

# Kevin's Review - 100 NCLEX Practice Questions

## **1. Which action will you take to most effectively reduce the incidence of hospital-associated urinary tract infections?**

- A. Ensure that clients have enough adequate fluid intake
- B. Teach assistive personnel how to provide good perineal hygiene
- C. Perform dipstick urinalysis for clients with risk factors for UTI
- D. Limit the use of indwelling foley catheter (IFC)

### **Correct Answer: D. Limit the use of indwelling foley catheter (IFC)**

The most effective way to reduce the incidence of UTIs in the hospital setting is to avoid using retention catheters. Among UTIs acquired in the hospital, approximately 75% are associated with a urinary catheter, which is a tube inserted into the bladder through the urethra to drain urine. Between 15-25% of hospitalized patients receive urinary catheters during their hospital stay. The most important risk factor for developing a catheter-associated UTI (CAUTI) is prolonged use of the urinary catheter.

- **Option A:** Adequate fluid intake may improve the symptoms of UTI, however, it can help mildly with the prevention of hospital-acquired UTI. The DRInK-Up study provides preliminary evidence suggesting that increasing daily fluid intake by small amounts may have a potentially positive effect on the number of UTIs experienced. However, further research is still needed.
- **Option B:** Routine hygiene of the urethral meatus surface should be performed during daily bathing or showering. Urethral cleaning with povidone-iodine solution or soap and water has not been shown to prevent CA-UTIs. However, there is evidence that frequent urethral cleaning can lead to mucosal irritation and breakdown that may increase the risk of infection.
- **Option C:** Avoid breaking the collecting system to obtain urine specimens for analysis and bacterial culture. To obtain urine specimens, the sampling port for the urine collection must be used. If this is not available, urine can be aspirated with a sterile needle and syringe from the distal end of the catheter using an aseptic technique.

## **2. Which neurotransmitter has been implicated in the development of Alzheimer's disease?**

- A. Acetylcholine
- B. Dopamine
- C. Epinephrine
- D. Serotonin

### **Correct Answer: A. Acetylcholine**

A relative deficiency of acetylcholine is associated with this disorder. The drugs used in the early stages of Alzheimer's disease will act to increase available acetylcholine in the brain. The remaining neurotransmitters have not been implicated in Alzheimer's disease. Cholinergic neurons located in the basal forebrain, including the neurons that form the nucleus basalis of Meynert, are severely lost in Alzheimer's disease (AD). AD is the most ordinary cause of dementia affecting 25 million people worldwide. The hallmarks of the disease are the accumulation of neurofibrillary tangles and amyloid plaques.

- **Option B:** Acetylcholine (ACh) was the first neurotransmitter to be identified. ACh is the neurotransmitter used by all cholinergic neurons, which has a very important role in the peripheral

and central nervous systems. All pre- and postganglionic parasympathetic neurons and all preganglionic sympathetic neurons use ACh as a neurotransmitter. In addition, part of the postganglionic sympathetic neurons also uses ACh as a neurotransmitter.

- **Option C:** Given its widespread distribution in the brain, it is not surprising that cholinergic neurotransmission is responsible for modulating important neural functions. The cholinergic system is involved in critical physiological processes, such as attention, learning, memory, stress response, wakefulness and sleep, and sensory information.
- **Option D:** It has been demonstrated that the cholinergic system plays a role in the learning process. Moreover, published data indicate that ACh is involved in memory. Further studies have demonstrated that endogenous acetylcholine is important for modulation of acquisition, encoding, consolidation, reconsolidation, extinction, and retrieval of memory.

**3. Which of the following statements reflects Kohlberg's theory of the moral development of the preschool-age child?**

- A. Behavior is determined by consequences
- B. Showing care about the effect of their actions on others
- C. Following the rules of authorities is seen as important
- D. Pleasing others is viewed as good behavior

**Correct Answer: A. Behavior is determined by consequences**

- Option A: According to Kohlberg, in the preconventional stage of development, the behavior of the preschool child is determined by the consequences of the behavior. The person will be obedient to avoid punishment.
- Option C: This behavior describes the postconventional stage of moral development where laws are recognized as social contracts.
- Options B and D: These behaviors describe the conventional stage of moral development or often referred to as "good boy-good girl" orientation. Emphasis is placed on living up to social expectations.

**4. When caring for a client taking parathyroid medication, which of the following nursing interventions is a priority?**

- A. Monitor serum calcium levels
- B. Evaluate bowel function
- C. Measure serum acid phosphatase
- D. Check for side effects

**Correct Answer: A. Monitor serum calcium levels**

Serum calcium levels are altered when pathology exists in this gland. This is because the gland regulates the balance of calcium and phosphorus. In the bones, PTH stimulates the release of calcium in an indirect process through osteoclasts which ultimately lead to resorption of the bones. Most of the physiologic calcium reabsorption in the nephron takes place in the proximal convoluted tubule and additionally at the ascending loop of Henle.

- **Option B:** In the small intestine, vitamin D allows the absorption of calcium through an active transcellular pathway and a passive paracellular pathway. The transcellular pathway requires energy, while the paracellular pathway allows for the passage of calcium through tight junctions.
- **Option C:** Parathyroid hormone decreases phosphate reabsorption at the proximal convoluted tubule. Phosphate ions in the serum form salts with calcium that are insoluble, resulting in a decreased plasma calcium. The reduction of phosphate ions, therefore, results in more ionized calcium in the blood.
- **Option D:** The 2 umbrella categorizations of parathyroid dysfunctions are hyperparathyroidism and hypoparathyroidism. The inappropriately high secretion of PTH is classified as hyperparathyroidism while the inappropriately low secretion of PTH is designated as hypoparathyroidism.

**5. Clinical manifestations of acute glomerulonephritis include which of the following?**

- A. Chills and flank pain
- B. Oliguria and generalized edema
- C. Hematuria and proteinuria
- D. Dysuria and hypotension

**Correct Answer: C. Hematuria and proteinuria**

Hematuria and proteinuria indicate acute glomerulonephritis. These findings result from increased permeability of the glomerular membrane due to the antigen-antibody reaction. Generalized edema is seen most often in nephrosis. The most common presenting symptom is gross hematuria as it occurs in 30 to 50% of cases with acute PSGN; patients often describe their urine as smoky, tea-colored, cola-colored, or rusty. The hematuria can be described as postpharyngitic (hematuria seen after weeks of infection).

- **Option A:** Approximately 50% of children with PSGN are asymptomatic and are discovered accidentally during routine urine analysis. The classic triad of glomerulonephritis includes hematuria, edema, and hypertension. Typically, patients give a history of a recent streptococcal infection such as pharyngitis, tonsillitis, or impetigo.
- **Option B:** The incidence of edema is seen in about 65-90% of the cases. Puffiness of the eyelids (periorbital edema) is typical for the nephritic syndrome. It is most prominent in the morning and tends to resolve at the end of the day. Generalized edema is also a common feature.
- **Option D:** Renal involvement is common and is transient with recovery in 1-2 weeks. Less than half of the patients experience oliguria. Depending on the severity of renal involvement, signs, and symptoms suggestive of anuric renal failure or life-threatening acid-base imbalance, electrolyte abnormalities (especially hyperkalemia), and fluid overload would require RRT. About 60-80% of the patients experience high blood pressure which typically resolves in 10 days.

**6. Nurse Harry is aware that the following is an appropriate nursing diagnosis for a client with renal calculi?**

- A. Ineffective tissue perfusion
- B. Functional urinary incontinence
- C. Risk for infection

D. Decreased cardiac output

**Correct Answer: C. Risk for infection**

Infection can occur with renal calculi from urine stasis caused by obstruction. When kidney stones remain inside the body, complications can develop. If they block the tube that connects the kidney to the bladder, urine will not be able to pass out of the body. This dysfunction increases the risk of a UTI or kidney infection.

- **Option A:** Option A isn't appropriate for this diagnosis. The association between nephrolithiasis and subclinical atherosclerosis was recently investigated within the Coronary Adult Risk Development in Young Adults (CARDIA) cohort, which identified a significant association between kidney stones and carotid artery atherosclerosis, even after adjusting for known major atherosclerotic risk factors.
- **Option B:** Retention of urine usually occurs, rather than incontinence. Urinary retention can be attributed to two causes — either obstruction or non-obstruction. If there is an obstruction (for example, bladder or kidney stones), a blockage occurs and urine cannot flow unimpeded through your urinary tract. This is the basis for acute urinary retention and is potentially life-threatening.
- **Option D:** At the root of the pathophysiology of urolithiasis is the physiochemical formation of urinary stones. As the glomerular filtrate passes through the nephron, the urine becomes concentrated with stone-forming salts which, when supersaturated, can precipitate out of solution into crystals that can either be expelled with voided urine or grow and aggregate under the relative influences of various stone-promoting or stone-inhibiting agents, resulting in stone formation.

**7. Which of the following responses is most appropriate for a mother with diabetes who wants to breastfeed her infant but is concerned about the effects of breastfeeding on her health?**

- A. Mothers with diabetes who breastfeed have a hard time controlling their insulin needs.
- B. Mothers with diabetes shouldn't breastfeed because of potential complications.
- C. Mothers with diabetes shouldn't breastfeed; insulin requirements are doubled.
- D. Mothers with diabetes may breastfeed; insulin requirements may decrease from breastfeeding.

**Correct Answer: D. Mothers with diabetes may breastfeed; insulin requirements may decrease from breastfeeding.**

Breastfeeding has an antidiabetogenic effect. Insulin needs are decreased because carbohydrates are used in milk production. Breastfeeding mothers are at a higher risk of hypoglycemia in the first PP days after birth because the glucose levels are lower. Mothers with diabetes should be encouraged to breastfeed.

- **Option A:** Breastfeeding has a positive effect on a mother's insulin response. For Type 1 diabetic mothers this can decrease their need for insulin during the breastfeeding period. Mothers who have Type 2 diabetes may find they require less hypoglycemic medication while breastfeeding. Good control of your insulin levels is important while breastfeeding. The woman may need to do some additional monitoring and be in close contact with her health practitioner during the early weeks until her hormones and her milk productions stabilize.
- **Option B:** Planning ahead with the birth team to manage these potential events can be helpful so everyone is prepared and not making decisions in a stressful situation. If at all possible plan to breastfeed within the first hour after birth and at least once an hour until the baby's blood sugar levels stabilize. Skin-to-skin contact has been found to decrease the risk of hypoglycemia in

newborns and it helps trigger the hormones that drive breastfeeding.

- **Option C:** A mother who is diabetic or insulin-resistant may find that it takes a bit longer for her milk volume to increase after giving birth. Colostrum is providing all the nutrients, (vitamins, minerals, and fats) that baby needs through the early days. Frequent effective feedings will speed up the body's ability to increase the milk volume. In the event that supplementation is required during the first few days, human donor milk is the best option.

**8. Problems with memory and learning would relate to which of the following lobes?**

- A. Frontal
- B. Occipital
- C. Parietal
- D. Temporal

**Correct Answer: D. Temporal**

The temporal lobe functions to regulate memory and learning problems because of the integration of the hippocampus. The hippocampus is responsible for creating declarative memories—those that can be consciously thought of and verbalized. Declarative memory can be episodic and semantic. Episodic memory is the ability to remember a specific occasion in the past in its specific time and place. Meanwhile, semantic memory is the ability to recall general facts about the world.

- **Option A:** The frontal lobe primarily functions to regulate thinking, planning, and judgment. It is the largest lobe, located in front of the cerebral hemispheres, and has significant functions for our body, and these are prospective memory, a type of memory that involves remembering the plans that you made, from a simple daily plan to future lifelong plans; speech and language; personality; and movement control.
- **Option B:** The occipital lobe functions regulate vision. The role of this lobe is visual processing and interpretation. Typically based on the function and structure, the visual cortex is divided into five areas (v1-v5). The primary visual cortex (v1, BA 17) is the first area that receives the visual information from the thalamus, and its located around the calcarine sulcus. The visual cortex receives, processes, interprets the visual information, then this processed information is sent to the other regions of the brain to be further analyzed (example: inferior temporal lobe).
- **Option C:** The parietal lobe primarily functions with sensory function. The Superior parietal lobule contains the somatosensory association (BA 5, 7) cortex which is involved in higher-order functions like motor planning action. The Inferior parietal lobule (supramarginal gyrus BA 40, angular gyrus BA 39) has the Secondary somatosensory cortex (SII), which receives the somatosensory inputs from the thalamus and the contralateral SII, and they integrate those inputs with other major modalities (examples: visual inputs, auditory inputs) to form a higher-order complex functions.

**9. Nurse Alice is caring for a client being treated for alcoholism. Before initiating therapy with disulfiram (Antabuse), the nurse teaches the client that he must read labels carefully on which of the following products?**

- A. Carbonated beverages
- B. Aftershave lotion

C. Toothpaste

D. Cheese

**Correct Answer: B. Aftershave lotion**

Disulfiram may be given to clients with chronic alcohol abuse who wish to curb impulse drinking. Disulfiram works by blocking the oxidation of alcohol, inhibiting the conversion of acetaldehyde to acetate. As acetaldehyde builds up in the blood, the client experiences noxious and uncomfortable symptoms. Even alcohol rubbed onto the skin can produce a reaction. The client receiving disulfiram must be taught to read ingredient labels carefully to avoid products containing alcohol such as aftershave lotions. Close monitoring of adverse events is necessary, in particular, in patients with polysubstance abuse. Patients taking disulfiram require monitoring for signs and symptoms of hepatitis, including fatigue, weakness, anorexia, nausea, vomiting, jaundice, malaise, and dark urine.

- **Option A:** Disulfiram is one of three drugs approved by the FDA for the treatment of alcohol dependence. It is a second-line option (acamprosate and naltrexone are first-line treatments) in patients with sufficient physician supervision. Disulfiram is safe and efficient in supervised short-term and long-term treatment of individuals dependent on alcohol but who are motivated to discontinue alcohol use.
- **Option C:** Disulfiram irreversibly inhibits aldehyde dehydrogenase (ALDH1A1) by competing with nicotinamide adenine dinucleotide (NAD) at the cysteine residue in the active site of the enzyme. ALDH1A1 is a hepatic enzyme of the major oxidative pathway of alcohol metabolism converting ethanol to acetaldehyde. At therapeutic doses of disulfiram, alcohol consumption results in increased serum acetaldehyde, causing diaphoresis, palpitations, facial flushing, nausea, vertigo, hypotension, and tachycardia.
- **Option D:** Patients receiving metronidazole, paraldehyde, alcohol, or alcohol-containing preparations (sauces, cough mixtures, vinegar) should not receive disulfiram and should be educated in advance to avoid a disulfiram-alcohol reaction. Never administer to a patient if alcohol use is suspected or without the patient's consent and understanding of disulfiram-alcohol reaction.

**10. Nurse Renner is about to perform Romberg's test on Pierro. To ensure the latter's safety, which intervention should nurse Renner implement?**

A. Allowing the client to keep his eyes open.

B. Having the client hold on to furniture.

C. Letting the client spread his feet apart.

D. Standing close to provide support.

**Correct Answer: D. Standing close to provide support.**

During Romberg's test, the client is asked to stand with feet together and eyes shut and still maintain balance with the minimum of sway. If the client loses his balance, the nurse standing close to provide support, such as having an arm close around his shoulder, can prevent a fall. Allowing the client to keep his eyes open, spread his feet apart, or hang on to a piece of furniture interferes with the proper execution of the test and yields invalid results.

- **Option A:** The clinician asks the patient to first stand quietly with eyes open, and subsequently with eyes closed. The patient tries to maintain his balance. For safety, it is essential that the observer stand close to the patient to prevent potential injury if the patient were to fall. When the patient closes his eyes, he should not orient himself by light, sense or sound, as this could influence the test result and cause a false positive outcome.

- **Option B:** In the Romberg test, the patient stands upright and asked to close his eyes. A loss of balance is interpreted as a positive Romberg sign. The Romberg test is positive when the patient is unable to maintain balance with their eyes closed. Losing balance can be defined as increased body sway, placing one foot in the direction of the fall, or even falling.
- **Option C:** The patient is asked to remove his shoes and stand with his two feet together. The arms are held next to the body or crossed in front of the body. If the clinician observes that the patient is able to stand for long periods of time with the eyes closed, it is evident that the patient's balance and proprioceptive deficits have decreased.

**11. Which of the following treatments would the nurse expect for a client with a spontaneous pneumothorax?**

- A. Antibiotics
- B. Bronchodilators
- C. Chest tube placement
- D. Hyperbaric chamber

**Correct Answer: C. Chest tube placement**

The only way to re-expand the lung is to place a chest tube on the right side so the air in the pleural space can be removed and the lung re-expanded. The American College of Chest Physicians recommends aspiration for large or symptomatic primary spontaneous pneumothorax with a small-bore catheter (14F or smaller) or, if the initial aspiration fails, admission with a chest tube (16F to 22F).

