98.0 degrees Fahrenheit (36.6 degrees Celsius) to 98.6 degrees Fahrenheit (37 degrees Celsius). The client's diastolic pressure is lower than the normal range. Both her respiratory rate and heart rate are slightly increased.

8. David is preoccupied with numerous bodily complaints even after a careful diagnostic workup reveals no physiologic problems. Which nursing

intervention would be therapeutic for him?

- A. Acknowledge that the complaints are real to the client, and refocus the client on other concerns and problems.
- B. Challenge the physical complaints by confronting the client with the normal diagnostic findings.
- C. Ignore the client's complaints, but request that the client keeps a list of all symptoms.
- D. Listen to the client's complaints carefully, and question him about specific symptoms.

Correct Answer: A. Acknowledge that the complaints are real to the client, and refocus the client on other concerns and problems.

After physical factors are ruled out, somatic complaints are thought to be expressions of anxiety. The complaints are real to the client, but the nurse should not focus on them. Prompting the client about other concerns will encourage the expression of anxiety and dependency needs. The nurse must help the client establish a daily routine that includes improved health behaviors. Provide accommodation for the client and make them more comfortable (ie., pillows, temperature, positioning, etc.). This can help the client feel accepted and develop rapport and trust. This can allow the client to feel more comfortable and express their feelings and emotions more readily to the healthcare team.

- **Option B:** Clients may keep a detailed journal of their physical symptoms; the nurse might ask them to describe the situation at the time such as whether they were alone or with others, whether any disagreements were occurring, and so forth. Provide education about feared or actual medical conditions. This can help relieve acute pain and distress that the client may feel, but also helps them learn to control many symptoms through focus and calming the mind.
- **Option C:** Encourage behavior modification such as praising the client and offering more attention when symptoms improve. Change the focus from what's wrong to what's right. Helps the client feel accomplished and more positive about improvements in health condition instead of focusing on the symptoms. Encourage the client to keep a journal of symptoms and the events or factors that lead up to the development of symptoms and their resolution. This is a technique of cognitive behavior therapy that helps the client understand what factors (usually stress) that prompt the onset of symptoms. It can also help the client determine a pattern of emotions surrounding the symptoms.
- **Option D:** Discuss symptoms with the client and when they began, what makes them better or worse and how they have been managing these symptoms. Teach coping strategies. Emotion-focused strategies include progressive relaxation, deep breathing, guided imagery, and distractions such as music or other activities; problem-focused coping strategies include problem-solving methods, applying the process to identified problems, and role-playing interactions with others.

9. What is the primary reason for administering morphine to a client with myocardial infarction?

- A. To sedate the client
- B. To decrease the client's pain
- C. To decrease the client's anxiety
- D. To decrease oxygen demand on the client's heart

Correct Answer: D. To decrease oxygen demand on the client's heart

Morphine is administered because it decreases myocardial oxygen demand. Morphine to relieve pain during a myocardial infarction (MI) has been in use since the early 1900s. In 2005, an observational study raised some concerns, but there are very few effective alternatives. Morphine is a potent opioid; it decreases pain, which in turn leads to a decrease in the activation of the autonomic nervous system. These are desirable effects when a patient is having an MI.

- **Option A:** Morphine can also cause sedation on the client, but it is not the main purpose of administering it. Morphine is rarely used for procedural sedation. However, for small procedures, physicians will sometimes combine a low dose of morphine with a low dose of benzodiazepine-like lorazepam.
- **Option B:** Pain is decreased when morphine is given, but it is not the primary reason for administration. FDA-approved usage of morphine sulfate includes moderate to severe pain that may be acute or chronic. Most commonly used in pain management, morphine provides significant relief to patients afflicted with pain.
- **Option C:** Morphine will also decrease anxiety, but isn't primarily given for this reason. Morphine can decrease the heart rate, blood pressure, and venous return. Morphine can also stimulate local histamine-mediated processes.

10. The absence of which pulse may not be a significant finding when a patient is admitted to the hospital?

- A. Apical
- B. Radial
- C. Pedal
- D. Femoral

Correct Answer: C. Pedal

Because the pedal pulse cannot be detected in 10% to 20% of the population, its absence is not necessarily a significant finding. However, the presence or absence of the pedal pulse should be documented upon admission so that changes can be identified during the hospital stay. Absent peripheral pulses may be indicative of peripheral vascular disease (PVD). PVD may be caused by atherosclerosis, which can be complicated by an occluding thrombus or embolus. This may be life-threatening and may cause the loss of a limb.

- **Option A:** Apical pulse rate is indicated during some assessments, such as when conducting a cardiovascular assessment and when a client is taking certain cardiac medications (e.g., digoxin). Sometimes the apical pulse is auscultated pre and post medication administration. It is also a best practice to assess apical pulse in infants and children up to five years of age because radial pulses are difficult to palpate and count in this population.
- **Option B:** Examiners frequently evaluate the radial artery during a routine examination of adults, due to the unobtrusive position required to palpate it and its easy accessibility in various types of clothing. Like other distal peripheral pulses (such as those in the feet) it also may be quicker to show signs of pathology. Palpation is at the anterior wrist just proximal to the base of the thumb.
- **Option D:** The femoral pulse may be the most sensitive in assessing for septic shock and is routinely checked during resuscitation. It is palpated distally to the inguinal ligament at a point less than halfway from the pubis to the anterior superior iliac spine.

