Kevin's Review - 100 NCLEX Practice Questions

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

A. Control anger

B. Reduce anxiety

C. Set realistic goals

D. Become more self-aware

Correct Answer: D. Become more self-aware.

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

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

2. The nurse is developing a teaching plan for a patient who is 8 weeks pregnant. The nurse should tell the patient that she can expect to feel the fetus move at which time?

A. Between 10 and 12 weeks' gestation

B. Between 16 and 20 weeks' gestation.

C. Between 21 and 23 weeks' gestation.

D. Between 24 and 26 weeks' gestation.

Correct Answer: B. Between 16 and 20 weeks' gestation.

A pregnant woman usually can detect fetal movement (quickening) between 16 and 20 weeks' gestation.

- **Option A:** Before 16 weeks, the fetus is not developed enough for the woman to detect movement.

- **Option C:** After 20 weeks, the fetus continues to gain weight steadily, the lungs start to produce surfactant, the brain is grossly formed, and myelination of the spinal cord begins.
- **Option D:** After 24 weeks, the fetus might be able to respond to familiar sounds such as its mother's voice, with movement. It is spending most of its sleep time in rapid eye movement (REM).

3. Which of the following are the most commonly assessed findings in cystitis?

A. Frequency, urgency, dehydration, nausea, chills, and flank pain.

B. Nocturia, frequency, urgency, dysuria, hematuria, fever, and suprapubic pain.

C. Dehydration, Hypertension, dysuria, suprapubic pain, chills, and fever.

D. High fever, chills, flank pain nausea, vomiting, dysuria, and frequency.

Correct Answer: B. Nocturia, frequency, urgency dysuria, hematuria, fever and suprapubic pain

Manifestations of cystitis include frequency, urgency, dysuria, hematuria nocturia, fever, and suprapubic pain. Based on a systematic review examining history and examination findings of women with uncomplicated UTI, the combination of dysuria and urinary frequency in the absence of vaginal discharge or irritation is highly predictive of uncomplicated cystitis. Symptoms may be subtle or atypical in the very young and the very old. Elderly patients with UTI may present with confusion or altered mental status.

- **Option A:** Cystitis refers to infection of the lower urinary tract, or more specifically the urinary bladder. It may be broadly categorized as either uncomplicated or complicated. Uncomplicated cystitis refers to lower urinary tract infection (UTI) in either men or non-pregnant women who are otherwise healthy. Complicated cystitis, on the other hand, is associated with risk factors that increase the risk of infection or the risk of failing antibiotic therapy.
- **Option C:** Cystitis usually develops due to the colonization of the periurethral mucosa by bacteria from the fecal or vaginal flora and ascension of such pathogens to the urinary bladder. Uropathogens may have microbial virulence factors that allow them to escape host defenses and invade host tissues in the urinary tract. UTI in males is much less common due to the longer anatomic urethra and antibacterial defenses provided by the prostatic fluid.
- **Option D:** High fever chills, flank pain, nausea, vomiting, dysuria, and frequency are associated with pyelonephritis. Acute pyelonephritis is a bacterial infection causing inflammation of the kidneys and is one of the most common diseases of the kidney. Pyelonephritis occurs as a complication of an ascending urinary tract infection (UTI) which spreads from the bladder to the kidneys and their collecting systems.

4. Which of the following statements about chest X-rays is not true?

A. No contradictions exist for this test.

B. Before the procedure, the patient should remove all jewelry, metallic objects, and buttons above the waist.

C. A signed consent is not required.

D. Eating, drinking, and medications are allowed before this test.

Correct Answer: A. No contradictions exist for this test

Pregnancy or suspected pregnancy is the only contraindication for a chest X-ray. However, if a chest X-ray is necessary, the patient can wear a lead apron to protect the pelvic region from radiation. X-rays during pregnancy don't increase the risk of miscarriage or cause problems in the unborn baby, such as birth defects and physical or mental development problems. However, if a pregnant woman has an X-ray and is exposed to radiation there is a very small increased risk that the baby may go on to develop cancer in childhood. This is why the dose of radiation used in an X-ray is always as low as possible.

- **Option B:** Jewelry, metallic objects, and buttons would interfere with the X-ray and thus should not be worn above the waist. Metal appears as a bright area on an X-ray, blocking visibility of underlying structures. The reason you're asked to remove metal is to give the radiologist an unobstructed view of the area of interest. Basically, you remove metal because it blocks anatomy.
- **Option C:** A signed consent is not required because a chest X-ray is not an invasive examination. Consent is ensuring the patient is aware of the purpose and nature of any procedure to be carried out. The radiographer must ensure that the patient is fully aware of his/her options, including alternatives, the right to refuse and the consequences of refusal.
- **Option D:** Eating, drinking, and medications are allowed because the X-ray is of the chest, not the abdominal region. To create a radiograph, a patient is positioned so that the part of the body being imaged is located between an x-ray source and an x-ray detector. When the machine is turned on, x-rays travel through the body and are absorbed in different amounts by different tissues, depending on the radiological density of the tissues they pass through.

5. A nurse is preparing a list of self-care instructions for a PP client who was diagnosed with mastitis. Which of the following instructions would be included on the list. Select all that apply.

A. Take the prescribed antibiotics until the soreness subsides.

B. Wear a supportive bra.

C. Avoid decompression of the breasts by breastfeeding or breast pump.

D. Rest during the acute phase.

E. Continue to breastfeed if the breasts are not too sore.

Correct Answer: B, D, and E.

Mastitis is an infection of the lactating breast. Client instructions include resting during the acute phase, maintaining a fluid intake of at least 3 L a day, and taking analgesics to relieve discomfort. Additional supportive measures include the use of moist heat or ice packs and wearing a supportive bra. Non-steroidal anti-inflammatory drugs (NSAIDs) can be used for pain control. Heat applied to the breast just before emptying can help increase milk letdown and facilitate with emptying. Cold packs applied to the breast after emptying can help reduce edema and pain. Providers should ensure the patient that breastfeeding with mastitis is safe and that they should continue to do so if desired. If the patient does not wish to continue to breastfeed, they should be counseled on the importance of continuing to empty the breasts and taught alternative methods such as the use of a breast pump or manual expression.

- **Option A:** Antibiotics may be prescribed and are taken until the complete prescribed course is finished. They are not stopped when the soreness subsides. If the symptoms of lactational mastitis persist beyond 12 to 24 hours, antibiotics should be administered. Because S. aureus is the most common cause, antibiotic therapy should be tailored accordingly. In the setting of mild infection without MRSA risk factors, outpatient treatment can be initiated with dicloxacillin or cephalexin.

- **Option C:** Continued decompression of the breast by breastfeeding or pumping is important to empty the breast and prevent formation of an abscess. The initial management of lactational mastitis is symptomatic treatment. Continuing to fully empty the breasts has shown to decrease the duration of symptoms in patients treated both with and without antibiotics. Patients should be encouraged to continue to breastfeed, pump, or hand express. If the patient stops draining the milk, further stasis occurs, and the infection will progress.

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

A. Stage 1

B. Stage 2

C. Stage 3

D. Stage 4

Correct Answer: A. Stage 1

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

- **Option B:** The second stage of labor commences with complete cervical dilation to 10 centimeters and ends with the delivery of the neonate. In women who have delivered vaginally previously, whose bodies have acclimated to delivering a fetus, the second stage may only require a brief trial, whereas a longer duration may be required for a nulliparous female.
- **Option C:** The third stage of labor commences when the fetus is delivered and concludes with the delivery of the placenta. Separation of the placenta from the uterine interface is hallmarked by three cardinal signs including a gush of blood at the vagina, lengthening of the umbilical cord, and a globular shaped uterine fundus on palpation.
- **Option D:** During the fourth stage of labor, the baby is born, the placenta has delivered, and the woman and her partner will probably feel joy, relief, and fatigue. Most babies are ready to nurse within a short period after birth. Others wait a little longer. If the woman is planning to breastfeed, it is strongly encouraged to try to nurse as soon as possible after the baby is born. Nursing right after birth will help the uterus to contract and will decrease the amount of bleeding.

7. Which of these clients are most likely to develop fluid (circulatory) overload? Select all that apply.

A. A premature infant

B. A 101-year-old man

C. A client on renal dialysis

D. A client with diabetes mellitus

E. A 29-year-old woman with pneumonia

F. A client with congestive heart failure

Correct Answer: A, B, C, & F.

Clients with cardiac, respiratory, renal, or liver diseases and older and very young clients cannot tolerate an excessive fluid volume. The risk of fluid (circulatory) overload exists with these clients.

- **Option A:** The preterm fetus or neonate is in a state of relative total body water and extracellular fluid excess. After birth, this excess water must be mobilized and excreted. A proportion of the diuresis observed in both term and preterm infants during the first days of life should be regarded as physiologic.
- **Option B:** The elderly population is also at risk for overhydration. Overhydration, or fluid overload, is caused by a number of conditions, including heart failure, kidney failure, and protein deficiency. Iatrogenic overhydration can also occur as a result of receiving intravenous fluids, blood transfusions, and steroids.
- **Option C:** Achieving a balance between avoiding hypovolemia during dialysis and developing fluid overload between dialysis sessions is complicated by patient adherence, challenges in assessing fluid status, and limitations on the length of dialysis sessions.
- **Option D:** When there is diabetes, excess glucose — a type of sugar — builds up in the blood. The kidneys are forced to work overtime to filter and absorb the excess glucose. When the kidneys can't keep up, the excess glucose is excreted into the urine, dragging along fluids from the tissues, which makes the client dehydrated.
- **Option E:** Advice to increase fluid intake is a frequent treatment recommendation. Attributed benefits of fluids include replacing increased insensible fluid losses, correcting dehydration from reduced intake, and reducing the viscosity of mucus.
- **Option F:** The body's response to heart failure causes sodium levels to increase. To restore balance, the body retains water, leading to fluid overload and an increased burden on the heart.

8. What intervention will the nurse implement to reduce a client's pain after a burn injury?

A. Administering morphine 4 mg intravenously.

B. Administering hydromorphone (Dilaudid) 4 mg intramuscularly.

C. Applying ice to the burned area

D. Avoiding tactile stimulation

Correct Answer: A. Administering morphine 4 mg intravenously.

Drug therapy for pain management requires opioid and nonopioid analgesics. The burned patient may require around-the-clock medication and dose titration. IV method is often used initially to maximize drug effect.

- **Option B:** The IV route is used because of problems with absorption from the muscle and stomach. Concerns of patient addiction or doubts regarding the degree of pain experienced are not valid during the emergent/acute phase of care, but narcotics should be decreased as soon as feasible and alternative methods for pain relief initiated.
- **Option C:** For the client to avoid shivering, the room must be kept warm and heat should be applied. Maintain comfortable environmental temperature, provide heat lamps, heat-retaining body coverings. Temperature regulation may be lost with major burns. External heat sources may be necessary to prevent chilling.
- **Option D:** Tactile stimulation can be used for pain management. Provide basic comfort measures: massage of uninjured areas, frequent position changes. This promotes relaxation and reduces

muscle tension and general fatigue.

9. Lily , age 5, with an intelligence quotient of 65 is admitted to the hospital for evaluation. When planning care, the nurse should keep in mind that this child is:

A. Within the lower range of normal intelligence

B. Mildly retarded but educable

C. Moderately retarded but trainable

D. Completely dependent on others for care

Correct Answer: B. Mildly retarded but educable.

According to the American Association on Mental Deficiency, a person with an intelligence quotient (IQ) between 50 and 70 is classified as mildly mentally retarded but educable. However, it is no longer a standard to classify intellectual disability by IQ score alone. For instance, if an individual has an IQ below 70, but has a good adaptive function, the subject does not have an intellectual disability.

- **Option A:** On the other side, individuals with a normal, or even higher than normal IQ, may manifest severe deficits in adaptive functions and are, therefore, classified as having an intellectual disability. In turn, the current diagnosis of intellectual disability also considers a person's adaptive function.
- **Option C:** One with an IQ between 35 and 50 is classified as moderately retarded but trainable. The DSM-5 also has "Unspecified Intellectual Disability" (Intellectual Developmental Disorder) to describe individuals over the age of 5 suspected of having an intellectual disability who has difficulty completing required tests, usually because of limitations resulting from blindness, deafness, or concurrent mental illness.
- **Option D:** One with an IQ below 36 is severely and profoundly impaired, requiring custodial care. When initiating therapy, a healthcare provider must be aware of the various avenues of treating intellectual disability to orchestrate a multidisciplinary and individually tailored treatment appropriately.

10. A patient is about to undergo bone marrow aspiration and biopsy and expresses fear and anxiety about the procedure. Which of the following is the most effective nursing response?

A. Warn the patient to stay very still because the smallest movement will increase her pain.

B. Encourage the family to stay in the room for the procedure.

C. Stay with the patient and focus on slow, deep breathing for relaxation.

D. Delay the procedure to allow the patient to deal with her feelings.

Correct Answer: C. Stay with the patient and focus on slow, deep breathing for relaxation.

Slow, deep breathing is the most effective method of reducing anxiety and stress. It reduces the level of carbon dioxide in the brain to increase calm and relaxation. Stay with the patient during panic attacks. Use short, simple directions. Encourage the client's participation in relaxation exercises such as deep breathing, progressive muscle relaxation, guided imagery, meditation and so forth.

- **Option A:** Warning the patient to remain still will likely increase her anxiety. Maintain a calm, non-threatening manner while working with the client. Anxiety is contagious and may be transferred from health care provider to client or vice versa. Client develops feeling of security in presence of calm staff person.
- **Option B:** Encouraging family members to stay with the patient may make her worry about their anxiety as well as her own. Move the client to a quiet area with minimal stimuli such as a small room or seclusion area (dim lighting, few people, and so on.) Anxious behavior escalates by external stimuli. A smaller or secluded area enhances a sense of security as compared to a large area which can make the client feel lost and panicked.
- **Option D:** Delaying the procedure is unlikely to allay her fears. Establish and maintain a trusting relationship by listening to the client; displaying warmth, answering questions directly, offering unconditional acceptance; being available, and respecting the client's use of personal space.

11. Nurse Rob has observed a co-worker arriving to work drunk at least three times in the past month. Which action by Nurse Rob would best ensure client safety and obtain necessary assistance for the co-worker?

A. Ignore the co worker's behavior, and frequently assess the clients assigned to the co-worker.

B. Make general statements about safety issues at the next staff meeting.

C. Report the coworker's behavior to the appropriate supervisor.

D. Warn the co-worker that this practice is unsafe.

Correct Answer: C. Report the coworker's behavior to the appropriate supervisor.

The nurse is obligated by ethical considerations of client safety, as well as by nurse practice acts in many states, to report substance abuse in health care workers. Most healthcare facilities have an employee assistance program to help workers with substance abuse problems. Alcohol and drug abuse by employees cause many expensive problems for business and industry ranging from lost productivity, injuries, and an increase in health insurance claims. The loss to companies in the United States due to alcohol and drug-related abuse by employees totals $100 billion a year, according to the National Clearinghouse for Alcohol and Drug Information (NCADI).

- **Option A:** Ignoring the co-worker's behavior would be a form of enabling behavior (codependency) on the staff nurse's part. Misuse of alcohol and drugs among U.S. workers create costly medical, social, and other problems that affect both employees and employers. Substance abuse among employees can threaten public safety, impair job performance and threaten their own safety.
- **Option B:** Making general statements about safety in a staff meeting avoids dealing with the problem. When the issue of workplace substance abuse is addressed by establishing comprehensive programs, it is a "win-win" situation for both employers and employees, according to the U.S. Department of Labor. Companies and employers, large and small, can adopt a workplace substance abuse policy that will reduce the loss of productivity and provide a safer work environment for all.
- **Option D:** Warning the co-worker is inadequate; it does not ensure client safety or helps him receive necessary aid. The culture of the workplace can play a large role in whether drinking and drug use are accepted and encouraged or discouraged and inhibited. Part of this culture can depend on the gender mix of employees. Research shows that the job itself can contribute to higher rates of employee substance abuse. Work that is boring, stressful, or isolating can contribute to employees drinking.

12. An insulin-dependent diabetic delivered a 10-pound male. When the baby is brought to the nursery, the priority of care is to:

A. clean the umbilical cord with Betadine to prevent infection

B. give the baby a bath

C. call the laboratory to collect a PKU screening test

D. check the baby's serum glucose level and administer glucose if < 40 mg/dL

Correct Answer: D. check the baby's serum glucose level and administer glucose if < 40 mg/dL.

- **Option D:** Because the mother has diabetes, the baby is at risk for problems. The newborn baby may be large in size (macrosomia). Big babies are more likely to get hurt during delivery. These include shoulder injuries. The baby may also have low blood sugar (hypoglycemia), low blood calcium, low blood iron, and high levels of red blood cells and thickened blood. Hypoglycemia occurs if the mother's blood glucose levels have been consistently high, causing the fetus to have a high level of insulin in its circulation. The baby's blood glucose level is checked after birth, and if the level is too low, it may be necessary to give the baby glucose intravenously.