- **Option A:** For stable patients presenting with a small primary spontaneous pneumothorax for the first time, conservative management with supplemental oxygen and observation of at least 6 hours is recommended. If repeat chest radiograph shows evidence of a stable pneumothorax and the patient has access to adequate follow-up, then the patient can be discharged with strict return precautions for a 24-hour recheck.
- **Option B:** Larger primary spontaneous pneumothorax can be further managed with video-assisted thoracoscopy surgery (VATS) or thoracotomy to perform bullectomy, pleurectomy, and mechanical pleurodesis (i.e., dry gauze abrasion). VATS is less invasive than thoracotomy and has been shown to be an effective measure in the treatment and prevention of spontaneous pneumothorax recurrence.
- **Option D:** It is appropriate to initiate 100% oxygen via a non-rebreather mask and continuous cardiopulmonary monitoring for patients with spontaneous pneumothorax. Oxygen increases the rate of absorption of the gas from the pleural space up to four-fold compared to the absorption of 1% to 2% of the volume per day without oxygen.

**12. Nurse Walter should expect a 3-year-old child to be able to perform which action?**

- A. Ride a tricycle
- B. Tie the shoelaces
- C. Roller-skates
- D. Jump rope

**Correct Answer: A. Ride a tricycle**

At age 3, gross motor development and refinement in eye-hand coordination enable a child to ride a tricycle. Most 3-year-olds are able to walk a line, balance on a low balance beam, skip or gallop, and walk backward. They can usually pedal a tricycle, catch a large ball, and jump with two feet.

- **Option B:** The fine motor skills required to tie shoelaces develop around age 5. By age 3, kids can usually wash and dry their hands, dress themselves with a little assistance, and turn pages in a book. Most preschoolers can hold a writing instrument with their fingers, not their fists.
- **Option C:** The gross motor skills required for roller-skating develop around age 5. Most children by age 3 develop more large muscle movements (gross motor skills). These generally include running, climbing, jumping in place, kicking a ball, and bending over easily.
- **Option D:** The gross motor skills required for jumping rope develop around age 5. Give the child time outdoors. Let them run and play. Climbing in and out of boxes is a favorite game. Remember to watch them closely when outside—they can move pretty fast when they want to.

**13. A 3-year-old child was brought to the pediatric clinic after the sudden onset of findings that include irritability, thick muffled voice, croaking on inspiration, hot to touch, sit leaning forward, tongue protruding, drooling, and suprasternal retractions. What should the nurse do first?**

- A. Prepare the child for X-ray of upper airways
- B. Examine the child's throat
- C. Collect a sputum specimen
- D. Notify the healthcare provider of the child's status

**Correct Answer: D. Notify the healthcare provider of the child's status**

These findings suggest a medical emergency and may be due to epiglottitis. Any child with an acute onset of an inflammatory response in the mouth and throat should receive immediate care.

- **Option A:** If epiglottitis is seriously considered, no imaging studies are required. In less-clear cases, imaging studies are occasionally helpful in establishing the diagnosis or excluding epiglottitis.
- **Option B:** Examining the child's throat should not be attempted because it may compromise respiratory effort.
- **Option C:** There are no indications for the collection of sputum specimens.

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

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

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



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

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

**15. A nurse is developing a care plan for a client suffering from shingles. Which of the following cranial nerve should the nurse assess as part of the client's care?**

- A. Cranial nerve number I
- B. Cranial nerve number IV
- C. Cranial nerve number VII
- D. Cranial nerve number XI

**Correct Answer: C. Cranial nerve number VII**

A potential complication of shingles is Bell's palsy which can be assessed by the seventh cranial nerve function.

**16. An adult female patient is using the rhythm (calendar-basal body temperature) method of family planning. In this method, the unsafe period for sexual intercourse is indicated by:**

- A. Return preovulatory basal body temperature.
- B. Basal body temperature increase of 0.1 degrees to 0.2 degrees on the 2nd or 3rd day of cycle.
- C. 3 full days of elevated basal body temperature and clear, thin cervical mucus.
- D. Breast tenderness and mittelschmerz.

**Correct Answer: C. 3 full days of elevated basal body temperature and clear, thin cervical mucus.**

Ovulation (the period when pregnancy can occur) is accompanied by a basal body temperature increase of 0.7 degrees F to 0.8 degrees F and clear, thin cervical mucus.

- **Option A:** A return to the preovulatory body temperature indicates a safe period for sexual intercourse.
- **Option B:** A slight rise in basal temperature early in the cycle is not significant. Ovulation may cause a slight increase in basal body temperature.

- **Option D:** Breast tenderness and mittelschmerz are not reliable indicators of ovulation. Mittelschmerz is one-sided, lower abdominal pain associated with ovulation. It occurs midway through a menstrual cycle.

**17. To gain access to the vein and artery, an AV shunt was used for Mr. Roberto. The most serious problem with regards to the AV shunt is:**

- A. Septicemia
- B. Clot formation
- C. Exsanguination
- D. Vessel sclerosis

**Correct Answer: C. Exsanguination**

Exsanguination from hemodialysis vascular sites may cause a rapid death. These fatal shunt hemorrhages are rapid and large due to their superficial subcutaneous locations and elevated shunt pressures from the arterial-venous anastomosis.

- **Option A:** Bacterial sepsis, a major complication of chronic hemodialysis, is due mainly to infections of the vascular access site despite increasing use of internal fistulas. Bovine heterograft arteriovenous fistulas more often led to sepsis than did Brescia arteriovenous fistulas. Treatment with appropriate antibiotics was successful in most cases. Routine removal or ligation of the vascular access site was not necessary.
- **Option B:** A narrowing of an artery that feeds the AV fistula or graft can slow the flow of blood through the access during treatment. If the blood flow is significantly reduced, it can lead to inadequate dialysis, and is quite likely to cause the access to become totally blocked or clotted.
- **Option D:** Vascular sclerosis is often seen in renal biopsies. It is usually associated with diabetes mellitus, hypertension, smoking, etc. However, whether inherited thrombophilic states such as factor V gene mutation, prothrombin gene mutation, and methylenetetrahydrofolate reductase (MTHFR) gene mutation are associated with vascular sclerosis is not known.

**18. A hospitalized patient is receiving packed red blood cells (PRBCs) for treatment of severe anemia. Which of the following is the most accurate statement?**

- A. Transfusion reaction is most likely immediately after the infusion is completed.
- B. PRBCs are best infused slowly through a 20g. IV catheter.
- C. PRBCs should be flushed with a 5% dextrose solution.
- D. A nurse should remain in the room during the first 15 minutes of infusion.

**Correct Answer: D. A nurse should remain in the room during the first 15 minutes of infusion.**

Transfusion reaction is most likely during the first 15 minutes of infusion, and a nurse should be present during this period.

- **Option A:** Transfusion reaction most likely occurs during the first 15 minutes, not after the infusion has been completed.

- **Option B:** PRBCs should be infused through a 19g or larger IV catheter to avoid slow flow, which can cause clotting.
- **Option C:** PRBCs must be flushed with 0.45% normal saline solution. Other intravenous solutions will hemolyze the cells.

**19. A client with a fractured hip has been placed in Buck's traction. Which statement is true regarding balanced skeletal traction? Balanced skeletal traction:**

- A. Utilizes a Steinman pin
- B. Requires that both legs be secured
- C. Utilizes Kirschner wires
- D. Is used primarily to heal the fractured hips

**Correct Answer: A. Utilizes a Steinman pin**

Balanced skeletal traction uses pins and screws. A Steinman pin goes through large bones and is used to stabilize large bones such as the femur. For some types of femur fractures, a pin is placed in the child's broken bone and the pin is connected to the weights. This is called "balanced skeletal traction." The weights keep the parts of the bone in the proper place so the bone can heal well.

- **Option B:** Only the affected leg is in traction. Weights, ropes and pulleys are used to balance and hold the leg up for best healing. The equipment cradles the leg to help the child relax and feel more comfortable while the ends of the bones are healing together.
- **Option C:** Kirschner wires are used to stabilize small bones such as fingers and toes. The nurses will also check the skin around the pin for these signs: redness, flaking, and blisters. These are signs of skin breakdown and irritation.
- **Option D:** Buck's traction is not used for fractured hips. For people with hip fractures, traction involves either using tapes (skin traction) or pins (skeletal traction) attached to the injured leg and connected to weights via a pulley. The application of traction before surgery is thought to relieve pain and make the subsequent surgery easier.

**20. In the midst of a bustling endocrinology unit, you come across the case of Ruby, a 46-year-old female, entrenched in a long-term management plan for hypothyroidism entailing thyroid hormone replacement therapy. Recently, Ruby encountered the onslaught of a virulent flu, confining her to bed and muddling her usually meticulous medication regimen, leading to inadvertent skipping of her thyroid replacement doses for several days. Upon being admitted, her husband revealed Ruby's cognitive fog and lethargy, which he initially attributed to her viral ailment, but with growing concern, he sought medical evaluation. As the attending nurse, you meticulously chart Ruby's vital signs which reveal bradycardia and hypothermia. Your clinical acumen alerts you to the potential escalation of hypothyroidism into a life-threatening juncture due to her lapse in medication adherence amidst an acute illness. Given this narrative, your clinical understanding guides you to associate the omission of thyroid replacement medication, especially amidst an external stressor like the flu, with**

***a risk of which of the following severe complications?***

- A. Thyroid storm
- B. Exophthalmos
- C. Tibial myxedema
- D. Myxedema coma
- E. Hashimoto's encephalopathy
- F. Rhabdomyolysis

**Correct Answer: D. Myxedema coma.**

Myxedema coma is a life-threatening but rare complication of hypothyroidism that can be precipitated by acute illness, such as the flu, especially if thyroid replacement therapy is interrupted. The severe hypothyroid state can cause a metabolic and physiological standstill characterized by profound bradycardia, hypothermia, hypoventilation, and altered mental status, as seen in Ruby's presentation, making this a viable answer.

- **Option A:** Thyroid storm is a life-threatening condition typically occurring due to hyperthyroidism, not hypothyroidism. Ruby's omission of her thyroid replacement medication would likely not instigate a thyroid storm, making this choice implausible.
- **Option B:** Exophthalmos is associated with hyperthyroidism, specifically Graves' disease, and not typically a consequence of missed thyroid replacement medication in a hypothyroid individual like Ruby.
- **Option C:** While tibial myxedema is associated with severe hypothyroidism, it is not a life-threatening condition. It's a localized myxedema that occurs in the pretibial area, not typically a direct result of a few missed doses of thyroid replacement medication.
- **Option E:** Although associated with autoimmune thyroiditis, Hashimoto's encephalopathy is a rare condition and not a direct result of missing thyroid replacement doses.
- **Option F:** Rhabdomyolysis isn't a typical complication of missed thyroid replacement medication and is not directly associated with hypothyroidism.

***21. A 68-year-old female patient, recently diagnosed with Parkinson's disease and rheumatoid arthritis, tells you during a follow-up visit that her urine is starting to look discolored. She also mentions that she has been taking over-the-counter medications for constipation and occasional headaches. Given her medical history and the potential side effects of medications, which of the following of the patient's medications is least likely to cause urine discoloration?***

- A. Sulfasalazine (prescribed for her rheumatoid arthritis)
- B. Levodopa (prescribed for her Parkinson's disease)
- C. Phenolphthalein (over-the-counter medication for constipation)
- D. Aspirin (over-the-counter medication for her occasional headaches)

**Correct Answer: D. Aspirin**

Aspirin is not known to cause discoloration of the urine. Side effects and complications of taking aspirin include stroke caused by a burst blood vessel. The Food and Drug Administration doesn't recommend aspirin therapy for the prevention of heart attacks in people who haven't already had a heart attack, stroke or another cardiovascular condition.

- **Option A:** Sulfasalazine may discolor the urine or skin to orange-yellow color. Sulfasalazine is used to treat ulcerative colitis (UC), and to decrease the frequency of UC attacks. Sulfasalazine will not cure ulcerative colitis, but it can reduce the number of attacks you have.
- **Option B:** Levodopa may discolor the urine, saliva, or sweat to a dark brown color. Levodopa is in a class of medications called central nervous system agents. It works by being converted to dopamine in the brain. Carbidopa is in a class of medications called decarboxylase inhibitors. It works by preventing levodopa from being broken down before it reaches the brain.
- **Option C:** Phenolphthalein can discolor the urine to a red color. Phenolphthalein is often used as an indicator in acid-base titrations. For this application, it turns colorless in acidic solutions and pink in basic solutions.

**22. Nurse Nancy is teaching Mr. and Mrs. Diaz about the early signs and symptoms of lead poisoning. Which of the following if stated by the couple would indicate the need for further understanding of the case?**

- A. Anemia
- B. Seizures
- C. Irritability
- D. Anorexia

**Correct Answer: B. Seizures**

Seizures usually are associated with encephalopathy, a late sign of lead poisoning. Typically, lead levels have already exceeded 70 mg/dl. In the appropriate clinical setting, lead encephalopathy should be considered in patients presenting with delirium, altered mental status, or seizures. As lead encephalopathy often presents with altered sensorium, obtaining a history directly from the patient can be challenging.

- **Option A:** Key features of the patient's history that should raise the index of suspicion for lead encephalopathy may include associated abdominal pain, constipation, or anemia, which are other common findings of lead intoxication.
- **Option C:** Particularly in sub-acute cases, additional history of preceding ataxia, headache, sensory or motor deficits, agitation, or irritability may be present. Finally, obtaining a detailed environmental history is important in understanding the route and magnitude of potential lead intoxication.
- **Option D:** A physical exam will primarily reveal CNS derangement. Generally speaking, patients afflicted with lead encephalopathy will appear to be globally altered. They may also exhibit signs of peripheral neuropathy on the exam, such as wrist drop and loss of 2 point discrimination.

**23. Which of the following tests can be useful as a diagnostic and therapeutic tool in the biliary system?**

- A. Ultrasonography

- B. MRI
- C. Endoscopic retrograde cholangiopancreatography (ERCP)
- D. Computed tomography scan (CT scan)

**Correct Answer: C. Endoscopic retrograde cholangiopancreatography (ERCP)**

ERCP permits direct visualization of the pancreatic and common bile ducts. Its therapeutic value is in retrieving gallstones from the distal and common bile ducts and dilating strictures. Endoscopic retrograde cholangiopancreatography (ERCP) is a combined endoscopic and fluoroscopic procedure in which an endoscope is advanced into the second part of the duodenum, thus allowing other tools to be passed into the biliary and pancreatic ducts via the major duodenal papilla.

- **Option A:** Ultrasonography aids in the diagnosis of cholecystitis, gallstones, pancreatitis, and metastatic disease. It also identifies edema, inflammation, and fatty or fibrotic infiltrates or calcifications. A procedure that uses high-energy sound waves to look at tissues and organs inside the body. The sound waves make echoes that form pictures of the tissues and organs on a computer screen (sonogram). Ultrasonography may be used to help diagnose diseases, such as cancer.
- **Option B:** MRI detects hepatic neoplasms, cysts, abscesses, and hematomas. Magnetic resonance imaging (MRI) uses a large magnet and radio waves to look at organs and structures inside the body. Health care professionals use MRI scans to diagnose a variety of conditions, from torn ligaments to tumors. MRIs are very useful for examining the brain and spinal cord.
- **Option D:** A CT Scan can be done without a contrast medium. It can detect tumors, cysts, pseudocysts, abscesses, hematomas, and obstructions of the liver, biliary tract and pancreas. The CT scan is essentially an X-ray study, where a series of rays are rotated around a specified body part, and computer-generated cross-sectional images are produced. The advantage of these tomographic images compared to conventional X-rays is that they contain detailed information of a specified area in cross-section, eliminating the superimposition of images, which provides a tremendous advantage over plain films.

**24. Ritalin is the drug of choice for children with ADHD. Which of the following side effects may be noted?**

- A. Increased attention span and concentration
- B. Increase in appetite
- C. Sleepiness and lethargy
- D. Bradycardia and diarrhea

**Correct Answer: A. Increased attention span and concentration**

The medication has a paradoxical effect that decreases hyperactivity and impulsivity among children with ADHD. Methylphenidate is FDA-approved for the treatment of attention deficit hyperactivity disorder (ADHD) in children and adults and as a second-line treatment for narcolepsy in adults. Children with a diagnosis of ADHD should be at least six years of age or older before being started on this medication.