11. A 55-year old client with benign prostatic hyperplasia doesn't respond to medical treatment and is admitted to the facility for prostate gland removal. Before providing preoperative and postoperative instructions to the client, Nurse Gerry asks the surgeon which prostatectomy procedure will be done. What is the most widely used procedure for prostate gland removal?

- A. Transurethral resection of the prostate (TURP)
- B. Suprapubic prostatectomy
- C. Retropubic prostatectomy
- D. Transurethral laser incision of the prostate

Correct Answer: A. Transurethral resection of the prostate (TURP)

TURP is the most widely used procedure for prostate gland removal. Because it requires no incision, TURP is especially suitable for men with relatively minor prostatic enlargements and for those who are poor surgical risks. Transurethral resection of the prostate is a procedure used in the management of bladder outlet obstruction caused by prostatic hypertrophy and prostatic abscess management. This procedure should be performed if the patient desires to be of medical management for bladder outlet obstruction or who fails medical management.

- **Option B:** Suprapubic means that the surgery is done through an incision in the lower abdomen, above the pubic bone. An incision is made in the bladder, and the center of the prostate gland is removed. This part of the prostate gland is known as the transition zone. Suprapubic prostatectomy is an inpatient procedure.
- **Option C:** Surgery to remove the entire prostate and some of the tissue around it, including the seminal vesicles (a gland that helps make semen). Nearby lymph nodes may also be removed. During a radical retropubic prostatectomy, an incision (cut) is made in the wall of the lower abdomen, behind the pubic bone. An attempt is made to protect the nerves that control penile erection and the bladder from damage.
- **Option D:** Transurethral incision of the prostate (TUIP) may be done to treat benign prostatic hyperplasia (BPH). The surgeon uses an instrument inserted into the urethra that generates an electric current or laser beam to make incisions in the prostate where the prostate meets the bladder.

12. A female client with dysphagia is being prepared for discharge. Which outcome indicates that the client is ready for discharge?

- A. The client doesn't exhibit rectal tenesmus.
- B. The client is free from esophagitis and achalasia.
- C. The client reports diminished duodenal inflammation.
- D. The client has normal gastric structures.

Correct Answer: B. The client is free from esophagitis and achalasia.

Dysphagia may be the reason why a client with esophagitis or achalasia seeks treatment. Dysphagia is common in patients with erosive esophagitis but is not a reliable clinical predictor of severe erosive esophagitis. Dysphagia resolved with PPI therapy in most cases, but persistent dysphagia may indicate failed healing. Dysphagia isn't associated with rectal tenesmus, duodenal inflammation, or abnormal

gastric structures.

- **Option A:** Rectal tenesmus can happen for several reasons. The most common is colon inflammation, either from a noninfectious or infectious cause. Inflammatory bowel disease (IBD) is one cause of colon inflammation. IBD is an umbrella term for several long-term conditions involving chronic inflammation of the gut.
- **Option C:** The most common cause of duodenitis is infection by *Helicobacter pylori* (*H. pylori*) bacteria. Another common cause is the long-term use of NSAIDs (such as aspirin and ibuprofen). Celiac disease, an allergy to gluten, causes a particular type of inflammation in the duodenum along with other changes.
- **Option D:** Dysphagia means difficulty swallowing. For this diagnosis, it is critical that related symptoms be associated with the act of swallowing a liquid or solid bolus. When unassociated with swallowing, the sensation of fullness in the upper esophagus suggests globus hystericus, which is distinct from dysphagia.

13. A client going through intense chemotherapy treatment is admitted to the unit. Which of these would the nurse instruct the nursing assistant to report to prevent an acid-base imbalance?

- A. Hair loss during the morning bath.
- B. Complaints of pain associated with exertion.
- C. Failure to eat all the food on the breakfast tray.
- D. Prolonged episodes of nausea and vomiting.

Correct Answer: D. Prolonged episodes of nausea and vomiting.

Repeated nausea and vomiting can lead to an acid base deficit and metabolic alkalosis. Other causes of metabolic alkalosis include the loss of hydrochloric acid from the stomach through vomiting, potassium depletion due to the use of diuretics for hypertension, and the excessive use of laxatives.

- **Option A:** Chemotherapy drugs are powerful medications that attack rapidly growing cancer cells. Unfortunately, these drugs also attack other rapidly growing cells in the body — including those in the hair roots. Fortunately, most of the time hair loss from chemotherapy is temporary.
- **Option B:** Chemotherapy or radiation induced pain is most often a form of nerve pain. It can cause peripheral neuropathy (painful numbness of the extremities), or paresthesia (numbness and tingling of hands, feet or any extremity of the body).
- **Option C:** Cancer treatments may lower appetite or change the way food tastes or smells. Side effects such as mouth and throat problems, or nausea and vomiting can also make eating difficult. Cancer-related fatigue can also lower the appetite.

14. Jessie weighed 210 pounds on admission to the hospital. After 2 days of diuretic therapy, Jessie weighs 205.5 pounds. The nurse could estimate the amount of fluid Jessie has lost:

- A. 0.3 L
- B. 1.5 L
- C. 2.0 L

D. 3.5 L

Correct Answer: C. 2.0 L

One liter of fluid approximately weighs 2.2 pounds. A 4.5-pound weight loss equals to approximately 2L. Diuresis is necessary for a variety of non-edematous and edematous conditions, which require clearing out excess water when the body abnormally sequesters fluid in third space in the form of edema.

