

Kevin's Review - 35 NCLEX Practice Questions

1. A nurse is giving dietary instructions to a client receiving levodopa. Which of the following food items should be avoided by the client?

- A. Goat yogurt
- B. Whole grain cereal
- C. Asparagus
- D. Apples

Correct Answer: B. Whole grain cereal

When administering levodopa, the client should avoid excessive intake of foods rich in pyridoxine (vitamin B6) which has been found to reduce the effects of levodopa. Large amounts of pyridoxine are also contained in some foods such as bananas, egg yolks, lima beans, meats, peanuts, and whole-grain cereals.

- **Options A, C, & D:** These are foods low in vitamin B6.

2. Jon has a potassium level of 6.5 mEq/L, which medication would nurse Wilma anticipate?

- A. Potassium supplements
- B. Kayexalate
- C. Calcium gluconate
- D. Sodium tablets

Correct Answer: B. Kayexalate

The client's potassium level is elevated; therefore, Kayexalate would be ordered to help reduce the potassium level. Kayexalate is a cation-exchange resin, which can be given orally, by nasogastric tube, or by retention enema. Potassium is drawn from the bowel and excreted through the feces.

- **Option A:** Because the client's potassium level is already elevated, potassium supplements would not be given. Patients with neuromuscular weakness, paralysis, or ECG changes and elevated potassium of more than 5.5 mEq/L in patients at risk for ongoing hyperkalemia, or confirmed hyperkalemia of 6.5 mEq/L should have aggressive treatment. Exogenous sources of potassium should be immediately discontinued.
- **Option C:** Neither calcium gluconate nor sodium tablets would address the client's elevated potassium level. Calcium therapy will stabilize the cardiac response to hyperkalemia and should be initiated first in the setting of cardiac toxicity. Calcium does not alter the serum concentration of potassium but is a first-line therapy in hyperkalemia-related arrhythmias and ECG changes.
- **Option D:** Sodium bicarbonate infusion may be helpful in patients with metabolic acidosis. Bolus dosing of sodium bicarbonate is less effective. Loop or thiazide diuretics may be helpful in enhancing potassium excretion. They may be used in non-oliguric, volume overloaded patients but should not be used as monotherapy in symptomatic patients.

3. Jun has been hospitalized for major depression and suicidal ideation. Which of the following statements indicates to the nurse that the client is improving?

- A. "I'm of no use to anyone anymore."
- B. "I know my kids don't need me anymore since they're grown."
- C. "I couldn't kill myself because I don't want to go to hell."
- D. "I don't think about killing myself as much as I used to."

Correct Answer: D. "I don't think about killing myself as much as I used to."

The statement "I don't think about killing myself as much as I used to." indicates a lessening of suicidal ideation and improvement in the client's condition. Suicidal ideation is highly linked to completed suicide. Some inexperienced clinicians have difficulty asking this question. They fear the inquiry may be too intrusive or that they may provide the person with an idea of suicide. In reality, patients appreciate the question as evidence of the clinician's concern. A positive response requires further inquiry.

- **Option A:** Determine what the patient believes his or her suicide would achieve. This suggests how seriously the person has been considering suicide and the reason for death. For example, some believe that their suicide would provide a way for family or friends to realize their emotional distress.
- **Option B:** Others see their death as a relief from their own psychic pain. Still others believe that their death would provide a heavenly reunion with a departed loved one. In any scenario, the clinician has another gauge of the seriousness of the planning. A clear and complete evaluation and clinical interview provide the information upon which to base a suicide intervention. Although risk factors offer major indications of the suicide danger, nothing can substitute for a focused patient inquiry.
- **Option C:** A host of thoughts and behaviors are associated with self-destructive acts. Although many assume that people who talk about suicide will not follow through with it, the opposite is true; a threat of suicide can lead to the completed act, and suicidal ideation is highly correlated with suicidal behaviors.

4. A laboring client has external electronic fetal monitoring in place. Which of the following assessment data can be determined by examining the fetal heart rate strip produced by the external electronic fetal monitor?

- A. Gender of the fetus
- B. Fetal position
- C. Labor progress
- D. Oxygenation

Correct Answer: D. Oxygenation

Oxygenation of the fetus may be indirectly assessed through fetal monitoring by closely examining the fetal heart rate strip. Accelerations in the fetal heart rate strip indicate good oxygenation, while decelerations in the fetal heart rate sometimes indicate poor fetal oxygenation.

- **Option A:** In the second and third trimesters of pregnancy, ultrasound imaging scans the genital anatomy of the fetus to identify its gender. In the early studies conducted on the use of ultrasound results for identifying the fetal gender, a male fetus was demonstrated by the presence of a scrotum and a penis, and a female fetus by the absence of these organs.
- **Option B:** Ultrasonography is noninvasive and has been found to be more accurate for assessing position of the fetal head, during labor. Recent studies by Sherer et al., Chou et al., Dupuis et al.,

and Zahalka et al. have shown that ultrasound scanning is a quick and efficient way of increasing the accuracy of the assessment of fetal head position during the second stage of labor.

- **Option C:** Recently, intrapartum transperineal ultrasound for the assessment of fetal head descent has been introduced to assess labor progress in the first stage of labor in a more objective and non-invasive way.

5. A client's arterial blood gas levels are as follows: pH 7.31; PaO₂ 80 mm Hg, PaCO₂ 65 mm Hg; HCO₃⁻ 36 mEq/L. Which of the following signs or symptoms would the nurse expect?

- A. Cyanosis
- B. Flushed skin
- C. Irritability
- D. Anxiety

Correct Answer: B. Flushed skin

The high PaCO₂ level causes flushing due to vasodilation. The client also becomes drowsy and lethargic because carbon dioxide has a depressant effect on the CNS. On the contrary, chronic respiratory acidosis may be caused by COPD where there is a decreased responsiveness of the reflexes to states of hypoxia and hypercapnia.