13. The client complains of fever, perineal pain, and urinary urgency, frequency, and dysuria. To assess whether the client's problem is related to bacterial prostatitis, the nurse would look at the results of the prostate examination, which should reveal that the prostate gland is:

A. Tender, indurated, and warm to the touch

B. Soft and swollen

C. Tender and edematous with ecchymosis

D. Reddened, swollen, and boggy

Correct Answer: A. Tender, indurated, and warm to the touch

The client with prostatitis has a prostate gland that is swollen and tender, but that is also warm to the touch, firm, and indurated. Systemic symptoms include fever with chills, perineal and low back pain, and signs of urinary tract infection (which often accompany the disorder).

- **Option B:** Patients with ABP typically complain of fever, malaise, myalgias, dysuria, urinary frequency/hesitancy, and pelvic pain. On physical exam, the prostate is often enlarged and exquisitely tender to palpation.
- **Option C:** Vigorous manipulation of the prostate gland should not be performed in ABP as this may acutely exacerbate the patient's condition. The patient should also be evaluated for signs and symptoms of urinary retention, which may present with suprapubic tenderness and suprapubic fullness.
- **Option D:** Patients suspected of having ABP should also be assessed for CVA tenderness, as pyelonephritis is an important differential. The prostate is not acutely inflamed on the exam but may be tender to palpation. Men with CBP may also present with sexual dysfunction.

14. The mechanism of action of diphenoxylate (Lotomil) is:

A. An increase in intestinal excretion of water.

B. An increase in intestinal motility.

C. A decrease in peristalsis in the intestinal wall.

D. A decrease in the reabsorption of water in the bowel.

Correct Answer: C. A decrease in peristalsis in the intestinal wall.

Diphenoxylate acts on the smooth muscle of the intestinal tract to inhibit GI motility and excessive propulsion of the GI tract (peristalsis). Diphenoxylate is an active ingredient of commonly available antimotility agents. Its indication is for the treatment of diarrhea in adults and children 13 years or older, or as add-on therapy in the management of acute non-infectious diarrhea.

- **Option A:** By acting on the presynaptic opioid receptors, it blocks the release of acetylcholine in the synaptic cleft and hence inhibits the motility and secretory action of the enteric nervous system. This action leads to a decrease in segmental contractions and prolongation of gastrointestinal transit time. Diphenoxylate reduces the epithelial secretion of fluid and electrolytes and enhances active absorption by mild action on delta receptors.
- **Option B:** It does not have analgesic effects of morphine at standard doses, but at higher doses, it can lead to CNS effects, like euphoria. The drug can have a misuse potential if used for a prolonged time and classified as Schedule V drug under Food and Drug Administration.
- **Option D:** Diphenoxylate can precipitate GI complications, including sepsis and prolonged diarrhea, when administered in patients with infectious diarrhea. This effect is because of the prolongation of GI transit time and decreased GI motility, which leads to bacterial overgrowth and release of enterotoxins into the bloodstream, creating a septic shock-like picture.

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

A. 9:00 PM the next day.

B. 10:00 PM the next day

C. 9:00 PM of the same day.

D. 10:00 PM of the same day.

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

16. A client with schizophrenia who receives fluphenazine (Prolixin) develops pseudoparkinsonism and akinesia. What drug would the nurse administer to minimize extrapyramidal symptoms?

A. benztropine (Cogentin)

B. dantrolene (Dantrium)

C. clonazepam (Klonopin)

D. diazepam (Valium)

Correct Answer: A. benztropine (Cogentin)

Benztropine is an anticholinergic drug administered to reduce extrapyramidal adverse effects in the client taking antipsychotic drugs. It works by restoring the equilibrium between the neurotransmitters acetylcholine and dopamine in the central nervous system (CNS). Thus, benztropine blocks the cholinergic muscarinic receptor in the central nervous system. Therefore, it reduces the cholinergic effects significantly during Parkinson's disease which becomes more pronounced in the nigrostriatal tract because of reduced dopamine concentrations.

- **Option B:** Dantrolene, a hydantoin drug that reduces the catabolic processes, is administered to alleviate the symptoms of neuroleptic malignant syndrome, a potentially fatal adverse effect of antipsychotic drugs. Dantrolene is used for the treatment of neuroleptic malignant syndrome (given its similarity in presentation and symptoms to malignant hyperthermia) as well as for the overdose of 2,4-dinitrophenol (a banned "fat burner" medication that interrupts ATP synthesis and causes hyperthermia).
- **Option C:** Clonazepam, a benzodiazepine drug that depresses the CNS, is administered to control seizure activity. Clonazepam is a long-acting and high-potency benzodiazepine. It behaves both as a GABA-A receptor agonist and also as a serotonin agonist. Clonazepam has anticonvulsant and anxiolytic effects. It is FDA-approved for the treatment of seizure disorders and panic disorders.
- **Option D:** Diazepam, a benzodiazepine drug, is administered to reduce anxiety. It is a fast-acting, long-lasting benzodiazepine commonly used in the treatment of anxiety disorders, as well as alcohol detoxification, acute recurrent seizures, severe muscle spasm, and spasticity associated with neurologic disorders. In the setting of acute alcohol withdrawal, diazepam is useful for symptomatic relief of agitation, tremor, alcoholic hallucinosis, and acute delirium tremens.

17. A child suspected of having sickle cell disease is seen in a clinic, and laboratory studies are performed. A nurse checks the lab results, knowing which of the following would be increased in this disease?

A. Platelet count

B. Hematocrit level

C. Reticulocyte count

D. Hemoglobin level

Correct Answer: C. Reticulocyte count

A diagnosis is established based on a complete blood count, examination for sickled red blood cells in the peripheral smear, and hemoglobin electrophoresis. Increased reticulocyte counts occur in children with sickle cell disease because the lifespan of their sickled red blood cells is shortened. For most people, the number is very low because most reticulocytes stay in the bone marrow. If the child has sickle cell disease, she may have a higher reticulocyte count. This is because the child's body has to make more red blood cells due to anemia.

- **Option A:** Platelets are blood cells that help stop bleeding by making the blood clot. A normal platelet count is 150,000 to 400,000/mm3. If the child has a low platelet count, she may bruise or

bleed more easily. Normally, sickle cell disease does not cause low platelet levels.

- **Option B:** People with sickle cell disease have lower hemoglobin levels, usually between 6–11 g/dL. The exact level may be different depending on the type of sickle cell disease and the person. It is important to know the child's usual hemoglobin level. Blood tests done over a period of time will tell the doctor what is normal for your child.
- **Option D:** Laboratory studies will show decreased hemoglobin. The main purpose of red blood cells is to deliver oxygen to the body. The part of the blood that carries oxygen is called hemoglobin. People with sickle cell disease have abnormal hemoglobin, called sickle hemoglobin or hemoglobin S. If your child has sickle cell disease, her red blood cells do not last as long because the sickle hemoglobin damages them.

18. A fifty-year-old client has a tracheostomy and requires tracheal suctioning. The first intervention in completing this procedure would be to:

A. Change the tracheostomy dressing.

B. Provide humidity with a trach mask.

C. Apply oral or nasal suction.

D. Deflate the tracheal cuff.

Correct Answer: C. Apply oral or nasal suction.

Before deflating the tracheal cuff, the nurse will apply oral or nasal suction to the airway to prevent secretions from falling into the lung. Dressing change and humidity do not relate to suctioning. Airway suctioning is a procedure routinely done in most care settings, including acute care, sub-acute care, long-term care, and home settings. Suctioning is performed when the patient is unable to effectively move secretions from the respiratory tract.

- **Option A:** Airways suctioning is indicated for multiple reasons. Most commonly suctioning is done for the removal of secretions from the respiratory tract, but sometimes also for removal of blood or other materials like meconium in specific cases. Airway suctioning is also performed for diagnostic purposes.
- **Option B:** Suctioning of the lower airways should be done in a sterile manner with single-use gloves and suction catheters to prevent contamination and secondary infection. After preparation with appropriate equipment at the bedside and monitoring continuous heart rate and oxygen saturation (as available), the patient should be suctioned with appropriately sized equipment for their airway.
- **Option D:** After preparation with appropriate equipment at the bedside and monitoring continuous heart rate and oxygen saturation (as available), the patient should be suctioned with appropriately sized equipment for their airway.

19. Which of the following statements about Attention deficit hyperactivity disorder (ADHD) in children is false?

A. Black parents tend to be less sure of potential causes of and treatments for ADHD than white parents, and they are less likely to connect ADHD to their child's school experiences.

B. Because of its frequent genetic etiology, ADHD in a child is likely foreshadowed by ADHD in other family members.

C. The chances of successful treatment are adversely affected if the parent responsible for implementing the treatment has untreated ADHD.

D. More than 40% of respondents in the recent National Stigma Study-Children (NSS-C) believe that children will face rejection in school for receiving mental health treatment and that negative ramifications will continue into adulthood. More than half expected psychiatric medications to cause a zombie-like effect.

E. The Multimodal Treatment Study of Children with ADHD suggests that pharmacological treatment of ADHD is as effective as behavioral therapy alone.

Correct Answer: E. The Multimodal Treatment Study of Children with ADHD suggests that pharmacological treatment of ADHD is as effective as behavioral therapy alone.

Multimodal treatment involves multiple methods of treatment that work together to help a child with ADHD. The main components of this approach are medications, behavioral therapy, and education.

- **Option A:** In order to diagnose ADHD, it is very important to take a relevant history of the concerned individual. ADHD is diagnosed in children based upon their history where the children face difficulty in at least 6 of the 9 symptoms as mentioned in DSM 5.
- **Option B:** It is one of the most heritable conditions in terms of psychiatric disorders. There is a much greater concordance in monozygotic twins than dizygotic twins. Siblings have twice the risk of having ADHD than the general population.
- **Option C:** The general rule of thumb is that 50% of patients “grow out of” ADHD, especially with treatment, and another 25% do not need treatment into adulthood. This is theorized twofold; first that stimulants help improve the development of the frontal lobe over time, and second that adults often choose careers that don’t require sustained attention.
- **Option D:** Untreated ADHD can cause persisting dysfunction and devastating consequences included but not limited to long-term inability to work, increased car accidents, and increased substance abuse.

20. An obstetrical client calls the clinic with complaints of morning sickness. The nurse should tell the client to:

A. Drink a glass of whole milk before going to sleep at night

B. Keep a dry toast at the bedside for eating before she arises

C. Skip breakfast but eat a larger lunch and dinner

D. Drink a glass of orange juice after adding a couple of teaspoons of sugar

Correct Answer: B. Keep a dry toast at the bedside for eating before she arises

- Option B: Eating a carbohydrate source such as dry crackers or toast before arising helps alleviate symptoms of morning sickness.
- Option A: Additional fa might increase the client’s nausea.
- Option C: It is more helpful to have small frequent meals instead of skipping meals.
- Option D: This is a treatment of hypoglycemia, not morning sickness.

21. The nurse is giving dietary instructions to a client who is on a vegan diet. The nurse provides dietary teaching focus on foods high in which vitamin that

may be lacking in a vegan diet?

A. Vitamin A

B. Vitamin D

C. Vitamin E

D. Vitamin C

Correct Answer: B. Vitamin D

Deficiencies in vegetarian diets include vitamin B12 which is found in animal products and vitamin D (if limited exposure to sunlight). Vegans and other vegetarians who limit their intake of animal products may be at greater risk of vitamin D deficiency than nonvegetarians because foods providing the highest amount of vitamin D per gram naturally are all from animal sources, and fortification with vitamin D currently occurs in few foods.

- **Option A:** Plant sources contain vitamin A in the form of carotenoids which have to be converted during digestion into retinol before the body can use it. Carotenoids are the pigments that give plants their green color and some fruits and vegetables their red or orange color.
- **Option C:** The best way to get the daily requirement of vitamin E is by eating food sources. Vitamin E is found in vegetable oils, nuts, seeds, green leafy vegetables, and fortified breakfast cereals. It is an antioxidant. This means it protects body tissue from damage caused by substances called free radicals. Free radicals can harm cells, tissues, and organs. They are believed to play a role in certain conditions related to aging.
- **Option D:** Vitamin C can be found in fruits and vegetables, which are eaten by a vegetarian. Humans are unable to synthesize vitamin C, so it is strictly obtained through the dietary intake of fruits and vegetables. Citrus fruits, berries, tomatoes, potatoes, and green leafy vegetables are excellent sources of vitamin C.

22. A 68-year-old female patient with a history of type 2 diabetes mellitus and hypertension presents to the emergency department with a 2-day history of vomiting and diarrhea. On examination, the patient appears lethargic, has dry mucous membranes, sunken eyes, and her skin turgor is poor. The physician suspects severe dehydration and decides to run a comprehensive metabolic panel to assess her electrolyte levels, kidney function, and to better understand her fluid balance. The medical student accompanying the physician is asked to identify the major constituent of plasma crucial for maintaining proper blood volume and fluid balance. Which of the following components is the predominant constituent of plasma playing a pivotal role in the preservation of blood volume and fluid equilibrium?

A. Gases

B. Ions

C. Nutrients

D. Proteins

E. Water

Correct Answer: E. Water
Water is the major constituent of plasma, making up about 90-92% of its volume. It plays a pivotal role in maintaining blood volume and fluid balance. The body's hydration status directly affects the blood volume and, consequently, impacts blood pressure and cellular hydration. In the clinical scenario provided, the evaluation of the comprehensive metabolic panel alongside rehydration measures are crucial steps in managing this patient's dehydration and its underlying causes.

- **Option A:** While gases such as oxygen and carbon dioxide are transported in the blood, they are not the major constituents of plasma and do not play a primary role in maintaining blood volume and fluid balance.
- **Option B:** Ions or electrolytes like sodium, potassium, and chloride are crucial for various physiological processes including neural function and muscle contraction. However, they are not the primary constituents of plasma when compared to water.
- **Option C:** Nutrients are carried in the plasma to various tissues in the body but are not the major constituents of plasma crucial for maintaining blood volume and fluid balance.
- **Option D:** Proteins such as albumin do play a role in maintaining oncotic pressure and thereby contribute to blood volume and fluid balance. However, they are not the predominant constituent of plasma.

23. A postpartum nurse is taking the vital signs of a woman who delivered a healthy newborn infant 4 hours ago. The nurse notes that the mother's temperature is 100.2°F. Which of the following actions would be most appropriate?

A. Retake the temperature in 15 minutes.

B. Notify the physician.

C. Document the findings.

D. Increase hydration by encouraging oral fluids

Correct Answer: D. Increase hydration by encouraging oral fluids.

The mother's temperature may be taken every 4 hours while she is awake. Temperatures up to 100.4 F (38 C) in the first 24 hours after birth are often related to the dehydrating effects of labor. The most appropriate action is to increase hydration by encouraging oral fluids, which should bring the temperature to a normal reading.

- **Option A:** A focused physical examination is important and should include vital signs, an examination of the respiratory system, breasts, abdomen, perineum, and lower extremities. A patient with endometritis typically has a fever of 38°C or greater, tachycardia, and fundal tenderness.
- **Option B:** The new mother should be given discharge instructions and expectations/precautions to consider once leaving the hospital. The most important information is who and where to call if she has problems or questions. She also needs details about resuming her normal activity. Instructions vary, depending on whether the mother has had a vaginal or a cesarean delivery and any comorbidities that may have been part of her care.
- **Option C:** Although the nurse would document the findings, the most appropriate action would be to increase the hydration. The woman who has had a vaginal delivery may resume all physical activity, including using stairs, riding or driving in a car, and performing muscle-toning exercises, as long as she experiences no limiting pain or discomfort. The key counseling is to progressively

resume normal activity while being mindful of the common fatigue and exhaustion experienced while caring for a newborn.

24. A client has been pronounced brain dead. Which findings would the nurse assess? Select all that apply.

A. Decerebrate posturing

B. Dilated nonreactive pupils

C. Deep tendon reflexes

D. Absent corneal reflex

Correct Answer: B, C, & D

A client who is brain dead typically demonstrates nonreactive dilated pupils and nonreactive or absent corneal and gag reflexes. The client may still have spinal reflexes such as deep tendon and Babinski reflexes in brain death. Decerebrate or decorticate posturing would not be seen.

- **Option A:** The physiology of brain death is similar regardless of the etiology. Inadequate tissue oxygenation leads to a progressive cascade of further edema, increasing intracranial pressure, a further decrease in cerebral perfusion and eventual herniation, or complete cessation of blood flow and aseptic necrosis of brain tissue.
- **Option B:** Coma should be evaluated by ensuring a lack of responsiveness to noxious stimuli; no eye or motor reflex should be present in response to stimuli. Additionally, the cause of coma should be identified by neuroimaging, history, and physical examination or laboratory testing.
- **Option C:** Once the decision to proceed with the brain death determination has been made, three conditions must be present: coma, the absence of brainstem reflexes, and apnea. Loss of response to central pain occurs in brain death. Central pain assessment can be by the application of noxious stimuli to certain areas as the supraorbital notch, the ankle of the jaw, upper trapezius, the anterior axillary fold, and the sternum. Neither eye response nor motor reflexes are detectable in brain death.
- **Option D:** The following brainstem reflexes should be tested in the physical examination of a patient deemed for brain death evaluation. They all must be absent for a patient to be diagnosed as brain dead: the pupillary reflex to light–must be fixed at a mid-position; usually, around 4 mm and must not respond to light.