- **Option A:** Option A has a very low amount of fluid loss and is incompatible with the weight that the client has lost. Diuretics are drugs that pharmacologically tilt the renal fluid regulation in favor of excretion of water and electrolytes. Thus, diuretics are substances that increase the production and volume of urine. This class of drugs achieves this objective primarily by suppressing receptors that aid in reabsorption of Na⁺, the most abundant extracellular cation, from the renal tubules, thereby increasing the osmolality of the renal tubules and consequently suppressing water reabsorption.
- **Option B:** 1.5 L is not an accurate amount of fluid loss based on the client's weight loss. The most common adverse effect for any diuretic is mild hypovolemia, which can lead to transient dehydration and increased thirst. When there is an over-treatment with a diuretic, this could lead to severe hypovolemia, causing hypotension, dizziness, and syncope.
- **Option D:** 3.5 L is more than the amount of fluid loss based on the client's amount of weight loss. Diuretic treatment calls for careful assessment of extracellular fluid volume, urine output, electrolyte levels in plasma and urine, body weight, acid-base status, serum glucose, and BP regularly with particular emphasis on patients with cardiovascular, hepatic, renal, or metabolic disorders and in elderly individuals.

15. A client with pulmonary edema has been on diuretic therapy. The client has an order for additional furosemide (Lasix) in the amount of 40 mg IV push. Knowing that the client also will be started on digoxin (Lanoxin), a nurse checks the client's most recent:

- A. Digoxin level
- B. Sodium level
- C. Potassium level
- D. Creatinine level

Correct Answer: C. Potassium level

The serum potassium level is measured in the client receiving digoxin and furosemide. Heightened digitalis effect leading to digoxin toxicity can occur in the client with hypokalemia. Hypokalemia also predisposes the client to ventricular dysrhythmias. Toxicity can also occur at lower levels, especially in the setting of other risk factors such as low body weight, advanced age, decreased renal function, and hypokalemia. Risk of hypokalemia increases with the use of a high dose of furosemide, decreased oral intake of potassium, in patients with hyperaldosteronism states (liver abnormalities or licorice ingestion) or concomitant use of corticosteroid, ACTH, and laxatives.

- **Option A:** Digoxin has a narrow therapeutic index. The recommended serum levels stand between 0.8 to 2 ng/mL. When measuring a digoxin serum level, it is essential to draw blood at least 6 to 8 hours after the last dose. The toxicity increases as the serum drug levels increase above 2.0 ng/mL.

- **Option B:** According to Beers Criteria, caution is necessary when administering diuretics to patients 65 years and older to avoid potential adverse effects of inducing hyponatremia by causing or exacerbating syndrome of inappropriate antidiuretic hormone secretion (SIADH); therefore, close monitoring of serum sodium is advisable at initiation or during the dose adjustment in older adults.
- **Option D:** In patients with an advanced renal disease with fluid overload the patients should be closely monitored for oliguria, azotemia, and volume status; and if either oliguria or azotemia develops the furosemide should be discontinued to prevent kidney injury.

16. A 50-year-old female patient is admitted to the hospital with recurrent episodes of upper abdominal pain and nausea. Upon evaluation, the gastroenterologist finds out that the pain is localized to the epigastric region and suspects gastritis or a peptic ulcer. To get a clearer picture, an endoscopic examination of the stomach is scheduled. The patient inquires about the areas of the stomach that will be inspected, and the medical team discusses the different regions of the stomach. Seizing this as an instructive moment, the nursing instructor asks the students a related question. In light of the patient's upcoming endoscopic evaluation and the discussion of stomach anatomy, which of the following options should the instructor ask students to identify as NOT correctly matched with its description regarding stomach structures?

- A. Cardiac region: the area closest to the small intestine
- B. Fundus: the most superior portion of the stomach
- C. Pyloric opening: opening from the stomach into the small intestine
- D. Body: the largest portion of the stomach

Correct Answer: A. Cardiac region: the area closest to the small intestine

This is incorrect. The cardiac region, or cardia, is the area surrounding the entrance of the esophagus into the stomach. It is not the area closest to the small intestine; that description would apply to the pyloric region.

- **Option B:** This is correct. The fundus is the dome-shaped uppermost part of the stomach. It lies superior to the cardiac region and the body of the stomach.
- **Option C:** This is correct. The pyloric opening is the exit from the stomach, leading into the small intestine (specifically, the duodenum). The pyloric sphincter controls the passage of stomach contents into the small intestine.
- **Option D:** This is correct. The body is the central and largest part of the stomach. It lies between the fundus and the pyloric region.

17. Dementia, unlike delirium, is characterized by:

- A. Slurred speech
- B. Insidious onset
- C. Clouding of consciousness
- D. Sensory perceptual change

Correct Answer: B. Insidious onset

Dementia has a gradual onset and progressive deterioration. It causes pronounced memory and cognitive disturbances. Dementia is a disorder that is characterized by cognitive decline involving memory and at least 1 of the other domains, including personality, praxis, abstract thinking, language, executive functioning, complex attention, social and visuospatial skills. In addition to the noted decline, the severity must be significant enough to interfere with daily functionality. It is often a progressive disorder, and individuals often do not have insight into their deficits.

