

Kevin's Review - 100 NCLEX Practice Questions

1. During eyedrop instillation, which intervention would the nurse perform to prevent systemic adverse effects from drug absorption?

- A. Applying pressure on the eyelid rim.
- B. Having the client close his eyes tightly.
- C. Placing the client in the supine position for a few minutes.
- D. Applying pressure on the inner canthus.

Correct Answer: D. Applying pressure on the inner canthus.

Systemic absorption and subsequent adverse effects may occur if the medication enters the nasolacrimal canal. The nurse, therefore, applies pressure to the inner canthus, causing occlusion of this canal and minimizing the risk for systemic adverse effects. Systemic absorption (SA) of eye drops and ointments occurs via the conjunctival blood vessels or the nasal mucosa. This is a particular issue when drugs such as beta-blockers are prescribed (Marsden, 2007).

- **Option A:** Applying pressure on the eyelid rim would not occlude this canal. For example, the beta-blocker timolol can cause bronchoconstriction, hypotension, bradycardia, nausea, diarrhea, anxiety, depression, hallucinations, and fatigue. These effects can be reduced through the use of punctal occlusion (keeping the eye closed for a slow count of 60) after administration.
- **Option B:** Having the client close his eyes tightly may cause some of the medication to be expelled. Alternatively, the patient can apply digital pressure to the tear drainage system at the nasal corner of the closed eyelids. These techniques minimize the amount of drug being taken into the nasolacrimal system and into the systemic circulation.
- **Option C:** Positioning has no effect on the blood flow of medication into the nasolacrimal canal and subsequent absorption. Position the patient comfortably, either sitting or lying down (semi-prone or recumbent) with the head supported.

2. Nurse Maureen is developing a plan of care for a female client with anorexia nervosa. Which action should the nurse include in the plan?

- A. Provide privacy during meals.
- B. Set-up a strict eating plan for the client.
- C. Encourage the client to exercise to reduce anxiety.
- D. Restrict visits with the family.

Correct Answer: B. Set-up a strict eating plan for the client

Establishing a consistent eating plan and monitoring the client's weight are important to this disorder. Supervise the patient during mealtimes and for a specified period after meals (usually one hour). To ensure compliance with the dietary treatment program. For a hospitalized patient with anorexia, food is considered a medication. Maintain a regular weighing schedule, such as Monday and Friday before breakfast in the same attire, and graph results. Provides an accurate ongoing record of weight loss or gain. Also diminishes obsessing about changes in weight.

- **Option A:** Use a consistent approach. Sit with the patient while eating; present and remove food without persuasion and comment. Promote a pleasant environment and record intake. Patient detects urgency and may react to pressure. Any comment that might be seen as coercion provides focus on food. When staff responds in a consistent manner, the patient can begin to trust staff

responses. The single area in which the patient has exercised power and control is food or eating, and he or she may experience guilt or rebellion if forced to eat. Structuring meals and decreasing discussions about food will decrease power struggles with the patient and avoid manipulative games.

- **Option C:** Monitor exercise program and set limits on physical activities. Chart activity and level of work (pacing and so on). Moderate exercise helps in maintaining muscle tone, weight and combating depression; however, the patient may exercise excessively to burn calories.
- **Option D:** Discourage members from asking for approval from each other. Be alert to verbal or nonverbal checking with others for approval. Acknowledge the competent actions of the patient. Each individual needs to develop own internal sense of self-esteem. The individual often is living up to others' (family's) expectations rather than making his or her own choices. Acknowledgment provides recognition of self in positive ways.

3. A 32-year-old mother of three is brought to the clinic. Her pulse is 52, there is a weight gain of 30 pounds in 4 months, and the client is wearing two sweaters. The client is diagnosed with hypothyroidism. Which of the following nursing diagnoses is of highest priority?

- A. Impaired physical mobility related to decreased endurance
- B. Hypothermia r/t decreased metabolic rate
- C. Disturbed thought processes r/t interstitial edema
- D. Decreased cardiac output r/t bradycardia

Correct Answer: D. Decreased cardiac output r/t bradycardia

The decrease in pulse can affect the cardiac output and lead to shock, which would take precedence over the other choices. Protect against coldness. Provide extra layers of clothing or extra blankets. Discourage and avoid the use of external heat sources. Monitor patient's body temperature.