- **Option A:** Cyanosis is a late sign of hypoxia. In respiratory acidosis, the slight increase in bicarbonate serves as a buffer for the increase in H⁺ ions, which helps minimize the drop in pH. In some cases, patients may present with cyanosis due to hypoxemia.
- **Option C:** Irritability is not common with a PaCO₂ level of 65 mm Hg but is associated with hypoxia. If the respiratory acidosis is severe and accompanied by prolonged hypoventilation, the patient may have additional symptoms such as altered mental status, myoclonus, and possibly even seizures.
- **Option D:** The clinical presentation of respiratory acidosis is usually a manifestation of its underlying cause. Signs and symptoms vary based on the length, severity, and progression of the disorder. Patients can present with dyspnea, anxiety, wheezing, and sleep disturbances.

6. Chad, a 5-year-old preschooler, is brought to the clinic due to an ear problem. Which assessment data would cause the nurse to suspect serous otitis media?

- A. Bright red, bulging, or retracted tympanic membrane and fever.
- B. Inflammation of the external ear and crust formation on the auditory canal.
- C. Sensorineural hearing loss and complaints of tinnitus.
- D. Plugged feeling in the ear and reverberation of the client's own voice.

Correct Answer: D. Plugged feeling in the ear and reverberation of the client's own voice.

Serous otitis media is manifested by a plugged feeling in the ear, reverberation of the client's own voice, and hearing loss. In many instances, they will have the symptom of aural fullness or a sensation that the ear is popping. In adults, serous otitis media or otitis media with effusion is more often unilateral. Adult patients may report tinnitus and the sensation of a foreign body in the external auditory

canal.

- **Option A:** A bright red, bulging, or retracted tympanic membrane and fever suggest suppurative otitis media. By inspecting the ears, the degree of tympanic membrane mobility in response to negative or positive pressure can be evaluated to assess for fluid in the middle ear, a hallmark of otitis media. Other abnormalities in the tympanic membrane found are erythema, bulging or fullness, or extreme retraction.
- **Option B:** Inflammation of the external ear and crust formation on the auditory canal suggest external otitis media. Otoscopy will reveal an erythematous and edematous ear canal with associated debris (yellow, white, or gray). In some cases, the tympanic membrane is erythematous or partially visualized due to edema of the external auditory canal.
- **Option C:** Sensorineural hearing loss and tinnitus indicate otosclerosis. Otosclerosis, also called otospongiosis, is an abnormal bone remodeling in the middle ear in which a normal dense endochondral layer of bony otic capsule in the bony labyrinth is replaced by one or more foci of irregularly laid spongy bone and most commonly involves the stapes region.

7. All of the following laboratory test results on a burned client's blood are present during the emergent phase. Which result should the nurse report to the physician immediately?

- A. Serum sodium elevated to 131 mmol/L (mEq/L)
- B. Serum potassium 7.5 mmol/L (mEq/L)
- C. Arterial pH is 7.32
- D. Hematocrit is 52%

Correct Answer: B. Serum potassium 7.5 mmol/L (mEq/L)

All these findings are abnormal; however, only the serum potassium level is changed to the degree that serious, life-threatening responses could result. With such a rapid rise in the potassium level, the client is at high risk of experiencing severe cardiac dysrhythmias and death.

- **Option A:** Serum sodium is abnormal, but not to the same degree of severity, and would be expected in the emergent phase after a burn injury. Severe cutaneous injuries such as burn injuries and blast injuries result in the loss of both water and sodium. For burn patients, hypernatremia that occurs within a few days of injury may be associated with increased risk of death.
- **Option C:** Acid-base studies were carried out on 76 consecutive burn patients admitted within 36 hours of injury. Admission blood pH and base excess (BE) values all decreased in a linear relationship to the extent of the burn. Blood Pco-2 changes were unrelated to the extent of the burn. Significant acidosis developed within 2 hours of burn injury.
- **Option D:** The hematocrit (Hct) is the percentage of the volume of the whole blood that is made up of red blood cells. In burns, the patient has lost a lot of fluid from leaky blood vessels. There are more red cells than fluid so the hematocrit is high.

8. 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.

9. Smoking is contraindicated in pregnancy because:

- A. Nicotine causes vasodilation of the mother's blood vessels.
- B. Carbon monoxide binds with the hemoglobin of the mother reducing available hemoglobin for the fetus.
- C. The smoke will make the fetus, and the mother feels dizzy.
- D. Nicotine will cause vasoconstriction of the fetal blood vessels.

Correct Answer: B. Carbon monoxide binds with the hemoglobin of the mother reducing available hemoglobin for the fetus.

Carbon monoxide is one of the substances found in cigarette smoke. This substance diminishes the ability of the hemoglobin to bind with oxygen thus reducing the amount of oxygenated blood reaching the fetus.

- **Option A:** There is blood flow restriction to the placenta due to the vasoconstrictive effects of catecholamines released from the adrenals and nerve cells after nicotine activation.
- **Option C:** Nicotine is rapidly absorbed when the tobacco smoke reaches the small airways and alveoli of the lung. This causes a quick rise in blood nicotine concentrations, but due to the eventual burnout of the cigarette, these levels also peak early and thereafter drop to lower levels.
- **Option D:** Direct effects on nicotinic acetylcholine receptors (nAChRs), which are present and functional very early in the fetal brain [5] are also likely to contribute.

10. The nurse is reviewing the record of a client with Crohn's disease. Which of the following stool characteristics would the nurse expect to note documented

on the client's record?

- A. Chronic constipation
- B. Diarrhea
- C. Constipation alternating with diarrhea.
- D. Stool constantly oozes from the rectum.