25. Regardless of the size of a workgroup, enough staff must be available at all times to accomplish certain purposes. Which of these purposes is not included?

A. Meet the needs of patients.

B. Provide a pair of hands to other units as needed.

C. Cover all time periods adequately.

D. Allow for growth and development of nursing staff.

Correct Answer: B. Provide a pair of hands to other units as needed.

Providing a pair of hands for other units is not a purpose in doing an effective staffing process. This is a function of a staffing coordinator at a centralized model. Staff positions affect customers indirectly, only to the extent that the support they provide helps line employees improve quality and customer satisfaction.

- **Option A:** Staff structure allows to preserve the principle of one-man management (every worker has only one superior), but at the same time provides greater flexibility in changing operating conditions. It also introduces an element of encouraging cooperation between all members of the organization.
- **Option C:** Staff structure or linear-staff organizational structure is one of the attempts to solve the problem of linear structure constraints. Manager having too much various tasks is not able to effectively manage its employees.
- **Option D:** One of the key advantages is that this structure provides line personnel with expertise from staff groups. As a result, the key decision-makers in the organization are well-informed and armed with specialized knowledge.

26. Which of the following symptoms best describes Murphy's sign?

A. Periumbilical ecchymosis exists.

B. On deep palpation and release, pain elicited.

C. On deep inspiration, pain is elicited and breathing stops.

D. Abdominal muscles are tightened in anticipation of palpation.

Correct Answer: C. On deep inspiration, pain is elicited and breathing stops.

Murphy's sign is elicited when the client reacts to pain and stops breathing. It's a common finding in clients with cholecystitis. Murphy's sign is elicited in patients with acute cholecystitis by asking the patient to take in and hold a deep breath while palpating the right subcostal area. If pain occurs on inspiration, when the inflamed gallbladder comes into contact with the examiner's hand, Murphy's sign is positive.

- **Option A:** Periumbilical ecchymosis, Cullen's sign, is present in peritonitis. Cullen sign manifests as superficial edema with bruising in the subcutaneous fatty tissue around the periumbilical region. Originally described in association with ectopic pregnancy.
- **Option B:** Pain on deep palpation and release is rebound tenderness. Blumberg's sign (also referred to as rebound tenderness or the Shyotkin-Blumberg sign) is a clinical sign in which there is pain upon removal of pressure rather than the application of pressure to the abdomen. (The latter is referred to simply as abdominal tenderness.) It is indicative of peritonitis.
- **Option D:** Tightening up abdominal muscles in anticipation of palpation is guarding. Investigations of relationships of specific pain behaviors with pain intensity and fear of movement are rare. Guarding, defined as "behavior that is aimed at preventing or alleviating pain" and which includes stiffness, hesitation, and bracing, has been shown to predict work loss over 3 months in injured workers.

27. A client taking a beta-adrenergic blocker for HTN can experience interference with sleep patterns such as:

A. Nocturia

B. Increased daytime sleepiness.

C. Increased awakening from sleep.

D. Increased difficulty falling asleep.

Correct Answer: B. Increased daytime sleepiness.

Beta-Blockers can cause nightmares, insomnia, and awakenings from sleep. Sleep disorders are the common side effects of beta-blockers. Beta-blockers have been shown to reduce the production of melatonin via specific inhibition of adrenergic beta1-receptors.

- **Option A:** Results of two placebo-controlled studies of hypertensive patients, investigating the relationship between beta-blocker induced central nervous system (CNS) side effects and the nightly urinary excretion of melatonin, demonstrated that the CNS side effects (sleep disorder, nightmares) during beta-blockade are related to a reduction of melatonin levels.
- **Option C:** Beta-blockers have been shown to reduce the production of melatonin via specific inhibition of beta-1 adrenergic receptors. Although atenolol had no effect on subjective measures of sleep this hydrophilic drug also reduced REM frequency, suggesting that either it has some central effect, or that REM reduction is due to a peripheral 'shielding' effect.
- **Option D:** Beta-blockers have long been associated with sleep disturbances, including awakenings at night and nightmares. They are thought to do this by inhibiting the nighttime secretion of melatonin, a hormone involved in regulating both sleep and the body's circadian clock. Low levels of melatonin have sometimes been observed in chronic insomnia.

28. A male client admitted to the psychiatric unit for treatment of substance abuse says to the nurse, "It felt so wonderful to get high." Which of the following is the most appropriate response?

A. "If you continue to talk like that, I'm going to stop speaking to you."

B. "You told me you got fired from your last job for missing too many days after taking drugs all night."

C. "Tell me more about how it felt to get high."

D. "Don't you know it's illegal to use drugs?"

Correct Answer: B. "You told me you got fired from your last job for missing too many days after taking drugs all night."

Confronting the client with the consequences of substance abuse helps to break through denial. Present reality by spending time with the client to facilitate reality orientation because your physical presence is the reality. Be simple, direct, and concise when speaking to the client. Talk with the client about concrete or familiar things; avoid ideological or theoretical discussions. The client''s ability to process abstractions or complexities is impaired.

- **Option A:** Making threats isn't an effective way to promote self-disclosure or establish a rapport with the client. Motivational counseling works according to the idea that motivation for change is dynamic rather than static. Professional uses may influence change by developing a therapeutic relationship to increase therapeutic alliance, developing insight, and coping skills to resolve ambivalence, and change health-related behavior.
- **Option C:** Although the nurse should encourage the client to discuss feelings, the discussion should focus on how the client felt before, not during, an episode of substance abuse. Encouraging elaboration about his experience while getting high may reinforce the abusive behavior. Persons may withdraw from their environment with regressive behavior, fail to engage with others, or even

notice physical illness and pain. Social exclusion and homelessness may ensue. In the longer term, psychosis and its potential disruption of the capacity to fulfill social roles can result in further burdens.

- **Option D:** The client undoubtedly is aware that drug use is illegal; a reminder to this effect is unlikely to alter behavior. Drug addiction exacerbates social alienation and increases potential for violent lashing out and low self-esteem, along with poor coping skills. Under these circumstances, emotional, social, or symptom-related cues can provoke recourse to available substances and suicidal ideation. They may also contribute to psychosocial instability, self-image issues, and achievement motivation. In some cases, social hostility and rejection may result.

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

A. An appointed guardianship

B. Unemancipated minor

C. Minimum of 21 years or older

D. An advocate for a child

Correct Answer: A. An appointed guardianship

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

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

30. A client has frequent bursts of ventricular tachycardia on the cardiac monitor. A nurse is most concerned with this dysrhythmia because:

A. It is uncomfortable for the client, giving a sense of impending doom.

B. It produces a high cardiac output that quickly leads to cerebral and myocardial ischemia.

C. It is almost impossible to convert to a normal sinus rhythm.

D. It can develop into ventricular fibrillation at any time.

Correct Answer: D. It can develop into ventricular fibrillation at any time.

Ventricular tachycardia is a life-threatening dysrhythmia that results from an irritable ectopic focus that takes over as the pacemaker for the heart. Ventricular tachycardia is characterized as a wide complex (QRS duration greater than 120 milliseconds) tachyarrhythmia at a heart rate greater than 100 beats per minute. The physical examination findings of cannon A waves and variable intensity of the S1 heart sound suggest AV dissociation, a criterion favoring the diagnosis of ventricular tachycardia.

- **Option A:** The client has frequently experienced a feeling of impending death. Ventricular tachycardia is treated with antiarrhythmic medications or magnesium sulfate, cardioversion (client awake), or defibrillation (loss of consciousness). The prognosis of VT depends on the cause and cardiac status. Patients who develop VT can suffer from hemodynamic failure and the mortality can exceed 30% if no treatment is provided.
- **Option B:** The low cardiac output that results can lead quickly to cerebral and myocardial ischemia. Patients who undergo an episode of unexplained sudden cardiac arrest secondary to a ventricular tachyarrhythmia, CT, or coronary angiography can be used to confirm the presence or absence of ischemic heart disease.
- **Option C:** Ventricular tachycardia can deteriorate into ventricular fibrillation at any time. In-hospital cardiac arrest shares the similarity with out-of-hospital cardiac arrest in that early cardiopulmonary resuscitation (CPR), and defibrillation are important factors in survival. (Level I) Every minute that treatment is delayed reduces survival by approximately 10%.

31. Wilfredo with a recent history of rectal bleeding is being prepared for a colonoscopy. How should the nurse Patricia position the client for this test initially?

A. Lying on the right side with legs straight.

B. Lying on the left side with knees bent.

C. Prone with the torso elevated.

D. Bent over with hands touching the floor.

Correct Answer: B. Lying on the left side with knees bent

For a colonoscopy, the nurse initially should position the client on the left side with knees bent.

- **Option A:** Lying on the right side with legs straight is not an appropriate position for this procedure. It would not allow proper visualization.
- **Option C:** This position may not allow proper visualization of the large intestine.
- **Option D:** Bent over with hands touching the floor wouldn’t allow proper visualization of the large intestine.

32. In which of the following types of cardiomyopathy does cardiac output remain normal?

A. Obliterative

B. Restrictive

C. Dilated

D. Hypertrophic

Correct Answer: D. Hypertrophic

Hypertrophic cardiomyopathy (HCM) is a condition in which there is severe ventricular hypertrophy and poor diastolic filling. It is an autosomal dominant condition wherein the heart muscles asymmetrically increase in size and mass along the septum. The increase in the thickness of heart muscles reduces the size of the cavities of the ventricles, causing them to take a longer time to relax after systole. Cardiac output isn't affected by hypertrophic cardiomyopathy because the ventricle's size remains relatively unchanged.

- **Options A and B:** Restrictive cardiomyopathy (RCM) is wherein the heart walls are rigid, causing a restrictive stretching and filling of blood properly. Restrictive and obliterative cardiomyopathy are the same.
- **Option C:** Dilated cardiomyopathy (DCM) is when the left ventricle is enlarged and weakened, causing a decrease in the ability to pump blood (decreased cardiac output). It is the most common type of cardiomyopathy and commonly leads to progressive heart failure. The cause of DCM can be idiopathic, or it can result from inflammatory processes like myocarditis or cytotoxic agents like alcohol and certain neoplastic drugs.

33. An elderly nursing home resident has refused to eat or drink for several days and is admitted to the hospital. The nurse should expect which assessment finding?

A. Increase blood pressure

B. Weak, rapid pulse

C. Moist mucous membranes

D. Jugular vein distention

Correct Answer: B. Week, rapid pulse

All other options are indicated by fluid volume excess. A client who has not eaten or drunk anything for several days would be experiencing a fluid volume deficit. The primary control of water homeostasis is through osmoreceptors in the brain. Dehydration, as perceived by these osmoreceptors, stimulates the thirst center in the hypothalamus, which leads to water consumption. These osmoreceptors can also cause conservation of water by the kidney. When the hypothalamus detects lower water concentration, it causes the posterior pituitary to release antidiuretic hormone (ADH), which stimulates the kidneys to reabsorb more water.

- **Option A:** Decreased blood pressure, which often accompanies dehydration triggers renin secretion from the kidney. Renin converts angiotensin I to angiotensin II, which increases aldosterone release from the adrenals. Aldosterone increases the absorption of sodium and water from the kidney. Using these mechanisms, the body regulates body volume and sodium and water concentration.
- **Option C:** Some of the most common presenting symptoms of dehydration include but are not limited to fatigue, thirst, dry skin and lips, dark urine or decreased urine output, headaches, muscle cramps, lightheadedness, dizziness, syncope, orthostatic hypotension, and palpitations. The physical examination could show dry mucosa, skin tenting, delayed capillary refill, or cracked lips.
- **Option D:** A 2015 Cochrane review evaluated predictors of dehydration in the elderly. Historical and physical findings tested were dry axilla, mucous membranes, tongue, increased capillary refill time, poor skin turgor, sunken eyes, orthostatic blood pressure drop, dizziness, thirst, urine color,

weakness, blue lips, altered mentation, tiredness, and appetite. Of all these factors only fatigue and missed drinks between meals predicted the diagnosis of dehydration.

34. What is Nurse John likely to note in a male client being admitted for alcohol withdrawal?

A. Perceptual disorders

B. Impending coma

C. Recent alcohol intake

D. Depression with mutism

Correct Answer: A. Perceptual disorders

Frightening visual hallucinations are especially common in clients experiencing alcohol withdrawal. This symptom usually begins within 12 to 24 hours after your last drink, and may last as long as 2 days once it begins. If this happens, you hallucinate (see or feel things that are not real). It is common for people who are withdrawing from alcohol to see multiple small, similar, moving objects. Sometimes the vision is perceived to be crawling insects or falling coins. It is possible for an alcohol withdrawal hallucination to be a very detailed and imaginative vision.

- **Option B:** Delirium tremens commonly begins two to three days after the last alcohol drink, but it may be delayed more than a week. Its peak intensity is usually four to five days after the last drink. This condition causes dangerous shifts in your breathing, your circulation and your temperature control. It can cause your heart to race dangerously or can cause your blood pressure to increase dramatically, and it can cause dangerous dehydration. Delirium tremens also can temporarily reduce the amount of blood flow to your brain. Symptoms can include confusion, disorientation, stupor or loss of consciousness, nervous or angry behavior, irrational beliefs, soaking sweats, sleep disturbances and hallucinations. Alcohol withdrawal is common, but delirium tremens only occur in 5% of people who have alcohol withdrawal. Delirium tremens is dangerous, killing as many as 1 out of every 20 people who develop its symptoms.
- **Option C:** After withdrawal is complete, it is essential that you not begin drinking again. Alcohol treatment programs are important because they improve your chances of successfully staying off of alcohol. Only about 20 percent of alcoholics are able to abstain from alcohol permanently without the help of formal treatment or self-help programs such as Alcoholics Anonymous (AA). Of people who attend AA, 44 percent of those who remain free of alcohol for 1 year probably will remain abstinent for another year. This figure increases to 91% for those who have remained abstinent and have attended AA for 5 years or more.
- **Option D:** Alcohol has a slowing effect (also called a sedating effect or depressant effect) on the brain. In a heavy, long-term drinker, the brain is almost continually exposed to the depressant effect of alcohol. Over time, the brain adjusts its own chemistry to compensate for the effect of the alcohol. It does this by producing naturally stimulating chemicals (such as serotonin or norepinephrine, which is a relative of adrenaline) in larger quantities than normal. If the alcohol is withdrawn suddenly, the brain is like an accelerated vehicle that has lost its brakes. Not surprisingly, most symptoms of withdrawal are symptoms that occur when the brain is overstimulated.

35. Histamine2-receptor antagonists:

A. Compete with histamine for binding sites on the parietal cells.

B. Irreversibly bind to H+/K+ATPase.

C. Cause a decrease in stomach pH.

D. Decrease signs and symptoms of allergies related to histamine release.

Correct Answer: A. Compete with histamine for binding sites on the parietal cells

Histamine receptor blocking agents decrease gastric acid by competing with histamine for binding sites on the parietal cells. H2 receptor blockers, or H2 receptor antagonists (H2RAs), are a class of gastric acid-suppressing agents frequently used in various gastric conditions. They are FDA-approved for short-term use in treating uncomplicated gastroesophageal reflux disease (GERD), gastric or duodenal ulcers, gastric hypersecretion, and mild to infrequent heartburn or indigestion.

- **Option B:** H2RAs decrease gastric acid secretion by reversibly binding to histamine H2 receptors located on gastric parietal cells, thereby inhibiting the binding and action of the endogenous ligand histamine. H2 blockers thus function as competitive antagonists.
- **Option C:** By blocking the histamine receptor and thus histamine stimulation of parietal cell acid secretion, H2RAs suppress both stimulated and basal gastric acid secretion induced by histamine. The onset of gastric relief provided by H2RAs is approximately 60 minutes with a duration of action that ranges from 4 to 10 hours, making them useful for the on-demand treatment of occasional symptoms. All H2RAs have similar efficacy in decreasing gastric acid secretion.
- **Option D:** Normally, after a meal, gastrin stimulates histamine release from enterochromaffin-like cells, which then binds to histamine H2 receptors on gastric parietal cells and leads to gastric acid release. This increase in gastric acid release occurs through the activation of adenylate cyclase, which raises intracellular cAMP levels.

36. A client has Gastroesophageal Reflux Disease (GERD). The nurse should teach the client that after every meal, the client should:

A. Rest in a sitting position

B. Take a short walk

C. Drink plenty of water

D. Lie down at least 30 minutes

Correct Answer: A. Rest in a sitting position

Gravity speeds up digestion and prevents reflux of stomach contents into the esophagus. Instruct to remain in an upright position at least 2 hours after meals; avoiding eating 3 hours before bedtime. Helps control reflux and causes less irritation from reflux action into the esophagus.