- **Option A:** Impaired physical mobility is not applicable to a client with hypothyroidism. Promote rest. Space activities to promote rest and exercise as tolerated. Assess the client's ability to perform activities of daily living (ADLs). The client may experience fatigue with minimal exertion due to a slow metabolic rate. This symptom hinder the client's ability to perform daily activities (e.g., self-care, eating)
- **Option B:** Hypothermia is correct but not a priority. Teach the expected benefits and possible side effects. The client should report symptoms such as chest pain/palpitations; these happen due to the increased metabolic and oxygen consumption.
- **Option C:** Disturbed thought processes is not a related diagnosis. Assess the client's appetite. Clients with hypothyroidism have decreased appetite. This opposite relationship between weight gain and decreased appetite is a manifestation found in hypothyroidism.

4. Kris with a history of chronic infection of the urinary system complains of urinary frequency and burning sensation. To figure out whether the current problem is of renal origin, the nurse should assess whether the client has discomfort or pain in the:

- A. Urinary meatus

- B. Pain in the labium
- C. Suprapubic area
- D. Right or left costovertebral angle

Correct Answer: D. Right or left costovertebral angle

Discomfort or pain is a problem that originates in the kidney. It is felt at the costovertebral angle on the affected side. Flank or costovertebral angle (CVA) tenderness is most commonly unilateral over the involved kidney, although bilateral discomfort may be present. Discomfort varies from absent to severe. This finding is usually not subtle and may be elicited with mild or moderately firm palpation.

- **Option A:** Pain or discomfort in the urinary meatus can also be indicative of urethritis or acute urinary tract infection. In both men and women, common causes of urethral pain include sexually transmitted diseases (STDs) such as chlamydia, local irritation from soaps or spermicides, and urinary tract infections (UTIs). In men, prostatitis isn't an uncommon cause, whereas in women, vaginal dryness due to menopause can be an issue.
- **Option B:** Pain in the labium can be due to a swollen labia or vulva. Chronic yeast infections and bacterial infections can both cause pain that ranges from mild discomfort and itching to severe burning or throbbing. Viral and bacterial infections, such as bacterial vaginosis and the herpes simplex virus, can also cause vulvar pain or discomfort.
- **Option C:** Suprapubic pain has a wide variety of causes, and can include pyelonephritis, perinephric abscess, and nephrolithiasis. Gynecological causes are common with suprapubic pain. Suprapubic pain happens in the lower abdomen near where the hips and many important organs, such as the intestines, bladder, and genitals, are located. Suprapubic pain can have a wide variety of causes, so the doctor may need to do tests of vital functions before diagnosing the underlying cause.

5. Magnesium reabsorption is controlled by:

- A. Loop of Henle
- B. Glomerulus
- C. Pituitary
- D. Parathyroid hormone

Correct Answer: A. Loop of Henle

The Loop of Henle is responsible for magnesium reabsorption. The loop of Henle appears to be the major nephron site where magnesium reabsorption is controlled. The principal factors which alter magnesium reabsorption in the loop include parathyroid hormone, changes in plasma magnesium and calcium concentration and loop diuretics.

- **Option B:** The glomerulus, in contrast to the majority of other capillary beds, sits between two arterioles; receiving blood supply from the upstream afferent arteriole, and blood exiting downstream via the efferent arterioles (E for exit).
- **Option C:** The pituitary endocrine gland, which is located in the bony sella turcica, is attached to the base of the brain and has a unique connection with the hypothalamus. The pituitary gland consists of two anatomically and functionally distinct regions, the anterior lobe (adenohypophysis) and the posterior lobe (neurohypophysis). Between these lobes lies a small region called the intermediate lobe. The hypothalamus regulates the pituitary gland secretion

- **Option D:** The parathyroid gland secretes parathyroid hormone (PTH), a polypeptide, in response to low calcium levels detected in the blood. PTH facilitates the synthesis of active vitamin D, calcitriol (1,25-dihydroxycholecalciferol, or vitamin D3) in the kidneys. In conjunction with calcitriol, PTH regulates calcium and phosphate.

6. A client is scheduled for an Intravenous Pyelogram (IVP). In order to prepare the client for this test, the nurse would:

- A. Instruct the client to maintain a regular diet the day prior to the examination.
- B. Restrict the client's fluid intake 4 hours prior to the examination.
- C. Administer a laxative to the client the evening before the examination.
- D. Inform the client that only 1 x-ray of his abdomen is necessary.

Correct Answer: C. Administer a laxative to the client the evening before the examination

Bowel prep is important because it will allow greater visualization of the bladder and ureters. Intravenous pyelogram (IVP) is an x-ray exam that uses an injection of contrast material to evaluate the kidneys, ureters, and bladder and help diagnose blood in the urine or pain in the side or lower back. An IVP may provide enough information to allow the doctor to treat with medication and avoid surgery.