- **Option A:** Production of spontaneous speech, word quantity, speech content, and verbal and written language comprehension are impaired in delirious patients compared to cognitively unimpaired patients. Additionally, patients with delirium produced significantly less fluent speech than those with dementia. Language dysfunction is explicitly included within the DSM-5 criteria for delirium (under Criterion C: other cognitive disturbance).
- **Option C:** Delirium is characterized by an alteration of consciousness and cognition with reduced ability to focus, sustain, or shift attention. It develops over a short period and fluctuates during the day. The clinical presentation can vary, but usually, it flourishes with psychomotor behavioral disturbances such as hyperactivity or hypoactivity with increased sympathetic activity and impairment in sleep duration and architecture.
- **Option D:** Acetylcholine is a very important neurotransmitter in attention and consciousness. It is known, acetylcholine acts as a modulator in sensory and cognitive input, so an impairment in the route leads to developing symptoms of hypoactive or hyperactive delirium, including inattention, disorganized thinking, and perceptual disturbances.

18. The nursery nurse is putting erythromycin ointment in the newborn's eyes to prevent infection. She places it in which of the following area of the eye:

- A. Under the eyelid.
- B. On the cornea.
- C. In the lower conjunctival sac.
- D. By the optic disc.

Correct Answer: C. In the lower conjunctival sac.

The ointment is placed in the lower conjunctival sac so it will not scratch the eye itself and will get well distributed. Ophthalmia neonatorum (ON), also known as neonatal conjunctivitis, is an infection that causes inflammation of the conjunctiva during the first four weeks of life. The conjunctiva is a layer of thin tissue that covers the inner part of the eyelid and the white part of the eye. During the late 1800s, before antibiotics were discovered, 0.3% of infants (3 out of 1,000) were blinded from ON (Schaller & Klaus, 2001).

- **Option A:** Care providers in some countries try to prevent ophthalmia neonatorum by giving all newborns eye ointment (such as erythromycin). The eye ointment is intended to kill or weaken bacteria in the eye—particularly gonorrhea—to protect the infant from getting pink eye, since pink eye from gonorrhea can cause serious eye damage and blindness if left untreated.
- **Option B:** Automatic prophylaxis with erythromycin eye ointment for all newborns within 24 hours of birth is currently recommended by the U.S. Preventive Services Task Force (2019) and their recommendation is promoted by the American Association of Family Physicians. However, the American Academy of Pediatrics recently called for reevaluating state mandates for erythromycin eye ointment (AAP, 2018).

- **Option D:** Instead, they propose a strategy of (1) prenatal screening for and treatment of gonorrhea and chlamydia, (2) testing unscreened people at the time of birth and treating as needed, (3) counseling parents to bring newborns with pink eye to immediate medical attention, and (4) continuing mandatory reporting of all cases of gonorrhea ON. The AAP recommends that routine erythromycin eye ointment is still appropriate in regions with high rates of gonorrhea and where prenatal screening and treatment is not widely accessible. Similarly, the Canadian Pediatric Society recently recommended that routine, required prophylaxis with erythromycin be stopped (Moore and MacDonald, 2015).

19. Among toddlers and children up to age five, femur fractures usually result from a low energy fall. In most cases, the orthopedic surgeon realigns the fracture using fluoroscopy or x-ray imaging as a guide and immobilizes the leg in a type of cast called a spica cast. Approximately how many weeks does it take for a fractured femur to heal in a 3-year-old?

- A. 1-2 weeks
- B. 2-4 weeks
- C. 3-8 weeks
- D. 10-12 weeks

Correct Answer: C. 3-8 weeks

In most cases, three to six weeks of early healing is necessary before the child can begin walking on the injured leg. When the bone is completely healed, usually around one year after the injury occurs, the child returns to the hospital to have the nails removed. Following treatment, the orthopedic surgeon continues to monitor the patient for a period of several years to ensure that there is no limb length discrepancy.

- **Option A:** 1-2 weeks of bone healing is unlikely even among toddlers. Unlike the healing process in adults, a certain amount of variation in the alignment of the bone as it heals is acceptable in infants and older children, notes Dr. Scher. As the body lays down new bone, over time, there is an automatic “correction” or straightening during growth, called remodeling.
- **Option B:** The approximate healing time for a fractured femur during childhood is 4 weeks. Fractures in these very young children and in infants are usually treated by placing the child in a Pavlik harness, a cloth brace that helps hold the thigh in the proper position while it heals. According to Dr. David M. Scher, an associate orthopedic surgeon at the Hospital for Special Surgery, an infant’s bones may heal very rapidly, usually by 3-4 weeks.
- **Option D:** Children remain in the spica cast for a period ranging from six weeks to three months, which can be a challenge for caregivers when it comes to maintaining hygiene and keeping the child distracted and happy. That being said, it continues to be the safest and least complicated method for treating fractures among this age group and yields excellent results.

20. Which of the following diagnostic tests is definitive for TB?

- A. Chest x-ray
- B. Mantoux test
- C. Sputum culture

D. Tuberculin test

Correct Answer: C. Sputum culture

The sputum culture for Mycobacterium tuberculosis is the only method of confirming the diagnosis. Mycobacterial culture is the gold standard for diagnosis. Mycobacterial culture should be performed on both the solid and liquid medium. Liquid media culture can detect very low bacterial load and is considered a gold standard. Culture essential for drug susceptibility testing.

- **Option A:** Lesions in the lung may not be big enough to be seen on x-ray. A chest x-ray is indicated to rule out or rule in the presence of active disease in all screening test positive cases. In pulmonary tuberculosis, initial testing includes a chest X-Ray, sputum evaluation.
- **Option B:** Skin tests may be falsely positive or falsely negative. The Mantoux reaction following injection of a dose of PPD (purified protein derivative) is the traditional screening test for exposure to Tuberculosis. The result is interpreted taking into consideration the patient's overall risk of exposure. Patients are classified into 3 groups based on the risk of exposure with three corresponding cut-off points.
- **Option D:** Note that a Mantoux test indicates exposure or latent tuberculosis. However, this test lacks specificity, and patients would require subsequent visits for interpreting the results as well as chest x-ray for confirmation. Although relatively sensitive, the Mantoux reaction is not very specific and may give false-positive reactions in individuals who have been exposed to the BCG-vaccine.