- **Option B:** Walking after meals may cause regurgitation of stomach contents. Instruct the patient regarding eating small amounts of bland food followed by a small amount of water. Instruct to remain in an upright position at least 1–2 hours after meals, and to avoid eating within 2–4 hours of bedtime.
- **Option C:** The client should drink moderate amounts of water. Instruct the patient to avoid highly seasoned food, acidic juices, alcoholic drinks, bedtime snacks, and foods high in fat. These can reduce the lower esophageal sphincter pressure.
- **Option D:** Lying down would cause a reflux of the stomach contents. Avoid placing the patient in a supine position, have the patient sit upright after meals. Supine position after meals can increase regurgitation of acid.

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

A. "Now I can never get hepatitis again."

B. "I can safely give blood after 3 months."

C. "I'll never have a problem with my liver again, even if I drink alcohol."

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

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

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

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

38. Every day for the past 2 weeks, a client with schizophrenia stands up during group therapy and screams, "Get out of here right now! The elevator bombs are going to explode in 3 minutes!" The next time this happens, how should the nurse respond?

A. "Why do you think there is a bomb in the elevator?"

B. "That is the same thing you said in yesterday's session."

C. "I know you think there are bombs in the elevator, but there aren't."

D. "If you have something to say, you must do it according to our group rules."

Correct Answer: C. "I know you think there are bombs in the elevator, but there aren't."

This is the most therapeutic response because it orients the client to reality. Identify feelings related to delusions. If a client believes someone is going to harm him/her, the client is experiencing fear. When people believe that they are understood, anxiety might lessen.

- **Option A:** Interact with clients on the basis of things in the environment. Try to distract the client from their delusions by engaging in reality-based activities (e.g., card games, simple arts and crafts projects etc). When thinking is focused on reality-based activities, the client is free of delusional

thinking during that time. Helps focus attention externally.

- **Option B:** These are condescending. Attempt to understand the significance of these beliefs to the client at the time of their presentation. Important clues to underlying fears and issues can be found in the client's seemingly illogical fantasies. Recognize the client's delusions as the client's perception of the environment. Recognizing the client's perception can help you understand the feelings he or she is experiencing.
- **Option D:** This sounds punitive and could embarrass the client. Initially do not argue with the client's beliefs or try to convince the client that the delusions are false and unreal. Arguing will only increase a client's defensive position, thereby reinforcing false beliefs. This will result in the client feeling even more isolated and misunderstood.

39. Which of the following is a gas component of the ABG measurement?

A. Carbon dioxide

B. Bicarbonate

C. Hydrogen

D. pH

Correct Answer: A. Carbon dioxide

The gases measured by ABGs are oxygen and carbon dioxide. Bicarbonate and hydrogen are ions; their ratio is measured in the pH. An arterial blood gas (ABG) tests explicitly blood taken from an artery. ABG analysis assesses a patient's partial pressure of oxygen (PaO_2) and carbon dioxide ($PaCO_2$).

- **Option B:** The measured HCO_3 uses a strong alkali that liberates all CO_2 in serum, including dissolved CO_2, carbamino compounds, and carbonic acid. The calculation only accounts for dissolved CO_2; this measurement using a standard chemistry analysis will likely be called a "total CO_2".
- **Option C:** Hydrogen is not present in blood as gas and, therefore, does not exert partial pressure. However, pH, which measures hydrogen ion activity, is a conventional part of every arterial blood gas determination. The normal range for blood pH is 7.35 to 7.45.
- **Option D:** The pH electrode measures the potential difference between a measuring electrode (which contains the sample in contact with a special glass membrane permeable only to H^+ ions) and a reference electrode (which has a known, stable pH). From the voltage across these electrodes, the sample pH is calculated.

40. On auscultation, which finding suggests a right pneumothorax?

A. Bilateral inspiratory and expiratory crackles.

B. Absence of breaths sound in the right thorax.

C. Inspiratory wheezes in the right thorax.

D. Bilateral pleural friction rub.

Correct Answer: B. Absence of breaths sound in the right thorax

In pneumothorax, the alveoli are deflated and no air exchange occurs in the lungs. Therefore, breath sounds in the affected lung field are absent. A pneumothorax is defined as a collection of air outside the

lung but within the pleural cavity. It occurs when air accumulates between the parietal and visceral pleura inside the chest. The air accumulation can apply pressure on the lung and make it collapse. The degree of collapse determines the clinical presentation of pneumothorax. None of the other options are associated with pneumothorax.

- **Option A:** Bilateral crackles may result from pulmonary congestion. Pneumonia is an infection in the lungs. It may be in one or both lungs. The infection causes air sacs in the lungs to become pus-filled and inflamed. This causes a cough, difficulty breathing, and crackles. Pneumonia may be mild or life-threatening.
- **Option C:** Inspiratory wheezes may signal asthma. Asthma is a heterogeneous syndrome characterized by variable, reversible airway obstruction and abnormally increased responsiveness (hyperreactivity) of the airways to various stimuli. The syndrome is characterized by wheezing, chest tightness, dyspnea, and/or cough, and results from widespread contraction of tracheobronchial smooth muscle (bronchoconstriction), hypersecretion of mucus, and mucosal edema, all of which narrow the caliber of the airways.
- **Option D:** A pleural friction rub may indicate pleural inflammation. Auscultation of a pleural friction rub can occur when the normally smooth surfaces of the visceral and parietal pleura become roughened by inflammation. A pleural friction rub is an adventitious breath sound heard on auscultation of the lung. The pleural rub sound results from the movement of inflamed and roughened pleural surfaces against one another during movement of the chest wall. This sound is non-musical, and described as “grating,” “creaky,” or “the sound made by walking on fresh snow.”

41. Nurse Oliver should expect a client with hypothyroidism to report which health concerns?

A. Increased appetite and weight loss

B. Puffiness of the face and hands

C. Nervousness and tremors

D. Thyroid gland swelling

Correct Answer: B. Puffiness of the face and hands

Hypothyroidism (myxedema) causes facial puffiness, extremity edema, and weight gain. Signs and symptoms of hyperthyroidism (Graves’ disease) include an increased appetite, weight loss, nervousness, tremors, and thyroid gland enlargement (goiter). Hypothyroidism results from low levels of thyroid hormone with varied etiology and manifestations. Untreated hypothyroidism increases morbidity and mortality.

- **Option A:** Inquire about dry skin, voice changes, hair loss, constipation, fatigue, muscle cramps, cold intolerance, sleep disturbances, menstrual cycle abnormalities, weight gain, and galactorrhea. Also obtain a complete medical, surgical, medication, and family history.
- **Option C:** It is important to maintain a high index of suspicion for hypothyroidism since the signs and symptoms can be mild and nonspecific and different symptoms may be present in different patients. Typical features such as cold intolerance, puffiness, decreased sweating and skin changes may not be present always.
- **Option D:** Autoimmune thyroiditis causes an increase in the turnover of iodine and impaired organification. Chronic inflammation of the parenchyma leads to predominant T-cell lymphocytic infiltration. If this persists, the initial lymphocytic hyperplasia and vacuoles are replaced by dense fibrosis and atrophic thyroid follicles.

42. The nurse is ordered to administer ampicillin capsule TID p.o. The nurse should give the medication by which frequency?

A. Three times a day orally

B. Three times a day after meals

C. Two times a day by mouth

D. Two times a day before meals

Correct Answer: A. Three times a day orally

TID is the Latin for “ter in die” which means three times a day. P.O. means per orem or through mouth. The “time” of administration of medication is valuable information to consider during patient counselling and is a typical query by patients especially when filling a prescription for the first time.

- **Option B:** The timing of doses isn’t the only question people may have when it comes to deciphering prescriptions or oral communication from the doctor. Other abbreviations include the number of refills allowed and whether one is receiving a brand name or generic drug. Medical errors are a significant cause of death in the United States. Fortunately, most of these errors are preventable when patients are active advocates for their health and ask plenty of questions.
- **Option C:** Two times a day by mouth is BID P.O. Seen on a prescription, b.i.d. means twice (two times) a day. It is an abbreviation for “bis in die” which in Latin means twice a day. The abbreviation b.i.d. is sometimes written without a period either in lower-case letters as “bid” or in capital letters as “BID”.
- **Option D:** However it is written, it is one of a number of hallowed abbreviations of Latin terms that have been traditionally used in prescriptions to specify the frequency with which medicines should be taken.

43. Paul is admitted to the hospital due to metabolic acidosis caused by Diabetic ketoacidosis (DKA). The nurse prepares which of the following medications as an initial treatment for this problem?

A. Regular insulin

B. Potassium

C. Sodium bicarbonate

D. Calcium gluconate

Correct Answer: A. Regular insulin

Metabolic acidosis is anaerobic metabolism caused by lack of ability of the body to use circulating glucose. Administration of insulin corrects this problem. The discovery of insulin, along with the antibiotics, has led to a drastic decrease in mortality with DKA, down to 1%. Intravenous insulin by continuous infusion is the standard of care. Previous treatment protocols have recommended the administration of an initial bolus of 0.1 U/kg, followed by the infusion of 0.1 U/kg/h.

- **Option B:** Potassium is an essential mineral constituent of the human body and is the chief cation found within the intracellular fluid of all cells. Multiple salts of potassium exist and can be useful as a medication for a wide range of indications. The chief indication for potassium administration is potassium deficiency or hypokalemia, a condition in which serum potassium level falls below a critical range.

- **Option C:** Sodium bicarbonate is a medication used in the management and treatment of multiple disease pathologies. It is a general chemical compound by classification. Under arrhythmias and cardiovascular instability, sodium bicarbonate can be administered to adults at 4 to 8 hour IV infusions. Each dose should be monitored and planned in a standard protocol to help evaluate the degree of response expected and predicted to understand the necessity to advance further infusions or withhold administration, given its fluid overloading effects.
- **Option D:** Calcium gluconate belongs to a class of drugs called Antidotes; Calcium Salts. It is an over-the-counter and a prescription medicine used to treat symptoms of hypocalcemia and as a calcium supplement. Calcium gluconate is used to treat conditions arising from calcium deficiencies such as hypocalcemic tetany, hypocalcemia related to hyperparathyroidism, and hypocalcemia due to rapid growth or pregnancy.

44. What would be the best response to the client's repeated complaints of pain:

A. "I know the feeling is real tests revealed negative results."

B. "I think you're exaggerating things a little bit."

C. "Try to forget this feeling and have activities to take it off your mind."

D. "So tell me more about the pain."

Correct Answer: A. "I know the feeling is real tests revealed negative results."

Shows empathy and offers information. Provide accommodation for the client and make them more comfortable (ie., pillows, temperature, positioning, etc.) This can help the client feel accepted and develop rapport and trust. This can allow the client to feel more comfortable and express their feelings and emotions more readily to the healthcare team.

- **Option B:** This is a demeaning statement. Encourage behavior modification such as praising the client and offering more attention when symptoms improve. Change the focus from what's wrong to what's right. Helps the client feel accomplished and more positive about improvements in health condition instead of focusing on the symptoms.
- **Option C:** This belittles the client's feelings. Provide education about fears or actual medical conditions. Helps the client understand the condition in a more realistic light and helps alleviate fear and anxiety about a particular health concern.
- **Option D:** Giving undue attention to the physical symptom reinforces the complaint. Discuss symptoms with the client and when they began, what makes them better or worse and how they have been managing these symptoms. This helps make a more definitive diagnosis and helps determine how to best treat the client. Helping the client determine the etiology of symptoms helps them to recognize and avoid situations that make symptoms worse.

45. Five teaspoons is equivalent to how many milliliters (ml)?

A. 30 ml

B. 25 ml

C. 12 ml

D. 22 ml

Correct Answer: B. 25 ml

One teaspoon is equal to 5ml. Drug calculations require the use of conversion factors, for example, when converting from pounds to kilograms or liters to milliliters. Simplistic in design, this method allows clinicians to work with various units of measurement, converting factors to find the answer. These methods are useful in checking the accuracy of the other methods of calculation, thus acting as a double or triple check.

- **Option A:** 30 ml is equal to 6 teaspoons. When clinicians are prepared and know the key conversion factors, they will be less anxious about the calculation involved. This is vital to accuracy, regardless of which formula or method employed.
- **Option C:** 12 ml is equal to 2.4 teaspoons. Units of measurement must match, for example, milliliters and milliliters, or one needs to convert to like units of measurement.
- **Option D:** 22 ml is equal to 4.4 teaspoons. Medication errors can be detrimental and costly to patients. Drug calculation and basic mathematical skills play a role in the safe administration of medications.

46. The cell and Coombs classification system categorizes allergic reactions and is useful in describing and classifying patient reactions to drugs. Type I reactions are immediate hypersensitivity reactions and are mediated by:

A. immunoglobulin E (IgE).

B. immunoglobulin G (IgG).

C. immunoglobulin A (IgA).

D. immunoglobulin M (IgM).

Correct Answer: A. immunoglobulin E (IgE).

IgE, the least common serum immunoglobulin (Ig) binds very tightly to receptors on basophils and mast cells and is involved in allergic reactions. Binding of the allergen to the IgE on the cells results in the release of various pharmacological mediators that result in allergic symptoms.

- **Option B:** IgG is the major Ig (75 percent of serum Ig is IgG). Most versatile Ig because it is capable of carrying out all of the functions of Ig molecules. IgG is the only class of Ig that crosses the placenta. It is an opsonin, a substance that enhances phagocytosis.
- **Option C:** IgA, the second most common serum Ig is found in secretions (tears, saliva, colostrum, and mucus). It is important in local (mucosal) immunity.
- **Option D:** IgM, the third most common serum Ig, is the first Ig to be made by the fetus and the first Ig to be made by a virgin B cell when it is stimulated by antigen. IgM antibodies are very efficient in leading to the lysis of microorganisms.

47. A 22-year-old client suffered from his first tonic-clonic seizure. Upon awakening, the client asks the nurse, “What caused me to have a seizure? Which of the following would the nurse include in the primary cause of tonic-clonic seizures in adults more than 20 years?

A. Electrolyte imbalance

B. Head trauma

C. Epilepsy

D. Congenital defect

Correct Answer: B. Head trauma

Trauma is one of the primary causes of brain damage and seizure activity in adults. Other common causes of seizure activity in adults include neoplasms, withdrawal from drugs and alcohol, and vascular disease. Common causes of emergency department visits after seizures are alcohol and drugs, head injury, and epilepsy.

- **Option A:** Decreased sodium in the blood is a rare cause of seizures, especially among adults. Acute symptomatic seizures- secondary to ischemic or hemorrhagic strokes, extra-axial hemorrhage, traumatic brain injury, hypoxic-ischemic injury, acute medical illness, metabolic derangements, substance abuse- can manifest as tonic-clonic seizures without the inherent tendency to recurrent seizures, whereas epileptic seizures recur without proximate provoking factors.
- **Option C:** The most common cause of seizure is epilepsy. However, not every person who has a seizure has epilepsy. The etiology of most of the generalized tonic-clonic seizures is underlying epilepsy from genetic causes (previously categorized as idiopathic). Besides genetic generalized epilepsy, tonic-clonic seizures can be secondary to epilepsy due to structural, infectious, metabolic, or immune-related pathologies.
- **Option D:** Congenital defects do not cause seizures among adults. Seizures account for 1 to 2 percent of all emergency visits in the U.S. Seizures are reported to occur about 11% of people in the United States during their lifetime. Acute symptomatic seizures tend to occur more frequently in males than females in a ratio of 1.85 to 1, with a lifetime risk of 5.0% in males and 2.7% in females.

48. What is the most common symptom in a client with abdominal aortic aneurysm?

A. Abdominal pain

B. Diaphoresis

C. Headache

D. Upper back pain

Correct Answer: A. Abdominal pain

Abdominal pain in a client with an abdominal aortic aneurysm results from the disruption of normal circulation in the abdominal region. Patients may experience unimpressive back, flank, abdominal, or groin pain for some time before rupture. Isolated groin pain is a particularly insidious presentation. This occurs with retroperitoneal expansion and pressure on either the right or left femoral nerve. This symptom may be present without any other associated findings, and a high index of suspicion is necessary to make the diagnosis.

- **Option B:** Diaphoresis isn’t associated with an abdominal aortic aneurysm. At times, AAAs may cause symptoms from local compression, including early satiety, nausea, vomiting, urinary symptoms, or venous thrombosis from venous compression.
- **Option C:** Headache is not a sign of an abdominal aortic aneurysm. Other symptoms include abdominal pain, groin pain, embolic phenomena affecting the toes (eg, livedo reticularis, or blue toe syndrome; see the image below), and fever. Occasionally, small AAAs thrombose, producing acute claudication.

- **Option D:** Lower back pain, not upper, is a common symptom, usually signifying expansion and impending rupture of the aneurysm. Back pain can be caused by erosion of the AAA into adjacent vertebrae.

49. A homecare nurse visits a pregnant client who has a diagnosis of mild Preeclampsia and who is being monitored for pregnancy induced hypertension (PIH). Which assessment finding indicates a worsening of the preeclampsia and the need to notify the physician?

A. Blood pressure reading is at the prenatal baseline.

B. Urinary output has increased.

C. The client complains of a headache and blurred vision.

D. Dependent edema has resolved.

Correct Answer: C. The client complains of a headache and blurred vision.