- **Option A:** Eating and drinking the night before the exam should be avoided.
- **Option B:** Restriction of fluids on the night before the exam should be emphasized.
- **Option D:** An intravenous pyelogram is an x-ray of the kidneys, ureters, and urinary bladder that uses iodinated contrast material injected into veins.

7. A 67-year-old client develops acute shortness of breath and progressive hypoxia requiring right femur. The hypoxia was probably caused by which of the following conditions?

- A. Asthma attack
- B. Atelectasis
- C. Bronchitis
- D. Fat embolism

Correct Answer: D. Fat embolism

Long bone fractures are correlated with fat emboli, which cause shortness of breath and hypoxia.

- **Option A:** Asthma attacks do not develop following a femoral fracture.
- **Option B:** He could develop atelectasis but it typically doesn't produce progressive hypoxia.
- **Option C:** It's unlikely the client has developed bronchitis without a previous history.

8. Direct-acting vasodilators have which of the following effects on the heart rate?

- A. Heart rate decreases.

- B. Heart rate remains significantly unchanged.
- C. Heart rate increases.
- D. Heart rate becomes irregular.

Correct Answer: A. Heart rate decreases.

Heart rate decreases in response to decreased blood pressure caused by vasodilation. Hydralazine and minoxidil act by dilating resistance arterioles, thus reducing peripheral resistance, with no dilating effect on the venous side of the circulation. There is a baroreflex-mediated venoconstriction, resulting in an increase in venous return to the heart, along with a direct catecholamine-mediated positive inotropic and chronotropic stimulation of the heart.

- **Option B:** In general, Vasodilators dilate or prevent constriction of the blood vessels, which allow greater blood flow to various organs in the body. Many vasodilators bind to receptors on endothelial cells of the blood vessel, which stimulate calcium release.
- **Option C:** Anticholinergics are used to increase heart rate through vagolytic effects, causing increase in cardiac output. These agents are indicated when symptoms of hypoperfusion exist. They are thought to work centrally by suppressing conduction in the vestibular cerebellar pathways. They may have an inhibitory effect on the parasympathetic nervous system.
- **Option D:** Antiarrhythmic medications have several areas of concern. First and foremost, most agents also have some degree of proarrhythmic potential. Practically speaking, while trying to suppress arrhythmias with the medications, the medications themselves, can lead to other (potentially more dangerous) arrhythmias.

9. What is the priority nursing diagnosis for a patient experiencing a migraine headache?

- A. Acute pain related to biologic and chemical factors
- B. Anxiety related to change in or threat to health status
- C. Hopelessness related to deteriorating physiological condition
- D. Risk for Side effects related to medical therapy

Correct Answer: A. Acute pain related to biologic and chemical factors

The priority for interdisciplinary care for the patient experiencing a migraine headache is pain management.

- **Option B:** Anxiety is a correct diagnosis, but it is not the priority. Tension headaches are common for people that struggle with severe anxiety or anxiety disorders. Tension headaches can be described as a heavy head, migraine, head pressure, or feeling like there is a tight band wrapped around their head. These headaches are due to a tightening of the neck and scalp muscles.
- **Option C:** Hopelessness should be addressed as part of the nursing care plan, but it does not require urgency. Hopelessness can result when someone is going through difficult times or unpleasant experiences. A person may feel overwhelmed, trapped, or insecure, or may have a lot of self-doubts due to multiple stresses and losses. He or she might think that challenges are unconquerable or that there are no solutions to the problems and may not be able to mobilize the energy needed to act on his or her own behalf.
- **Option D:** The risk for side effects is accurate, but it is not as urgent as the issue of pain, which is often incapacitating. Focus: Prioritization

10. You are preparing to admit a patient with a seizure disorder. Which of the following actions can you delegate to LPN/LVN?

- A. Complete admission assessment
- B. Set up oxygen and suction equipment
- C. Place a padded tongue blade at the bedside
- D. Pad the side rails before the patient arrives

Correct Answer: B. Set up oxygen and suction equipment

The LPN/LVN can set up the equipment for oxygen and suction.

- **Option A:** The RN should perform the complete initial assessment.
- **Option C:** Tongue blades should not be at the bedside and should never be inserted into the patient's mouth after a seizure begins.
- **Option D:** Padded side rails are controversial in terms of whether they actually provide safety and may embarrass the patient and family.