Correct Answer: B. Diarrhea

Crohn's disease is characterized by nonbloody diarrhea of usually not more than four to five stools daily. Over time, the diarrhea episodes increase in frequency, duration, and severity. In CD, the inflammation extends through the entire thickness of the bowel wall from the mucosa to the serosa. The disease runs a relapsing and remitting course. The other options are not associated with diarrhea.

- **Option A:** Patients with flare-ups of Crohn's disease typically present with abdominal pain (right lower quadrant), flatulence/bloating, diarrhea (can include mucus and blood), fever, weight loss, anemia. In severe cases, perianal abscess, perianal Crohn's disease, and cutaneous fistulas can be seen.
- **Option C:** When the small bowel is involved, it may present with diarrhea, malabsorption, weight loss, abdominal pain, and anorexia. Enterovesical fistulae may present with pneumaturia, recurrent urinary tract infections, and feculent vaginal discharge.
- **Option D:** Granuloma formation is very common in Crohn's disease but their absence does not exclude the diagnosis. The ongoing inflammation and scarring lead to bowel obstruction and stricture formation. Crohn's disease is also associated with enterovesical, enteroenteral, enterocutaneous, and enterovaginal fistulas.

11. Nurse Kelsey is a nurse manager assigned to the burn unit. Which client is best to assign to an RN who has floated from the surgery unit?

- A. A client with infected partial-thickness back and chest burns who has a dressing scheduled.
- B. A client who has just been admitted with burns over 30% of the body after a warehouse fire.
- C. A client with full-thickness burns on both arms who needs assistance in positioning hand splints.
- D. A client who requires discharge teaching about nutrition and wound care after having skin grafts.

Correct Answer: A. A client with infected partial-thickness back and chest burns who has a dressing scheduled.

Familiarity with the dressing change and practice of sterility by a nurse from the surgery unit will be appropriately used during the float in the burn unit. There are several options for burn dressings. Some are impregnated with antimicrobials (eg, silver). Most are a form of gauze, but there are biosynthetic dressings with some of the characteristics of skin that adhere to the wound and can be left in place for extended periods of time.

- **Option B:** Admission assessment requires expertise in caring for burn patients. The needs of the client must be competently met with the knowledge, skills and abilities of the staff to meet these needs. In other words, the nurse who delegates aspects of care to other members of the nursing team must balance the needs of the client with the abilities of those to which the nurse is delegating tasks and aspects of care.

- **Option C:** Splinting requires expertise in caring for burn patients. The staff members' levels of education, knowledge, past experiences, skills, abilities, and competencies are also evaluated and matched with the needs of all of the patients in the group of patients that will be cared for.
- **Option D:** Discharge teaching requires expertise in caring for burn patients. Validated and documented competencies must also be considered prior to assignment of patient care. No aspect of care can be assigned or delegated to another nursing staff member unless this staff member has documented evidence that they are deemed competent by a registered nurse to do so.

12. Which of the following symptoms is expected with hemoglobin of 10 g/dl?

- A. None
- B. Pallor
- C. Palpitations
- D. Shortness of breath

Correct Answer: A. None

Mild anemia usually has no clinical signs. Palpitations, SOB, and pallor are all associated with severe anemia. Whether or not a patient becomes symptomatic depends on the etiology of anemia, the acuity of onset, and the presence of other comorbidities, especially the presence of cardiovascular disease. Most patients experience some symptoms related to anemia when the hemoglobin drops below 7.0 g/dL.

- **Option B:** Pallor is the most commonly encountered physical finding in patients with anemia. As mentioned earlier, this sign is due to the shunting of blood away from the skin and other peripheral tissues, permitting enhanced blood flow to vital organs.
- **Option C:** Hemoglobin is the protein in red blood cells that helps transport oxygen around the body. In iron deficiency, low levels of hemoglobin mean the heart has to work extra hard to carry oxygen. This may lead to irregular heartbeats or the feeling that the heart is beating abnormally fast.
- **Option D:** Hemoglobin is an iron-rich protein that helps red blood cells carry oxygen from the lungs to the rest of the body. If the client has anemia, the body does not get enough oxygen-rich blood. This can cause him to feel tired or weak. He may also have shortness of breath, dizziness, headaches, or an irregular heartbeat.

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

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

Correct Answer: A. Frontal plane

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

plane used to transect the body, in order to describe the location of structures or the direction of movements.

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

14. The nurse is doing an admission assessment on a client with a history of duodenal ulcer. To determine whether the problem is currently active, the nurse would assess the client for which of the following most frequent symptom(s) of duodenal ulcer?

- A. Pain that is relieved by food intake.
- B. Pain that radiates down the right arm.
- C. N/V
- D. Weight loss

Correct Answer: A. Pain that is relieved by food intake.

The most frequent symptom of a duodenal ulcer is pain that is relieved by food intake. These clients generally describe the pain as burning, heavy, sharp, or “hungry” pain that often localizes in the midepigastric area. Duodenal ulcers occur when there is a disruption to the surface of the mucosa of the duodenum. These ulcers are part of peptic ulcer disease, which involves the stomach and the first part of the duodenum.

- **Option B:** The degree of disease progression before the initial diagnosis can affect the symptoms with which a patient may present. The location of the disease can also be differentiated based on symptoms. The pain associated with duodenal ulcers improves after meals, while the pain associated with gastric ulcers generally intensifies after meals.
- **Option C:** The typical presentation of a patient with gastric ulcers is epigastric pain that is worse with eating. It often correlates with mild nausea and early satiety. They often describe this pain as a sharp or burning type of pain that typically doesn’t radiate. The most common finding on the physical exam is epigastric tenderness.
- **Option D:** The client with a duodenal ulcer usually does not experience weight loss. These symptoms are usually more typical in the client with a gastric ulcer. Patients may present with upper GI bleeding. The clinician should ask if they are having any black tarry stools, hematemesis, coffee-ground emesis, or bright red blood per rectum. It is important to remember that up to 15% of patients who present with bright red rectal bleeding have a brisk upper GI bleed.