- **Option B:** Dermatologically, patients can complain of excessive sweating and ulceration of their digits. Some patients may even develop blurry vision or decreased libido. Patients are more prone to become easily agitated, irritable, or depressed and go through mood swings/lability). While many of the common side effects can be relieved by adjusting the dosage or avoidance of an afternoon or

evening dose, some require treatment emergently to prevent complications.

- **Option C:** Insomnia and nervousness are the most commonly reported adverse effects in patients on methylphenidate. Other frequent side effects mainly involve the CNS (dizziness, headache, tics, restlessness/akathisia), gastrointestinal (nausea/vomiting, dry mouth, decreased appetite, weight loss, abdominal pain), and cardiovascular systems (tachycardia, and palpitations).
- **Option D:** It is important to note that there have been reported cases of sudden death in both children and adults with a pre-existing structural cardiac abnormality. Stroke and myocardial infarction also have been observed in adults. Due to the risk of such fatal side effects, it is advisable to avoid methylphenidate in patients with a structural cardiac abnormality, cardiomyopathy, or arrhythmias.

**25. Which of the following aspects of nursing is essential to defining it as both a profession and a discipline?**

- A. Established standards of care
- B. Professional organizations
- C. Practice supported by scientific research
- D. Activities determined by a scope of practice

**Correct Answer: C. Practice supported by scientific research**

A profession must have knowledge that is based on technical and scientific knowledge. The theoretical knowledge of a discipline must be based on research, so both are scientifically based. The profession of nursing consists of persons educated in the discipline according to nationally regulated, defined, and monitored standards. The standards and regulations are to preserve healthcare safety for members of society. Although the discipline and the profession of nursing have different goals, the *raison d'être* of nursing is the enhancement of quality of life for humankind. The discipline provides the science lived in the art of practice.

- **Option A:** The American Nurses Association (ANA) has developed standards of care, but they are unrelated to defining nursing as a profession or discipline. Nursing is a discipline and a profession. The goal of the discipline is to expand knowledge about human experiences through creative conceptualization and research. This knowledge is the scientific guide to living the art of nursing. The discipline-specific knowledge is given birth and fostered in academic settings where research and education move the knowledge to new realms of understanding.
- **Option B:** Having professional organizations is not included in accepted characteristics of either a profession or a discipline. The goal of the profession is to provide service to humankind through living the art of science. Members of the nursing profession are responsible for regulation of standards of practice and education based on disciplinary knowledge that reflects safe health service to society in all settings.
- **Option D:** Having a scope of practice is not included in accepted characteristics of either a profession or a discipline. The discipline of nursing encompasses the knowledge in the extant frameworks and theories that are embedded in the totality and simultaneity paradigms (Parse, 1987). These theories and frameworks explicate the nature of nursing's major phenomenon of concern, the human-universe-health process.

**26. Which statement made by the family member caring for the client with a percutaneous gastrostomy tube indicates an understanding of the nurse's**

## ***teaching?***

- A. "I must flush the tube with water after feedings and clamp the tube."
- B. "I must check placement four times per day."
- C. "I will report to the doctor any signs of indigestion."
- D. "If my father is unable to swallow, I will discontinue the feeding and call the clinic."

**Correct Answer: A. "I must flush the tube with water after feedings and clamp the tube."**

The client's family member should be taught to flush the tube after each feeding and clamp the tube. PEG stands for percutaneous endoscopic gastrostomy, a procedure in which a flexible feeding tube is placed through the abdominal wall and into the stomach. PEG allows nutrition, fluids and/or medications to be put directly into the stomach, bypassing the mouth and esophagus.

- **Option B:** A dressing will be placed on the PEG site following the procedure. This dressing is usually removed after one or two days. After that you should clean the site once a day with diluted soap and water and keep the site dry between cleansings. No special dressing or covering is needed.
- **Option C:** The placement should be checked before feedings, and indigestion can occur with the PEG tube, just as it can occur with any client. Complications can occur with the PEG placement. Possible complications include pain at the PEG site, leakage of stomach contents around the tube site, and dislodgement or malfunction of the tube. Possible complications include infection of the PEG site, aspiration (inhalation of gastric contents into the lungs), bleeding and perforation (an unwanted hole in the bowel wall).
- **Option D:** Medications can be ordered for indigestion, but it is not a reason for alarm. A percutaneous endoscopic gastrostomy tube is used for clients who have experienced difficulty swallowing. The tube is inserted directly into the stomach and does not require swallowing.

## ***27. Which of the following procedures or assessments must the nurse perform when preparing a client for eye surgery?***

- A. Clipping the client's eyelashes.
- B. Verifying the affected eye has been patched 24 hours before surgery.
- C. Verifying the client has been NPO since midnight, or at least 8 hours before surgery.
- D. Obtaining informed consent with the client's signature and placing the forms on the chart.

**Correct Answer: C. Verifying the client has been NPO since midnight, or at least 8 hours before surgery.**

Maintaining NPO status for at least 8 hours before surgical procedures prevents vomiting and aspiration. Historically, general anesthesia and retrobulbar blocks were used for intracapsular cataract surgery. However, with the advent of phacoemulsification and small incision surgeries, clinicians have since moved to local and topical anesthesia.

- **Option A:** There is no need to clip the eyelashes unless specifically ordered by the physician. The ophthalmologic evaluation includes a thorough ophthalmic history, with a focus on visual acuity as well as comorbidities, and slit-lamp examination. Several measurements of the eye are then taken, including the anterior chamber depth, to determine intraocular lens refraction.



- **Option B:** There is no need to patch an eye before most surgeries unless specifically ordered by the physician. While thorough medical history should be taken before surgery, routine systemic preoperative tests do not need to be ordered. Some institutions may require clearance from the primary care physician when patients have underlying systemic diseases.
- **Option D:** The physician is responsible for obtaining informed consent; the nurse validates that the consent is obtained. With newer and well-developed techniques, cataract surgery is one of the most successful clinical managements in medicine with direct improvements in visual acuity as well as large improvements in activities of daily living and decreased mortality.

**28. At the Sunshine Pediatric Clinic, Nurse Alex is on duty and responsible for addressing phone consultations. Midway through the morning, the clinic's phone rings, and Alex answers it. On the other end is Mrs. Hamilton, a distressed mother whose 10-year-old child, Sophia, is currently undergoing chemotherapy treatment for leukemia. Mrs. Hamilton informs Nurse Alex that Sophia's younger sibling has just been diagnosed with chickenpox. Given Sophia's compromised immune status, Mrs. Hamilton is deeply concerned about her daughter's risk. Nurse Alex recalls the clinic's protocols and considers the appropriate measures to ensure Sophia's safety. Given the presented situation, which action should Nurse Alex anticipate taking next?**

- Teach the parents regarding contact and airborne precaution.
- Administer varicella-zoster immune globulin to the client.
- Prepare the client for admission to a private room in the hospital.
- Educate the parent about the correct use of acyclovir (Zovirax).
- Instruct the parents to keep the sibling isolated from Sophia.
- Schedule an emergency appointment for Sophia at the clinic.

**Correct Answer: B. Administer varicella-zoster immune globulin to the client.**

Varicella-zoster immune globulin provides passive immunity to those who are at high risk and have been exposed to the virus. Given Sophia's immunocompromised state and her exposure risk, this is the most immediate and appropriate action.

- **Option A:** While educating the parents about precautions is important, it is not the most immediate action to be taken given Sophia's compromised immunity.
- **Option C:** While hospitalization might be a consideration depending on the clinical manifestations and the client's overall health, immediate passive immunization is a priority.
- **Option D:** Acyclovir can be used as a treatment for varicella in high-risk patients, but prior to the onset of the disease, passive immunization is preferred.
- **Option E:** While it is crucial to keep the infected sibling isolated, the immediate priority is to address Sophia's risk of contracting the disease given her compromised state.
- **Option F:** While evaluating Sophia might be necessary, the administration of varicella-zoster immune globulin is the priority in this scenario.

**29. Which of the following actions should the nurse take to use wide base support when assisting a client to get up in a chair?**

- A. Bend at the waist and place arms under the client's arms and lift.
- B. Face the client, bend knees, and place hands-on client's forearm and lift.
- C. Spread his or her feet apart.
- D. Tighten his or her pelvic muscles.

**Correct Answer: B. Face the client, bend knees, and place hands-on client's forearm and lift.**

This is the proper way of supporting the client to get up in a chair that conforms to safety and proper body mechanics. It is important to use proper body mechanics as a health care professional for many reasons, foremost of which is to prevent injuries to both patient and provider. Health care professionals at the front line, especially those who deliver direct care to patients, are often in situations where they have to assist with moving patients from one position to another.

- **Option A:** Keep the back straight throughout the transfer to avoid bending or straining the back. Get as close to the person as possible while still allowing him/her to lean forward as needed to assist with the transfer.
- **Option C:** Allow the patient to help as much as possible. Estimate the patient's weight and mentally practice. Make sure that the floor is free of any obstacles or liquids. Keep your feet shoulder-width apart. Keep the person (or object) as close to your body as possible. Tighten your stomach muscles.
- **Option D:** Position patients appropriately for transfer. While standing in front of the patient, maintain proper posture with the back straight and knees bent. Hold a strong abdominal contraction. Position the body close to the patient to decrease strain on the back. Before movement, contract the abdominal muscles to protect the back. Use the knees and the lower body during transfer to decrease strain on the back.

**30. While performing a physical assessment of a 12 month-old, the nurse notes that the infant's anterior fontanel is still slightly open. Which of the following is the nurse's most appropriate action?**

- A. Notify the physician immediately because there is a problem.
- B. Perform an intensive neurological examination.
- C. Perform an intensive developmental examination.
- D. Do nothing because this is a normal finding for the age.

**Correct Answer: D. Do nothing because this is a normal finding for the age.**

The anterior fontanelle typically closes anywhere between 12 to 18 months of age. Thus, assessing the anterior fontanelle as still being slightly open is a normal finding requiring no further action. Because it is a normal finding for this age, notifying the physician or performing additional examinations is inappropriate.

- **Option A:** The average size of the anterior fontanel is 2.1 cm, and the median time of closure is 13.8 months. The most common causes of a large anterior fontanel or delayed fontanel closure are achondroplasia, hypothyroidism, Down syndrome, increased intracranial pressure, and rickets.
- **Option B:** During a neurological exam, the child's healthcare provider will test the functioning of the nervous system. The nervous system is very complex and controls many parts of the body. The nervous system consists of the brain, spinal cord, 12 nerves that come from the brain, and the

nerves that come from the spinal cord. The nervous system regulates the muscles. The circulation to the brain, arising from the arteries in the neck, is also frequently examined. In infants and younger children, a neurological exam includes the measurement of the head circumference.

- **Option C:** The newborn's skull is molded during birth. The frontal bone flattens, the occipital bone is pulled outward, and the parietal bones override. These changes aid delivery through the birth canal and usually resolve after three to five days. The newborn's skull should be evaluated for shape, circumference, suture ridges, and size of anterior and posterior fontanel. Size is calculated by the average of the anteroposterior and transverse dimensions.

**31. A client who had a transsphenoidal hypophysectomy should be watched carefully for hemorrhage, which may be shown by which of the following signs?**

- A. Bloody drainage from the ears
- B. Frequent swallowing
- C. Guaiac-positive stools
- D. Hematuria

**Correct Answer: B. Frequent swallowing**

Frequent swallowing after brain surgery may indicate fluid or blood leaking from the sinuses into the oropharynx. In the occurrence of a leak in the postoperative period, the patient is advised bed rest, and a lumbar drain is placed. If the leak does not improve in 24 hours, exploration and closure of the defect are to be done. Worsening of vision as a result of bleeding or manipulation and arterial hemorrhage are other immediate complications.

- **Option A:** Blood or fluid draining from the ear may indicate a basilar skull fracture. Basilar skull fractures most commonly involve the temporal bones but may involve the occipital, sphenoid, ethmoid, and the orbital plate of the frontal bone as well. Several clinical exam findings highly predictive of basilar skull fractures include hemotympanum, cerebrospinal fluid (CSF) otorrhea or rhinorrhea, Battle sign (retroauricular or mastoid ecchymosis), and raccoon eyes (periorbital ecchymosis).
- **Option C:** If the patient's fecal occult blood test does not turn blue, it is negative. If the card turns blue, this is positive and requires further gastroenterological workup. Occult fecal blood can be present secondary to several etiologies. Neoplastic causes include adenocarcinoma, gastrointestinal metastasis, lymphoma, and leiomyosarcoma. Inflammatory causes include Crohn disease, ulcerative colitis, gastritis, peptic ulcer disease, and diverticular bleeding.
- **Option D:** Hematuria is the presence of blood in the urine. Hematuria can be gross or microscopic. Gross hematuria is visible blood in the urine. Microscopic hematuria refers to the detection of blood on urinalysis or urine microscopy. Hematuria is usually caused by a genitourinary disease although systemic diseases can also manifest with blood in the urine. Hematuria is divided into glomerular and nonglomerular hematuria to help in evaluation and management.

**32. A cigarette vendor was brought to the emergency department of a hospital after she fell into the ground and hurt her left leg. She is noted to be tachycardic and tachypneic. Painkillers were carried out to lessen her pain. Suddenly, she started complaining that she is still in pain and now experiencing muscle cramps, tingling, and paraesthesia. Measurement of arterial blood gas reveals pH 7.6, PaO<sub>2</sub> 120 mm Hg, PaCO<sub>2</sub> 31 mm Hg, and HCO<sub>3</sub> 25 mmol/L. What does**

***this mean?***

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

**Correct Answer: A. Respiratory Alkalosis, Uncompensated**

The primary disorder is acute respiratory alkalosis (low CO<sub>2</sub>) due to the pain and anxiety causing her to hyperventilate. There has not been time for metabolic compensation.

***33. A nurse instructor is about to administer a vitamin K injection to a newborn. The student nurse asks the instructor regarding the purpose of the injection. The appropriate response would be:***

- A. "The vitamin K will protect the newborn from bleeding."
- B. "The vitamin K will prevent the occurrence of hyperbilirubinemia."
- C. "The vitamin K provides active immunity."
- D. "The vitamin K will serve as protection against jaundice and anemia."

**Correct Answer: A. "The vitamin K will protect the newborn from bleeding."**

Vitamin K is administered to the newborn in order to prevent bleeding disorders. Vitamin K promotes the formation of clotting factors II, VII, IX & X in which the infants lack because of insufficient intestinal bacteria needed for synthesizing fat-soluble vitamin K.

- **Option B:** Vitamin K does not prevent the occurrence of hyperbilirubinemia.
- **Option C:** Vitamin K does not promote the development of immunity.
- **Option D:** Vitamin K doesn't prevent the newborn from having jaundice or anemia.

***34. The nurse should anticipate that hemorrhage related to uterine atony may occur postnatally if this condition was present during the delivery:***

- A. Excessive analgesia was given to the mother.
- B. Placental delivery occurred within thirty minutes after the baby was born.
- C. An episiotomy had to be done to facilitate delivery of the head.
- D. The labor and delivery lasted for 12 hours.

**Correct Answer: A. Excessive analgesia was given to the mother.**

Excessive analgesia can lead to uterine relaxation thus lead to hemorrhage postpartally. Both B and D are normal and C is at the vaginal introitus thus will not affect the uterus.

- **Option B:** The absolute time limit for delivery of the placenta, without evidence of significant bleeding, remains unclear. Periods ranging from 30-60 minutes have been suggested.

- **Option C:** An episiotomy is a minor incision made during childbirth to widen the opening of the vagina. A perineal tear or laceration often forms on its own during a vaginal birth. Rarely, this tear will also involve the muscle around the anus or the rectum. Both episiotomies and perineal lacerations require stitches to repair and ensure the best healing. Both are similar in recovery time and discomfort during healing.
- **Option D:** Normal labor usually begins within 2 weeks (before or after) the estimated delivery date. In a first pregnancy, labor usually lasts 12 to 18 hours on average; subsequent labors are often shorter, averaging 6 to 8 hours.

**35. Which of the following behaviors would indicate that a client was bonding with her baby?**

- A. The client asks her husband to give the baby a bottle of water.
- B. The client talks to the baby and picks him up when he cries.
- C. The client feeds the baby every three hours.
- D. The client asks the nurse to recommend a good child care manual.

**Correct Answer: B. The client talks to the baby and picks him up when he cries.**

- **Option B:** Maternal-infant bonding is the intense attachment that develops between parents and their baby. Mothers and infants are designed to stay close to each other. For this to happen, nature has provided a process of “bonding”, so that normally a mother becomes attached to her particular baby, making her want to stay near him or her and respond to any crying or other signals.