11. The most common psychogenic disorder among elderly person is:

- A. Depression
- B. Sleep disturbances (such as bizarre dreams)
- C. Inability to concentrate
- D. Decreased appetite

Correct Answer: A. Depression

Depression typically begins before the onset of old age and usually is caused by psychosocial, genetic, or biochemical factors. Depression is a common problem among older adults, but it is NOT a normal part of aging. In fact, studies show that most older adults feel satisfied with their lives, despite having more illnesses or physical problems. However, important life changes that happen as we get older may cause feelings of uneasiness, stress, and sadness. Sometimes older people who are depressed appear to feel tired, have trouble sleeping, or seem grumpy and irritable. Confusion or attention problems caused by depression can sometimes look like Alzheimer's disease or other brain disorders.

- **Option B:** Primary sleep disorders are more common in the elderly than in younger persons. Restless legs syndrome and periodic limb movement disorder can disrupt sleep and may respond to low doses of antiparkinsonian agents as well as other drugs. Sleep apnea can lead to excessive daytime sleepiness.
- **Option C:** A study finds that seniors' attention shortfall is associated with the locus coeruleus, a tiny region of the brainstem that connects to many other parts of the brain. The locus coeruleus helps focus brain activity during periods of stress or excitement. Increased distractibility is a sign of cognitive aging.
- **Option D:** Sleep disturbances, inability to concentrate, and decreased appetite are symptoms of depression, the most common psychogenic disorder among elderly persons. Other symptoms include diminished memory, apathy, disinterest in appearance, withdrawal, and irritability.

12. A client is diagnosed with prostate cancer. Which test is used to monitor the progression of this disease?

- A. Serum creatinine
- B. Complete blood cell count (CBC)
- C. Prostate-specific antigen (PSA)
- D. Serum potassium

Correct Answer: C. Prostate-specific antigen (PSA)

The PSA test is used to monitor prostate cancer progression; higher PSA levels indicate a greater tumor burden. Elevated Prostate-Specific Antigen (PSA) levels (usually greater than 4 ng/ml) in the blood is how 80% of prostate cancers initially present even though elevated PSA levels alone correctly identify prostate cancer only about 25% to 30% of the time. We recommend at least 2 abnormal PSA levels or the presence of a palpable nodule on DRE to justify a biopsy and further investigation.

- **Option A:** Serum creatinine levels may suggest blockage from an enlarged prostate. The percentage of free PSA in the blood can be a useful indicator of malignancy. If the total PSA is between 4 and 10 ng/ml, a free PSA percentage is considered valid. The free PSA percentage is calculated by multiplying the free PSA level by 100 and dividing by the total PSA value.
- **Option B:** CBC is used to diagnose anemia and polycythemia. Prostate Cancer Antigen 3 (PCA3) is an RNA-based genetic test performed from a urine sample obtained immediately after a prostate massage. PCA3 is a long, non-coding RNA molecule that is overexpressed exclusively in prostatic malignancies. It is upregulated 66 fold in prostate cancers. If PCA3 is elevated, it suggests the presence of prostate cancer.
- **Option D:** Serum potassium levels identify hypokalemia and hyperkalemia. PCA3 is best used to determine the need for a repeat biopsy after initial negative histology. Serial PCA3 testing may also be helpful in monitoring patients with low-grade prostate cancers on active surveillance.

13. Nurse Linda is preparing a client with multiple sclerosis for discharge from the hospital to home. Which of the following instructions is most appropriate?

- A. "Practice using the mechanical aids that you will need when future disabilities arise".
- B. "Follow good health habits to change the course of the disease".
- C. "Keep active, use stress reduction strategies, and avoid fatigue".
- D. "You will need to accept the necessity for a quiet and inactive lifestyle".

Correct Answer: C. "Keep active, use stress reduction strategies, and avoid fatigue".

The nurse's most positive approach is to encourage the client with multiple sclerosis to stay active, use stress reduction techniques and avoid fatigue because it is important to support the immune system while remaining active. Recommend participation in groups involved in fitness or exercise and/or the Multiple Sclerosis Society. Can help the patient to stay motivated to remain active within the limits of the disability or condition. Group activities need to be selected carefully to meet the patient's needs and prevent discouragement or anxiety.

- **Option A:** Individuals with MS may experience loss of balance, muscle spasms, problems in moving arms or legs, double vision, or loss of vision. Mechanical aids may come in handy once these symptoms occur, but the client should be taught not to depend on these devices. Mobility

aids can decrease fatigue, enhancing independence and comfort, as well as safety. However, individuals may display poor judgment about the ability to safely engage in an activity.

- **Option B:** Multiple sclerosis is a disorder that is chronic and has no cure. However, following good health habits would benefit the client. Anticipate hygienic needs and calmly assist as necessary with the care of nails, skin, and hair; mouth care; shaving. Caregiver's example can set a matter-of-fact tone for acceptance of handling mundane needs that may be embarrassing to the patient and repugnant to SO.
- **Option D:** Most people with MS continue to function normally for 20 years after diagnosis or more. Keeping active would be very beneficial to the client's health and in maintaining a high quality of life. Plan care consistent rest periods between activities. Encourage afternoon naps. Reduces fatigue, aggravation of muscle weakness.