15. An appropriate nursing diagnosis for clients who are taking NSAIDs and anticoagulants would be which of the following?

- A. Risk for injury related to prolonged bleeding time, inhibition of platelet aggregation, and increased risk of GI bleeding.
- B. Potential for injury related to GI toxicity and decrease in bleeding time.
- C. Altered protection related to GI bleeding and increasing platelet aggregation.
- D. Risk for injury related to thrombocytosis prolonged prothrombin time.

Correct Answer: A. Risk for injury related to prolonged bleeding time, inhibition of platelet aggregation, and increased risk of GI bleeding.

The nursing diagnosis addresses all the interactions that pose a threat to the client taking both these drugs. Significant interactions between corticosteroids and other drugs also exist, so concurrent use of other medications should undergo an evaluation as changes in their management may be warranted. The effect of anticoagulants, such as warfarin, may increase, which would require closer monitoring and potential dosage change. This effect would likely be at 3 to 7 days after starting the corticosteroid.

- **Option B:** Bleeding time is prolonged not decreased when both drugs are used. Corticosteroid users who are on concurrent NSAID therapy, or others at higher risk of ulcers or gastrointestinal (GI) bleeding including those with a history of ulcers or GI bleeding and those with severe comorbidities (e.g., advanced cancer) should receive proton pump inhibitor therapy.
- **Option C:** Platelet aggregation is inhibited not increased when both drugs are used. Live vaccine administration while a patient is taking immunosuppressive dosing of a glucocorticoid (40 mg/day of prednisolone or equivalent and greater for more than 7-day duration) may lead to an increased risk of infection. Therefore, the recommendation is to delay any live or live-attenuated vaccination for three months after discontinuing immunosuppressive glucocorticoid therapy.
- **Option D:** Thrombocytosis does not occur with the use of either drug. Contraindications to corticosteroids include hypersensitivity to any component of the formulation, concurrent administration of live or live-attenuated vaccines (when using immunosuppressive doses), systemic fungal infection, osteoporosis, uncontrolled hyperglycemia, diabetes mellitus, glaucoma, joint infection, uncontrolled hypertension, herpes simplex keratitis, and varicella infection. Additional relative contraindications include peptic ulcer disease, congestive heart failure, and viral or bacterial infections not controlled by anti-infectives.

16. Which of the following adverse effects is specific to the biguanide diabetic drug metformin (Glucophage) therapy?

- A. Hypoglycemia
- B. Lactic acidosis
- C. GI distress
- D. Somnolence

Correct Answer: B . Lactic acidosis

Lactic acidosis is the most dangerous adverse effect of metformin administration with death resulting in approximately 50 percent of individuals who develop lactic acidosis while on this drug. Metformin has a black box warning for lactic acidosis. This side effect is rare but serious and has an incident rate of 1/30,000 patients. Lactate builds up in the body and cannot be eliminated easily, which leads to metabolic acidosis. This lowering of pH in the blood can cause nonspecific signs and symptoms, which include malaise, respiratory distress, elevated lactate levels, and anion gap acidosis.

- **Option A:** Metformin does not induce insulin production; thus, the administration does not result in hypoglycemic events. Metformin is a biguanide drug that reduces blood glucose levels by decreasing the production of glucose in the liver, decreasing intestinal absorption, and increasing insulin sensitivity. Metformin decreases both basal and postprandial blood glucose.
- **Option C:** Some nausea, vomiting, and diarrhea may develop but is usually not severe. Gastrointestinal side effects, including diarrhea, nausea, and vomiting, are very common and typically occur in up to 30% of patients taking metformin.
- **Option D:** Metformin does not induce sleepiness. Occurring less frequently, some patients experience chest discomfort, headache, diaphoresis, hypoglycemia, weakness, and rhinitis. Decreased vitamin B12 levels are associated with long-term metformin and should be monitored, particularly in anemic or peripheral neuropathy patients. Supplementation of vitamin B12 may be necessary.

17. It is a transparent membrane that focuses the light that enters the eyes to the retina.

- A. Lens
- B. Sclera
- C. Cornea
- D. Pupils

Correct Answer: A. Lens

The lens is located in the eye. By changing its shape, the lens changes the focal distance of the eye. In other words, it focuses the light rays that pass through it (and onto the retina) in order to create clear images of objects that are positioned at various distances. It also works together with the cornea to refract, or bend, light. The lens consists of the lens capsule, the lens epithelium, and the lens fibers. The lens capsule is the smooth, transparent outermost layer of the lens, while the lens fibers are long, thin, transparent cells that form the bulk of the lens. The lens epithelium lies between these two and is responsible for the stable functioning of the lens. It also creates lens fibers for the lifelong growth of the lens.

- **Option B:** The sclera is the white part of the eye that surrounds the cornea. In fact, the sclera forms more than 80 percent of the surface area of the eyeball, extending from the cornea all the way to the optic nerve, which exits the back of the eye. Only a small portion of the anterior sclera is visible.
- **Option C:** The cornea is the eye's clear, protective outer layer. Along with the sclera (the white of your eye), it serves as a barrier against dirt, germs, and other things that can cause damage. The cornea can also filter out some of the sun's ultraviolet light. It also plays a key role in vision. As light enters the eye, it gets refracted, or bent, by the cornea's curved edge. This helps determine how well the eye can focus on objects close-up and far away.
- **Option D:** Pupils are the black center of the eye. Their function is to let in light and focus it on the retina (the nerve cells at the back of the eye) so one can see. Muscles located in the iris (the colored part of your eye) control each pupil.