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

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

Correct Answer: D. Prepared childbirth

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

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

22. Norma, a 42-year-old client with a diagnosis of chronic undifferentiated schizophrenia lives in a rooming house that has a weekly nursing clinic. She

scratches while she tells the nurse she feels creatures eating away at her skin. Which of the following interventions should be done first?

- A. Talk about his hallucinations and fears.
- B. Refer him for anticholinergic adverse reactions.
- C. Assess for possible physical problems such as rash.
- D. Call his physician to get his medication increased to control his psychosis.

Correct Answer: C. Assess for possible physical problems such as rash

Clients with schizophrenia generally have poor visceral recognition because they live so fully in their fantasy world. They need to have an in-depth assessment of physical complaints that may spill over into their delusional symptoms. Over half of the patients have significant comorbidities, both psychiatric and medical, making it one of the leading causes of disability worldwide. The diagnosis correlates with a 20% reduction in life expectancy, with up to 40% of deaths attributed to suicide.

- **Option A:** Talking with the client won't provide an assessment of his itching. A thorough risk assessment must also be undertaken to determine the risk of harm to self and others. The first schizophrenic episode usually occurs during early adulthood or late adolescence. Individuals often lack insight at this stage; therefore few will present directly to seek help for their psychotic symptoms.
- **Option B:** Itching isn't an adverse reaction of antipsychotic drugs. Common presentations include a relative noticing social withdrawal, personality changes or uncharacteristic behavior; deliberate self-harm or suicide attempts; calling the police to report their delusional symptoms or referral via the criminal justice system. The use of screening tools such as COPS (Criteria of Prodromal Syndromes), SIPS (Structured Interview for Prodromal Syndromes) and PACE (Personal Assessment and Crisis Evaluation Clinic) has been shown to increase the detection rate of schizophrenia in premorbid states although there is controversy surrounding indicating treatment at this stage.
- **Option D:** Calling the physician to get the client's medication increased doesn't address his physical complaints. After conducting a full psychiatric history, it is imperative to conduct a thorough systems review and a mental state examination where appearance, behavior, mood, speech, cognition, and insight need to be assessed, alongside determining evidence of perceptual delusions or formal thought disorders.

23. Nurse Pete is reviewing the report of a client's routine urinalysis. Which value should the nurse consider abnormal?

- A. Specific gravity of 1.03
- B. Urine pH of 3.0
- C. Absence of protein
- D. Absence of glucose

Correct Answer: B. Urine pH of 3.0

Normal urine pH is 4.5 to 8; therefore, a urine pH of 3.0 is abnormal. Urine-specific gravity normally ranges from 1.002 to 1.035, making this client's value normal. Normally, urine contains no protein, glucose, ketones, bilirubin, bacteria, casts, or crystals. Red blood cells should measure 0 to 3 per high-power field; white blood cells, 0 to 4 per high-power field. Urine should be clear, its color ranging

from pale yellow to deep amber.

- **Option A:** Normal USG is 1.002-1.035 (usually 1.016 to 1.022). The urinary specific gravity (USG) and osmolality are of special importance because they indicate the kidney's capacity to dilute or concentrate urine. USG is defined as the ratio between the density of urine and the density of an equal volume of pure distilled water.
- **Option C:** In normal conditions, the glomerular capillary wall is permeable to molecules of less than 20,000 Daltons. Most of the small fraction of filtered proteins are reabsorbed and metabolized by the proximal tubule cells. Thus, proteins are normally present in urine in trace amounts.
- **Option D:** Glycosuria occurs when the filtered load of glucose exceeds the tubular cells' ability to reabsorb it, which normally happens at a glucose serum concentration of around 180 mg per dL. Furthermore, nitrites are not normally found in urine, and it is highly specific for urinary tract infection. However, due to its low sensitivity, a negative result does not rule out infection.

24. Dr. Martinez, a pediatric endocrinologist, presents a case of a 10-year-old child with short stature to the medical students. The child's height is below the third percentile for his age, despite having parents of average height. Previous evaluations have indicated no apparent skeletal or systemic disease. Dr. Martinez emphasizes the significance of understanding the pathways and players in childhood growth, especially the pivotal role played by growth hormones. She poses a question regarding the mediators that are influenced by growth hormones and are crucial in its effect on childhood growth.

- A. Somatomedin-C.
- B. Gonadotropins
- C. Prostaglandin
- D. Prolactin

Correct Answer: A. Somatomedin-C.

Also known as Insulin-like Growth Factor 1 (IGF-1), Somatomedin-C is primarily produced in the liver and its secretion is stimulated by growth hormone. It plays a crucial role in mediating the effects of growth hormone, especially in promoting bone and tissue growth.

- **Option B:** Gonadotropins are a group of hormones that include luteinizing hormone (LH) and follicle-stimulating hormone (FSH). While they play important roles in the reproductive system, including the stimulation of the gonads (testes and ovaries), they are not directly involved in the action of growth hormone on childhood growth.
- **Option C:** Prostaglandins are lipid autacoids derived from arachidonic acid. They play a role in various physiological functions including pain, inflammation, and regulating blood flow, but they don't have a primary role in mediating the effects of growth hormone.
- **Option D:** Prolactin is a hormone produced by the anterior pituitary gland. Its primary role is to stimulate milk production (lactation) after childbirth.