14. A client is admitted with acute adrenal crisis. During the intake assessment, the nurse can expect to find that the client has:

- A. Low blood pressure
- B. Slow, regular pulse
- C. Warm, flushed skin
- D. Increased urination

Correct Answer: A. Low blood pressure

- Option A: Acute adrenal crisis is a life-threatening medical emergency caused by a lack of cortisol, a hormone that is responsible for maintaining the blood pressure. Low levels of cortisol can cause a decrease in blood pressure.
- Option B: The pulse would be rapid and irregular.
- Option C: The skin would be cool and pale.
- Option D: The urinary output would be decreased.

15. A client has died, and a nurse asks a family member about the funeral arrangements. The family member refuses to discuss the issue. The nurse's appropriate action is to: Select all that apply.

- A. Show acceptance of feelings.
- B. Provide information needed for decision making.
- C. Suggest a referral to a mental health professional.
- D. Remain with the family member without discussing funeral arrangements.
- E. Let the family slowly acknowledge its impact.

Correct Answer: D & E.

Grief is a process that can begin long before the loss of a loved one. Similar to the stages of dying, individuals go through a process to help them eventually cope and be able to live with that loss. People never get over their loss but find ways to live with the loss and without their deceased loved one (ELNEC, 2010).

- **Option A:** This is an appropriate intervention for the acceptance or reorganization and restitution stage. In this final stage of grief, the person accepts the reality of the loss. It can't be reversed. Although he or she still feels sad, he or she is ready to start moving on in life.
- **Option B:** This may be an appropriate intervention for the bargaining stage. During this stage, he or she dwells on what could've been done to counteract the loss. General thoughts are "If only..." and "What if...".
- **Option C:** This may be an appropriate intervention for depression. Sadness sets in as the person begins to understand the loss and its effect on life. Indications of depression include crying, sleep issues, and a decreased appetite.
- **Option D:** The family member is exhibiting the first stage of grief (denial), and the nurse should remain with the family member. One of the biggest facilitators of this process that nurses can engage in is active listening. By actively listening to the bereaved, it helps them express their feelings and feel as though they are being heard.
- **Option E:** As the family moves through the experience and slowly acknowledges its impact, the initial denial and disbelief fade. Bereavement includes grief and mourning and has been considered to be the "time period in which the survivor adjusts to their life without their loved one" (ELNEC, 2010). This period can include the time right after the loss or death occurs, during the funeral proceedings, and during the grieving process afterward.

16. The nurse would monitor for decreased effect of amphetamines when these drugs are given with:

- A. Caffeine
- B. Antidiabetic agents
- C. Tricyclic antidepressants
- D. All of the above

Correct Answer: C. MAO inhibitors

MAO inhibitors must never be given with drugs affecting the CNS because hypertension can occur. Amphetamine is contraindicated during or within 14 days of MAOI therapy, e.g., phenelzine, due to the risk of hypertensive crisis.

- **Option A:** Caffeine-amphetamine interactions were studied to determine whether attenuation of amphetamine-induced activity by caffeine pretreatment (30 mg/kg) is the result of increased or decreased sensitivity to amphetamine. Results support a reduction in sensitivity to amphetamine. A cross-tolerance design revealed an asymmetrical interaction between caffeine and amphetamine. Multiple caffeine treatments (30 mg/kg) produced tolerance and attenuation of subsequent amphetamine activity.
- **Option B:** Amphetamines can be given with oral hypoglycemics and insulin as long as blood sugar levels are monitored because these can decrease antidiabetic requirements.
- **Option D:** Tricyclic antidepressants differ in their relative effects on serotonin, norepinephrine, and acetylcholine. The differences are reflected in how the tricyclic antidepressants are used and, most importantly, their propensity to cause certain side effects. For instance, amitriptyline (Elavil) causes more sedation, dry mouth, and constipation than other tricyclic antidepressants.

17. In a lecture on sexual functioning, the nurse plans to include the fact that ovulation occurs when the:

- A. Oxytocin is too high.
- B. Blood level of LH is too high.
- C. Progesterone level is high.
- D. Endometrial wall is sloughed off.

Correct Answer: B. Blood level of LH is too high.

It is the surge of LH secretion in mid-cycle that is responsible for ovulation. LH is responsible for inducing ovulation, preparation for fertilized oocyte uterine implantation, and the ovarian production of progesterone through stimulation of theca cells and luteinized granulosa cells.