18. The adolescent's inability to develop a sense of who he is and what he can become results in the sense of which of the following?

- A. Shame
- B. Guilt
- C. Inferiority
- D. Role confusion

Correct Answer: D. Role confusion

According to Erikson, role confusion develops when the adolescent does not develop a sense of identity and a sense of where he fits in.

- **Option A:** Toddlers develop a sense of shame when they do not achieve autonomy. If children are criticized, overly controlled, or not given the opportunity to assert themselves, they begin to feel inadequate in their ability to survive, and may then become overly dependent upon others, lack self-esteem, and feel a sense of shame or doubt in their abilities.
- **Option B:** Preschoolers develop a sense of guilt when they do not develop a sense of initiative. If this tendency is squelched, either through criticism or control, children develop a sense of guilt. The child will often overstep the mark in his forcefulness, and the danger is that the parents will tend to punish the child and restrict his initiatives too much.
- **Option C:** School-age children develop a sense of inferiority when they do not develop a sense of industry. If this initiative is not encouraged, if it is restricted by parents or teachers, then the child begins to feel inferior, doubting his own abilities and therefore may not reach his or her potential.

19. A practitioner orders chest physiotherapy with percussion and vibration for a newly admitted patient. Which information obtained by the nurse during the health history should alert the nurse to question the practitioner's order?

- A. Emphysema
- B. Osteoporosis
- C. Cystic fibrosis
- D. Chronic bronchitis

Correct Answer: B. Osteoporosis

Implementing the practitioner's order may compromise patient safety because percussion and vibration in the presence of osteoporosis may cause fractures. Osteoporosis is an abnormal loss of bone mass and strength. Chest physiotherapy is a group of physical techniques that improve lung function and help you breathe better. Chest PT, or CPT expands the lungs, strengthens breathing muscles, and loosens and improves drainage of thick lung secretions.

- **Option A:** These are appropriate interventions for a patient with emphysema. Emphysema is a chronic pulmonary disease characterized by an abnormal increase in the size of air spaces distal to the terminal bronchioles with destructive changes in their walls. Chest percussion and vibration to help loosen lung secretions. Some patients wear a special CPT vest hooked up to a machine. The machine makes the vest vibrate at a high frequency to break up the secretions.
- **Option C:** These are appropriate interventions for a patient with cystic fibrosis causes widespread dysfunction of the exocrine glands. It is characterized by thick, tenacious secretions in the respiratory system that block the bronchioles, creating breathing difficulties. Chest PT helps treat such diseases as cystic fibrosis and COPD (chronic obstructive pulmonary disease). It also keeps the lungs clear to prevent pneumonia after surgery and during periods of immobility.

- **Option D:** These are appropriate interventions for a patient with chronic bronchitis. Bronchitis is an inflammation of the mucous membranes of the bronchial airways. The doctor may recommend chest PT to help loosen and cough up thick or excessive lung secretions from such conditions as lung infections, which include pneumonia, acute bronchitis, and lung abscess.

20. A nurse is preparing to give a lung surfactant to a 36 weeks old baby with respiratory distress syndrome. Which of the following is the correct route of administration?

- A. Intradermal
- B. Intratracheal
- C. Intramuscular
- D. Intravenous

Correct Answer: B. Intratracheal

Lung surfactant is instilled through the catheter inserted into the newborn's endotracheal tube.

- **Options A, C, & D:** These are not the routes of administration for this medication.

21. When providing discharge teaching for a client with uric acid calculi, the nurse should make an instruction to avoid which type of diet?

- A. Low-calcium
- B. Low-oxalate
- C. High-oxalate
- D. High-purine

Correct Answer: D. High-purine

To control uric acid calculi, the client should follow a low-purine diet, which excludes high-purine foods such as organ meats. To prevent uric acid stones, cut down on high-purine foods such as red meat, organ meats, and shellfish, and follow a healthy diet that contains mostly vegetables and fruits, whole grains, and low-fat dairy products.

- **Option A:** A low-calcium diet decreases the risk for oxalate renal calculi. Limit sugar-sweetened foods and drinks, especially those that contain high fructose corn syrup. Limit alcohol because it can increase uric acid levels in the blood and avoid crash diets for the same reason.
- **Option B:** A low-oxalate diet is used to control calcium or oxalate calculi. Eating less animal-based protein and eating more fruits and vegetables will help decrease urine acidity and this will help reduce the chance for stone formation.
- **Option C:** Oxalate is a compound that is naturally found in most foods such as fruits, vegetables, nuts, grains, and seeds. It must be included in the diet. In addition to calcium oxalate stones, another common type of kidney stone is uric acid stones. Red meat, organ meats, and shellfish have high concentrations of a natural chemical compound known as purines.

22. Which statement by a patient with an ileostomy alerts the nurse to the need for further education?

- A. "I don't expect to have much of a problem with fecal odor."
- B. "I will have to take special precaution to protect my skin around the stoma."
- C. "I'm going to have to irrigate my stoma so I have a bowel movement every morning."
- D. "I should avoid gas forming foods like beans to limit funny noises from the stoma."

Correct Answer: C. "I'm going to have to irrigate my stoma so I have a bowel movement every morning"

This statement is inaccurate in relation to an ileostomy and indicates that the patient needs more teaching. An ileostomy produces liquid fecal drainage that is constant and cannot be regulated. An ileostomy is when the lumen of the ileum (small bowel) is brought through the abdominal wall via a surgical opening (created by an operation). This can either be temporary or permanent, an end or a loop. The purpose of an ileostomy is to evacuate stool from the body via the ileum rather than the usual route of the anus.