**36. A nurse prepares to administer a vitamin K injection to a newborn infant. The mother asks the nurse why her newborn infant needs the injection. The best response by the nurse would be:**

- A. “Your infant needs vitamin K to develop immunity.”
- B. “Vitamin K will protect your infant from having jaundice.”
- C. “Newborn infants are deficient in vitamin K, and this injection prevents your infant from abnormal bleeding.”
- D. “Newborn infants have sterile bowels, and vitamin K promotes the growth of bacteria in the bowel.”

**Correct Answer: C. “Newborn infants are deficient in vitamin K, and this injection prevents your infant from abnormal bleeding.”**

- **Option C:** Vitamin K is necessary for the body to synthesize coagulation factors. Vitamin K is administered to the newborn infant to prevent abnormal bleeding.
- **Option D:** Newborn infants are vitamin K deficient because the bowel does not have the bacteria necessary for synthesizing fat-soluble vitamin K. The infant’s bowel does not support the production of vitamin K until bacteria adequately colonize it by food ingestion.

**37. Nurse Justin is taking care of a client with deep vein thrombosis. Which position should be provided to the client?**

- A. Bed rest with the affected extremity remains flat at all times.
- B. Bed rest with the unaffected extremity on top of the affected extremity.
- C. Bed rest with the affected extremity in a dependent position.
- D. Bed rest with the affected extremity elevated.

**Correct Answer: D. Bed rest with the affected extremity elevated.**

Bed rest is indicated to prevent emboli while the elevation of the affected leg facilitates blood flow by the force of gravity and reduces pain and edema. Elevating the legs can help to instantly relieve pain. A doctor may also instruct a patient to elevate the legs above the heart three or four times a day for about 15 minutes at a time. This can help to reduce swelling. If prolonged standing or sitting is necessary, bending the legs several times will help promote blood circulation.

- **Option A:** DVT develops as a result of being in a continuous seated prone positioning for 6 hours. Deep vein thrombosis and its sequelae such as PE can be severe or fatal. However, these consequences are preventable. Deep vein thrombosis may arise spontaneously or may be caused by trauma, surgery, or prolonged bed rest.
- **Option B:** Deep vein thrombosis is a clinical challenge for doctors because it can develop in any section of the venous system; however, it arises most frequently in the deep veins of the leg. There are reports of DVT developing in a fiberglass mold maker after 6 weeks of working in a kneeling position, and in a patient maintaining a prone position after spine surgery with a central venous catheter in place.
- **Option C:** A surgical operation where the patient is asleep (under general anesthetic) is the most common cause of a DVT. The legs are still when the client is under anesthetic because the muscles in the body are temporarily paralyzed. Blood flow in the leg veins can become very slow, making a clot more likely to occur. Certain types of surgery (particularly operations on the pelvis or legs) increase the risk of DVT even more.

### **38. Nursing interventions for a patient with hyponatremia include:**

- A. Administering hypotonic IV fluids.
- B. Encouraging water intake.
- C. Restricting fluid intake.
- D. Restricting sodium intake.

**Correct Answer: C. Restricting fluid intake**

Hyponatremia involves a decreased concentration of sodium in relation to fluid volume, so restricting fluid intake is indicated. In the presence of fluid excess or SIADH, fluid restriction is indicated while in the presence of hypovolemia, volume losses are replaced with isotonic saline, or, on occasion, hypertonic solution when hyponatremia is life-threatening.

- **Option A:** Administer sodium chloride as indicated. Used to replace deficits in the presence of chronic or ongoing losses. Identify the client at risk for hyponatremia and the specific cause such as sodium loss or fluid excess. Provides clues for early intervention. Hyponatremia is a common imbalance, especially in the elderly, and may range from mild to severe.
- **Option B:** Provide or restrict fluids, depending on fluid volume status. Encourage fluids and foods high in sodium such as meat, milk, beets, celery, eggs, and carrots. Use fruit juices and bouillon instead of water. Unless sodium deficit causes serious symptoms requiring immediate IV

replacement, the client may benefit from slower replacement by oral method or removal of previous salt restriction.

- **Option D:** Monitor intake and output; Calculate fluid balance. Weigh the client daily. Fluid balance indicators are important since either fluid excess or deficit may occur with hyponatremia.

**39. A patient who underwent abdominal surgery now has a gaping incision due to delayed wound healing. Which method is correct when you irrigate a gaping abdominal incision with sterile normal saline solution, using a piston syringe?**

- A. Rapidly instill a stream of irrigating solution into the wound.
- B. Apply a wet-to-dry dressing to the wound after the irrigation.
- C. Moisten the area around the wound with normal saline solution after the irrigation.
- D. Irrigate continuously until the solution becomes clear or all of the solution is used.

**Correct Answer: D. Irrigate continuously until the solution becomes clear or all of the solution is used.**

To wash away tissue debris and drainage effectively, irrigate the wound until the solution becomes clear of all the solution is used. Irrigation helps the wound to heal properly from the inside out; it helps prevent surface healing over an abscess pocket or infected tract. Continue to irrigate the wound until you have administered the prescribed amount of solution or until the solution returned is clear. Note the amount of solution administered. Remove and discard the catheter and syringe in the appropriate container.

- **Option A:** Gently instill a slow, steady stream of irrigating solution into the wound until the syringe empties. Make sure the solution flows from the clean tissue to the dirty area of the wound to prevent contamination of clean tissue by exudate. Be sure the solution reaches all areas of the wound.
- **Option B:** Keep the patient positioned to allow further wound drainage into the basin. Cleanse the area around the wound to help prevent skin breakdown and infection. Gently pack the wound, if ordered, and/or apply dressing.
- **Option C:** Observe for wound size including length, width, and depth; drainage characteristics including type, amount, color, and odor; wound bed tissue type/color including necrotic, slough, eschar, granulating, clean, non-granulating, epithelial; and symptoms of infection including redness, swelling, pain, discharge or increased temperature.

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

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

**Correct Answer: C. Pyuria**

Pyelonephritis is diagnosed by the presence of leukocytosis, hematuria, pyuria, and bacteriuria. On urinalysis, one should look for pyuria as it is the most common finding in patients with acute pyelonephritis. Proteinuria and microscopic hematuria may be present as well on urinalysis. Blood work such as a complete blood cell count (CBC) is sent to look for an elevation in white blood cells.

- **Option A:** The complete metabolic panel can be used to search for aberrations in creatinine and BUN to assess kidney function. All patients with suspected acute pyelonephritis should also have urine cultures sent for proper antibiotic management.
- **Option B:** Ketonuria indicates a diabetic state. A good history and physical is the mainstay of evaluating acute pyelonephritis, but laboratory and imaging studies can be helpful. A urinary specimen should be obtained for a urinalysis.
- **Option D:** The client exhibits fever, chills, and flank pain. Because there is often a septic picture, the WBC count is more likely to be high rather than low. Though the mechanism in which renal scarring occurs is still poorly understood, it has been hypothesized that the adhesion of bacteria to the renal cells disrupts the protective barriers, which lead to localized infection, hypoxia, ischemia, and clotting in an attempt to contain the infection.

**41. A clinic nurse is performing an admission assessment for an African-American client scheduled for an emergency appendectomy. Which of the following questions would be inappropriate for the nurse to ask for the initial evaluation?**

- A. Do you have any allergies to medicines?
- B. When did the pain start?
- C. Do you have any difficulty breathing?
- D. How close is your family during these situations?

**Correct Answer: D. How close is your family during these situations?**

For African-Americans, asking personal questions during the initial encounter is prohibited since it may be viewed as a way of interfering with them. Negative encounters from healthcare professionals can greatly affect African Americans' decision to seek medical attention (McNeil, Campinha-Bacote, Tapscott, & Vample, 2002). One study reported that 12% of African Americans, compared to 1% of Caucasians, felt that health care practitioners treated them unfairly or with disrespect because of their race (Kaiser Family Foundation, 2001).

- **Option A:** When interacting with African Americans, it is important to know that most prefer to be greeted formally, such as Doctor, Reverend, Pastor, Mr., Mrs., Ms., or Miss. They prefer their surname because the "family name" is highly respected and connotes pride in their family heritage.
- **Option B:** African-American communication has been described as high context (Cokley, Cooke, & Nobles, 2005). They tend to rely on fewer words and use more non-verbal messages than what is actually spoken. The volume of African Americans' voices is often louder than those in some other cultures; therefore, nurses must not misunderstand this attribute and automatically assume this increase in tone reflects anger.
- **Option C:** Cultural skill is the ability to collect relevant cultural data regarding the patient's presenting problem, as well as accurately perform a culturally based, physical assessment in a culturally sensitive manner (Campinha-Bacote, 2007). African-American speech is dynamic and expressive. They are also reported to be comfortable with a closer personal space than other cultural groups.



**42. When a client is experiencing diabetic ketoacidosis, the insulin that would be administered is:**

- A. Human NPH insulin
- B. Human regular insulin
- C. Insulin lispro injection
- D. Insulin glargine injection

**Correct Answer: B. Human regular insulin**

Regular insulin (Humulin R) is short-acting insulin and is administered via IV with an initial dose of 0.3 units/kg, followed by 0.2 units/kg 1 hour later, followed by 0.2 units/kg every 2 hours until blood glucose becomes <13.9 mmol/L (<250 mg/dL). At this point, the insulin dose should be decreased by half, to 0.1 units/kg every 2 hours, until the resolution of DKA.

- **Option A:** NPH insulin is FDA-approved in the adult and pediatric population to control type 1 and type 2 diabetes mellitus. It is currently the most widely used basal insulin that simulates the physiological basal insulin action. American Diabetes Association guidelines recommend an NPH insulin dose of 0.4 to 1.0 units/kg/day subcutaneously to manage type 1 diabetes mellitus.
- **Option C:** Insulin lispro is an insulin analog that is FDA-approved for the treatment of patients with diabetes mellitus types 1 and 2 to control hyperglycemia. Its off-label uses include treating patients with mild-to-moderate diabetic ketoacidosis, gestational diabetes mellitus, and mild-to-moderate hyperosmolar hyperglycemic state.
- **Option D:** Insulin glargine is a manmade version of human insulin that is FDA approved to treat adults and children with type 1 diabetes and adults with type 2 diabetes to improve and maintain glycemic control. Insulin glargine is a long-acting insulin injected once daily and provides a basal level of insulin throughout the day.

**43. A 12-year-old student falls off the stairs, grabs his wrist, and cries, “Oh, my wrist! Help! The pain is so sharp, I think I broke it.” Based on this data, the pain the student is experiencing is caused by impulses traveling from receptors to the spinal cord along which type of nerve fibers?**

- A. Type A-delta fibers
- B. Autonomic nerve fibers
- C. Type C fibers
- D. Somatic efferent fibers

**Correct Answer: A. Type A-delta fibers**

Type A-delta fibers conduct impulses at a very rapid rate and are responsible for transmitting acute sharp pain signals from the peripheral nerves to the spinal cord. Only type A-delta fibers transmit sharp, piercing pain. They respond to stimuli such as cold and pressure, and as nociceptors stimulation of them is interpreted as fast/first pain information.

- **Option B:** The autonomic system regulates involuntary vital functions and organ control such as breathing. An autonomic nerve pathway involves two nerve cells. One cell is located in the brainstem or spinal cord. It is connected by nerve fibers to the other cell, which is located in a cluster of nerve cells (called an autonomic ganglion). Nerve fibers from these ganglia connect with

internal organs.

- **Option C:** Type C fibers transmit sensory input at a much slower rate and produce a slow, chronic type of pain. The C group fibers are unmyelinated and have a small diameter and low conduction velocity, whereas Groups A and B are myelinated. Group C fibers include postganglionic fibers in the autonomic nervous system (ANS), and nerve fibers at the dorsal roots (IV fiber). These fibers carry sensory information.
- **Option D:** Somatic efferent fibers affect the voluntary movement of skeletal muscles and joints. General somatic efferent fibers carry motor impulses to somatic skeletal muscles. In the head, the tongue and extraocular muscles are of this type. Cranial nerves III, IV, VI, and XII carry these fibers.

**44. The burned client is ordered to receive intravenous cimetidine, an H<sub>2</sub> histamine blocking agent, during the emergent phase. When the client's family asks why this drug is being given, what is the nurse's best response?**

- A. "To increase urine output and prevent kidney damage."
- B. "To stimulate intestinal movement and prevent abdominal bloating."
- C. "To decrease hydrochloric acid production in the stomach and prevent ulcers."
- D. "To inhibit loss of fluid from the circulatory system and prevent hypovolemic shock."

**Correct Answer: C. "To decrease hydrochloric acid production in the stomach and prevent ulcers."**

Ulcerative gastrointestinal disease may develop within 24 hours after a severe burn as a result of increased hydrochloric acid production and decreased mucosal barrier. Cimetidine inhibits the production and release of hydrochloric acid.

- **Option A:** Adequate fluid therapy is crucial in maintaining renal function. Monitoring by urine output or Swan-Ganz catheterization and thermodilution cardiac output determination is useful in the circulatory management of severely burned patients. Albumin infusion increases plasma volume by 37% and normalizes elevated basal levels of aldosterone and plasma renin activity.
- **Option B:** Other management for severe burns includes nasogastric tube placement as most patients will develop ileus. Foley catheters should be placed to monitor urine output. Cardiac and pulse oximetry monitoring are indicated. Pain control is best managed with IV medication.
- **Option D:** Patients with burns of more than 20% – 25% of their body surface should be managed with aggressive IV fluid resuscitation to prevent "burn shock." A variety of formulas exist, like Brooke, Galveston, Rule of Ten, etc.<sup>4</sup>, but the most common formula is the Parkland Formula. This formula estimates the amount of fluid given in the first 24 hours, starting from the time of the burn.

**45. A nurse is analyzing the laboratory studies on a client receiving dantrolene sodium (Dantrium). Which of the following laboratory tests would identify an adverse effect associated with the use of the medication?**

- A. Blood urea nitrogen
- B. Creatinine
- C. Liver function test

D. Triglyceride

**Correct Answer: C. Liver function test**

Liver damage is the most serious adverse effect of dantrolene sodium. To reduce the risk of liver damage, liver function tests should be performed before and during the duration of the treatment.

- **Options A and B:** Blood urea nitrogen and creatinine assess the kidney function.
- **Option D:** Triglyceride is not related to the use of the medication.

**46. The client with a dressing covering the neck is experiencing some respiratory difficulty. What is the nurse's initial action?**

- A. Administer oxygen.
- B. Loosen the dressing.
- C. Notify the emergency team.
- D. Document the observation as the only action.

**Correct Answer: B. Loosen the dressing**

Respiratory difficulty can arise from external pressure. The first action in this situation would be to loosen the dressing and then reassess the client's respiratory status. Generally, it is recommended that pressure should be maintained between 20 and 30 mm Hg, which is above capillary pressure but less than what would diminish peripheral blood circulation.

- **Option A:** It is unnecessary to administer oxygen. Wearing pressure garments is uncomfortable and challenging; problems with movement, appearance, fit, comfort, swelling of extremities, rashes, and blistering are common; consequently, low compliance with PGT is to be expected.
- **Option C:** The nurse may intervene first. However, monitoring of pressure exerted by pressure garments is currently difficult and time-consuming, and not routinely done and currently, the optimal pressure magnitude for PGT remains unsolved.
- **Option D:** The nurse may loosen the dressing to help the client breathe. Recent evidence suggests that pressure garment therapy is effective for the prevention and/or treatment of abnormal scarring after burn injury but that the clinical benefit is restricted to those patients with moderate or severe scarring.

**47. Nurse Alexandra teaches a client about elastic stockings. Which of the following statements, if made by the client, indicates to the nurse that the teaching was successful?**

- A. "I will wear the stockings until the physician tells me to remove them."
- B. "I should wear the stockings even when I am asleep."
- C. "Every four hours I should remove the stockings for a half hour."
- D. "I should put on the stockings before getting out of bed in the morning."

**Correct Answer: D. "I should put on the stockings before getting out of bed in the morning."**

Promote venous return by applying external pressure on veins.

- **Option A:** The stockings may be removed before going to bed and worn again before getting out of bed.
- **Option B:** Wearing stockings while sleeping is unnecessary. The mechanisms by which wearing elastic stockings prevent DVT are prevention of blood stasis by increasing the blood flow volume and decrease of the caliber of venous blood vessels by compression of the lower limbs.
- **Option C:** The stockings should be worn the whole day and removed before going to sleep.

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

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

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

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

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

**49. Steroids, if used following kidney transplantation would cause which of the following side effects?**

- A. Alopecia
- B. Increase Cholesterol Level
- C. Orthostatic Hypotension
- D. Increase Blood Glucose Level

**Correct Answer: D. Increased Blood Glucose Level**

In the past, people with kidney transplants usually have taken steroids (such as prednisone) as one of their immunosuppressive medications to prevent rejection. But steroids may cause weight gain,

diabetes, high blood pressure, heart and blood vessel disease (cardiovascular disease), osteoporosis, and other problems.