If the client complains of a headache and blurred vision, the physician should be notified because these are signs of worsening preeclampsia.

- **Option A:** In normal pregnancy, women's mean arterial pressure drops 10-15 mm Hg over the first half of pregnancy. Most women with mild chronic hypertension (ie, SBP 140-160 mm Hg, DBP 90-100 mm Hg) have a similar decrease in blood pressures and may not require any medication during this period.
- **Option B:** In addition to rising hormones, the body's fluid levels start to increase during pregnancy. This means the kidneys have to work extra hard to flush the extra fluid. The amount of urine released will increase as well. In the third trimester, the baby's growing size means they're pressing even more on the bladder.
- **Option D:** During normal pregnancy total body water increases by 6 to 8 liters, 4 to 6 liters of which are extracellular, of which at least 2 to 3 liters are interstitial. At some stage in pregnancy 8 out of 10 women have demonstrable clinical edema.

50. Following a meticulous surgical procedure, 15-month-old David is in the pediatric surgical unit recovering from the removal of a Wilms' tumor. The multidisciplinary healthcare team is actively engaged in a comprehensive postoperative care plan aiming to promote healing, manage symptoms, and ensure David's comfort and well-being. Given David's tender age, assessing pain and discomfort necessitates a keen interpretation of behavioral and physiological indicators. The nursing staff is employing validated pediatric pain assessment tools, alongside continuous monitoring of vital signs and behavioral cues. David's parents are understandably anxious and are keen to see their child comfortable and progressing towards recovery. As part of the ongoing assessment, the nursing staff is keenly observing David for any signs indicative of his comfort level and freedom from pain, which is crucial for his overall recovery and parental reassurance. Which of the following findings would best indicate to the healthcare team that David is free from pain postoperatively?

A. Decreased appetite

B. Increased heart rate

C. Decreased urine output

D. Increased interest in play

E. Restless behavior

F. Elevated blood pressure

G. Calm and steady breathing

Correct Answer: D. Increased interest in play.
Increased interest in play is a positive sign of comfort and a reduction in pain, particularly in children. Engaging in play reflects a level of comfort and is a positive behavioral indicator of pain relief.

- **Option A:** A decreased appetite is more likely indicative of discomfort or pain, rather than relief from pain.
- **Option B:** An increased heart rate can be a physiological response to pain or distress; it's not a sign of relief from pain.
- **Option C:** Decreased urine output can be a response to various factors including dehydration or renal complications but is not typically associated with relief from pain.
- **Option E:** Restless behavior can be a sign of discomfort or pain in children; it's not indicative of relief from pain.
- **Option F:** Elevated blood pressure can be a physiological response to pain or distress; it's not indicative of relief from pain.
- **Option G:** While calm and steady breathing can be associated with a comfortable state and potentially a relief from pain, the increased interest in play provides a more definitive behavioral indication of comfort and pain relief in a child of David's age.

51. There are a number of risk factors associated with coronary artery disease. Which of the following is a modifiable risk factor?

A. Obesity

B. Heredity

C. Gender

D. Age

Correct Answer: A. Obesity

Obesity is an important risk factor for coronary artery disease that can be modified by improved diet and weight loss. Individuals are diagnosed as overweight when body mass index (BMI) is between 25 to 29.8 kg/m^2 and obese when BMI greater than or equal to 30 kg/m^2. Conditions of both overweight and obesity increase the ASCVD risk compared to normal weight. Recommendations include annual calculation of BMI, and lifestyle modification, including calorie restriction and weight loss, based on the BMI values.

- **Option B:** Coronary artery disease is a multifactorial phenomenon. Etiologic factors can be broadly categorized into non-modifiable and modifiable factors. Non-modifiable factors include gender, age, family history, and genetics.

- **Option C:** In developed countries like the U.S. and the UK, mortality rates due to ischemic heart diseases are decreasing. Nevertheless, according to AHA, 16.5 million people older than 20 in the U.S. had coronary artery disease in 2018, and 55% of them were males. The male gender is more predisposed than the female gender.
- **Option D:** Advancing age increases risk but cannot be modified. The incidence of CAD is observed to rise with age, regardless of gender. In the ONACI registry in France, the incidence of CAD was about 1% in the 45 to 65 age group, which increased to about 4% as the age group reached 75 to 84 years.

52. 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.

53. A male client 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 dry."

B. "Keep the stoma moist."

C."Keep the stoma uncovered."

D. "Have a family member perform stoma care initially until you get used to the procedure."

Correct Answer: B. "Keep the stoma moist."

- **Option B:** 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:** Moisture is needed by the stoma to keep the airway moist. The skin around the stoma is kept clean and dry instead.

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

54. Which of the following symptoms indicated diverticulosis?

A. No symptoms exist.

B. Change in bowel habits.

C. Anorexia with low-grade fever.

D. Episodic, dull, or steady midabdominal pain.

Correct Answer: A. No symptoms exist.

Diverticulosis is an asymptomatic condition. The other choices are signs and symptoms of diverticulitis. The majority of individuals with diverticulosis are asymptomatic. Diverticular disease occurs when there is symptomatic diverticulosis (e.g., diverticular bleeding); diverticulitis (e.g., acute or chronic inflammation that may or may not is complicated by abscess formation, fistula formation, bowel obstruction, or perforation); or associated segmental colitis (e.g., inflammation in segments of the mucosal segments of the colon in between diverticula).

- **Option B:** Change in bowel habits, either diarrhea (35%) or constipation (50%), can be associated with abdominal pain. Patients may also experience nausea and vomiting, possibly secondary to bowel obstruction.
- **Option C:** Fever is not uncommon in patients with abscesses and perforation. Dysuria, frequency, and urgency can occur in patients when the inflamed portion of the bowel comes into direct contact with the bladder wall, which is called sympathetic cystitis.
- **Option D:** Clinical manifestation of acute diverticulitis varies depending on the severity of the disease. Patients with uncomplicated diverticulitis typically present with left lower quadrant abdominal pain, reflecting that propensity of left-sided disease in Western nations.

55. A client is admitted with burns of the right arm, front chest, and head. According to the Rule of Nines, the percent of burn injury is:

A. 18%

B. 27%

C. 36%

D. 45%

Correct Answer: B. 27%

- Option C: According to American Burn Association, burn injury of the arm (9%), front chest (9%), and head (9%) accounts for burns covering 27% of the total body surface area.

56. A client with diabetes mellitus has a prescription for Glucotrol XL (glipizide). The client should be instructed to take the medication:

A. With breakfast

B. Before lunch

C. After dinner

D. At bedtime

Correct Answer: A. With breakfast

- Option A: Glucotrol XL is a medication that helps to treat type 2 diabetes. It is combined with diet and exercise and is given once a day with breakfast.
- Options B and C: The client would develop hypoglycemia later in the day or evening.
- Option D: The client would develop hypoglycemia while sleeping.

57. Which is the best position for a client with autonomic dysreflexia?

A. Sim's Position.

B. Fowler's Position.

C. Semi-Fowler's Position.

D. High Fowler's Position.

Correct Answer: D. High Fowler's Position.

Autonomic dysreflexia is a condition in which there is a sudden onset of excessively high blood pressure. If it occurs, immediately place the client in a high Fowler's position to promote adequate ventilation and assist in the prevention of a hypertensive stroke.

- **Option A:** The Sims position is a standard position in which the patient lies on their left side, with right hip and knees bent. The lower arm is behind the back, the thighs flexed. The left knee is slightly tilted. The right arm is positioned comfortably in front of the body, the right arm is rested behind the body. This is also known as "lateral" position. This position is often used for rectal or vaginal examination, and treatments.
- **Option B:** In Fowler's position, the patient is at an increased risk for air embolism, skin injury from shearing and sliding, and DVT forming in the patient's lower extremities. In this position, a patient has an increased pressure risk in their scapulae, sacrum, coccyx, ischium, back of knees, and heels.
- **Option C:** When positioning a patient in Fowler's position, the surgical staff should minimize the degree of the patient's head elevation as much as possible and always maintain the head in a neutral position. The patient's arms should be flexed and secured across the body, the buttocks should be padded, and the knees flexed 30 degrees.

58. A 30-year-old male patient, recently diagnosed with type 1 diabetes, is being educated by the nurse on potential complications of diabetes, including acute hypoglycemia. The patient is keen to understand how different health conditions might interact with his diabetes. The nurse is discussing other conditions that might also predispose a patient to develop acute hypoglycemia. Which of the following conditions can also lead to acute hypoglycemia?

A. Liver disease

B. Hypertension

C. Type 2 diabetes

D. Hyperthyroidism

Correct Answer: A. Liver Disease

The client with liver disease has a decreased ability to metabolize carbohydrates because of a decreased ability to form glycogen (glycogenesis) and to form glucose from glycogen.

- **Option B:** The hemodynamic changes associated with hypoglycemia include an increase in heart rate and peripheral systolic blood pressure, a fall in the central blood pressure, reduced peripheral arterial resistance, and increased myocardial contractility, stroke volume, and cardiac output.
- **Option C:** Type 2 diabetes is an islet paracrinopathy in which the reciprocal relationship between the glucagon-secreting alpha cell and the insulin-secreting beta-cell is lost, leading to hyperglucagonemia and hence the consequent hyperglycemia.
- **Option D:** Hyperthyroidism is usually associated with poor blood glucose control and a need for additional insulin. An increased metabolism “clears” insulin from the system at a faster rate, and increased production and absorption of glucose can raise blood sugars.

59. Which of the following tasks should be included in the immediate postoperative management of a client who has undergone gastric resection?

A. Monitoring gastric pH to detect complications.

B. Assessing for bowel sounds.

C. Providing nutritional support.

D. Monitoring for symptoms of hemorrhage.

Correct Answer: D. Monitoring for symptoms of hemorrhage.

The client should be monitored closely for signs and symptoms of hemorrhage, such as bright red blood in the nasogastric tube suction, tachycardia, or a drop in blood pressure. Identify signs and symptoms requiring medical evaluation such as persistent nausea and vomiting or abdominal fullness; weight loss; diarrhea; foul-smelling fatty or tarry stools; bloody or coffee-ground vomitus or presence of bile, fever. Instruct the patient to report changes in pain characteristics.

- **Option A:** Gastric pH may be monitored to evaluate the need for histamine-2 receptor antagonists. Caution the patient to read labels and avoid products containing ASA, ibuprofen. This can cause gastric irritation and bleeding. Review medication purpose, dosage, and schedule, and possible side effects.
- **Option B:** Bowel sounds may not return for up to 72 hours postoperatively. Auscultate for resumption of bowel sounds and note passage of flatus. Peristalsis can be expected to return about the third postoperative day, signaling readiness to resume oral intake.
- **Option C:** Nutritional needs should be addressed soon after surgery. Monitor tolerance to fluid and food intake, noting abdominal distension, reports of increased pain, cramping, nausea, and vomiting. Avoid milk and high-carbohydrate foods in the diet because this may trigger dumping syndrome.

60. The client is seen in the clinic for treatment of migraine headaches. The drug Imitrex (sumatriptan succinate) is prescribed for the client. Which of the following in the client's history should be reported to the doctor?

A. Diabetes

B. Prinzmetal's angina

C. Cancer

D. Cluster headaches

Correct Answer: B. Prinzmetal's angina

If the client has a history of Prinzmetal's angina, he should not be prescribed triptan preparations because they cause vasoconstriction and coronary spasms. Tell the doctor if there is or have ever had heart disease; a heart attack; angina (chest pain); irregular heartbeats; stroke or 'mini-stroke'; or circulation problems such as varicose veins, blood clots in the legs, Raynaud's disease (problems with blood flow to the fingers, toes, ears, and nose), or ischemic bowel disease (bloody diarrhea and stomach pain caused by decreased blood flow to the intestines). The doctor may advise not to take sumatriptan.

- **Option A:** Sumatriptan is used to treat the symptoms of migraine headaches (severe, throbbing headaches that sometimes are accompanied by nausea or sensitivity to sound and light). Sumatriptan is in a class of medications called selective serotonin receptor agonists. It works by narrowing blood vessels in the head, stopping pain signals from being sent to the brain, and blocking the release of certain natural substances that cause pain, nausea, and other symptoms of migraine. Sumatriptan does not prevent migraine attacks or reduce the number of headaches.
- **Option C:** Sumatriptan comes as a tablet to take by mouth. It is usually taken at the first sign of a migraine headache.If symptoms improve after taking sumatriptan but return after 2 hours or longer, the client may take a second tablet. However, if symptoms do not improve after taking sumatriptan, do not take a second tablet without calling the doctor. The doctor will advise the maximum number of tablets to be taken in a 24-hour period.
- **Option D:** There is no contraindication for taking triptan drugs in clients with diabetes, cancer, or cluster headaches. If the client takes sumatriptan more often or for longer than the recommended period of time, the headaches may get worse or may occur more frequently. The client should not take sumatriptan or any other headache medication for more than 10 days per month. Call a doctor if there is a need to take sumatriptan to treat more than four headaches in a 1-month period.

61. A client with rheumatoid arthritis has been receiving hydroxychloroquine (Plaquenil) in recent months. The nurse tells the client to visit which of the following while on the treatment?

A. Dentist

B. Ophthalmologist

C. Pulmonologist

D. Endocrinologist

Correct Answer: B. Ophthalmologist

Plaquenil can adversely affect the eyes such as retinal damage. Clients taking this medicine should be seen by an ophthalmologist at least once a year.

- **Options A, C, and D:** A dentist, pulmonologist, and endocrinologist will not be needed when taking this medication.

62. The nurse is assessing a client who has just been admitted to the emergency department. Which signs would suggest an overdose of an antianxiety agent?

A. Combativeness, sweating, and confusion

B. Agitation, hyperactivity, and grandiose ideation

C. Emotional lability, euphoria, and impaired memory

D. Suspiciousness, dilated pupils, and increased blood pressure

Correct Answer: C. Emotional lability, euphoria, and impaired memory

Signs of antianxiety agent overdose include emotional lability, euphoria, and impaired memory. The classic presentation in patients with isolated benzodiazepine overdose will include central nervous system (CNS) depression with normal or near-normal vital signs. Many patients will still be arousable and even provide a reliable history. Classic symptoms include slurred speech, ataxia, and altered mental status.

- **Option A:** Phencyclidine overdose can cause combativeness, sweating, and confusion. PCP begins to cause symptoms at a dose of 0.05mg/kg, and a dose of 20 mg or more can cause seizures, coma, and death. It is mainly metabolized by the liver, and 10% is excreted in the kidneys. Inhalation (the most common route of administration) and intravenous routes of administration produce symptoms in 2 to 5 minutes. Oral ingestion produces symptoms in 30 to 60 minutes.
- **Option B:** Amphetamine overdose can result in agitation, hyperactivity, and grandiose ideation. Methamphetamine (METH) and its derivative, 3,4-methylenedioxymethamphetamine (MDMA), are extensively abused drugs, and the acute effects of these drugs include increased alertness, hyperthermia, decreased appetite, and euphoria. However, long-term abuse can result in neurotoxicity and psychosis.
- **Option D:** Hallucinogen overdose can produce suspiciousness, dilated pupils, and increased blood pressure. Classic hallucinogens can cause users to see images, hear sounds, and feel sensations that seem real but do not exist. The effects generally begin within 20 to 90 minutes and can last as long as 12 hours in some cases (LSD) or as short as 15 minutes in others (synthetic DMT). Hallucinogen users refer to the experiences brought on by these drugs as “trips.” If the experience is unpleasant, users sometimes call it a “bad trip.”

63. A female patient undergoes a total abdominal hysterectomy. When assessing the patient 10 hours later, the nurse identifies which finding as an early sign of shock?

A. Restlessness

B. Pale, warm, dry skin

C. Heart rate of 110 beats/minute

D. Urine output of 30 ml/hour

Correct Answer: A. Restlessness

Early in shock, hyperactivity of the sympathetic nervous system causes increased epinephrine secretion, which typically makes the patient restless, anxious, nervous, and irritable. It also decreases tissue perfusion to the skin, causing pale, cool clammy skin. Shock is characterized by decreased oxygen delivery and/or increased oxygen consumption or inadequate oxygen utilization leading to cellular and tissue hypoxia. It is a life-threatening condition of circulatory failure and most commonly manifested as hypotension (systolic blood pressure less than 90 mm Hg or MAP less than 65 mmHg).

- **Option B:** Hypoxia at the cellular level causes a series of physiologic and biochemical changes, resulting in acidosis and a decrease in regional blood flow, which further worsens the tissue hypoxia.
- **Option C:** An above-normal heart rate is a late sign of shock. The most common clinical features/labs which are suggestive of shock include hypotension, tachycardia, tachypnea, obtundation or abnormal mental status, cold, clammy extremities, mottled skin, oliguria, metabolic acidosis, and hyperlactatemia.
- **Option D:** A urine output of 30 ml/hour is within normal limits. During this stage, most of the classic signs and symptoms of shock appear due to early organ dysfunction, resulting from the progression of the pre-shock stage as the compensatory mechanisms become insufficient.

64. The nurse is caring for a 6-year-old client admitted with a diagnosis of conjunctivitis. Before administering eye drops, the nurse should recognize that it is essential to consider which of the following?