- **Option A:** The odor from drainage is minimal because fewer bacteria are present in the ileum compared with the large intestine. There are different indications for forming an ileostomy but essentially arrive at the same result of diverting stool out of the body without it ever entering the colon.
- **Option B:** An ileostomy is an opening into the ileum (distal small intestine from the jejunum to the cecum). Cleansing the skin, skin barriers, and a well fitted appliance are precautions to protect the skin around the ileostomy stoma. The drainage from ileostomy contains enzymes that can damage the skin.
- **Option D:** An ileostomy stoma does not have a sphincter that can control the flow of flatus or drainage, resulting in noise. The output from an ileostomy consists of loose or porridge-like stool consistent with that expected to pass through the small bowel (as it is the large bowel that is responsible for making the stool more solid dependent upon water absorption). The output from an ileostomy can vary but typically ranges from 200 to 700 ml per day, and an ileostomy is typically formed on the right side of the abdomen.

23. At what stage of labor and delivery does a primigravida differ mainly from a multigravida?

- A. Stage 1
- B. Stage 2
- C. Stage 3
- D. Stage 4

Correct Answer: A. Stage 1

In stage 1 during normal vaginal delivery of a vertex presentation, the multigravida may have about 8 hours of labor while the primigravida may have up to 12 hours labor.

- **Option B:** The second stage of labor commences with complete cervical dilation to 10 centimeters and ends with the delivery of the neonate. In women who have delivered vaginally previously, whose bodies have acclimated to delivering a fetus, the second stage may only require a brief trial,

whereas a longer duration may be required for a nulliparous female.

- **Option C:** The third stage of labor commences when the fetus is delivered and concludes with the delivery of the placenta. Separation of the placenta from the uterine interface is hallmarked by three cardinal signs including a gush of blood at the vagina, lengthening of the umbilical cord, and a globular shaped uterine fundus on palpation.
- **Option D:** During the fourth stage of labor, the baby is born, the placenta has delivered, and the woman and her partner will probably feel joy, relief, and fatigue. Most babies are ready to nurse within a short period after birth. Others wait a little longer. If the woman is planning to breastfeed, it is strongly encouraged to try to nurse as soon as possible after the baby is born. Nursing right after birth will help the uterus to contract and will decrease the amount of bleeding.

24. A nurse is assessing a clinic patient with a diagnosis of hepatitis A. Which of the following is the most likely route of transmission?

- A. Sexual contact with an infected partner
- B. Contaminated food
- C. Blood transfusion
- D. Illegal drug use

Correct Answer: B. Contaminated food

Hepatitis A is the only type that is transmitted by the fecal-oral route through contaminated food. Endemic rates are high in developing countries with low socioeconomic conditions and poor sanitation and hygiene practices. Exposure in these developing countries usually occurs in childhood. The incidence of HAV in a given population correlates with socioeconomic properties such as income, the density of housing, sanitation, and water quality.

- **Option A:** Hepatitis B infection is a serious global healthcare problem. Often transmitted via body fluids like blood, semen, and vaginal secretions, the hepatitis B virus can cause liver injury. It involves the transmission of HBV through sexual contact or mucosal surface contact. Unprotected sex and injection drug use are major modes of transmission in low to intermediate prevalence areas.
- **Option C:** The patients should be told not to donate blood or any organs as the risk of transmission is high. Hepatitis C is a serious infection that has high morbidity and mortality. The management of HCV is prohibitively expensive, and newer antivirals offer a potential cure for the disorder.
- **Option D:** Hepatitis B, C, and D are transmitted through infected bodily fluids. Hepatitis D virus infection is an acute and chronic inflammatory process transmitted parenterally. Hepatitis D replicates independently within hepatocytes but requires hepatitis B surface antigen for propagation. Hepatic cell death occurs due to direct cytotoxic effects of hepatitis D virus or a host-mediated immune response. Risk factors include blood transfusions and intravenous drug use.

25. A client who is unconscious needs frequent mouth care. When performing mouth care, the best position of a client is:

- A. Fowler's position
- B. Side-lying

- C. Supine
- D. Trendelenburg

Correct Answer: B. Side-lying

An unconscious client is best placed on his side when doing oral care to prevent aspiration. An unconscious patient is placed in the side-lying position when mouth care is provided because this position prevents pooling of secretions at the back of the oral cavity, thereby reducing the risk of aspiration. Oral hygiene is especially important for patients receiving oxygen therapy, patients who have nasogastric tubes, and patients who are NPO. Their oral mucosa dries out much faster than normal due to their mouth-breathing.

- **Option A:** A soft toothbrush or gauze-padded tongue blade may be used to clean the teeth and mouth. The patient should be positioned in the lateral position with the head turned toward the side to provide for drainage and to prevent aspiration.
- **Option C:** This is the most common position for surgery with a patient lying on his or her back with head, neck, and spine in neutral positioning and arms either adducted alongside the patient or abducted to less than 90 degrees.
- **Option D:** A variation of supine in which the head of the bed is tilted down such that the pubic symphysis is the highest point of the trunk facilitates venous return and improves exposure during abdominal and laparoscopic surgeries.

26. The charge nurse on the medical-surgical floor assigns vital signs to the nursing assistive personnel (NAP) and medication administration to the licensed vocational nurse (LVN). Which nursing model of care is this floor following?

- A. Team nursing
- B. Case method nursing
- C. Functional nursing
- D. Primary nursing

Correct Answer: C. Functional nursing

This medical-surgical floor is following the functional nursing model of care, in which care is partitioned and assigned to a staff member with the appropriate skills. For example, the NAP is assigned vital signs, and the LVN is assigned medication administration. Functional nursing is task-oriented in scope. Instead of one nurse performing many functions, several nurses are given one or two assignments. For example, there is a medicine nurse whose sole responsibility is administering medications.