- **Option A:** Ovulation is the third phase within the larger Uterine Cycle (i.e. Menstrual Cycle). The follicular release follows the Follicular phase (i.e. dominant follicle development) and precedes the Luteal phase (i.e. maintenance of corpus luteum) that progresses to either endometrial shedding or implantation. Follicular release occurs around 14 days prior to menstruation in a cyclic pattern if the hypothalamic-pituitary-ovarian axis function is well regulated.
- **Option C:** Ovulation occurs around day 14 of a typical 28-day cycle. Estrogen levels rise as a result of increased estrogen production by hormonally active granulosa cells within the follicle. One of the estrogen levels reach a critical point and remain at the level for 2 days, estrogen transitions from a negative feedback modulator of GnRH to a positive feedback modulator on the hypothalamus.
- **Option D:** FSH and LH stimulate what remains of the mature follicle after ovulation to become the corpus luteum. The corpus luteum grows and secretes progesterone and some estrogen, which makes the endometrium more receptive to implantation. If fertilization does not occur, progesterone/estrogen levels fall, and the corpus luteum dies forming the corpus Albicans. These falling hormone levels stimulate FSH to begin recruiting follicles for the next cycle.

18. A nurse is supervising a diverse group of elderly clients aged 75-90 years in a residential home setting. Many of these clients have varied health conditions, including vision and hearing impairments, limited mobility, and chronic illnesses that require medication. The nurse is assessing factors that could contribute to sensory deprivation in these clients. Which of the following reasons is most likely to increase the risk of sensory deprivation in this elderly group?

- A. Increased sensitivity to the side effects of medications.
- B. Decreased visual, auditory, and gustatory abilities.
- C. Isolation from their families and familiar surroundings.
- D. Decrease musculoskeletal function and mobility.

Correct Answer: B. Decreased visual, auditory, and gustatory abilities.

Gradual loss of sight, hearing, and taste interferes with normal functioning.

- **Option A:** The side effects of medications do not usually affect the senses in the elderly.

- **Option C:** Isolation is not the reason for developing sensory deprivation.
- **Option D:** Decrease in mobility and functioning does not cause sensory deprivation.

19. A client with clotting disorder has an order to continue lovenox (Enoxaparin) injections after discharge. The nurse should teach the client that lovenox injections should:

- A. Be injected into the deltoid muscle
- B. Be injected into the abdomen
- C. Aspirate after the injection
- D. Clear the air from the syringe before injections

Correct Answer: B. Be injected into the abdomen

- **Option A:** Lovenox injections should be given in the abdomen, not in the deltoid muscle.
- **Options C and D:** The client should not aspirate after, but before, the injection or clear the air from the syringe before injection.

20. Clay-colored stools indicate:

- A. Upper GI bleeding
- B. Impending constipation
- C. An effect of medication
- D. Bile obstruction

Correct Answer: D. Bile obstruction

Bile colors the stool brown. Any inflammation or obstruction that impairs bile flow will affect the stool pigment, yielding light, clay-colored stool. The liver releases bile salts into the stool, giving it a normal brown color. One may have clay-colored stools if they have a liver infection that reduces bile production, or if the flow of bile out of the liver is blocked. Yellow skin (jaundice) often occurs with clay-colored stools.

- **Option A:** Upper GI bleeding results in black or tarry stool. Melena is a black, tarry stool that is caused by GI bleeding. The black color is due to the oxidation of blood hemoglobin during the bleeding in the ileum and colon. Melena also refers to stools or vomit stained black by blood pigment or dark blood products and may indicate upper GI bleeding.
- **Option B:** Constipation is characterized by small, hard masses. The problem may arise in the colon or rectum or it may be due to an external cause. In most people, slow colonic motility that occurs after years of laxative abuse is the problem. In a few patients, the cause may be related to an outlet obstruction like rectal prolapse or a rectocele. External causes of constipation may include poor dietary habits, lack of fluid intake, overuse of certain medications, an endocrine problem like hypothyroidism or some type of an emotional issue.
- **Option C:** Many medications and foods will discolor stool – for example, drugs containing iron turn stool black; beets turn stool red. Blue feces may be caused by boric acid, chloramphenicol, or methylene blue. Causative diseases for clay feces may include alcoholic hepatitis, biliary cirrhosis, gallstones, sclerosing cholangitis, biliary strictures, or viral hepatitis. Causative medications for gray

feces may include cocoa or colchicines. Potential causes for green stools may include spinach, Indomethacin, iron, or medroxyprogesterone.

21. When an unexpected death occurs in the emergency department, which task is the most appropriate to delegate to a nursing assistant?