25. Mr. Bartowski who is newly diagnosed with rheumatoid arthritis asks the community nurse how stress can affect his disease. The nurse would explain that:

- A. The psychological experience of stress will not affect symptoms of physical disease.
- B. Psychological stress can cause painful emotions, which are harmful to a person with an illness.
- C. Stress can overburden the body's immune system, and therefore one can experience increased symptoms.
- D. The body's stress response is stimulated when there are major disruptions in one's life.

Correct Answer: C. Stress can overburden the body's immune system, and therefore one can experience increased symptoms.

The stress response causes stimulation of the hypothalamic-pituitary-adrenal axis, which can further compromise an immune system that has been activated by the autoimmune disorder of rheumatoid arthritis. Consequently, the client can expect disease symptoms to exacerbate when under stress.

- **Option A:** Research says that rheumatoid arthritis can be caused by stress. Stress triggers rheumatoid arthritis by setting off the immune system's inflammatory response in which cytokines are released. Cytokines are chemicals that play an important role in inflammation and can increase the severity of rheumatoid arthritis in some patients. The greater the exposure to stress, the greater the inflammation becomes. This triggers a rheumatoid arthritis flare.
- **Option B:** Around one out of five patients with rheumatoid arthritis has depression due to the illness. Depression, in turn, further aggravates rheumatoid arthritis and leads to a greater number of painful joints, reduced functioning (higher number of days in bed), and increased visits to the doctor's clinic. All these further affect the patient's mental health and cause more stress and depression.
- **Option D:** Stress can cause rheumatoid arthritis and rheumatoid arthritis itself can also cause stress. Treatments that don't work or their side effects might affect the patient's mind. Joint pain and swelling can make routine activities difficult for the patient. All these things that come with rheumatoid arthritis can make the patient stressed, which can further trigger joint inflammation.

26. The mother of a 6-month-old asks when her child will have all his baby teeth. The nurse knows that most children have all their primary teeth by age:

- A. 15 months
- B. 18 months
- C. 27 months
- D. 33 months

Correct Answer: D. 33 months

- Option D: All 20 primary, or deciduous, teeth should be present by age 33 months.

27. A female client has clear fluid leaking from the nose following a basilar skull fracture. The nurse assesses that this is cerebrospinal fluid if the fluid:

- A. Is clear and tests negative for glucose.
- B. Is grossly bloody in appearance and has a pH of 6.
- C. Clumps together on the dressing and has a pH of 7.
- D. Separates into concentric rings and tests positive for glucose.

Correct Answer: D. Separates into concentric rings and tests positive for glucose.

Leakage of cerebrospinal fluid (CSF) from the ears or nose may accompany basilar skull fracture. CSF can be distinguished from other body fluids because the drainage will separate into bloody and yellow concentric rings on dressing material, called a halo sign. The fluid also tests positive for glucose.

- **Option A:** Cerebrospinal fluid (CSF) is a clear liquid that is around and within the organs of the central nervous system. When compared to plasma, CSF has a higher concentration of sodium, chloride, and magnesium but a lower concentration of potassium and calcium. Unlike plasma, CSF has only trace amounts of cells, protein, and immunoglobulins.
- **Option B:** Several analyses are possible on the contents of CSF obtained from a lumbar puncture. Since CSF should be transparent, the color is worth noting. A cloudy appearance can suggest an infectious cause, and red color can suggest the presence of blood.
- **Option C:** The CSF helps reduce the potential damage in such an event by acting as a cushion and a shock absorber. Since there are continuous production and production of CSF, it also appears to help clear waste products from around the brain and regulate intracranial pressures.

28. Stephanie, a 28 y.o. accident victim, requires TPN. The rationale for TPN is to provide:

- A. Necessary fluids and electrolytes to the body.
- B. Complete nutrition by the I.V. route.
- C. Tube feedings for nutritional supplementation.
- D. Dietary supplementation with liquid protein given between meals.

Correct Answer: B. Complete nutrition by the I.V. route.

TPN is given I.V. to provide all the nutrients your patient needs. Parenteral nutrition is the intravenous administration of nutrition outside of the gastrointestinal tract. Total parenteral nutrition (TPN) is when the IV administered nutrition is the only source of nutrition the patient is receiving. Total parenteral nutrition is indicated when there is an inadequate gastrointestinal function and contraindications to enteral nutrition.

- **Option A:** Enteral diet intake is preferred over parenteral as it is inexpensive and associated with fewer complications such as infection and blood clots but requires a functional GI system. TPN is a mixture of separate components which contain lipid emulsions, dextrose, amino acids, vitamins, electrolytes, minerals, and trace elements. TPN composition should be adjusted to fulfill individual patients' needs. The main three macronutrients are lipids emulsions, proteins, and dextrose.
- **Option C:** TPN isn't tube feeding. Total parenteral nutrition administration is through a central venous catheter. A central venous catheter is an access device that terminates in the superior vena cava or the right atrium and is used to administer nutrition, medication, chemotherapy, etc. Establishing this access could be through a peripherally inserted central catheter (PICC), central venous catheter, or an implanted port.
- **Option D:** TPN is not a liquid dietary supplement. A 3-in-1 solution and intravenous lipid emulsions) mixed with electrolytes, trace elements, vitamins, and water. Parenteral solution with only dextrose and amino acids with a separate intravenous lipid emulsions infusion, the 2-in-1 solution has also been previously used. Research has shown TNA to be the standard of care for adult TPN.