- **Option A:** With team nursing, an RN or LVN is paired with a NAP. The pair is then assigned to render care for a group of patients. Team nursing is a system that distributes the care of a patient amongst a team that is all working together to provide for this person. This team consists of up to 4 to 6 members that has a team leader who gives jobs and instructions to the group.
- **Option B:** In case method nursing, one nurse cares for one patient during her entire shift. Private duty nursing is an example of this care model. The case method is a participatory, discussion-based way of learning where students gain skills in critical thinking, communication, and group dynamics. It is a type of problem-based learning.

- **Option D:** When the primary nursing model is utilized, one nurse manages care for a group of patients 24 hours a day, even though others provide care during part of the day. A method of providing nursing services to inpatients whereby one nurse plans the care of specific patients for a period of 24 hours. The primary nurse provides direct care to those patients when working and is responsible for directing and supervising their care in collaboration with other health care team members.

27. A company driver is found at the scene of an automobile accident in a state of emotional distress. He tells the paramedics that he feels dizzy, tingling in his fingertips, and does not remember what happened to his car. Respiratory rate is rapid at 34/minute. Which primary acid-base disturbance is the young man at risk for if medical attention is not provided?

- A. Respiratory Acidosis
- B. Respiratory Alkalosis
- C. Metabolic Acidosis
- D. Metabolic Alkalosis

Correct Answer: B. Respiratory Alkalosis

Hyperventilation is typically the underlying cause of respiratory alkalosis. Hyperventilation is also known as overbreathing. When someone is hyperventilating, they tend to breathe very deeply or very rapidly.

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

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

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

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

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

29. In acid-base balance, the normal plasma PCO₂ and bicarbonate levels are disturbed. Match the changes in this parameter with the disorders in the given choices: High plasma PaCO₂

- A. Metabolic Acidosis
- B. Respiratory Alkalosis
- C. Metabolic Alkalosis
- D. Respiratory Acidosis

Correct Answer: D. Respiratory Acidosis

An excess of carbon dioxide (hypercapnia) can cause carbon dioxide narcosis. In this condition, carbon dioxide levels are so high that they no longer stimulate respirations but depress them.

30. Which of the following white blood cell (WBC) counts clearly indicates leukocytosis?

- A. 4,500/mm³
- B. 7,000/mm³
- C. 10,000/mm³
- D. 25,000/mm³

Correct Answer: D. 25,000/mm³

Leukocytosis is any transient increase in the number of white blood cells (leukocytes) in the blood. The normal number of WBCs in the blood is 4,500 to 11,000 WBCs per microliter (4.5 to 11.0 × 10⁹/L). Normal value ranges may vary slightly among different labs. Thus, a count of 25,000/mm³ indicates leukocytosis.

- **Option A:** A WBC count is a blood test to measure the number of white blood cells (WBCs) in the blood. WBCs are also called leukocytes. They help fight infections. A higher than normal WBC count is called leukocytosis. Leukocytosis is the broad term for an elevated white blood cell (WBC) count, typically above 11.0 × 10⁹/L, on a peripheral blood smear collection. The exact value of WBC elevation can vary slightly between laboratories depending on their 'upper limits of normal' as identified by their reference ranges.
- **Option B:** The WBC value represents the sum-total of white blood cell subtypes, including neutrophils, eosinophils, lymphocytes, monocytes, atypical leukocytes that are not normally present on a peripheral blood smear (e.g., lymphoblasts), or any combination of these. The clinician should properly characterize the leukocytosis and determine if further evaluation and workup are indicated.
- **Option C:** Leukocytosis can occur acutely and often transiently or chronically, either in response to an inflammatory stressor/cytokine cascade or as part of an autonomous myeloproliferative neoplasm. Neutrophilia is the most common presentation, but clinicians should be aware of the other cell lines that can be involved in acute and chronic presentations. A detailed history, physical examination, medication reconciliation, full evaluation of a CBC with differential, and comparison to prior CBCs can help clinicians elucidate the underlying cause of leukocytosis and guide appropriate treatment.

31. The physician has ordered a minimal-bacteria diet for a client with neutropenia. The client should be taught to avoid eating:

- A. Packed fruits
- B. Salt
- C. Fresh raw pepper
- D. Ketchup

Correct Answer: C. Fresh raw pepper

Fresh raw or whole pepper is not allowed unless thoroughly cooked in food. A low-bacteria diet is designed to reduce exposure to bacteria and other pathogens that can make one sick. It's often prescribed for people who are at a greater risk of infection because they're currently not making enough white blood cells due to certain illnesses or medical treatments.

- **Option A:** Canned fruits are allowed since they are processed and pasteurized. Fresh fruits and vegetables are fine as long as they are washed first or cooked thoroughly. Meat, fish, and eggs should also be fully cooked. Commercially prepared and packaged foods are acceptable but avoid buying foods indented and swollen cans or damaged packaging.
- **Option B:** Salt is allowed. The keys to a low-bacteria diet are choosing foods that are less likely to carry bacteria while avoiding the foods that do. Frequent hand washing and paying particular attention to food safety practices are also essential.
- **Option D:** Ketchup is also allowed. Bread, ready-to-eat cereals, pancakes, waffles, and crackers are safe to eat. Bottled beverages, hot beverages, and pasteurized fruit and vegetable juices are good as well. Cream cheese, sour cream, mayonnaise, margarine, commercial peanut butter, and chocolate are okay, too.