- A. Assisting with postmortem care
- B. Facilitate meetings between the family and the organ donor specialist
- C. Escorting the family to a place of privacy
- D. Help the family to collect belongings

Correct Answer: A. Assisting with postmortem care.

Postmortem care requires some turning, cleaning, lifting, and so on, and the nursing assistant is able to assist with these duties. The use of NAPs increasingly demands registered nurses to delegate patient care tasks according to the principles of the ANA. These principles define nursing delegation as the “transfer of responsibility for the performance of an activity from one individual to another while retaining accountability for the outcome.”

- **Option B:** The RN may delegate components of care, but does not delegate the nursing process itself. The practice of pervasive functions of assessment, planning, evaluation, and nursing judgment cannot be delegated. The decision of whether or not to delegate or assign is based upon the RN’s judgment concerning the condition of the patient, the competence of all members of the nursing team, and the degree of supervision that will be required of the RN if a task is delegated.
- **Option C:** A licensed nurse should take responsibility for the other tasks to help the family begin the grieving process. The RN delegates only those tasks for which he or she believes the other health care worker has the knowledge and skill to perform, taking into consideration training, cultural competence, experience, and facility/agency policies and procedures.
- **Option D:** In cases of questionable death, belongings may be retained for evidence, so the chain of custody would have to be maintained. The registered nurse individualized communication regarding the delegation to the nursing assistive personnel and client situation and the communication should be clear, concise, correct, and complete. The registered nurse verifies comprehension with the nursing assistive personnel and that the assistant accepts the delegation and the responsibility that accompanies it.

22. A 22-year-old lady is displaying facial grimaces during her treatment in the hospital due to burn trauma. Which nursing intervention should be included for reducing pain due to cellular injury?

- A. Administering anti-inflammatory agents as prescribed.
- B. Elevating the injured area to decrease venous return to the heart.
- C. Keeping the skin clean and dry.
- D. Applying warm packs initially to reduce edema.

Correct Answer: A. Administering anti-inflammatory agents as prescribed

Anti-inflammatory agents help reduce edema and relieve pressure on nerve endings, subsequently reducing pain. The burned patient may require around-the-clock medication and dose titration. IV

method is often used initially to maximize drug effect.

- **Option B:** Elevating the injured area increases venous return to the heart. Elevation may be required initially to reduce edema formation; thereafter, changes in position and elevation reduce discomfort and risk of joint contractures.
- **Option C:** Maintaining clean, dry skin aids in preventing skin breakdown. Cover wounds as soon as possible unless an open-air exposure burn care method is required. Temperature changes and air movement can cause great pain to exposed nerve endings.
- **Option D:** Cool packs, not warm packs, should be used initially to cause vasoconstriction and reduce edema. Altered tissue perfusion and edema formation impair drug absorption. Injections into potential donor sites may render them unusable because of hematoma formation.

23. A female client complains of periorbital aching, tearing, blurred vision, and photophobia in her right eye. Ophthalmologic examination reveals a small, irregular, nonreactive pupil — a condition resulting from acute iris inflammation (iritis). As part of the client's therapeutic regimen, the physician prescribes atropine sulfate (Atropisol), two drops of 0.5% solution in the right eye twice daily. Atropine sulfate belongs to which drug classification?

- A. Parasympathomimetic agent
- B. Sympatholytic agent
- C. Adrenergic blocker
- D. Cholinergic blocker

Correct Answer: D. Cholinergic blocker

Atropine sulfate is a cholinergic blocker. It isn't a parasympathomimetic agent, a sympatholytic agent, or an adrenergic blocker. Atropine is an antimuscarinic that works through competitive inhibition of postganglionic acetylcholine receptors and direct vagolytic action, which leads to parasympathetic inhibition of the acetylcholine receptors in smooth muscle.

- **Option A:** Parasympathomimetics are a class of pharmacological agents that activate the parasympathetic division of the autonomic nervous system. These drugs work by mimicking or modifying the effects of acetylcholine (ACh), the primary neurotransmitter of the parasympathetic nervous system. Parasympathomimetic medications are classified into two main categories based on whether they are direct agonists or indirect agonists of ACh.
- **Option B:** Methyldopa is a centrally acting sympatholytic agent used in the treatment of hypertension. Alpha-methyldopa is converted to methyl norepinephrine centrally to decrease the adrenergic outflow by alpha-2 agonist action from the central nervous system, leading to reduced total peripheral resistance and decreased systemic blood pressure.
- **Option C:** The effects of the sympathetic nervous system can be blocked either by decreasing sympathetic outflow from the brain, suppressing release of norepinephrine from terminals, or by blocking postsynaptic receptors. Adrenergic antagonists reduce the effectiveness of sympathetic nerve stimulation and the effects of exogenously applied agonists, such as isoproterenol. Most often the receptor antagonists are divided into α -receptor antagonists and β -receptor antagonists.