29. Nurse Julie recommends that the family of a client with substance-related disorder attend a support group, such as Al-Anon and Alateen. The purpose of these groups is to help family members understand the problem and to:

- A. Change the problem behaviors of the abuser.
- B. Learn how to assist the abuser in getting help.
- C. Maintain focus on changing their own behaviors.
- D. Prevent substance problems in vulnerable family members.

Correct Answer: C. Maintain focus on changing their own behaviors.

Family support groups, such as Al-Anon and Alateen, emphasize the importance of changing one's own behavior rather than trying to change the behavior of the individual with a substance abuse problem. The two disciplines, family therapy and substance abuse treatment, bring different perspectives to treatment implementation. In substance abuse treatment, for instance, the client is the identified patient (IP)—the person in the family with the presenting substance abuse problem. In family therapy, the goal of treatment is to meet the needs of all family members. Family therapy addresses the interdependent nature of family relationships and how these relationships serve the IP and other family members for good or ill.

- **Option A:** The focus of family therapy treatment is to intervene in these complex relational patterns and to alter them in ways that bring about productive change for the entire family. Family therapy rests on the system's perspective. As such, changes in one part of the system can and do produce changes in other parts of the system, and these changes can contribute to either problems or solutions.
- **Option B:** Trying to change the abuser's behavior or learning ways to find help for the abuser would be viewed as codependent behaviors, and thus would not be advocated by family support groups. It is important to understand the complex role that families can play in substance abuse treatment. They can be a source of help to the treatment process, but they also must manage the consequences of the IP's addictive behavior. Individual family members are concerned about the IP's substance abuse, but they also have their own goals and issues. Providing services to the whole family can improve treatment effectiveness.
- **Option D:** Learning about substance abuse may help a vulnerable family member to avoid this problem; however, that is not the purpose of these groups. Meeting the challenge of working together will call for mutual understanding, flexibility, and adjustments among the substance abuse treatment provider, family therapist, and family. This shift will require a stronger focus on the systemic interactions of families. Many divergent practices must be reconciled if family therapy is to be used in substance abuse treatment. For example, the substance abuse counselor typically facilitates treatment goals with the client; thus the goals are individualized, focused mainly on the client. This reduces the opportunity to include the family's perspective in goal setting, which could facilitate the healing process for the family as a whole.

30. A 30-year-old male from Haiti is brought to the emergency department in sickle cell crisis. What is the best position for this client?

- A. Side-lying with knees flexed
- B. Knee-chest
- C. High Fowler's with knees flexed

D. Semi-Fowler's with legs extended on the bed

Correct Answer: D. Semi-Fowler's with legs extended on the bed

Placing the client in a semi-Fowler's position provides the best oxygenation for this client.

- **Options A, B, and C:** Flexion of the hips and knees, which includes the knee-chest position, impedes circulation and is not correct positioning for this client.

31. A patient is experiencing which type of incontinence if she experiences leaking urine when she coughs, sneezes, or lifts heavy objects?

- A. Overflow
- B. Reflex
- C. Stress
- D. Urge

Correct Answer: C. Stress

Stress incontinence is an involuntary loss of a small amount of urine due to sudden increased intra-abdominal pressure, such as with coughing or sneezing. Stress incontinence happens when physical movement or activity — such as coughing, laughing, sneezing, running or heavy lifting — puts pressure (stress) on the bladder, causing to leak urine.

- **Option A:** Overflow incontinence occurs when the bladder is overdistended and reaches its limit of compliance. At this point, the intravesical pressure exceeds the resting urethral closure pressure and urine overflows despite the absence of detrusor contraction. Patients experience a sense of incomplete emptying, slow-flowing urine, and urinary dribbling.
- **Option B:** Reflex incontinence is due to neurologic impairment of the central nervous system. Common neurologic disorders associated with reflex incontinence include stroke, Parkinson disease, and brain tumors. Reflex incontinence also occurs in patients with spinal cord injuries and multiple sclerosis. When patients with suprapontine or suprasacral spinal cord lesions present with symptoms of urge incontinence, this is known as detrusor hyperreflexia.
- **Option D:** People who experience urge incontinence get a strong feeling to urinate even when the bladder isn't full. This can occur in both men and women and involves a strong urge to urinate, often followed by loss of urine before reaching the toilet.

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

- A. Cardiac catheterization
- B. Cardiac enzymes
- C. Echocardiogram
- D. Electrocardiogram (ECG)

Correct Answer: D. Electrocardiogram (ECG)

The ECG is the quickest, most accurate, and most widely used tool to determine the location of myocardial infarction. ECG is an effective tool to distinguish between acute MI and the myocardial

ischemia that usually precedes it, as not all patients with myocardial ischemia will develop MI. Transitioning from ischemia to infarction results in precise sequential electrical abnormalities captured on ECG.