32. Which of the following diagnostic tests should be performed annually over age 50 to screen for colon cancer?

- A. Abdominal CT scan
- B. Abdominal x-ray
- C. Colonoscopy
- D. Fecal occult blood test

Correct Answer: D. Fecal occult blood test

Surface blood vessels of polyps and cancers are fragile and often bleed with the passage of stools. A fecal occult blood test is used to find blood in the feces, or stool, which can be a sign of polyps or cancer. A positive test, meaning that blood is found in the feces, can be from causes other than a colon polyp or cancer, including bleeding in the stomach or upper GI tract and even eating rare meat or other foods. There are 2 types of tests: guaiac (FOBT) and immunochemical (FIT). Polyps and cancers do not bleed continually, so FOBT must be done on several stool samples each year and should be repeated every year. Even then, this screening test provides a fairly small reduction in deaths from colorectal cancer, around 30% if done yearly and 18% if done every other year.

- **Option A:** Abdominal CT scan can help establish tumor size and metastasis. Ct colonography, sometimes called virtual colonoscopy, is a screening method being studied in some centers. It requires interpretation by a skilled radiologist to provide the best results. A radiologist is a doctor

who specializes in obtaining and interpreting medical images. CT colonography may be an alternative for people who cannot have a standard colonoscopy due to the risk of anesthesia, which is medication to block the awareness of pain, or if a person has a blockage in the colon that prevents a full examination.

- **Option B:** Abdominal x-ray is a commonly performed diagnostic x-ray examination that produces images of the organs in the abdominal cavity including the stomach, liver, intestines, and spleen. When an abdominal x-ray is performed to provide pictures of the kidneys, ureters, and bladder, it's called a KUB x-ray.
- **Option C:** A colonoscopy can help locate a tumor as well as polyps, which can be removed before they become malignant. A colonoscopy allows the doctor to look inside the entire rectum and colon while a patient is sedated. A flexible, lighted tube called a colonoscope is inserted into the rectum and the entire colon to look for polyps or cancer. During this procedure, a doctor can remove polyps or other tissue for examination. The removal of polyps can also prevent colorectal cancer.

33. To encourage adequate nutritional intake for a female client with Alzheimer's disease, the nurse should:

- A. Stay with the client and encourage him to eat.
- B. Help the client fill out his menu.
- C. Give the client privacy during meals.
- D. Fill out the menu for the client.

Correct Answer: A. Stay with the client and encourage him to eat.

Staying with the client and encouraging him to feed himself will ensure adequate food intake. A client with Alzheimer's disease can forget how to eat. Offer sweet and salt substitutes. Helps satisfy desire for these tastes as taste buds decrease with aging without compromising diet. Allow for interaction during mealtime to promote interest in eating.

- **Option B:** During the middle stages of Alzheimer's, distractions, too many choices, and changes in perception, taste, and smell can make eating more difficult. Be flexible with food preferences. It is possible the person may suddenly develop certain food preferences or reject foods he or she may have liked in the past.
- **Option C:** Eat together. Give the person the opportunity to eat with others. Keeping mealtimes social can encourage the person to eat. Limit distractions. Serve meals in quiet surroundings, away from the television and other distractions.
- **Option D:** Offer one food item at a time. The person may be unable to decide among the foods on his or her plate. Serve only one or two items at a time. For example, serve mashed potatoes followed by the main entree.

34. In the context of an ongoing tuberculosis (TB) outbreak, the nurse working in a community health clinic is triaging clients for potential TB exposure and infection. Considering the risk factors and symptoms, which of these clients should the nurse prioritize for TB screening?

- A. The 16-year-old female presenting with a mild cough and fatigue.
- B. The 33-year-old daycare worker with a persistent cough and recent travel history.

- C. The 43-year-old man with a history of homelessness and alcohol use disorder, coughing up blood.
- D. The 54-year-old businessman with a cough and recent unexplained weight loss.
- E. The 27-year-old gym instructor who has night sweats and a history of working in a correctional facility.
- F. The 50-year-old woman with a chronic cough who has been receiving immunosuppressive therapy.

Correct Answer: C. The 43-year-old man with a history of homelessness and alcohol use disorder, coughing up blood.

Tuberculosis (TB) is more prevalent in populations with certain risk factors that include homelessness, substance abuse, and compromised immune systems, among others. A homeless individual with a history of alcoholism would likely have a higher risk of exposure and possibly a weakened immune system, making it more difficult to fight infections.

35. Richard is admitted with a diagnosis of schizotypal personality disorder. Which signs would this client exhibit during social situations?

- A. Aggressive behavior
- B. Paranoid thoughts
- C. Emotional affect
- D. Independence needs

Correct Answer: B. Paranoid thoughts

Clients with schizotypal personality disorder experience excessive social anxiety that can lead to paranoid thoughts. People with schizotypal personality disorder are loners who prefer to keep their distance from others and are uncomfortable being in relationships. They sometimes exhibit odd speech or behavior, and they have a limited or flat range of emotions. This pattern begins early in adulthood and continues throughout life.

- **Option A:** Aggressive behavior is uncommon, although these clients may experience agitation with anxiety. Those with this disorder also tend to have markedly illogical thinking, with unusual ideas or odd beliefs that are not consistent with prevailing ideas, for example, a strong belief in extrasensory perception (ESP). They may report unusual perceptions or strange body experiences.
- **Option C:** Their behavior is emotionally cold with a flattened affect, regardless of the situation. Many people with schizotypal personality disorder have subtle difficulties with memory, learning, and attention. They usually do not have the more severe and disabling psychotic symptoms, such as delusions and hallucinations that appear in schizophrenia. However, people with a schizotypal personality disorder do sometimes develop schizophrenia.
- **Option D:** These clients demonstrate a reduced capacity for close or dependent relationships. Difficulties in social interactions can lead to personal disappointment and poor self-image throughout life. These kinds of problems may become an important focus in psychotherapy. If the problems are more severe, however, a person with a schizotypal personality disorder may have more than average difficulty maintaining a job or living independently. For example, routine interactions at work may be very awkward or may provoke anxiety. The person may not be able to accomplish daily tasks like shopping for food or other necessities.