- **Option A:** Alopecia is a complication of organ transplantation and has been observed with increasing frequency in pancreas and kidney transplant recipients at UMMS. Several patients have presented with alopecia totalis and no obvious etiology. Many of the drugs commonly used after transplant have been reported to cause alopecia; however, it was not known if one of the medications used was a primary cause to this disturbing problem.
- **Option B:** Because hyperlipidemia occurs in 60–80% of kidney transplant recipients, findings might be of clinical value for the future improvement of kidney transplantation outcome. Although the underlying mechanisms of their findings are not clear, high serum cholesterol levels may increase the risks of cardiovascular disease and impair renal function, which may influence graft and patient survivals.
- **Option C:** Orthostatic hypotension is common after kidney-pancreas transplant. It is unrelated to preexisting autonomic neuropathy or posttransplant polyuria in most patients. This complication requires further study.

**50. Nurse Jody formulates a nursing diagnosis of Impaired physical mobility for a client with third-degree burns on the lower portions of both legs. To complete the nursing diagnosis statement, the nurse should add which “related-to” phrase?**

- A. Related to fat emboli.
- B. Related to infection.
- C. Related to femoral artery occlusion.
- D. Related to circumferential eschar.

**Correct Answer: D. Related to circumferential eschar.**

As edema develops on circumferential burns, eschar forms a tight, constricting band, compromising circulation to the extremity distal to the circumferential site and impairing physical mobility. Note circulation, motion, and sensation of digits frequently. Edema may compromise circulation to extremities, potentiating tissue necrosis and development of contractures.

- **Option A:** This client isn't likely to develop fat emboli unless long bone or pelvic fractures are present. Maintain proper body alignment with supports or splints, especially for burns over joints. Promotes functional positioning of extremities and prevents contractures, which are more likely over joints.
- **Option B:** Infection doesn't alter physical mobility. Perform ROM exercises consistently, initially passive, then active. Prevents progressively tightening scar tissue and contractures; enhances maintenance of muscle and joint functioning and reduces loss of calcium from the bone.
- **Option C:** A client with burns on the lower portions of both legs isn't likely to have femoral artery occlusion. Medicate for pain before activity or exercise. Reduces muscle and tissue stiffness and tension, enabling the patient to be more active and facilitating participation.

**51. The nurse calculates a body mass index (BMI) of 18 for a young adult woman who comes to the physician's office for a college physical. This patient is considered:**

- A. Obese
- B. Overweight
- C. Average
- D. Underweight

**Correct Answer: D. Underweight**

For adults, BMI should range between 20 and 25. Body mass index (BMI) is a person's weight in kilograms divided by the square of height in meters. BMI is an inexpensive and easy screening method for the weight category—underweight, healthy weight, overweight, and obesity.

- **Option A:** BMI greater than 30 is considered obese. For adults 20 years old and older, BMI is interpreted using standard weight status categories. These categories are the same for men and women of all body types and ages.
- **Option B:** BMI 25 to 29.9 is overweight. The prevalence of adult BMI greater than or equal to 30 kg/m<sup>2</sup> (obese status) has greatly increased since the 1970s. Recently, however, this trend has leveled off, except for older women. Obesity has continued to increase in adult women who are 60 years and older.
- **Option C:** BMI less than 20 is considered underweight. BMI can be a screening tool, but it does not diagnose the body fatness or health of an individual. To determine if BMI is a health risk, a healthcare provider performs further assessments. Such assessments include skinfold thickness measurements, evaluations of diet, physical activity, and family history.

**52. The primary purpose for using a continuous passive motion (CPM) machine for the client with a total knee repair is to help:**

- A. Inhibit lactic acid production in the leg muscles
- B. Prevent contractures
- C. Decrease the pain associated with early ambulation
- D. Promote flexion of the artificial joint

**Correct Answer: D. Promote flexion of the artificial joint**

- **Option D:** Continuous passive motion (CPM) machine is an equipment used as part of the rehabilitation process following joint or hip surgery. The primary purpose of the continuous passive-motion machine is to promote the flexion of the artificial joint. The device should be placed at the foot of the client's bed.

**53. Joshua is receiving furosemide and Digoxin, which laboratory data would be the most important to assess in planning the care for the client?**

- A. Sodium level
- B. Magnesium level
- C. Potassium level
- D. Calcium level

**Correct Answer: C. Potassium level**

Diuretics such as furosemide may deplete serum potassium, leading to hypokalemia. When the client is also taking digoxin, the subsequent hypokalemia may potentiate the action of digoxin, placing the client at risk for digoxin toxicity. Most cases of hypokalemia result from gastrointestinal (GI) or renal losses. Renal potassium losses are associated with increased mineralocorticoid-receptor stimulation such as occurs with primary hyperreninism and primary aldosteronism.

- **Option A:** Diuretic therapy may lead to the loss of other electrolytes such as sodium, but the loss of potassium in association with digoxin therapy is most important. Increased delivery of sodium and/or non-absorbable ions (diuretic therapy, magnesium deficiency, genetic syndromes) to the distal nephron can also result in renal potassium wasting. GI losses are a common cause of hypokalemia with severe or chronic diarrhea being the most common extrarenal cause of hypokalemia.
- **Option B:** Hypomagnesemia generally is associated with poor nutrition, alcoholism, and excessive GI or renal losses, not diuretic therapy. Magnesium homeostasis involves the kidney (primarily through the proximal tubule, the thick ascending loop of Henle, and the distal tubule), small bowel (primarily through the jejunum and ileum), and bone. Hypomagnesemia occurs when something, whether a drug or a disease condition, alters the homeostasis of magnesium.
- **Option D:** Hypocalcemia is usually associated with inadequate vitamin D intake or synthesis, renal failure, or the use of drugs, such as aminoglycosides and corticosteroids. Calcitonin on the other hand lowers levels of calcium. Hypocalcemia is a common cause of tetany and neuromuscular irritability. An alkaline environment lowers calcium levels and induces tetany, whereas an acidic environment is protective.

**54. A 56-year-old patient with chronic obstructive pulmonary disease (COPD) is participating in a pulmonary rehabilitation program. The primary goal is to improve her exercise tolerance and overall lung function. On one of her visits, the respiratory therapist employs a spirometer to measure various aspects of the patient's lung volumes and capacities. While reviewing the measurements, the therapist mentions the volume of air that the patient breathes in and out during quiet breathing. The therapist then turns to a nursing student observing the session and says, "For most individuals without respiratory conditions, this specific volume, which represents the air inspired or expired with each breath under normal resting conditions, typically amounts to about 500 milliliters (mL). Can you tell me the term for this volume?"**

- A. Tidal volume
- B. Inspiratory reserve volume
- C. Expiratory reserve volume
- D. Residual volume

**Correct Answer: A. Tidal volume**

Tidal volume (TV) is the amount of air that is inhaled or exhaled during a normal, unforced breath. It represents the volume of air that moves into or out of the lungs with each breath taken at rest or during regular breathing patterns. At rest, quiet breathing results in a tidal volume of about 500 milliliters (mL).

- **Option B:** Inspiratory reserve volume is the amount of air that can be inspired forcefully after inspiration of the resting tidal volume (about 3000 mL).

- **Option C:** Expiratory reserve volume is the amount of air that can be expired forcefully after expiration of the resting tidal volume (about 1100 mL).
- **Option D:** Residual volume is the volume of air still remaining in the respiratory passages and lungs after a maximum expiration (about 1200 mL).

**55. A client comes to the outpatient department complaining of vaginal discharge, dysuria, and genital irritation. Suspecting a sexually transmitted disease (STD), Dr. Smith orders diagnostic tests of the vaginal discharge. Which STD must be reported to the public health department?**

- A. Chlamydia
- B. Gonorrhea
- C. Genital herpes
- D. Human papillomavirus infection

**Correct Answer: B. Gonorrhea**

Gonorrhea must be reported to the public health department. Public health control of gonorrhea depends upon suitable antimicrobial therapy, in tandem with generalized and targeted prevention interventions, use of accurate diagnostic assays, partner notification procedures, and epidemiological surveillance. When treating individuals with suspected or confirmed cephalosporin resistance, clinicians are recommended to consult an infectious disease consultant and report treatment failure to the Centers for Disease Control within 24 hours of laboratory culture confirmation of the diagnosis of antimicrobial-resistant *N. gonorrhoeae*.

- **Option A:** In the United States, *C. trachomatis* is considered a notifiable infection. Local and state laws regarding disease reporting apply. Sexual partners should be notified, examined, and treated if an STI is found in the index patient. Expedited partner therapy may also be available in certain settings. Expedited partner therapy allows providers to prescribe antibiotics to sexual contacts without establishing a physician-patient relationship.
- **Option C:** Herpes genitalis can be caused by the herpes simplex virus type 1 or type 2 and manifests as either a primary or recurrent infection. Most commonly, viral replication occurs in epithelial tissue and establishes dormancy in sensory neurons, reactivating periodically as localized recurrent lesions. It remains one of the most common sexually transmitted infections (STI) but continues to be underestimated, given the vague presentation of its symptoms.
- **Option D:** HPV is known to cause lesions of the mucous membranes and skin. There are over 100 subtypes of HPV, and some are associated with an increased risk of malignancy. HPV diagnosis and treatment is best done with an interprofessional team. According to the Center for Disease Control and Prevention (CDC), the most recent studies show the prevalence of genital HPV for adults aged 18 to 59 to be approximately 45.2% in men and 39.9% in women.

**56. The client with chronic renal failure has an indwelling catheter for peritoneal dialysis in the abdomen. The client spills water on the catheter dressing while bathing. The nurse should immediately:**

- A. Reinforce the dressing.
- B. Change the dressing.



- C. Flush the peritoneal dialysis catheter.
- D. Scrub the catheter with povidone-iodine.

**Correct Answer: B. Change the dressing.**

Clients with peritoneal dialysis catheters are at high risk for infection. A dressing that is wet is a conduit for bacteria to reach the catheter insertion site. The nurse assures that the dressing is kept dry at all times. A moist environment promotes bacterial growth. Purulent drainage at the insertion site suggests the presence of local infection.

- **Option A:** Reinforcing the dressing is not a safe practice to prevent infection in this circumstance. Change dressings as indicated, being careful not to dislodge the catheter. Note character, color, odor, or drainage from around the insertion site.
- **Option C:** Flushing the catheter is not indicated. Observe meticulous aseptic techniques and wear masks during catheter insertion, dressing changes, and whenever the system is opened. Change tubings per protocol.
- **Option D:** Scrubbing the catheter with povidone-iodine is done at the time of connection or disconnecting of peritoneal dialysis. Apply povidone-iodine (Betadine) barrier in distal, clamped portion of catheter when intermittent dialysis therapy used. Reduces risk of bacterial entry through catheter between dialysis treatments when the catheter is disconnected from the closed system.

**57. The hemodialysis client with a left-arm fistula is at risk for steal syndrome. The nurse assesses this client for which of the following clinical manifestations?**

- A. Warmth, redness, and pain in the left hand.
- B. Pallor, diminished pulse, and pain in the left hand.
- C. Edema and reddish discoloration of the left arm.
- D. Aching pain, pallor, and edema in the left arm.

**Correct Answer: B. Pallor, diminished pulse, and pain in the left hand.**

Steal syndrome results from vascular insufficiency after the creation of a fistula. The client exhibits pallor and a diminished pulse distal to the fistula. The client also complains of pain distal to the fistula, which is due to tissue ischemia. Ischemic steal syndrome (ISS) is a complication that can occur after the construction of a vascular access for hemodialysis. It is characterized by ischemia of the hand caused by marked reduction or reversal of flow through the arterial segment distal to the arteriovenous fistula (AVF).

- **Option A:** Warmth, redness, and pain more likely would characterize a problem with infection. The diagnosis of hand ischemia is based on physical examination, but imaging studies are very useful for detecting the true cause of ischemia and for selecting an appropriate therapeutic strategy. The distal ischemic steal syndrome (ISS) is a possible complication following the construction of an arteriovenous (AV) access for hemodialysis.
- **Option C:** ISS is caused by a substantial decrease or even reversal of blood flow (“steal”) through the arterial segment distal to the vascular access. These changes are due to the presence of low resistance in the AV access or to hypoperfusion secondary to distal arteriopathy. Both of these factors frequently contribute to symptomatic ischemia.
- **Option D:** It occurs in approximately 1–20 percent of patients with an upper extremity access, and its clinical manifestations can include various signs and symptoms, ranging from coolness, pallor,

mild paresthesia, and pain during dialysis to severe symptoms, such as pain at rest, paralysis, ulceration, tissue necrosis, and loss of one or more fingers or the entire hand.

**58. Lydia undergoes a laryngectomy to treat laryngeal cancer. When teaching the client how to care for the neck stoma, the nurse should include which instruction?**

- A. "Keep the stoma uncovered."
- B. "Keep the stoma dry."
- C. "Have a family member perform stoma care initially until you get used to the procedure."
- D. "Keep the stoma moist."

**Correct Answer: D. "Keep the stoma moist."**

The nurse should instruct the client to keep the stoma moist, such as by applying a thin layer of petroleum jelly around the edges, because a dry stoma may become irritated.

- **Option A:** The nurse should recommend placing a stoma bib over the stoma to filter and warm air before it enters the stoma.
- **Option B:** The stoma should be kept moist to avoid irritation.
- **Option C:** The client should begin performing stoma care without assistance as soon as possible to gain independence in self-care activities.

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

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

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

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

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

**60. Rico with diabetes mellitus must learn how to self-administer insulin. The physician has prescribed 10 U of U-100 regular insulin and 35 U of U-100 isophane insulin suspension (NPH) to be taken before breakfast. When teaching the client how to select and rotate insulin injection sites, the nurse should provide which instruction?**

- A. "Inject insulin into healthy tissue with large blood vessels and nerves."
- B. "Rotate injection sites within the same anatomic region, not among different regions."
- C. "Administer insulin into areas of scar tissue or hypertrophy whenever possible."
- D. "Administer insulin into sites above muscles that you plan to exercise heavily later that day."

**Correct Answer: B. "Rotate injection sites within the same anatomic region, not among different regions."**

The nurse should instruct the client to rotate injection sites within the same anatomic region. Rotating sites among different regions may cause excessive day-to-day variations in the blood glucose level; also, insulin absorption differs from one region to the next.

- **Option A:** Insulin should be injected only into healthy tissue lacking large blood vessels, nerves, or scar tissue, or other deviations.
- **Option C:** Injecting insulin into areas of hypertrophy may delay absorption. The client shouldn't inject insulin into areas of lipodystrophy (such as hypertrophy or atrophy); to prevent lipodystrophy, the client should rotate injection sites systematically.
- **Option D:** Exercise speeds drug absorption, so the client shouldn't inject insulin into sites above muscles that will be exercised heavily.

**61. Which nursing response is an example of the nontherapeutic communication block of requesting an explanation?**

- A. "Can you tell me why you said that?"
- B. "Keep your chin up. I'll explain the procedure to you."
- C. "There is always an explanation for both good and bad behaviors."
- D. "Are you not understanding the explanation I provided?"

**Correct Answer: A. "Can you tell me why you said that?"**

This nursing statement is an example of the nontherapeutic communication block of requesting an explanation. Requesting an explanation is when the client is asked to provide the reason for thoughts, feelings, behaviors, and events. Asking "why" a client did something or feels a certain way can be very intimidating and implies that the client must defend his or her behavior or feelings.

- **Option B:** Stereotyped comments refer to offering meaningless cliches or trite comments. Social conversations contain many cliches and much meaningless chit-chat. Such comments are of no value in the nurse-client relationship. Any automatic responses will lack the nurse's consideration or thoughtfulness.
- **Option C:** Attempts to dispel the client's anxiety by implying that there is not sufficient reason for concern completely devalue the client's feelings. Vague reassurances without accompanying facts are meaningless to the client.
- **Option D:** Interpreting refers to making conscious that which is unconscious to the client. The client's thoughts and feelings are his own, not to be interpreted by the nurse or for hidden meaning. Only the client can identify or confirm the presence of feelings.

**62. A nurse explains the purpose of effleurage to a client in early labor. The nurse tells the client that effleurage is:**

- A. A form of biofeedback to enhance bearing down efforts during delivery.
- B. Light stroking of the abdomen to facilitate relaxation during labor and provide tactile stimulation to the fetus.
- C. The application of pressure to the sacrum to relieve a backache.
- D. Performed to stimulate uterine activity by contracting a specific muscle group while other parts of the body rest.