A. The eye should be cleansed with warm water, removing any exudate, before instilling the eyedrops.

B. The child should be allowed to instill his own eye drops.

C. The mother should be allowed to instill the eyedrops.

D. If the eye is clear from any redness or edema, the eye drops should be held.

Correct Answer: A. The eye should be cleansed with warm water, removing any exudate, before instilling the eyedrops.

Before instilling eye drops, the nurse should cleanse the area with water. Cleanse the eyelids and lashes with cotton balls or gauze pledgets moistened with normal saline or water. This prevents debris to be carried into the eye when the conjunctival sac is exposed.

- **Option B:** A 6-year-old child is not developmentally ready to instill his own eye drops. An ophthalmic assistant, technician, nurse or physician instills eye drops during a routine eye examination or during treatment for ocular disease.
- **Option C:** Although the mother of the child can instill the eye drops, the area must be cleansed before administration. Use each cotton ball or pledget for only one stroke, moving from the inner to the outer canthus of the eye.
- **Option D:** Although the eye might appear to be clear, the nurse should instill the eyedrops, as ordered, so answer D is incorrect. Allow the prescribed number of drops to fall in the lower conjunctival sac but do not allow to fall onto the cornea. Release the lower lid after the drops are instilled. Instruct the patient to close eyes slowly, move the eye and not to squeeze or rub.

65. The goal of preprandial blood glucose for those with type 1 diabetes mellitus is:

A. <80 mg/dl

B. <130 mg/dl

C. <180 mg/dl

D. >8%

Correct Answer: B. <130 mg/dl

According to the American Diabetes Association, the recommended preprandial glucose target for an adult with diabetes is between 80-130 mg/dl. In the management of diabetes, health care providers usually assess glycemic control with fasting plasma glucose (FPG) and premeal glucose measurements, as well as by measuring HbA1c.

- **Option A:** The word postprandial means after a meal; therefore, PPG concentrations refer to plasma glucose concentrations after eating. Many factors determine the PPG profile. In nondiabetic individuals, fasting plasma glucose concentrations (i.e., following an overnight 8- to 10-h fast) generally range from 70 to 110 mg/dl.
- **Option C:** This is the recommended postprandial (1-2 hours after eating) glucose target for an adult with diabetes. Elevated postprandial glucose (PPG) concentrations may contribute to suboptimal glycemic control. Postprandial hyperglycemia is also one of the earliest abnormalities of glucose homeostasis associated with type 2 diabetes and is markedly exaggerated in diabetic patients with fasting hyperglycemia.
- **Option D:** An A1c value of >8 signifies that diabetes is not well controlled and a high risk for diabetes complication is possible. For an HbA1c test to classify as normal, or in the non-diabetic range, the value must be below 5.7 %. Anyone with an HbA1c value of 5.7 % to 6.4 % is considered to be prediabetic, while diabetes can be diagnosed with an HbA1c of 6.5% or higher.

66. The nurse is providing instructions to a Chinese-American client about the frequency and dosages of the take-home medicines. When conducting the teaching, the client continuously turns away from the nurse. The nurse should do which of the following appropriate actions?

A. Walk around the client so that the nurse can constantly face the client.

B. Call the attention of the client by speaking loudly.

C. Continue with the instructions, then confirming the client's understanding.

D. Hand over a written instruction and discuss only what the client doesn't understand.

Correct Answer: C. Continue with the instructions, verifying client understanding.

Most Chinese maintain a formal personal space with others, which is a form of respect. Most Chinese are uncomfortable with face-to-face communications, especially when eye contact is direct. If the client turns away from the nurse during a conversation, the most appropriate action is to continue with the instructions. Many cultures have very different ways of thinking about healthcare and may have traditions that go against the grain of Western medicine.

- **Option A:** Walking around to the client so that the nurse faces the client is in direct conflict with the cultural practice. Healthcare providers who are unfamiliar with cultural traditions surrounding

medical care may have difficulty connecting with the patient or the patient may not feel safe and recognized, which is key to treatment acceptance.

- **Option B:** Calling attention and speaking loudly is viewed as a rude gesture. It's important that nurses avoid making assumptions about cultures they aren't familiar with. This can lead to a breakdown of trust and rapport between the nurse and their patient and reduce treatment acceptance.
- **Option D:** Discussing only what the client cannot understand is not an acceptable practice of a nurse. When communicating with a patient, ask them to repeat back to you what you said, in their own words. If there's a language barrier, a translator can help. Essentially, this will help you determine how much of what you are saying has been understood and how you might be able to change the way you communicate to improve the patient's understanding.

67. A nurse is preparing a plan of care for a client who is a Jehovah's Witness. The client has been told that surgery is necessary. The nurse considers the client's religious preferences in developing the plan of care and documents that:

A. Giving any medication is not allowed.

B. Surgery is strictly prohibited.

C. Blood products can not be administered.

D. Alternative medicines can be advised.

Correct Answer: C. Blood products can not be administered.

Among Jehovah's Witnesses, the administration of blood and blood products is prohibited. Jehovah's Witnesses believe that it is against God's will to receive blood and, therefore, they refuse blood transfusions, often even if it is their own blood. The willing acceptance of blood transfusions by Jehovah's Witnesses has in some cases led to expulsion from and ostracisation by their religious community.

- **Option A:** Jehovah's Witnesses accept medical and surgical treatment. They do not adhere to so-called "faith healing" and are not opposed to the practice of medicine. They are deeply religious and believe that blood transfusions are forbidden for them by such Biblical passages.
- **Option B:** In the case of elective treatment or surgery, a medical practitioner who believes that a blood transfusion may be necessary may refuse to treat or perform surgery on a Jehovah's Witness patient who has refused to consent to a blood transfusion being administered, provided that the practitioner is not already involved in the ongoing treatment of such patient, in which case a unilateral refusal to continue with the treatment could be viewed as a breach of contract.
- **Option D:** Witnesses do not observe special rituals that are to be performed for the sick or those dying. Every reasonable effort should be made to provide medical assistance, comfort, and spiritual care needed by the patient. Each patient who is a Jehovah's Witness will decide what is appropriate for him or her according to his or her circumstances and the provisions of the law.

68. Joey who has a chronic user of cocaine reports that he feels like he has cockroaches crawling under his skin. His arms are red because of scratching. The nurse in charge interprets these findings as possibly indicating which of the following?

A. Delusion

B. Formication

C. Flashback

D. Confusion

Correct Answer: B. Formication

The feeling of bugs crawling under the skin is termed as formication, and is associated with cocaine use. Formication is the sensation that resembles that of small insects crawling on (or under) the skin when there is nothing there. It is one specific form of a set of sensations known as paresthesias, which also include the more common prickling, tingling sensation known as “pins and needles”.

- **Option A:** Delusions are defined as fixed, false beliefs that conflict with reality. Despite contrary evidence, a person in a delusional state can’t let go of their convictions. Delusions are often reinforced by the misinterpretation of events. Many delusions also involve some level of paranoia. For example, someone might contend that the government is controlling our every move via radio waves despite evidence to the contrary.
- **Option C:** Flashbacks are psychological phenomena during which a person relives a past event or fragments of a past experience. They generally occur involuntarily, abruptly entering an individual’s awareness without the aid of premeditation or conscious attempts to recall the memory, and they may be intense.
- **Option D:** A mental disturbance characterized by bewilderment, inability to think clearly or act decisively, and disorientation for time, place, and person. Also called mental confusion.

69. While working in a pediatric clinic, you receive a telephone call from the parent of a 10-year-old who is receiving chemotherapy for leukemia. The client’s sibling has chickenpox. Which of these actions will you anticipate taking next?

A. Administer varicella-zoster immune globulin to the client

B. Educate the parent about the correct use of acyclovir (Zovirax)

C. Prepare the client for admission to a private room in the hospital

D. Teach the parents regarding contact and airborne precaution

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

Varicella-zoster immune globulin administration can prevent the development of chickenpox in high-risk clients and will typically be prescribed. The varicella-zoster immunoglobulin is used to manage patients who are immunocompromised. In addition, a live attenuated vaccine has been available since 1995. There is high seroconversion following the vaccine which is long-lasting. Adverse effects of the vaccine are rare.

- **Option B:** In children, acyclovir decreases symptoms by one day if taken within 24 hours of the start of the rash, but it has no effect on complication rates, and it is not recommended for individuals with normal immune function.
- **Option C:** Hospitalization may be required if the child develops a varicella-zoster virus infection. For most children who develop chickenpox, the outcome is excellent. However, in immunocompromised individuals, there is increased morbidity and mortality.
- **Option D:** Contact and airborne precautions will be implemented to prevent the spread of infection to other children if the child develops varicella. It is acquired by inhalation of infected aerosolized

droplets. This virus is highly contagious and can spread rapidly. The initial infection is in the mucosa of the upper airways.

70. A client is prescribed sertraline (Zoloft). To guarantee a safe administration of the medication, a nurse would administer the dose:

A. As needed only for depressions

B. Early in the morning

C. Take on an empty stomach

D. At bedtime

Correct Answer: D. At bedtime

Sertraline (Zoloft) is a type of antidepressant known as a selective serotonin reuptake inhibitor (SSRI) used to treat depression, panic attacks, obsessive-compulsive disorder (OCD), social phobia, and post-traumatic stress disorder (PTSD). It may be administered in the morning or evening, but giving it in the evening is more favored since drowsiness is one of the side effects.

71. The following are natural childbirth procedures, except?

A. Lamaze method

B. Dick-Read method

C. Ritgen's maneuver

D. Psychoprophylactic method

Correct Answer: C. Ritgen's maneuver

Ritgen's method is used to prevent perineal tear/laceration during the delivery of the fetal head. Lamaze method is also known as psychoprophylactic method and Dick-Read method are commonly known natural childbirth procedures which advocate the use of nonpharmacologic measures to relieve labor pain.

- **Option A:** Lamaze breathing historically is considered the hallmark of Lamaze preparation for childbirth. Controlled breathing enhances relaxation and decreases the perception of pain. It is one of many comfort strategies taught in Lamaze classes. In restricted birthing environments, breathing may be the only non-pharmacological comfort strategy available to women. Conscious breathing and relaxation, especially in combination with a wide variety of comfort strategies, can help women avoid unnecessary medical intervention and have a safe, healthy birth.
- **Option B:** The term 'natural childbirth' derives from the title of a short 1933 treatise by Grantly Dick-Read. In this and several other books and articles published over the next quarter-century, the British-born physician outlined an alternative to the anesthetized, medically controlled way of birth common among Western women of privilege, based on the premise that fear lay at the root of pain in labor. For Dick-Read, whether or not a mother experienced pain in labor depended not on some property inherent to the physiology of parturition but on cultural attitudes to childbirth. Through education and relaxation, women could overcome what he termed the 'Fear–Tension–Pain' cycle and labor in comfort without resorting to medical intervention. Preparation for labor meant providing pregnant women with detailed instruction, from their physician, midwife, or qualified childbirth educator, on the physiology of pregnancy and birth, nutrition, exercise, hygiene, and infant care.

- **Option D:** In the late 1940s, Soviet scientists invented a new non-pharmacological method called the ‘psychoprophylactic method of painless childbirth’ (PPM), which later became well known as the Lamaze method in the West.1 This gift of Soviet science to the women of the world was based on the assumption that it was possible to eliminate the sensation of bodily pain during labor by training the mind of a pregnant woman before she gives birth.

72. A client is admitted to the hospital with a history of confusion. The client has difficulty remembering recent events and becomes disoriented when away from home. Which statement would provide the best reality orientation for this client?

A. “Good morning. Do you remember where you are?”

B. “Hello. My name is Elaine Jones and I am your nurse for today.”

C. “How are you today? Remember, you’re in the hospital.”

D. “Good morning. You’re in the hospital. I am your nurse Elaine Jones.”

Correct Answer: D. “Good morning. You’re in the hospital. I am your nurse Elaine Jones.”

As cognitive ability declines, the nurse provides a calm, predictable environment for the client. This response establishes time, location, and the caregiver’s name. Orient the patient to surroundings, staff, necessary activities as needed. Present reality concisely and briefly. Avoid challenging illogical thinking—defensive reactions may result.

- **Option A:** Modulate sensory exposure. Provide a calm environment; eliminate extraneous noise and stimuli. Increased levels of visual and auditory stimulation can be misinterpreted by the confused patient.
- **Option B:** Give simple directions. Allow sufficient time for the patient to respond, to communicate, to make decisions. This communication method can reduce anxiety experienced in a strange environment.
- **Option C:** Offer reassurance to the patient and use therapeutic communication at frequent intervals. Patient reassurance and communication are nursing skills that promote trust and orientation and reduce anxiety.

73. A child is seen in the emergency department for scarlet fever. Which of the following descriptions of scarlet fever is not correct?

A. Scarlet fever is caused by infection with group A Streptococcus bacteria.

B. "Strawberry tongue" is a characteristic sign.

C. Petechiae occur on the soft palate.

D. The pharynx is red and swollen.

Correct Answer: C. Petechiae occur on the soft palate.

Petechiae on the soft palate is characteristic of rubella infection.

- **Option A:** Bacteria called group A Streptococcus or group A strep cause scarlet fever. The bacteria sometimes make a poison (toxin), which causes a rash- the “scarlet” of scarlet fever. As the name “scarlet fever” implies, an erythematous eruption is associated with a febrile illness. The

circulating toxin, produced by GABHS and often referred to as erythemogenic or erythrogenic toxin, causes the pathognomonic rash as a consequence of local production of inflammatory mediators and alteration of the cutaneous cytokine milieu. This results in a sparse inflammatory response and dilatation of blood vessels, leading to the characteristic scarlet color of the rash.

- **Option B:** The tongue may have a “strawberry”-like (red and bumpy) appearance, which is a characteristic sign of scarlet fever. On day 1 or 2, the tongue is heavily coated with a white membrane through which edematous red papillae protrude (classic appearance of white strawberry tongue). By day 4 or 5, the white membrane sloughs off, revealing a shiny red tongue with prominent papillae (red strawberry tongue). Red, edematous, exudative tonsils are typically observed if the infection originates in this area.
- **Option D:** The throat and tonsils may be very red and sore with scarlet fever, and swallowing may be painful. The mucous membranes usually are bright red and scattered petechiae and small red papular lesions on the soft palate are often present.

74. Which of the following measures should the nurse focus on for the client with esophageal varices?

A. Recognizing hemorrhage.

B. Controlling blood pressure.

C. Encouraging nutritional intake.

D. Teaching the client about varices.

Correct Answer: A. Recognizing hemorrhage.

Recognizing the rupture of esophageal varices, or hemorrhage is the focus of nursing care because the client could succumb to this quickly. A patient with bleeding esophageal varices is to be considered in critical condition. Nursing management is aimed at assisting the physician in controlling bleeding and preventing shock and death.

- **Option B:** Controlling blood pressure is also important because it helps reduce the risk of variceal rupture. As portal pressure increases, blood backs up into the spleen and bypasses the liver, returning to the right atrium via collateral circulation. The result is splenomegaly, ascites, and varicosities of the collateral veins (esophageal and gastric varices).
- **Option C:** It is also important to teach the client what foods he should avoid such as spicy foods. Additional teaching includes abstaining from alcohol, eating a healthy diet, and adhering to short-term antibiotic therapy to prevent infection. Because rebleeding is common.
- **Option D:** It is also important to teach the client what varices are. Assess for ecchymosis, epistaxis, petechiae, and bleeding gums. Monitor level of consciousness, vital signs, and urinary output to evaluate fluid balance. Use small-gauge needles, and apply pressure or cold for bleeding.

75. A leukemia patient has a relative who wants to donate blood for transfusion. Which of the following donor medical conditions would prevent this?

A. A history of hepatitis C five years previously.

B. Cholecystitis requiring cholecystectomy one year previously.

C. Asymptomatic diverticulosis.

D. Crohn's disease in remission.

Correct Answer: A. A history of hepatitis C five years previously.

Hepatitis C is a viral infection transmitted through bodily fluids, such as blood, causing inflammation of the liver. Patients with hepatitis C may not donate blood for transfusion due to the high risk of infection in the recipient. Transmission can be parenteral, perinatal, and sexual, with the most common mode being the sharing of contaminated needles among IV drug users. Also, other high-risk groups include people who require frequent blood transfusions and organ transplantation of organs from infected donors.

- **Option B:** Cholecystitis is inflammation of the gallbladder that occurs most commonly because of an obstruction of the cystic duct by gallstones arising from the gallbladder (cholelithiasis). Ninety percent of cases of cholecystitis involve stones in the gallbladder (ie, calculous cholecystitis), with the other 10% of cases representing acalculous cholecystitis.
- **Option C:** Diverticular disease (diverticulosis, diverticulitis) is a general term that refers to the presence of diverticula, small pouches in the large intestinal (colonic) wall. The cause of diverticulosis is unclear, but it has been associated with increased pressure from constipation or increasing abdominal girth in obesity. The classic high-fat and low-fiber diet of the Western culture may be a major contributor to the development of diverticulosis.
- **Option D:** Crohn’s disease is an idiopathic, chronic inflammatory process that can affect any part of the gastrointestinal tract from the mouth to the anus. Crohn’s disease is believed to be the result of an imbalance between proinflammatory and anti-inflammatory mediators. Although genetic susceptibility, luminal antigenic drive, and environmental triggers are also important factors, animal models demonstrate that no single factor is sufficient to induce intestinal inflammation.