- **Option A:** Cardiac catheterization is an invasive study for determining coronary artery disease and may also indicate the location of myocardial damage, but the study may not be performed immediately. Cardiac catheterization is performed for both diagnostic and therapeutic purposes. Despite significant advancement in non-invasive cardiac imaging, it remains the standard for the measurement of cardiac hemodynamics.
- **Option B:** Cardiac enzymes are used to diagnose MI but can't determine the location. Cardiac troponins are specific and sensitive biomarkers of cardiac ischemia, and they are the preferred blood test in the evaluation of patients suspected to have acute MI. There are sensitive and highly sensitive assays to detect cardiac troponin levels in the blood.
- **Option C:** An echocardiogram is used most widely to view myocardial wall function after an MI has been diagnosed. Echocardiography is one of the most commonly used, non-invasive methods for looking at cardiac anatomy. Echocardiography is used to provide thin cross-sections of cardiac structures, this includes; left and right

33. The nurse instructs the nursing assistant on how to provide oral hygiene for a client who cannot perform this task for himself. Which of the following techniques should the nurse tell the assistant to incorporate into the client's daily care?

- A. Assess the oral cavity each time mouth care is given and record observations.
- B. Use a soft toothbrush to brush the client's teeth after each meal.
- C. Swab the client's tongue, gums, and lips with a soft foam applicator every 2 hours.
- D. Rinse the client's mouth with mouthwash several times a day.

Correct Answer: B. Use a soft toothbrush to brush the client's teeth after each meal.

A soft toothbrush should be used to brush the client's teeth after each meal and more often as needed. Mechanical cleaning is necessary to maintain oral health, stimulate gingiva, and remove plaque. Gently brush teeth in circular motions at a 45-degree angle to the gum line. Brush for 1-2 minutes to remove plaque build-up.

- **Option A:** Assessing the oral cavity and recording observations is the responsibility of the nurse, not the nursing assistant. Inspect the patient's oral cavity (lips, gums, teeth, tongue, inside cheeks, and mucosa of floor and roof of the mouth) for any sign of dryness, edema, redness, bleeding, or other debris.
- **Option C:** Swabbing with a soft foam applicator does not provide enough friction to clean the mouth. In a comatose patient, use an Asepto syringe or irrigating bulb without a needle to rinse the oral cavity. Swab or use oral suction to remove pooled secretions
- **Option D:** Mouthwash can be a drying irritant and is not recommended for frequent use. Use 0.05% Cetylpyridinium Chloride (antifungal and antibacterial) containing mouthwash to reduce the risk of infection and to remove plaque.

34. Drew is diagnosed with Type I diabetes mellitus. As a nurse taking care of the client, you should know that in his condition:

- A. Insulin is produced but is malformed.
- B. The beta cells of the pancreas stop producing insulin.
- C. The client cannot be treated.
- D. Diagnosis is made in clients over age 50.

Correct Answer: B. The beta cells of the pancreas stop producing insulin.

In type I diabetes mellitus, the beta cells stop producing insulin completely. T1DM is characterized by the destruction of beta cells in the pancreas, typically secondary to the autoimmune destruction of beta cells. The result is the absolute destruction of beta cells, and consequentially, insulin is absent or extremely low.

- **Option A:** There is no such pathophysiologic process as malformed insulin. A patient with DM has the potential for hyperglycemia. The pathology of DM can be unclear since several factors can often contribute to the disease. Hyperglycemia alone can impair pancreatic beta-cell function and contributes to impaired insulin secretion. Consequentially, there is a vicious cycle of hyperglycemia leading to the impaired metabolic state. Blood glucose levels above 180 mg/dL are often considered hyperglycemic in this context, though because of the variety of mechanisms, there is no clear cutoff point.
- **Option C:** Clients with type I diabetes can be treated with insulin. Since T1DM is a disease primarily due to the absence of insulin, insulin administration through daily injections, or an insulin pump, is the mainstay of treatment. Metformin is the first line of the prescribed diabetic medications and works by lowering basal and postprandial plasma glucose.
- **Option D:** The diagnosis can be made in clients at any age. Globally, 1 in 11 adults has DM (90% having T2DM). The onset of T1DM gradually increases from birth and peaks at ages 4 to 6 years and then again from 10 to 14 years. Approximately 45% of children present before age ten years. The prevalence in people under age 20 is about 2.3 per 1000.

35. For a client with hepatic cirrhosis who has altered clotting mechanisms, which intervention would be most important?

- A. Allowing complete independence of mobility
- B. Applying pressure to injection sites
- C. Administering antibiotics as prescribed
- D. Increasing nutritional intake

Correct Answer: B. Applying pressure to injection sites.

The client with cirrhosis who has altered clotting is at high risk for hemorrhage. Prolonged application of pressure to injection or bleeding sites is important. Instruct patient/SO of signs and symptoms that warrant notification of health care provider: increased abdominal girth; rapid weight loss/gain; increased peripheral edema; increased dyspnea, fever; blood in stool or urine; excess bleeding of any kind; jaundice.

- **Option A:** Complete independence may increase the client's potential for injury, because an unsupervised client may injure himself and bleed excessively. Instruct SO to notify health care providers of any confusion, untidiness, night wandering, tremors, or personality change. Changes (reflecting deterioration) may be more apparent to SO, although insidious changes may be noted by others with less frequent contact with the patient.

- **Option C:** Antibiotics are important to promote liver regeneration. However, they are not most important for a client at high risk for hemorrhage. Some drugs are hepatotoxic (especially narcotics, sedatives, and hypnotics). In addition, the damaged liver has a decreased ability to metabolize all drugs, potentiating cumulative effect and/or aggravation of bleeding tendencies.
- **Option D:** Encourage the patient to eat; explain reasons for the types of diet. Feed the patient if tiring easily, or have SO assisted the patient. Include the patient in meal planning to consider his/her preferences in food choices. Improved nutrition and diet are vital to recovery. The patient may eat better if the family is involved and preferred foods are included as much as possible.