**Correct Answer: B. Light stroking of the abdomen to facilitate relaxation during labor and provide tactile stimulation to the fetus.**

Effleurage is a specific type of cutaneous stimulation involving light stroking of the abdomen and is used before a transition to promote relaxation and relieve mild to moderate pain. Effleurage provides tactile stimulation to the fetus.

- **Option A:** Women using biofeedback during childbirth reported significantly lower pain: from admission to labor and delivery, at delivery, and 24-hr postpartum. Also, women in the biofeedback group labored an average of 2 hr less and used 30% fewer medications. The results of a study suggest that EMG biofeedback may be effective in reducing levels of acute pain experienced by childbearing women.
- **Option C:** Low back pain in pregnancy is generally ascribed to the many changes in load and body mechanics that occur during the carrying of a child. It is normal to gain between 20 and 40 pounds during pregnancy. This clearly shifts the body's center of gravity anteriorly and increases the moment arm of forces applied to the lumbar spine.
- **Option D:** The primary hormones involved include estrogen, progesterone, and oxytocin. Oxytocin is one of the most widely studied hormones involved in uterine contractions. It decreases Ca<sup>2+</sup> efflux, by inhibiting the Ca<sup>2+</sup>/ATPase of the myometrial cell membrane which pumps calcium from the inside to the extracellular space, and increases Ca<sup>2+</sup> influx, as well as causes the release of Ca<sup>2+</sup> from the SR via IICR.

**63. Which of the following diet instructions should be given to the client with recurring urinary tract infections?**

- A. Increase intake of meats.
- B. Avoid citrus fruits.
- C. Perform peri care with hydrogen peroxide.
- D. Drink a glass of cranberry juice every day.

**Correct Answer: D. Drink a glass of cranberry juice every day.**

Cranberry juice is more alkaline and, when metabolized by the body, is excreted with acidic urine. Bacteria do not grow freely in acidic urine. A 2003 study that included 324 women found that frequently drinking freshly squeezed, 100% juice — especially berry juice, as well as consuming fermented dairy products like yogurt, was associated with a decreased risk of UTI occurrence

- **Option A:** Increasing intake of meats is not associated with urinary tract infections, so answer A is incorrect. Red meat and other animal proteins have high potential renal acid loads (PRALs), meaning that they make urine more acidic. Conversely, fruits and vegetables have low PRALs, making urine less acidic.

- **Option B:** The client does not have to avoid citrus fruits. The aforementioned study in 4,145 men and women showed that citrus juice intake was associated with a 50% reduction in lower urinary tract symptoms in men only
- **Option C:** Peri care should be done, but hydrogen peroxide is drying. Other factors claimed to increase the chances of developing a UTI include wearing tight underwear, hot tub use, not urinating after sex, and douching, although strong evidence to support these claims is lacking.

**64. Which one of the following statements about hypothesis is most accurate?**

- A. Hypotheses represent the main idea to be studied and are the foundations of research studies.
- B. Hypotheses help frame a test of the validity of a theory.
- C. Hypotheses provide the means to test nursing theory.
- D. A hypothesis can also be called a problem statement.

**Correct Answer: B. Hypotheses help frame a test of the validity of a theory.**

Although theories cannot be tested directly, hypotheses provide a bridge between theory and the real world. A hypothesis is a predetermined declaration regarding the research question in which the investigator(s) makes a precise, educated guess about a study outcome. This is sometimes called the alternative hypothesis and ultimately allows the researcher to take a stance based on experience or insight from medical literature.

- **Option A:** It is the research question that represents the main idea to be studied. Investigators conducting studies need research questions and hypotheses to guide analyses. Starting with broad research questions (RQs), investigators then identify a gap in current clinical practice or research.
- **Option C:** Theories cannot be tested directly. To test a hypothesis, researchers obtain data on a representative sample to determine whether to reject or fail to reject a null hypothesis. In most research studies, it is not feasible to obtain data for an entire population.
- **Option D:** The research question is also called the problem statement. Any research problem or statement is grounded in a better understanding of relationships between two or more variables. Research questions do not directly imply specific guesses or predictions; the researcher must formulate research hypotheses.

**65. Nurse Ejay is assigned to telephone triage. A client called who was stung by a honeybee and is asking for help. The client reports pain and localized swelling but has no respiratory distress or other symptoms of anaphylactic shock. What is the appropriate initial action that the nurse should direct the client to perform?**

- A. Removing the stinger by scraping it
- B. Applying a cold compress
- C. Taking an oral antihistamine
- D. Calling 911

**Correct Answer: A. Removing the stinger by scraping it.**

Since the stinger will continue to release venom into the skin, removing the stinger should be the first action that the nurse should direct to the client. Within the first few minutes after the sting, the stinger should be removed via scraping with a credit card rather than squeezing/tweezing to avoid further venom exposure.

- **Option B:** Uncomplicated local reactions can be treated with supportive care (ice packs, NSAIDs/APAP for pain, H1/H2 blocker). Cold compress follows the administration of antihistamine. Large local reactions should also be treated with supportive care along with glucocorticoids (usually a burst course of prednisone 40 to 60 mg per day for 3 to 5 days) to decrease the inflammatory response and improve symptoms.
- **Option C:** After removing the stinger, an antihistamine is administered. H1 and H2 antagonists block the effects of histamine decreasing pruritus, erythema, and urticaria. Corticosteroids (prednisone, methylprednisolone, dexamethasone) act to decrease inflammation and immune response to the antigen.
- **Option D:** The caller should be further advised about symptoms that require 911 assistance. Systemic reactions (anaphylaxis) are life-threatening and should be managed as such. ABCs first. The airway can be lost within seconds to minutes, so intubate early. As with any anaphylactic reaction, epinephrine, corticosteroids, H1 and H2 antagonists, and intravenous (IV) fluids should be given immediately.

**66. When developing a plan of care for a hospitalized child, nurse Mary knows that children in which age group is most likely to view illness as a punishment for misdeeds?**

- A. Infancy
- B. Preschool age
- C. School age
- D. Adolescence

**Correct Answer: B. Preschool age**

Preschool-age children are most likely to view illness as a punishment for misdeeds. When children in this age group become seriously ill, they may think it's punishment for something they did or thought about. They don't understand how their parents could not have protected them from this illness.

- **Option A:** Separation anxiety, although seen in all age groups, is most common in older infants. Keeping a consistent routine is important for a baby and their caregivers. Because babies can't talk about their needs, fear is often expressed by crying.
- **Option C:** Fear of the unknown, loss of control, and separation from family and friends can be the school-aged child's main sources of anxiety and fear related to death. They may fear their own death because of the uncertainty of what happens to them after they die.
- **Option D:** Fear of death is typical of adolescents. Adolescents also fear mutilation. Most teens are starting to establish their identity, independence, and relation to peers. The main theme in teens is feeling immortal or being exempt from death. Their realization of their own death threatens all of these objectives.

**67. Lactation Amenorrhea Method(LAM) can be an effective method of natural birth control if**

- A. The mother breastfeeds mainly at night time when ovulation could possibly occur.
- B. The mother breastfeeds exclusively and regularly during the first 6 months without giving supplemental feedings.
- C. The mother uses mixed feeding faithfully.
- D. The mother breastfeeds regularly until 1 year with no supplemental feedings.

**Correct Answer: B. The mother breastfeeds exclusively and regularly during the first 6 months without giving supplemental feedings.**

A mother who breastfeeds exclusively and regularly during the first 6 months benefits from lactation amenorrhea. There is evidence to support the observation that the benefits of lactation amenorrhea last for 6 months provided the woman has not had her first menstruation since delivery of the baby.

- **Option A:** This method requires breastfeeding of the baby every 4 hours during the day and every 6 hours at night. Elevated prolactin levels and a reduction of gonadotropin-releasing hormone from the hypothalamus during lactation suppress ovulation. This leads to a reduction in luteinizing hormone (LH) release and inhibition of follicular maturation.
- **Option C:** The duration of this suppression varies and is influenced by the frequency and duration of breastfeeding and the length of time since birth. No supplementation of other foods or formula are allowed, only exclusive breastfeeding.
- **Option D:** The baby must be younger than 6 months for perfect use. The perfect-use failure rate within the first 6 months is 0.5%. The typical-use failure rate within the first 6 months is 2%.

**68. The correct sequence for abdominal assessment is:**

- A. Inspection, percussion, palpation, auscultation.
- B. Inspection, auscultation, percussion, palpation.
- C. Inspection, palpation, auscultation, percussion.
- D. Inspection, percussion, auscultation, palpation.

**Correct Answer: B. Inspection, auscultation, percussion, palpation.**

Auscultation is done before percussion and palpation to avoid stimulating peristaltic movements and distorting auscultatory sounds. The diaphragm of the stethoscope should be placed on the right side of the umbilicus to listen to the bowel sounds, and their rate should be calculated after listening for at least two minutes. Normal bowel sounds are low-pitched and gurgling, and the rate is normally 2-5/min.

- **Option A:** Begin with the general inspection of the patient and then proceed to the abdominal area. This should be performed at the foot end of the bed. The general inspection can give multiple clues regarding the diagnosis of the patient, for example, yellowish discoloration of the skin (jaundice) indicates a possible hepatic abnormality.
- **Option C:** There are three stages of palpation that include superficial or light palpation, deep palpation, and organ palpation, and should be performed in the same order. Maneuvers specific to certain diseases are also a part of abdominal palpation. The examiner should begin with superficial or light palpation from the area furthest from the point of maximal pain and move systematically through the nine regions of the abdomen.
- **Option D:** A proper technique of percussion is necessary to gain maximum information regarding abdominal pathology. While percussing, it is important to appreciate tympany over air-filled structures such as the stomach and dullness to percussion which may be present due to an

underlying mass or organomegaly (for example, hepatomegaly or splenomegaly).

**69. The nurse is caring for a client hospitalized with a facial stroke. Which diet selection would be suited to the client?**

- A. Roast beef sandwich, potato chips, pickle spear, iced tea
- B. Split pea soup, mashed potatoes, pudding, milk
- C. Tomato soup, cheese toast, Jello, coffee
- D. Hamburger, baked beans, fruit cup, iced tea

**Correct Answer: B. Split pea soup, mashed potatoes, pudding, milk**

The client with a facial stroke will have difficulty swallowing and chewing, and these food items mentioned provides the least amount of chewing. Consult with a speech therapist to evaluate gag reflexes; assist in teaching alternate swallowing techniques, advise the patient to take smaller boluses of food, and inform the patient of foods that are easier to swallow; provide thicker liquids or pureed diet as indicated.

- **Option A:** The patient would have difficulty in chewing meat. Observe the patient for paroxysms of coughing, food dribbling out or pooling in one side of the mouth, food retained for long periods in the mouth, or nasal regurgitation when swallowing liquids. Have the patient sit upright, preferably on a chair, when eating and drinking; advance diet as tolerated.
- **Option C:** This group would still require more chewing. Prepare for GI feedings through a tube if indicated; elevate the head of bed during feedings, check tube position before feeding, administer feeding slowly, and ensure that the cuff of the tracheostomy tube is inflated (if applicable); monitor and report excessive retained or residual feeding.
- **Option D:** The following food items would require more chewing and, thus, are incorrect. Avoid hard, chewy foods as these can be difficult to prepare, and choose a soft easy chew diet (such as pasta dishes, fish, well-cooked meats, and vegetables). Try smaller mouthfuls as these are easier to control and less likely to spill from the mouth.

**70. Anne, who is drinking beer at a party, falls and hits her head on the ground. Her friend Liza dials "911" because Anne is unconscious, depressed ventilation (shallow and slow respirations), rapid heart rate, and is profusely bleeding from both ears. Which primary acid-base imbalance is Anne at risk for if medical attention is not provided?**

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

**Correct Answer: C. Respiratory Acidosis**

One of the risk factors of having respiratory acidosis is hypoventilation which may be due to brain trauma, coma, and hypothyroidism or myxedema. Other risk factors include COPD, Respiratory conditions such as pneumothorax, pneumonia, and status asthmaticus. Drugs such as Morphine and MgSO<sub>4</sub> toxicity are also risk factors of respiratory acidosis.



**71. A female client is taking Cascara Sagrada. Nurse Betty informs the client that the following may be experienced as side effects of this medication:**

- A. GI bleeding
- B. Peptic ulcer disease
- C. Abdominal cramps
- D. Partial bowel obstruction

**Correct Answer: C. Abdominal cramps**

The most frequent side effects of Cascara Sagrada (Laxative) is abdominal cramps and nausea. Cascara sagrada is possibly safe for most adults when taken for less than one week. Side effects include stomach discomfort and cramps.

- **Option A:** There is no GI bleeding associated with Cascara sagrada. Cascara sagrada is possibly unsafe when used for more than one week. This could cause more serious side effects including dehydration; low levels of potassium, sodium, chloride, and other “electrolytes” in the blood; heart problems; muscle weakness; and others.
- **Option B:** Peptic ulcer disease is not a side effect of Cascara sagrada, however, stomach discomfort may occur when using this drug. Gastrointestinal (GI) disorders such as intestinal obstruction, Crohn disease, ulcerative colitis, appendicitis, stomach ulcers, or unexplained stomach pain: people with any of these conditions should not use cascara sagrada.
- **Option D:** Partial bowel obstruction is not associated with the use of Cascara sagrada. Cascara is a type of laxative called a stimulant laxative. Stimulant laxatives speed up the bowels. Taking cascara along with other stimulant laxatives could speed up the bowels too much and cause dehydration and low minerals in the body.

**72. A client with severe preeclampsia is admitted with BP 160/110, proteinuria, and severe pitting edema. Which of the following would be most important to include in the client’s plan of care?**

- A. Daily weights
- B. Seizure precautions
- C. Right lateral positioning
- D. Stress reduction

**Correct Answer: B. Seizure precautions**

Women hospitalized with severe preeclampsia need decreased CNS stimulation to prevent a seizure. Seizure precautions provide environmental safety should a seizure occur.

- **Option A:** Because of edema, daily weight is important but not the priority. High pregnancy weight gain was more strongly associated with term preeclampsia than early preterm preeclampsia (eg, 64% versus 43% increased odds per 1 z score difference in weight gain in normal-weight women, and 30% versus 0% in obese women, respectively).
- **Option C:** Preeclampsia causes vasospasm and therefore can reduce uteroplacental perfusion. The client should be placed on her left side to maximize blood flow, reduce blood pressure, and

promote diuresis.

- **Option D:** Interventions to reduce stress and anxiety are very important to facilitate coping and a sense of control, but seizure precautions are the priority.

**73. When performing nursing care for a neonate after birth, which intervention has the highest nursing priority?**

- A. Obtain a dextrostix
- B. Give the initial bath
- C. Give the vitamin K injection
- D. Cover the neonates head with a cap

**Correct Answer: D. Cover the neonate's head with a cap.**

- **Option D:** Covering the neonate's head with a cap helps prevent cold stress due to excessive evaporative heat loss from the neonate's wet head.  
Option C: Vitamin K can be given up to 4 hours after birth.

**74. Which statement best exemplifies the client's understanding of rehabilitation after a full-thickness burn injury?**

- A. "I am fully recovered when all the wounds are closed."
- B. "I will eventually be able to perform all my former activities."
- C. "My goal is to achieve the highest level of functioning that I can."
- D. "There is never full recovery from a major burn injury."

**Correct Answer: C. "My goal is to achieve the highest level of functioning that I can."**

Although a return to pre-burn functional levels is rarely possible, burned clients are considered fully recovered or rehabilitated when they have achieved their highest possible level of physical, social, and emotional functioning. The technical rehabilitative phase of rehabilitation begins with wound closure and ends when the client returns to her or his highest possible level of functioning.

- **Option A:** The final stage in caring for a patient with a burn injury is the rehabilitative stage. This stage starts with the closure of the burn and ends when the patient has reached the optimal level of functioning. The focus is on helping the patient return to a normal injury-free life. Helping the patient adjust to the changes the injury has imposed is also a priority.
- **Option B:** Early compliance is essential to ensure the best possible long-term outcome and also to ease pain and assist with exercise regimes. Patients need to adhere to a positioning regime in the early stages of healing and this takes teamwork and dedication.
- **Option D:** Rehabilitation of burns patients is a continuum of active therapy starting from admission. There should be no delineation between an 'acute phase' and a 'rehabilitation phase' as this idea can promote the inequality of secondary disjointed scar management and/or functional rehabilitation team.

**75. Nurse Maureen has assisted a physician with the insertion of a chest tube. The nurse monitors the client and notes fluctuation of the fluid level in the water**

***seal chamber after the tube is inserted. Based on this assessment, which action would be appropriate?***

- A. Inform the physician.
- B. Continue to monitor the client.
- C. Reinforce the occlusive dressing.
- D. Encourage the client to deep breathe.