76. Referencing the image below, what is the name of the structure marked #3.

A. Minor calyx

B. Major calyx

C. Cortical blood vessels

D. Interlobal blood vessels

E. Arcuate blood vessels

F. Renal vein

G. Renal nerve

H. Renal artery

I. Renal pelvis

J. Renal pyramid

Correct answer: #3 is Option E. arcuate blood vessels

arcuate blood vessels are the arteries and veins that run parallel to the kidney surface at the corticomedullary junction, at the base of the pyramids. They are branches of the interlobar arteries and anastomose (connect) with each other to form a network of vessels that supply blood to the renal cortex and the renal medulla.

77. Which of the following organisms is the most common cause of urinary tract infection (UTI) in children?

A. Klebsiella

B. Staphylococcus

C. Escherichia coli

D. Pseudomonas

Correct Answer: C. Escherichia coli

E. coli is the most common organism associated with the development of UTI. Escherichia coli is the most common organism in uncomplicated UTI by a large margin. Pathogenic bacteria ascend from the perineum, causing the UTI. Women have shorter urethras than men and therefore are far more susceptible to UTI. Very few uncomplicated UTIs are caused by blood-borne bacteria.

- **Option A:** E.coli causes the vast majority of UTIs but other organisms of importance include proteus, klebsiella, and enterococcus. The diagnosis of UTI is made from the clinical history (symptoms) and urinalysis with confirmation by a urine culture, but the proper collection of the urine sample is important.
- **Option B:** Staphylococcus aureus is a major bacterial human pathogen that causes a wide variety of clinical manifestations. Infections are common both in community-acquired as well as hospital-acquired settings and treatment remains challenging to manage due to the emergence of multi-drug resistant strains such as MRSA (Methicillin-Resistant Staphylococcus aureus).
- **Option D:** Although Klebsiella, Staphylococcus, and Pseudomonas species may cause UTIs, the incidence of UTIs related to each is less than that for E. coli. Pseudomonas aeruginosa is commonly found in the environment, particularly in freshwater. It is commonly an opportunistic pathogen and is also an important cause of nosocomial infections like ventilator-associated pneumonia, catheter-associated urinary tract infections, and others.

78. Mrs. Eleanor, a 68-year-old former ballet dancer, is admitted to the rheumatology clinic for management of her gout. She has had recurrent episodes of painful joint inflammation, particularly in her feet. In light of her medical history and current presentation, her rheumatologist prescribes allopurinol to help manage her condition. Given Mrs. Eleanor's new medication regimen, what intervention should the nurse prioritize to ensure effective and safe management of her gout?

A. Assessing liver function regularly

B. Encouraging the patient to limit fluid intake

C. Administering colchicine before meals

D. Instructing the patient to avoid sunlight exposure

Correct Answer: A. Assessing liver function regularly.

Allopurinol is metabolized in the liver, and while rare, it can have hepatotoxic effects. Regularly monitoring liver function is important to ensure that the patient is not developing any adverse liver reactions to the medication.

- **Option B:** Patients on allopurinol should actually be encouraged to maintain adequate fluid intake to prevent kidney stone formation and assist in uric acid excretion. Reducing fluid intake would be contraindicated.
- **Option C:** While colchicine is another medication used in gout management, the question focuses on allopurinol. Furthermore, the timing of colchicine administration relative to meals is not critical to its absorption.
- **Option D:** While some medications can cause photosensitivity, allopurinol is not commonly associated with this side effect. Thus, this instruction would not be a priority for a patient on allopurinol.

79. Alice is using antiviral creams for her genital herpes. Which of the following is a potential side effect of the medication?

A. Vulvitis

B. Headache

C. Dizziness

D. Staining of the skin

Correct Answer: A. Vulvitis

Antiviral creams can cause vulvitis when applied to the genitalia to treat genital herpes. Acyclovir cream is used to treat cold sores (fever blisters; blisters that are caused by a virus called herpes simplex) on the face or lips. Acyclovir ointment is used to treat first outbreaks of genital herpes (a herpes virus infection that causes sores to form around the genitals and rectum from time to time) and to treat certain types of sores caused by the herpes simplex virus in people with weak immune systems.

- **Option B:** Acyclovir is in a class of antiviral medications called synthetic nucleoside analogues. It works by stopping the spread of the herpes virus in the body. Acyclovir does not cure cold sores or genital herpes, does not prevent outbreaks of these conditions, and does not stop the spread of these conditions to other people.
- **Option C:** Topical acyclovir comes as a cream and an ointment to apply to the skin. Acyclovir cream is usually applied five times a day for 4 days. Acyclovir cream may be applied at any time during a cold sore outbreak, but it works best when it is applied at the very beginning of a cold sore outbreak when there is tingling, redness, itching, or a bump but the cold sore has not yet formed.
- Option D: Acyclovir ointment is usually applied six times a day (usually 3 hours apart) for 7 days. It is best to begin using acyclovir ointment as soon as possible after the client experiences the first symptoms of infection. Follow the directions on the prescription label carefully, and ask the doctor or pharmacist to explain any part that is not understood.

80. A client is complaining of painful contractions, or after pains, on postpartum day 2. Which of the following conditions would increase the severity of afterpains?

A. Bottle-feeding

B. Diabetes

C. Multiple gestation

D. Primiparity

Correct Answer: C. Multiple gestation

Multiple gestation, multiparity, and conditions that cause overdistention of the uterus will increase the intensity of after-pains. Afterpain is a common phenomenon after vaginal delivery. Any factor that causes a delay in the process of uterus sub involution and consequently returning its size to pre-pregnancy status could affect the severity of afterpain.

- **Option A:** There was a positive correlation between the number of pregnancies and the duration of breastfeeding with mean score of afterpain. Also, the length of ambulation decreased the afterpain intensity. However, the intensity of afterpain had no significant relationship with stimulation with oxytocin in labor, prescription of methylergonovine, and also oxytocin after delivery. Considering that a longer duration of breastfeeding and ambulation in the early postpartum period could decrease afterpain, it is suggested to encourage postpartum mothers to begin breastfeeding and ambulation as soon as possible after birth.
- **Option B:** Diabetes has no correlation with afterpains. Afterpains (cramping) are the contractions of the uterus occurring in the days following childbirth. They are normal but can be uncomfortable. Afterpains are usually strongest on the second and third days following delivery, when the mother is breastfeeding or after she takes a uterus-contracting medication prescribed by her physician or midwife. Cramping is most noticeable after the birth of a second or third baby.
- **Option D:** After-pains are contractions that occur after labor and delivery. These contractions signal the process of involution, the process of the uterus shrinking back down to its pre-pregnancy size and shape. While after-pains are not a reason to worry, they can cause discomfort and even pain. After-pains can vary significantly from person to person. If this is not the first baby, the pain may be worse than experienced during previous pregnancies. For pain, the mother can use comfort measures like warm packs, massage of the fundus through the abdomen, and certain medications (with a practitioner's approval). Over-the-counter medication works well for most women.

81. Nurse Martinez is tending to Mr. Rodriguez, a 67-year-old patient with atrial fibrillation. He has been on digoxin (Lanoxin) 0.25 mg daily to control his heart rate. His cardiologist, aware of his medication regimen, has added metoprolol (Lopressor) 25 mg B.I.D to further manage his condition. Before Nurse Martinez administers the two medications, she carefully assesses Mr. Rodriguez's vital signs. Which of her findings would be of greatest concern and necessitate immediate communication with the cardiologist?

A. Blood pressure 94/60 mm Hg

B. Heart rate 76 bpm

C. Urine output 50 ml/hour

D. Respiratory rate 16 bpm

Correct Answer: A. Blood pressure 94/60 mm Hg

Both medications decrease the heart rate. Metoprolol affects blood pressure. Therefore, the heart rate and blood pressure must be within the normal range (HR 60-100; systolic BP over 100) in order to safely administer both medications. The combination of both medications might further decrease his blood pressure. This is a significant concern and should be reported.

- **Option B:** A heart rate of 76 is within the normal range.

- **Option C:** Increased urine output is the desired effect of diuretics, given with digoxin.
- **Option D:** A respiratory rate of 16 is within the normal range.

82. A client has been diagnosed with hypertension. The nurse priority nursing diagnosis would be:

A. Ineffective health maintenance

B. Impaired skin integrity

C. Deficient fluid volume

D. Pain

Correct Answer: A. Ineffective health maintenance

Managing hypertension is the priority for the client with hypertension. Clients with hypertension frequently do not experience pain, deficient volume, or impaired skin integrity. It is the asymptomatic nature of hypertension that makes it so difficult to treat. Monitor and record BP. Measure both arms and thighs three times, 3–5 min apart while the patient is at rest, then sitting, then standing for initial evaluation. Use correct cuff size and accurate technique.

- **Option B:** Impaired skin integrity is an inappropriate nursing diagnosis because there is no alteration in the skin in hypertension. Comparison of pressures provides a more complete picture of vascular involvement or scope of problem. Severe hypertension is classified in the adult as a diastolic pressure elevation to 110 mmHg; progressive diastolic readings above 120 mmHg are considered first accelerated, then malignant (very severe). Systolic hypertension also is an established risk factor for cerebrovascular disease and ischemic heart disease, when diastolic pressure is elevated.
- **Option C:** The client with hypertension experiences no fluid deficit. Note presence, quality of central and peripheral pulses. Bounding carotid, jugular, radial, and femoral pulses may be observed and palpated. Pulses in the legs and feet may be diminished, reflecting effects of vasoconstriction (increased systemic vascular resistance [SVR]) and venous congestion.
- **Option D:** There is no pain experienced in hypertension. Auscultate heart tones and breath sounds. S4 heart sound is common in severely hypertensive patients because of the presence of atrial hypertrophy (increased atrial volume and pressure). Development of S3 indicates ventricular hypertrophy and impaired functioning. Presence of crackles, wheezes may indicate pulmonary congestion secondary to developing or chronic heart failure.

83. A client presents to the emergency room, reporting that he has been vomiting every 30 to 40 minutes for the past 8 hours. Frequent vomiting puts him at risk for which of the following?

A. Metabolic acidosis with hyperkalemia

B. Metabolic acidosis with hypokalemia

C. Metabolic alkalosis with hyperkalemia

D. Metabolic alkalosis with hypokalemia

Correct Answer: D. Metabolic alkalosis with hypokalemia

Gastric acid contains large amounts of potassium, chloride, and hydrogen ions. Excessive loss of these substances, such as from vomiting, can lead to metabolic alkalosis and hypokalemia. Vomiting or nasogastric (NG) suction generates metabolic alkalosis by the loss of gastric secretions, which are rich in hydrochloric acid (HCl). Whenever a hydrogen ion is excreted, a bicarbonate ion is gained in the extracellular space.

- **Option A:** Hyperkalemia can be the direct cause of metabolic acidosis from its effects on multiple components of renal ammonia metabolism. The first major finding in these studies is that hyperkalemia itself causes reversible metabolic acidosis by inhibiting ammonia excretion.
- **Option B:** The most common cause for hypokalemia and metabolic acidosis is GI loss (eg, diarrhea, laxative use). Other less common etiologies include renal loss of potassium secondary to RTA or salt-wasting nephropathy. The urine pH, the urine AG, and the urinary K+ concentration can distinguish these conditions.
- **Option C:** The first clue to metabolic alkalosis is often an elevated bicarbonate concentration that is observed when serum electrolyte measurements are obtained. Remember that an elevated serum bicarbonate concentration may also be observed as a compensatory response to primary respiratory acidosis. However, a bicarbonate concentration greater than 35 mEq/L is almost always caused by metabolic alkalosis.

84. Which of the following is the most common kind of placental adherence seen in pregnant women?

A. Accreta

B. Placenta previa

C. Percreta

D. Increta

Correct Answer: A. Accreta

Placenta accreta is the most common kind of placental adherence seen in pregnant women and is characterized by slight penetration of myometrium.

- **Option B:** In placenta previa, the placenta does not embed correctly and results in what is known as a low-lying placenta. It can be marginal, partial, or complete in how it covers the cervical os, and it increases the patient's risk for painless vaginal bleeding during the pregnancy and/or delivery process.
- **Option C:** Placenta percreta leads to perforation of the uterus and is the most serious and invasive of all types of accrete.
- **Option D:** Placenta increta leads to deep penetration of the myometrium.

85. The nurse should observe for side effects associated with the use of bronchodilators. A common side effect of bronchodilators is:

A. Decreased urine output

B. Tremors

C. Vision changes

D. Hypotension

Correct Answer: B. Tremors

- Option B: Bronchodilators are medications that relax the muscles surrounding the airway. Common side effects of bronchodilators include nausea, dry mouth, increased heart rate, and tremors.
- Options A, C, and D: Decreased urine output, vision changes, and hypotension are signs of bronchodilator overdose.

86. A client taking the MAOI phenelzine (Nardil) tells the nurse that he routinely takes all of the medications listed below. Which medication would cause the nurse to express concern and therefore initiate further teaching?

A. Acetaminophen (Tylenol)

B. Diphenhydramine (Benadryl)

C. Furosemide (Lasix)

D. Isosorbide dinitrate (Isordil)

Correct Answer: B. Diphenhydramine (Benadryl)

Over-the-counter medications used for allergies and cold symptoms are contraindicated because they will increase the sympathomimetic effects of MAOIs, possibly causing a hypertensive crisis. In general, SSRIs, SNRIs, TCAs, bupropion, mirtazapine, St. John's Wort and sympathomimetic amines, including stimulants, are contraindicated with MAOIs. Tramadol, meperidine, dextromethorphan, and methadone are contraindicated in patients on MAOIs as they are at high risk for causing serotonin syndrome.

- **Option A:** Acetaminophen (APAP) is considered a non-opioid analgesic and antipyretic agent used to treat pain and fever. Clinicians can use it for their patients as a single agent for mild to moderate pain and in combination with an opioid analgesic for severe pain. Acetaminophen, also called N-acetyl para-aminophenol or paracetamol, is one of the most widely used over-the-counter analgesic and antipyretic agents. Although its exact mechanism of action remains unclear, it is historically categorized along with NSAIDs because it inhibits the cyclooxygenase (COX) pathways.
- **Option C:** The Food and Drug Administration (FDA) has approved the use of furosemide in the treatment of conditions with volume overload and edema secondary to congestive heart failure exacerbation, liver failure, or renal failure including the nephrotic syndrome. Furosemide inhibits tubular reabsorption of sodium and chloride in the proximal and distal tubules, as well as in the thick ascending loop of Henle by inhibiting sodium-chloride cotransport system resulting in excessive excretion of water along with sodium, chloride, magnesium, and calcium.
- **Option D:** Isosorbide is a nitrate that exerts its pharmacologic effect by releasing nitric oxide (NO), an endothelium-derived relaxing factor (EDRF).NO is endogenously produced in the endothelium to dilate the blood vessels. It is for the prevention or treatment of angina pectoris resulting from coronary artery disease; however, it is not recommended for use once the anginal episode has started because the onset of action is not sufficiently rapid enough to abort an acute anginal event. In the latter case, glyceryl trinitrate is preferable.

87. Which of the following strategies is not effective for the prevention of Lyme disease?

A. Insect repellant on the skin and clothes when in a Lyme endemic area.

B. Long sleeved shirts and long pants.

C. Prophylactic antibiotic therapy prior to anticipated exposure to ticks.

D. Careful examination of skin and hair for ticks following anticipated exposure.

Correct Answer: C. Prophylactic antibiotic therapy prior to anticipated exposure to ticks.

Prophylactic use of antibiotics is not indicated to prevent Lyme disease. Antibiotics are used only when symptoms develop following a tick bite. Specific treatment is dependent upon the age of the patient and stage of the disease. For patients older than 8 years of age with early, localized disease, doxycycline is recommended for 10 days. Patients under the age of 8 should receive amoxicillin or cefuroxime for 14 days to avoid the potential for tooth staining caused by tetracycline use in young children.

- **Option A:** Insect repellant should be used on skin and clothing when exposure is anticipated. While there are many repellants on the market, it is best to avoid them as the risk of harm is greater than any benefit. If one is going to use a repellant, DEET is the one product that is safe, however, it is not 100% effective.
- **Option B:** Clothing should be designed to cover as much exposed area as possible to provide an effective barrier. The outdoors person should be told to wear appropriate garments and be familiar with the skin features of the tick bite. The nurse should educate the patient on how to remove the tick from the skin and when to seek medical assistance.
- **Option D:** Close examination of skin and hair can reveal the presence of a tick before a bite occurs. Nurses should educate parents on how to inspect their children for ticks at the end of an outdoor event, in an endemic area. Pets can also develop Lyme disease and carry the tick. Hence, pet owners should examine their pets on a regular basis and remove the tick. There is no risk of acquiring Lyme disease by removing the tick.