**Correct Answer: B. Continue to monitor the client.**

The presence of fluctuation of the fluid level in the water seal chamber indicates a patent drainage system. With normal breathing, the water level rises with inspiration and falls with expiration. Fluctuation stops if the tube is obstructed, if a dependent loop exists, if the suction is not working properly, or if the lung has re-expanded.

- **Option A:** Monitor water-seal chamber “tidaling.” Note whether the change is transient or permanent. The water-seal chamber serves as an intrapleural manometer (gauges intrapleural pressure); therefore, fluctuation (tidaling) reflects pressure differences between inspiration and expiration.
- **Option C:** If the catheter is dislodged from the chest, cover insertion site immediately with petrolatum dressing and apply firm pressure. Notify the physician at once. Pneumothorax may recur, requiring prompt intervention to prevent fatal pulmonary and circulatory impairment.
- **Option D:** Assist the patient with splinting painful areas when coughing, deep breathing. Supporting chest and abdominal muscles makes coughing more effective and less traumatic.

***76. Which of the following actions is the first priority of care for a client exhibiting signs and symptoms of coronary artery disease?***

- A. Decrease anxiety.
- B. Enhance myocardial oxygenation.
- C. Administer sublingual nitroglycerin.
- D. Educate the client about his symptoms.

**Correct Answer: B. Enhance myocardial oxygenation.**

Enhancing myocardial oxygenation is always the first priority when a client exhibits signs or symptoms of cardiac compromise. Without adequate oxygenation, the myocardium suffers damage. The desired effect is to decrease myocardial oxygen demand by decreasing ventricular stress. Drugs with negative inotropic properties can decrease perfusion to the already ischemic myocardium. A combination of nitrates and beta-blockers may have cumulative effects on cardiac output.

- **Option A:** Promote expression of feelings and fears. Let the patient/SO know these are normal reactions. Unexpressed feelings may create internal turmoil and affect self-image. Verbalization of concerns reduces tension, verifies the level of coping, and facilitates dealing with feelings. The presence of negative self-talk can increase the level of anxiety and may contribute to an exacerbation of angina attacks.
- **Option C:** Sublingual nitroglycerin is administered to treat acute angina, but the administration isn't the first priority. Nitroglycerin has been the standard for treating and preventing anginal pain for more than 100 yr. Today it is available in many forms and is still the cornerstone of antianginal

therapy.

- **Option D:** Although educating the client is important in care delivery, it is not a priority when a client is compromised. Discuss the pathophysiology of condition. Stress the need for preventing and managing anginal attacks. Patients with angina need to learn why it occurs and what they can do to control it. This is the focus of therapeutic management to reduce the likelihood of myocardial infarction and promote a healthy heart lifestyle.

**77. Rocky has started taking haloperidol (Haldol). Which of the following instructions is most appropriate for Ricky before taking haloperidol?**

- A. Should report feelings of restlessness or agitation at once.
- B. Use sunscreen outdoors on a year-round basis.
- C. Be aware you'll feel increased energy taking this drug.
- D. Avoid eating sugar-free sweets.

**Correct Answer: A. Should report feelings of restlessness or agitation at once**

Haloperidol is a first-generation (typical) antipsychotic medication that is used widely around the world. Food and Drug Administration (FDA) approved the use of haloperidol is for schizophrenia, Tourette syndrome (control of tics and vocal utterances in adults and children), hyperactivity (which may present as impulsivity, difficulty maintaining attention, severe aggressivity, mood instability, and frustration intolerance), severe childhood behavioral problems (such as combative, explosive hyperexcitability), intractable hiccups. It is a typical antipsychotic because it works on positive symptoms of schizophrenia, such as hallucinations and delusions.

- **Option A:** Agitation and restlessness are adverse effects of haloperidol and can be treated with anticholinergic drugs. Due to the blockade of the dopamine pathway in the brain, typical antipsychotic medications such as haloperidol have correlations with extrapyramidal side effects.
- **Option B:** Haloperidol isn't likely to cause photosensitivity or control essential hypertension. Due to potential side effects development, patients receiving haloperidol require monitoring, especially when receiving the intramuscular form. It can be easily monitored by taking blood levels. It has a therapeutic range of 2 to 15 ng/ml in serum. Blood levels should be monitored at 12-hour or 24-hour intervals or after the last dose of haloperidol use in a patient.
- **Option C:** Although the client may experience increased concentration and activity, these effects are due to a decrease in symptoms, not the drug itself. Haloperidol is a first-generation (typical antipsychotic) which exerts its antipsychotic action by blocking dopamine D2 receptors in the brain. When 72% of dopamine receptors are blocked, this drug achieves its maximal effect. Haloperidol is not selective for the D2 receptor. It also has noradrenergic, cholinergic, and histaminergic blocking action. The blocking of these receptors is associated with various side effects.  
Option D: Haloperidol may produce anticholinergic side effects such as dry mouth, hence the health care provider will teach the client interventions to relieve symptoms such as chewing a sugarless hard candy or gum.

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

- A. Schedule a sigmoidoscopy to provide baseline data about the patient
- B. Teach the patient about the need for a colonoscopy at age 50

- C. Have the patient ask the doctor about specific tests for colon cancer
- D. Ask the patient to bring in a stool specimen to test for occult blood

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

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

**79. Patrick is treated in the emergency department for a Colles' fracture sustained during a fall. What is a Colles' fracture?**

- A. Fracture of the distal radius.
- B. Fracture of the olecranon.
- C. Fracture of the humerus.
- D. Fracture of the carpal scaphoid.

**Correct Answer: A. Fracture of the distal radius.**

Colles' fracture is a fracture of the distal radius, such as from a fall on an outstretched hand. It's most common in women.

- **Option B:** Colles' fracture does not involve the olecranon. Most Colles fractures are secondary to a fall on an outstretched hand with a pronated forearm in dorsiflexion.
- **Option C:** The humerus is not affected in Colles' fracture. It is a complete fracture of the radius bone of the forearm close to the wrist resulting in an upward displacement of the radius and obvious deformity.
- **Option D:** Colles' fracture doesn't refer to a fracture of the carpal scaphoid. A scaphoid fracture is a break in one of the small bones of the wrist.

**80. On admission to the emergency department the burned client's blood pressure is 90/60, with an apical pulse rate of 122. These findings are an expected result of what thermal injury-related response?**

- A. Fluid shift
- B. Intense pain
- C. Hemorrhage
- D. Carbon monoxide poisoning

**Correct Answer: A. Fluid shift**

The physiologic effect of histamine release in injured tissues is a loss of vascular volume to the interstitial space, with a resulting decrease in blood pressure. After a burn, fluid shifts from vascular to interstitial and intracellular spaces because of increased capillary pressure, increased capillary and venular permeability, decreased interstitial hydrostatic pressure, chemical inflammatory mediators, and increased interstitial protein retention.

- **Option B:** Intense pain and carbon monoxide poisoning increase blood pressure. Superficial dermal burns are initially the most painful. Even the slightest change in the air currents moving past the exposed superficial dermis causes a patient to experience excruciating pain. Without the protective covering of the epidermis, nerve endings are sensitized and exposed to stimulation.
- **Option C:** Hemorrhage is unusual in a burn injury. The difference with a burn is the heat actually stops the blood from flowing. A small bit of blood may ooze out at first, but it won't actually bleed much.
- **Option D:** Most commonly, patients with carbon monoxide poisoning will present with headache (more than 90%), dizziness, weakness, and nausea. Patients may be tachycardic and tachypneic. They may exhibit hypotension. Mental status changes such as confusion, altered level of consciousness, disorientation, and memory loss may occur.

**81. The nurse is admitting a patient diagnosed with type 2 diabetes mellitus. The nurse should expect the following symptoms during an assessment, except:**

- A. Hypoglycemia
- B. Frequent bruising
- C. Ketonuria
- D. Dry mouth

**Correct answer: A. Hypoglycemia**

Hypoglycemia does not occur in type 2 diabetes unless the patient is on insulin therapy or taking other diabetes medication. In T2DM, the response to insulin is diminished, and this is defined as insulin resistance. During this state, insulin is ineffective and is initially countered by an increase in insulin production to maintain glucose homeostasis, but over time, insulin production decreases, resulting in T2DM.

- **Option B:** Type 2 diabetes can affect blood circulation which makes it easier for the skin to bruise. Decreased blood flow to the area surrounding an injury prevents a wound from healing properly, resulting in the development of bruise-like lesions or spots.
- **Option C:** The presence of ketones in the urine happens due to a lack of available insulin. T1DM patients can often present with ketoacidosis (DKA) coma as the first manifestation in about 30% of patients.
- **Option D:** Losing a lot of fluids caused by frequent urination can lead to dehydration hence patients can develop dry mouth. People with diabetes are prone to dehydration. In those with diabetes, a person's blood glucose levels can become too high. The term for this is hyperglycemia, and it can cause a person to experience dry mouth.

**82. A client, 30 weeks pregnant, is scheduled for a biophysical profile (BPP) to evaluate the health of her fetus. Her BPP score is 8. What does this score indicate?**

- A. The fetus should be delivered within 24 hours.
- B. The client should repeat the test in 24 hours.
- C. The fetus isn't in distress at this time.
- D. The client should repeat the test in 1 week.

**Correct Answer: C. The fetus isn't in distress at this time.**

The BPP evaluates fetal health by assessing five variables: fetal breathing movements, gross body movements, fetal tone, reactive fetal heart rate, and qualitative amniotic fluid volume. A normal response for each variable receives 2 points; an abnormal response receives 0 points. A score between 8 and 10 is considered normal, indicating that the fetus has a low risk of oxygen deprivation and isn't in distress. A fetus with a score of 6 or lower is at risk for asphyxia and premature birth; this score warrants detailed investigation. The BPP may or may not be repeated if the score isn't within normal limits.

- **Option A:** The biophysical profile is a test used to evaluate the well-being of the fetus. It is commonly done at the last trimester of pregnancy, but it does not indicate that the fetus should be delivered within 24 hours.
- **Option B:** If the score is 6, the health care provider will likely repeat the test within 24 hours.
- **Option D:** The test is most commonly done when there's an increased risk of problems that could lead to complications or pregnancy loss. The health care provider will determine the necessity and timing of a biophysical profile based on whether the baby could survive if delivered early, the severity of the mother's condition, and the risk of pregnancy loss.

**83. A 9-year-old is admitted with suspected rheumatic fever. Which finding is suggestive of polymigratory arthritis?**

- A. Swelling, inflammation, and effusion of the joints
- B. Faint areas of red demarcation over the back and abdomen
- C. Irregular movements of the extremities and facial grimacing
- D. Painless swelling over the extensor surfaces of the joints

**Correct Answer: A. Swelling, inflammation, and effusion of the joints**

- **Option A:** Polymigratory arthritis occurs when arthritis symptoms such as swollen, painful joints appear from one joint to another.
- **Option B:** Faint areas of red demarcation over the back and abdomen describes erythema marginatum.
- **Option C:** Irregular movements of the extremities and facial grimacing describes Sydenham's chorea.
- **Option D:** Swelling, inflammation, and effusion of the joints describe subcutaneous nodules.

**84. JT being the charge nurse for today is providing orientation to Nurse Brad, a newly hired employee. Which of the following action by Nurse Brad requires the most immediate action?**

- A. Educating a newly admitted burn client regarding the use of pressure garments.
- B. Obtaining an anaerobic culture specimen from a superficial burn wound.
- C. Administering tetracycline with a glass of milk to a client with cellulitis.
- D. Discussing the use of herpes zoster vaccine with a 20-year-old client.

**Correct Answer: C. Administering tetracycline with a glass of milk to a client with cellulitis.**

Tetracyclines should never be taken with milk or milk products since dairy products prevent the absorption of tetracycline.

- **Option A:** Pressure garments may be used after graft wounds heal and during the rehabilitation period after a burn injury, but this should be discussed when the client is ready for rehabilitation, now when the client is admitted.
- **Option B:** Anaerobic bacteria would not be likely to grow in a superficial wound.
- **Option D:** The herpes zoster vaccine is recommended for clients who are 60 years or older.

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

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

**Correct Answer: C. Force fluids and reassess blood pressure**

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

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

**86. Good dental care is an important measure in reducing the risk of endocarditis. A teaching plan to promote good dental care in a client with mitral stenosis should include a demonstration of the proper use of:**



- A. A manual toothbrush
- B. An electric toothbrush
- C. An irrigation device
- D. Dental floss

**Correct Answer: A. A manual toothbrush**

Daily dental care and frequent checkups by a dentist who is informed about the client's condition are required to maintain good oral health. In 2007, the AHA modified their infective endocarditis prophylaxis guidelines, and the indications for prophylaxis were reduced for dental procedures, genitourinary, and gastrointestinal tract procedures.

- **Option B:** Use of an electric toothbrush may cause the gums to bleed, introducing infection to the mucous membranes. The nurse practitioner and pharmacist must be aware of conditions that need antibiotic prophylaxis prior to any surgery or dental procedure.
- **Option C:** An irrigation device may cause bleeding in the gums that may lead to infection. If a history of dental procedure is recognized, the time range from the procedure may range from 1 to 6 months prior to the onset of symptoms. The existence of endocarditis after routine heart surgery is low; however, in the setting of prosthetic material use, this can be a predisposing factor.
- **Option D:** Dental floss may cause gums to bleed and allow bacteria to enter mucous membranes and the bloodstream, increasing the risk of endocarditis. There has been a significant reduction in the incidence of infective endocarditis in patients with a history of procedure, thanks to the recommendation of prophylactic treatment. However, not all procedures need prophylaxis.

**87. The licensed practical nurse is assisting the charge nurse in planning care for a client with a detached retina. Which of the following nursing diagnoses should receive priority?**

- A. Alteration in skin integrity
- B. Alteration in comfort
- C. Alteration in mobility
- D. Alteration in O<sub>2</sub> perfusion

**Correct Answer: C. Alteration in mobility**

- Option C: Retinal detachment occurs when the retina becomes separated from the nerve tissue and blood supply underneath it. The client with a detached retina will have limitations in mobility since the vision is affected.
- Options A and D: These do not apply to the client with a detached retina.
- Option B: A detached retina produces no pain or discomfort.

**88. The client has an order for a trough to be drawn on the client receiving Vancomycin. The nurse is aware that the nurse should contact the lab for them to collect the blood:**

- A. 15 minutes after the infusion

- B. 30 minutes before the infusion
- C. 1 hour after the infusion
- D. 2 hours after the infusion

**Correct Answer: B. 30 minutes before the infusion**

A trough level should be drawn 30 minutes before the third or fourth dose. Draw trough specimens immediately before (?30 min) the next dose. Do not draw specimens until a steady state is achieved (ie, before the fourth dose). Draw peak specimens 1-2 hours after completion of intravenous dosage.

- **Option A:** Vancomycin is a glycopeptide antibiotic first isolated in 1953. It is a naturally occurring antimicrobial synthesized by soil bacterium *Amiclotopsis Orientalis*. Generic vancomycin became available and approved for use in 1958 and quickly became a common antibiotic in treating rapidly growing penicillin-resistant *Staphylococcus* species.
- **Option C:** The emergence of pseudomembranous enterocolitis, coupled with the spread of methicillin-resistant *Staphylococcus aureus* (MRSA), led to a resurgence in the use of vancomycin. It is used to treat serious, life-threatening infections by gram-positive bacteria that are resistant to less-toxic agents.
- **Option D:** General indications for measuring vancomycin trough levels include risk of nephrotoxicity and inadequate therapeutic response. Monitor at regular intervals. Specifically, trough levels should be measured in patients at risk for nephrotoxicity.

**89. The plan of care for clients with borderline personality should include:**

- A. Limit setting and flexibility in schedule.
- B. Giving medications to prevent acting out.
- C. Restricting her from other clients.
- D. Ensuring she adheres to certain restrictions.

**Correct Answer: D. Ensuring she adheres to certain restrictions.**

The client is manipulative. The client must be informed about the policies, expectations, rules, and regulations upon admission. The nurse must be quite clear about establishing the boundaries of the therapeutic relationship to ensure that neither the client's nor the nurse's boundaries are violated.

- **Option A:** Limits should be firmly and consistently implemented. Flexibility and bargaining are not therapeutic in dealing with a manipulative client. Regardless of the clinical setting, the nurse must provide structure and limit setting in the therapeutic relationship; in a clinic setting, this may mean seeing the client for scheduled appointments of a predetermined length rather than whenever the client appears and demands the nurse's immediate attention.
- **Option B:** There is no specific medication prescribed for this condition. Medications are in no way curative for any personality disorder; they should be viewed as an adjunct to psychotherapy so that the patient may productively engage in psychotherapy.
- **Option C:** This is not part of the care plan. Interaction with other clients are allowed, but the client should be observed and given limits in her attempt to manipulate and dominate others. It is important to teach basic communication skills such as eye contact, active listening, taking turns talking, validating the meaning of another's communication, and using "I" statements.

**90. A 64-year-old client scheduled for surgery with a general anesthetic refuses to remove a set of dentures prior to leaving the unit for the operating room. What would be the most appropriate intervention by the nurse?**

- A. Explain to the client that the dentures must come out as they may get lost or broken in the operating room.
- B. Ask the client if there are second thoughts about having the procedure.
- C. Notify the anesthesia department and the surgeon of the client's refusal.
- D. Ask the client if the preference would be to remove the dentures in the operating room receiving area.

**Correct Answer: D. Ask the client if the preference would be to remove the dentures in the operating room receiving area.**

Clients anticipating surgery may experience a variety of fears. This choice allows the client control over the situation and fosters the client's sense of self-esteem and self-concept. Nurses need to allow patients the choice of what to do in relation to their dentures when going to the theatre, although the anesthetist must make the final decision of whether or not to remove them immediately before the anesthetic if they feel patient safety could be compromised.

- **Option A:** According to a study, "There are no set national guidelines on how dentures should be managed during anesthesia, but it is known that leaving dentures in during bag-mask ventilation allows for a better seal during induction [when the anesthetic is being infused], and therefore many hospitals allow dentures to be removed immediately before intubation [when a tube is inserted into the airway to assist breathing]".
- **Option B:** The swallowing of dentures during general anesthesia is a significant problem for anesthesiologists. It is seen more often in patients with psychiatric disorders, mental retardation, alcoholism, or poor-quality dentures. It has become an important issue for anesthesiologists preoperatively due to the increase in the proportion of dentures associated with the prolongation of life.
- **Option C:** The presence of any false teeth or dental plates should be clearly documented before and after any surgical procedure, with all members of the surgical team made aware of what is to be done with them, they add.

**91. When establishing an initial nurse-client relationship, Nurse Hazel should explore with the client the:**

- A. Client's perception of the presenting problem.
- B. Occurrence of fantasies the client may experience.
- C. Details of any ritualistic acts carried out by the client.
- D. Client's feelings when external controls are instituted.

**Correct Answer: A. Client's perception of the presenting problem.**

The nurse can be most therapeutic by starting where the client is, because it is the client's concept of the problem that serves as the starting point of the relationship. The client's goals for therapy might be very different from what you assume they are or think they should be. Talk to the client about what they hope to get from therapy. Then use these goals as guideposts. When the client clams up, explain to them how discussing a particular topic can help them achieve their goals.

- **Option B:** It's nearly impossible to go through life without judging people. Judgment, however, is therapy's death knell. While all nurses strive to be nonjudgmental, clients can pick up on the slightest hint of judgment. Avoid giving advice that might feel like a condemnation or giving insight that is outside your scope of practice. For example, nurses should not generally give religious or medical advice. If you feel yourself judging the client, the client may feel it, too. So work to keep your own feelings in check.
- **Option C:** Nurses are human beings with their own emotional baggage, just like their clients. It's easy to feel rejected or judged by a client who does not talk. Remember therapy is for the client, and the only needs that matter are the client's needs. Don't make the client feel like they're hurting you. Talking with another therapist or a supervisor can help you sort through your own emotions about a client who doesn't want to open up.
- **Option D:** Asking a single question or two may not be enough to get a client to open up. Sometimes you may need to ask more questions, different questions, or present the same question in a different way. Ideally, your questions should feel like an interview by an interested person, not an interrogation. Respond warmly and empathically, and follow the client's lead. Stoic silence when the client laughs or a light-hearted approach to something the client takes seriously can make them clam up.

**92. When giving narcotic analgesics to a mother in labor, the special consideration to follow is:**

- A. The progress of labor is well established reaching the transitional stage.
- B. Uterine contraction is progressing well, and delivery of the baby is imminent.
- C. Cervical dilatation has already reached at least 8 cm. and the station is at least (+)2.
- D. Uterine contractions are strong and the baby will not be delivered yet within the next 3 hours.

**Correct Answer: D. Uterine contractions are strong and the baby will not be delivered yet within the next 3 hours.**

Narcotic analgesics must be given when uterine contractions are already well established so that it will not cause stoppage of the contraction thus protracting labor. Also, it should be given when delivery of a fetus is imminent or too close because the fetus may suffer respiratory depression as an effect of the drug that can pass through the placental barrier.

- **Option A:** Opioid analgesia offers a systemic alternative to regional analgesia procedures. Since the early 1940s, the most commonly used systemic analgesic has been meperidine (pethidine). As with all opioids, meperidine crosses the placenta and presents a dose-dependent risk of neonatal respiratory depression and reduction of fetal heart frequency. The mother may suffer from nausea, vomiting, respiratory depression, dysphoria, and delayed gastric emptying.
- **Option B:** The effects of systemic opioids in labor are predominantly sedative rather than analgesic; other opioids, when used in labor, are usually administered as patient-controlled analgesia.
- **Option C:** Visceral labor pain occurs during the early first stage and the second stage of childbirth. With each uterine contraction, pressure is transmitted to the cervix causing stretching and distension and activating excitatory nociceptive afferents. These afferents innervate the endocervix and lower segment from T10 – L1.

**93. A first-day postoperative client on a PCA pump reports that the pain control is inadequate. What is the first action you should take?**

- A. Deliver the bolus dose per standing order.
- B. Contact the physician to increase the dose.
- C. Try non-pharmacological comfort measures.
- D. Assess the pain for location, quality, and intensity.

**Correct Answer: D. Assess the pain for location, quality, and intensity.**

Assess the pain for changes in location, quality, and intensity, as well as changes in response to medication. This assessment will guide the next steps. Patient-controlled analgesia is used to treat acute, chronic, postoperative, and labor pain. A variety of medications can be used for patient-controlled analgesia and are administered intravenously (IV), through an epidural or peripheral nerve catheter, and transdermally.

- **Option A:** The goal of PCA is to efficiently deliver pain relief at a patient's preferred dose and schedule by allowing them to administer a predetermined bolus dose of medication on-demand at the press of a button. Each bolus can be administered alone or coupled with a background infusion of medication.
- **Option B:** The initial loading dose can be titrated by a nurse to reach the minimum effective concentration (MEC) of the desired medication. The bolus or demand dose is the dose of medication delivered each time the patient presses the button. A lockout interval is the time after a demand dose in which a dose of medication will not get administered even if the patient presses the button; this is done to prevent overdosing.
- **Option C:** The use of PCA has been proven to be more effective at pain control than non-patient-controlled opioid injections and results in higher patient satisfaction. PCA has also been found to be preferred by nurses because it allows for a reduction in their workload. PCA will enable patients to be in more control over their pain and helps them shift toward a more internal locus of control over their care.

**94. During the acute phase, the nurse applied gentamicin sulfate (topical antibiotic) to the burn before dressing the wound. The client has all the following manifestations. Which manifestation indicates that the client is having an adverse reaction to this topical agent?**

- A. Increased wound pain 30 to 40 minutes after drug application
- B. Presence of small, pale pink bumps in the wound beds
- C. Decreased white blood cell count
- D. Increased serum creatinine level

**Correct Answer: D. Increased serum creatinine level**

Gentamicin is nephrotoxic and sufficient amounts can be absorbed through burn wounds to affect kidney function. Any client receiving gentamicin by any route should have kidney function monitored. Characteristically, gentamicin reaches high concentrations in the renal cortex and the inner ear.

- **Option A:** Gentamicin does not stimulate pain in the wound. The gentamicin is prone to accumulate in the renal proximal tubular cells and can cause damage. Hence, mild proteinuria and

reduction of the glomerular filtration rate are potential consequences of gentamicin use, achieving 14% of gentamicin users in a review.

- **Option B:** The small, pale pink bumps in the wound bed are areas of re-epithelialization and not an adverse reaction. Renal function should be evaluated twice-weekly in patients without previous renal disease through serum creatinine and blood urea nitrogen. Periodic microscopic urinalysis is also vital to detect proteinuria and casts, which may indicate kidney injury.
- **Option C:** The possible hypersensitivity manifestations of gentamicin are urticaria, eosinophilia, delayed-type hypersensitivity reaction (Stevens-Johnson syndrome and toxic epidermal necrolysis), angioedema, and anaphylactic shock. The clinical manifestations should guide the treatment strategy.

**95. Which nursing intervention is likely to be most helpful in providing adequate nutrition while the client is recovering from a thermal burn injury?**

- A. Allowing the client to eat whenever he or she wants
- B. Beginning parenteral nutrition high in calories
- C. Limiting calories to 3000 kcal/day
- D. Providing a low-protein, high-fat diet

**Correct Answer: A. Allowing the client to eat whenever he or she wants.**

Clients should request food whenever they think that they can eat, not just according to the hospital's standard meal schedule. Ascertain food likes and dislikes. Encourage SO to bring food from home, as appropriate. This provides the patient or SO a sense of control; enhances participation in care and may improve intake.

- **Option B:** Parenteral nutrition may be given as a last resort because it is invasive and can lead to infectious and metabolic complications. Total parenteral nutrition (TPN) maintains nutritional intake and meets metabolic needs in presence of severe complications or sustained esophageal or gastric injuries that do not permit enteral feedings.
- **Option C:** Clients who can eat solid foods should ingest as many calories as possible. Appropriate guides to proper caloric intake include 25 kcal/kg body weight, plus 40 kcal per percentage of TBSA burn in the adult. As the burn wound heals, the percentage of burned areas is reevaluated to calculate prescribed dietary formulas, and appropriate adjustments are made.
- **Option D:** The nurse needs to work with a nutritionist to provide a high-calorie, high-protein diet to help with wound healing. Refer to a dietitian or nutrition support team. This may be useful in establishing individual nutritional needs (based on weight and body surface area of injury) and identifying appropriate routes.

**96. Shoes with low, broad heels, plus a good posture will prevent which prenatal discomfort?**

- A. Backache
- B. Vertigo
- C. Leg cramps
- D. Nausea

**Correct Answer: A. Backache**

Backache usually occurs in the lumbar area and becomes more problematic as the uterus enlarges. The pregnant woman in her third trimester usually assumes a lordotic posture to maintain balance causing an exaggeration of the lumbar curvature. Low broad heels provide the pregnant woman with good support.

- **Option B:** Neurologists and gynecologists should be aware of pregnant women with vertigo. To improve the quality of life during gestation, clinicians should consider this pathology in their differential diagnosis, which will help avoid vertigo-related undesirable conditions that may compromise both maternal and fetal status.
- **Option C:** It may have to do with changes in blood circulation and stress on the leg muscles from carrying extra weight. A growing baby also puts pressure on the nerves and blood vessels that go to the legs. And some doctors say low calcium, or a change in the way the body processes calcium, may cause cramps.
- **Option D:** The pathophysiology of nausea and vomiting during early pregnancy is unknown, although metabolic, endocrine, GI, and psychologic factors probably all play a role. Estrogen may contribute because estrogen levels are elevated in patients with hyperemesis gravidarum.

**97. What does a critique of a research study always include? Select all that apply.**

- A. Determining its strengths and weaknesses.
- B. Researching similar studies.
- C. Using critical reading skills.
- D. Explaining your own personal opinions.

**Correct Answers: A, C**

Reading a single article can act as a springboard into researching the topic more widely and aids in ensuring the nursing practice remains current and is supported by existing literature.

- **Option A:** Similar to a recipe, the description of materials and methods will allow others to replicate the study elsewhere if needed. It should both contain and justify the exact specifications of selection criteria, sample size, response rate and any statistics used.
- **Option B:** The discussion should use previous research work and theoretical concepts as the context in which the new study can be interpreted. Any limitations of the study, including bias, should be clearly presented.
- **Option C:** Not all peer reviewers have expert knowledge on certain subject matters, which can introduce bias and sometimes a conflict of interest.
- **Option D:** Publication bias can occur when editors only accept manuscripts that have a bearing on the direction of their own research or reject manuscripts with negative findings.

**98. A nurse is caring for a client requiring surgery and is ordered to have a standby blood secured if in case a blood transfusion is needed during or after the procedure. The nurse suggests to the client to do which of the following to lessen the risk of possible transfusion reaction?**

- A. Request that any donated blood be screened twice by the blood bank.
- B. Take iron supplements prior to the surgery and eat green leafy vegetables.
- C. Do an autologous blood donation.
- D. Have a family member donate their own blood.

**Correct Answer: C. Do an autologous blood donation.**

A donation of your own blood is autologous. Doing this will prevent the risk of transfusion reaction. Autologous blood transfusion is the collection of blood from a single patient and retransfusion back to the same patient when required. This is in contrast to allogeneic blood transfusion where blood from unrelated/anonymous donors is transfused to the recipient. The primary driving forces for the use of autologous blood transfusion are to reduce the risk of transmission of infection and to protect an increasingly scarce resource.

- **Option A:** More recently, concerns have focussed on the blood-borne transmission of variant Creutzfeldt–Jakob disease (vCJD). In 2004, case reports emerged of presumed transmission of vCJD via allogeneic blood transfusion. Unlike hepatitis and HIV, there is no effective screening test and the disease has a variable and often prolonged asymptomatic incubation period.
- **Option B:** As oral iron supplementation requires a significant amount of time, when the interval before surgery is sufficient (at least 6–8 weeks) and no contraindications are present, supplementation with oral iron and nutritional advice may be appropriate for mild-to-moderate IDA and/or nonanemic ID or insufficient iron stores.
- **Option D:** Allogeneic donor blood is becoming an increasingly costly and scarce resource. As demand for blood is outstripping donation, there is a real social and economic pressure to increase the proportion of blood transfused by autologous transfusion.

**99. A client is discharged home with a prescription for Coumadin (sodium warfarin). The client should be instructed to:**

- A. Have a Protime done monthly
- B. Eat more fruits and vegetables
- C. Drink more liquids
- D. Avoid crowds

**Correct Answer: A. Have a Protime done monthly**

Coumadin is an anticoagulant. One of the tests for bleeding time is a Protime. This test should be done monthly. The client will need to have his blood tested to tell how well the medication is working. The blood test, called prothrombin time (PT or protime), is used to calculate the International Normalized Ratio (INR). INR helps the healthcare provider determine how well warfarin is working to prevent blood clots and if the dose needs to be adjusted.

- **Option B:** Eating more fruits and vegetables is not necessary, and dark-green vegetables contain vitamin K, which increases clotting. Vitamin K is needed for normal blood clotting. However, large changes in the amount of vitamin K in the diet can change the way warfarin works. If the client eats foods high in vitamin K, it's important to keep a weekly intake of vitamin K-containing foods consistent.
- **Option C:** Drinking more liquids could boost the platelet count and increase the body's immunity. Do not start consuming the following herbal teas and supplements because they may affect the



INR, causing it to be too high or too low. If the client drinks tea, black tea (such as orange pekoe tea) is acceptable because it is not high in Vitamin K.

- **Option D:** Avoiding crowds is important for patients with decreased WBC. Stay away from people who are ill. Avoid contact with anyone who has recently been vaccinated, including infants and children. Avoid crowds as much as possible. When going to places where there are often a lot of people (i.e., church, shopping), try going at off-peak times, when they are not as crowded.

**100. Nathaniel has severe pruritus due to having hepatitis B. What is the best intervention for his comfort?**

- A. Give tepid baths.
- B. Avoid lotions and creams.
- C. Use hot water to increase vasodilation.
- D. Use cold water to decrease the itching.

**Correct Answer: A. Give tepid baths.**

For pruritus, care should include tepid sponge baths and use of emollient creams and lotions. Bathe or shower using lukewarm water and mild soap or nonsoap cleansers. Long bathing or showering in hot water causes drying of the skin and can aggravate itching through vasodilation.

- **Option B:** Lubrication with fragrance-free creams or ointments serves as a barrier to prevent further drying of the skin through evaporation. Moisturizing is the cornerstone of treatment. Over-the-counter moisturizing lotions include Eucerin, Lubriderm, and Nivea. Lotions are lighter and less emollient than creams.
- **Option C:** Encourage the patient to adopt skincare routines to decrease skin irritation. After bathing, allow the skin to air dry or gently pat the skin dry. Avoid rubbing or brisk drying. Rubbing the skin with a towel can irritate the skin and exacerbate the itch-scratch cycle.
- **Option D:** If more moisturizing is required than a lotion can provide, a cream is recommended. These include Keri cream, Cetaphil cream, Eucerin cream, and Neutrogena Norwegian formula. Ointments are the most emollient. Vaseline Pure Petroleum Jelly or Aquaphor Natural Healing Ointment may be beneficial.