88. A 72-year-old client presents to the emergency department post a minor fall at home, now manifesting a significant loss of coordination in motor movements and a staggering, wide-based gait. The patient's family reports a progressive worsening of these symptoms over the last few months, along with a recent history of tremors. Neurological examination reveals dysdiadochokinesia and intention tremor. Given the symptomatology and the clinical presentation, an intrinsic lesion or degenerative condition affecting which of the following brain regions is most likely responsible for the observed motor abnormalities?

A. Medulla Oblongata

B. Cerebrum

C. Pons

D. Cerebellum

Correct Answer: D. Cerebellum
The cerebellum is primarily involved in the coordination of voluntary motor movements, balance, and proprioception. Pathology affecting the cerebellum, such as degenerative conditions or intrinsic lesions, can result in a characteristic ataxic gait, intention tremors, and other signs of cerebellar dysfunction as demonstrated in this patient. The cerebellum's role in fine-tuning motor movements and ensuring smooth, coordinated actions makes it the most likely site of pathology given the clinical presentation.

- **Option A:** The medulla oblongata is a critical area of the brainstem involved in autonomic control including cardiac and respiratory function, as well as reflexive functions such as coughing,

vomiting, and sneezing. While damage to the medulla can result in severe neurologic deficits, it's not typically associated with the loss of coordination and wide-based gait observed in the patient.

- **Option B:** The cerebrum is involved in multiple higher-order functions including voluntary motor movements, sensory perception, and cognitive functions. While certain lesions or conditions affecting the motor cortex or other regions of the cerebrum can lead to motor abnormalities, the specific pattern of ataxia, dysdiadochokinesia, and intention tremor is more characteristic of cerebellar dysfunction.
- **Option C:** The pons is a part of the brainstem that relays information between the cerebrum and the cerebellum, and houses nuclei important for cranial nerve function and arousal. While it plays a role in some motor functions via pontine nuclei, it is not the primary site implicated in the observed motor coordination deficits and ataxic gait.

89. Which of the following groups of newborn reflexes below are present at birth and remain unchanged through adulthood?

A. Blink, cough, rooting, and gag

B. Blink, cough, sneeze, gag

C. Rooting, sneeze, swallowing, and cough

D. Stepping, blink, cough, and sneeze

Correct Answer: B. Blink, cough, sneeze, gag

Blink, cough, sneeze, swallowing and gag reflexes are all present at birth and remain unchanged through adulthood. Reflexes such as rooting and stepping subside within the first year.

- **Option A:** The rooting reflex is one of the involuntary primitive motor reflexes, which are also known as the frontal release reflexes, that are mediated by the brainstem. It initiates when the corner of an infant's mouth is stimulated. When the mouth is touched or stroked, the newborn will turn his or her head towards the stimulus and open the mouth with tongue thrusting. The rooting reflex is present at birth (approximately 28 weeks) and lasts about 4 to 6 months until the frontal lobe of the cerebral cortex develops and suppresses the primitive motor reflexes.
- **Option C:** The rooting reflex is essential for survival and growth for it helps the newborn find the source of food (breast or bottle) and initiate feeding. As the frontal lobe matures, the primitive reflexes are replaced with voluntary motor functions. The age when each primitive reflex disappears varies.
- **Option D:** The stepping reflex is also called the walking or dance reflex because a baby appears to take steps or dance when held upright with his or her feet touching a solid surface. This reflex lasts about 2 months.

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

A. Milk and dairy products

B. Protein-containing foods

C. Cereal grains (except rice and corn)

D. Carbohydrates

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

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

- **Option A:** Most dairy products are naturally gluten-free. However, those that are flavored and contain additives should always be double-checked for gluten. Some common gluten-containing ingredients that may be added to dairy products include thickeners, malt, and modified food starch.
- **Option B:** Many foods contain protein, including animal and plant-based sources. Most are naturally gluten-free. However, gluten-containing ingredients, such as soy sauce, flour, and malt vinegar are often used as fillers or flavorings. They may be added to sauces, rubs, and marinades that are commonly paired with protein sources.
- **Option D:** Wheat, rye, and barley are the major foods that need to be avoided while following a gluten-free diet. Gluten is also commonly added to processed foods, such as canned and boxed items.

91. What are the stages of dying according to Elizabeth Kubler-Ross?

A. Numbing; yearning and searching; disorganization and despair; and reorganization.

B. Accepting the reality of loss, working through the pain of grief, adjusting to the environment without the deceased, and emotionally relocating the deceased and moving on with life.

C. Anticipatory grief, perceived loss, actual loss, and renewal.

D. Denial, anger, bargaining, depression, and acceptance.

Correct Answer: D. Denial, anger, bargaining, depression, and acceptance.

The most commonly taught system for understanding the process of dying was introduced by Dr. Elizabeth Kubler-Ross in her 1969 book, On Death and Dying. The book explored the experience of dying through interviews with terminally ill patients and described Five Stages of Dying: Denial, Anger, Bargaining, Depression, and Acceptance (DABDA). The model, which was the result of a qualitative and experiential study, was purposely personal and subjective and should not be interpreted as natural law. Rather, the stages provide a heuristic for patterns of thought and behavior, common in the setting of terminal illness, which may otherwise seem atypical.

- **Option A:** Bowlby and Parkes proposed a reformulated theory of grief based in the 1980s. Their work is based on Kubler-Ross' model. Their model has 4 stages and emphasizes that the grieving process is not linear.
- **Option B:** Woden's model of grief does not rely on stages but instead states that 4 tasks must be completed by the patient to complete bereavement. These tasks do not occur in any specific order. The grieving person may work on a task intermittently until it is complete. This model is more applicable to the grief of a survivor but may also be applied to a patient-facing death.
- **Option C:** Anticipatory grief is the name given to the tumultuous set of feelings and reactions that occur when someone is expecting the death of a loved one. These emotions can be just as intense as the grief felt after a death. The most important thing to remember is that anticipatory grief is a normal process, even if it's not discussed as often as regular grief.

92. The amniotic fluid of a client has a greenish tint. The nurse interprets this to be the result of which of the following?

A. Lanugo

B. Hydramnios

C. Meconium

D. Vernix

Correct Answer: C. Meconium

The greenish tint is due to the presence of meconium. Meconium is a thick, green, tar-like substance that lines the baby's intestines during pregnancy. Typically this substance is not released in the baby's bowel movements until after birth. However, sometimes a baby will have a bowel movement prior to birth, excreting the meconium into the amniotic fluid.

- **Option A:** Lanugo is the soft, downy hair on the shoulders and back of the fetus. This downy, unpigmented hair is the first type of hair that grows from hair follicles. It can be found everywhere on a baby's body, except on the palms, lips, and soles of the feet. Most fetuses develop lanugo around the fourth or fifth month of pregnancy.
- **Option B:** Hydramnios represents excessive amniotic fluid.
- **Option D:** Vernix is the white, cheesy substance covering the fetus. It is produced by dedicated cells and is thought to have some protective roles during fetal development and for a few hours after birth.

93. A client with avoidant personality disorder says occupational therapy is boring and doesn't want to go. Which action would be best?

A. State firmly that you'll escort him to OT.

B. Arrange with OT for the client to do a project on the unit.

C. Ask the client to talk about why OT is boring.

D. Arrange for the client not to attend OT until he is feeling better.

Correct Answer: A. State firmly that you'll escort him to OT.

If given the chance, a client with avoidant personality disorder typically elects to remain immobilized. The nurse should insist that the client participates in OT. Expand limits by clarifying expectations for clients in a number of settings. When time is taken in initial meetings to clarify expectations, confrontations, and power struggles with clients can be minimized and even avoided.

- **Option B:** In a respectful, neutral manner, explain expected client behaviors, limits, and responsibilities during sessions with nurse clinician. Clearly state the rules and regulations of the institution, and the consequences when these rules are not adhered to. From the beginning, clients need to have explicit guidelines and boundaries for expected behaviors on their part, as well as what the client can expect from the nurse. Clients need to be fully aware that they will be held responsible for their behaviors.
- **Option C:** Addressing an invalid issue such as the client's perceived boredom avoids the real issue: the client's need for therapy. Understand that PD clients, in particular, will be resistant to

change and that this is symptomatic of PDs. This is particularly true in the beginning phases of therapy.

- **Option D:** Arranging for the client to do a project on the unit validates and reinforces the client's desire to avoid getting to OT. Responding to client's resistance and seeming lack of change in a neutral manner is part of the foundation for trust. In other words, the nurse does not have a vested interest in the client "getting better.". The nurse remains focused on the client's needs and issues in any event.

94. A client with heart failure has been told to maintain a low sodium diet. A nurse who is teaching this client about foods that are allowed includes which food item in a list provided to the client?

A. Pretzels

B. Whole wheat bread

C. Tomato juice canned

D. Dried apricot

Correct Answer: D. Dried apricot

Foods that are lower in sodium include fruits and vegetables like dried apricot. Dried apricots are sodium-free. Dried apricots, as part of a low sodium diet, may reduce the risk of high blood pressure. Apricots contain numerous antioxidants, most notably flavonoids. They help protect the body from oxidative stress, which is linked to many chronic diseases.

- **Option A:** These classic snacks are high in sodium — almost 20 percent of the recommended daily intake is in one serving of pretzels. Too much sodium leads to increased water retention, which can lead to bloating and puffiness, and too much sodium over time can lead to heart disease.
- **Option B:** Sodium is finding its way into a lot of whole wheat bread brands in amounts that average 240 to 400 mg per slice. If your serving usually contains two slices, the sodium can add up quickly.
- **Option C:** Many tomato juice products contain added salt — which bumps up the sodium content. For example, a 1.4-cup (340-ml) serving of Campbell's 100% tomato juice contains 980 mg of sodium — which is 43% of the DV. Research shows that diets high in sodium may contribute to high blood pressure.

95. The client with Alzheimer's disease is being assisted with activities of daily living when the nurse notes that the client uses her toothbrush to brush her hair. The nurse is aware that the client is exhibiting:

A. Agnosia

B. Apraxia

C. Anomia

D. Aphasia

Correct Answer: A. Agnosia

Agnosia is the term used to describe the loss of the ability to recognize what objects are and what they are used for. For an instance, a person with agnosia might try to use a fork instead of a spoon, a shoe

instead of a cup or a knife instead of a pencil etc. With regard to people, this might involve failing to recognize who people are, not due to memory loss but rather as a result of the brain not working out the identity of a person on the basis of the information supplied by the eyes.

- **Option B:** Apraxia is the term used to describe the failure to carry out voluntary and purposeful movements notwithstanding the fact that muscular power, sensibility, and coordination are intact. In everyday terms, this might involve the inability to tie shoelaces, turn a tap on, fasten buttons or switch on a radio.
- **Option C:** Aphasia is the term used to describe a difficulty or loss of the ability to speak or understand spoken, written or sign language as a result of damage to the corresponding nervous center. This can become apparent in a number of ways. It might involve exchanging a word which is linked by meaning (e.g. time instead of clock), using the wrong word but one which sounds alike (e.g. boat instead of coat) or using a totally different word with no apparent connection. When accompanied by echolalia (the involuntary repetition of words or phrases spoken by another person) and the constant repetition of a word or phrase, the result can be a form of speech which is difficult for others to understand or a kind of jargon.
- **Option D:** Anomia is a form of aphasia in which the patient is unable to recall the names of everyday objects. Anomic aphasia is a language disorder that leads to trouble naming objects when speaking and writing. Brain damage caused by stroke, traumatic injury, or tumors can lead to anomic aphasia.

96. Which phase of hepatitis would the nurse incur strict precautionary measures at?

A. Icteric

B. Non-icteric

C. Post-icteric

D. Pre-icteric

Correct Answer: D. Pre-icteric

Pre-icteric is the infective phase and precautionary measures should be strictly enforced. However, most patients are not always diagnosed during this phase. Nonspecific symptoms occur; they include profound anorexia, malaise, nausea and vomiting, a newly developed distaste for cigarettes (in smokers), and often fever or right upper quadrant abdominal pain. Urticaria and arthralgias occasionally occur, especially in HBV infection.

- **Option A:** During the icteric phase, precautionary measures should already be in place. After 3 to 10 days, the urine darkens, followed by jaundice. Systemic symptoms often regress, and patients feel better despite worsening jaundice. The liver is usually enlarged and tender, but the edge of the liver remains soft and smooth. Mild splenomegaly occurs in 15 to 20% of patients. Jaundice usually peaks within 1 to 2 weeks.
- **Option B:** There is no non-icteric phase. Some manifestations of acute hepatitis are virus-specific, but in general, acute infection tends to develop in predictable phases. Acute viral hepatitis is a common, worldwide disease that has different causes; each type shares clinical, biochemical, and morphologic features. The term acute viral hepatitis often refers to infection of the liver by one of the hepatitis viruses.
- **Option C:** During the post-icteric phase, precautionary measures should already be in place. During this 2- to 4-week period, jaundice fades. Appetite usually returns after the first week of symptoms. Acute viral hepatitis usually resolves spontaneously 4 to 8 weeks after symptom onset.

97. Which early morning activity helps to reduce the symptoms associated with rheumatoid arthritis?

A. Cold shower

B. Plyometrics

C. Using wide-gripped utensils during breakfast

D. Running in the park

Correct Answer: C. Using wide-gripped utensils during breakfast

- Option C: Adaptive devices such as wide-gripped utensils can ease the strain on the painful hands during breakfast.
- Option A: A hot shower, instead of cold is more beneficial in relieving joint stiffness caused by RA.
- Options B, and D: These high impact activities do not relieve the symptoms of rheumatoid arthritis since they can cause joint strain.

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

A. Digoxin level

B. Sodium level

C. Potassium level

D. Creatinine level

Correct Answer: C. Potassium level

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

- **Option A:** Digoxin has a narrow therapeutic index. The recommended serum levels stand between 0.8 to 2 ng/mL. When measuring a digoxin serum level, it is essential to draw blood at least 6 to 8 hours after the last dose. The toxicity increases as the serum drug levels increase above 2.0 ng/mL.
- **Option B:** According to Beers Criteria, caution is necessary when administering diuretics to patients 65 years and older to avoid potential adverse effects of inducing hyponatremia by causing or exacerbating syndrome of inappropriate antidiuretic hormone secretion (SIADH); therefore, close monitoring of serum sodium is advisable at initiation or during the dose adjustment in older adults.
- **Option D:** In patients with an advanced renal disease with fluid overload the patients should be closely monitored for oliguria, azotemia, and volume status; and if either oliguria or azotemia

develops the furosemide should be discontinued to prevent kidney injury.

99. Which action represents the appropriate nursing management of a client wearing a condom catheter?

A. Ensure that the tip of the penis fits snugly against the end of the condom.

B. Check the penis for adequate circulation 30 min after applying.

C. Change the condom every 8 hours.

D. Tape the collecting tube to the lower abdomen.

Correct Answer: B. Check the penis for adequate circulation 30 min after applying

The penis and condom should be checked 1/2 hour after application to ensure that it's not too tight. and the tubing is taped to the leg or attached to a leg bag. Condom catheters are external urinary catheters that are worn like a condom. They collect urine as it drains out of your bladder and send it to a collection bag strapped to your leg. They're typically used by men who have urinary incontinence (can't control their bladder).

- **Option A:** A 1 in. space should be left between the penis and the end of the condom. Place the condom over the tip of the penis and slowly unroll it until it gets to the base. Leave enough room at the tip (1 to 2 inches) so it won't rub against the condom.
- **Option C:** The condom is changed every 24h. Condom catheters should be replaced every 24 hours. Throw away the old one unless it's designed to be reusable. The collection bag should be emptied when it's about half full or at least every three to four hours for a small bag and every eight hours for a large one.
- **Option D:** An indwelling catheter is taped to the lower abdomen or upper thigh. Use a nonadhesive condom catheter to help prevent irritation from adhesive. An inflatable ring holds it in place. Keep the bag lower than the bladder to avoid backflow of urine from the bag. Securely attach the tube to the leg (below the knee, such as the calf), but leave a little slack so it doesn't pull on the catheter.

100. A priority nursing diagnosis for a child being admitted from surgery following a tonsillectomy is:

A. Body image disturbance

B. Impaired verbal communication

C. Risk for aspiration

D. Pain

Correct Answer: C. Risk for aspiration

Always remember your ABCs (airway, breathing, circulation) when selecting an answer. Place the child prone or side-lying position. Promotes drainage of blood and unswallowed saliva from the mouth that can potentially be aspirated.

- **Option A:** Does not apply for a child who has undergone a tonsillectomy. Assess for signs and symptoms of inadequate oxygenation. Early signs of hypoxia include confusion, irritability, headaches, pallor, tachycardia, and tachypnea.

- **Option B:** Observe the child for nonverbal indications of pain such as crying, grimacing, irritability. Provides additional information about pain. The child may find discomfort in speaking.
- **Option D:** Although these nursing diagnoses might be appropriate for this child, risk for aspiration should have the highest priority. Apply an ice collar on the neck or encourage the child to eat popsicles. Cold promotes vasoconstriction and decreases swelling that contributes to pain.