24. A nursing instructor asks a nursing student who is preparing to assist with the assessment of a pregnant client to describe the process of quickening.

Which of the following statements if made by the student indicates an understanding of this term?

- A. "It is the irregular, painless contractions that occur throughout pregnancy."
- B. "It is the soft blowing sound that can be heard when the uterus is auscultated."
- C. "It is the fetal movement that is felt by the mother."
- D. "It is the thinning of the lower uterine segment."

Correct Answer: C. "It is the fetal movement that is felt by the mother."

Quickening is fetal movement and may occur as early as the 16th and 18th week of gestation, and the mother first notices subtle fetal movements that gradually increase in intensity. A thinning of the lower uterine segment occurs about the 6th week of pregnancy and is called Hegar's sign.

- **Option A:** Braxton Hicks contractions are irregular, painless contractions that may occur throughout the pregnancy.
- **Option B:** Uterine souffle or placental souffle is a soft, blowing sound heard using a stethoscope, usually in the second trimester of pregnancy (13–28 weeks). This sound is heard most clearly in the lower part of the uterus and is synchronous with the pulse of the mother.
- **Option D:** The lower uterine segment, therefore, is defined as the portion of the uterine musculature which must undergo circumferential dilatation during labor, its extent being dependent upon the size of the presenting part and its level in the uterine cavity. The available evidence suggests that brachystasis, with retraction, occurs in this segment just as it does in the upper, and that thinning in the first stage of labor is due not to passive elongation, but rather to active shortening of the cup-shaped lower pole with dilatation as it is pulled up about the presenting part.

25. A male client has jugular distention. In what position should the nurse place the head of the bed to obtain the most accurate reading of jugular vein distention?

- A. High Fowler's
- B. Raised 10 degrees
- C. Raised 30 degrees
- D. Supine position

Correct Answer: C. Raised 30 degrees

Jugular venous pressure is measured with a centimeter ruler to obtain the vertical distance between the sternal angle and the point of highest pulsation with the head of the bed inclined between 15 to 30 degrees.

- **Option A:** In high Fowler's position, the veins would be barely discernible above the clavicle.
- **Option B:** Increased pressure can't be seen when the head of the bed is raised 10 degrees because the point that marks the pressure level is above the jaw (therefore, not visible).
- **Option D:** Supine position does not make the increased pressure level seen.

26. Ethical principles for professional nursing practice in a clinical setting are guided by the principles of conduct that are written as the:

- A. American Nurses Association's (ANA's) Code of Ethics
- B. Nurse Practice Act (NPA) written by state legislation
- C. Standards of care from experts in the practice field
- D. Good Samaritan laws for civil guidelines

Correct Answer: A. American Nurses Association's (ANA's) Code of Ethics

This set of ethical principles provides the professional guidelines established by the ANA to maintain the highest standards for ideal conduct in practice. As a profession, the ANA wanted to establish rules and then incorporate guidelines for accountability and responsibility of each nurse within the practice setting.

- **Option B:** Every state and territory in the US sets laws to govern the practice of nursing. These laws are defined in the Nursing Practice Act (NPA). The NPA is then interpreted into regulations by each state and territorial nursing board with the authority to regulate the practice of nursing care and the power to enforce the laws. Fifty states, the District of Columbia and 4 United States (US) territories, have state boards of nursing (BON) that are responsible for regulating their individual NPA.
- **Option C:** Professional standards describe the competent level of care in each phase of the nursing process. They reflect a desired and achievable level of performance against which a nurse's actual performance can be compared. The main purpose of professional standards is to direct and maintain a safe and clinically competent nursing practice.
- **Option D:** Good Samaritan laws have their basis on the idea that consensus agreement favors good "public policy" to limit liability for those who voluntarily perform care and rescue in emergency situations. It is well known that medical emergencies outside of the umbrella "medical setting" or "clinical environment" are common.

27. An individual with depression has a deficiency in which neurotransmitters, based on the biogenic amine theory?

- A. Dopamine and thyroxine
- B. GABA and acetylcholine
- C. Cortisone and epinephrine
- D. Serotonin and norepinephrine

Correct Answer: D. Serotonin and norepinephrine

The biogenic amine theory of depression describes deficiencies in the neurotransmitters serotonin and norepinephrine. Antidepressants medications increase the levels of these neurotransmitters and therefore help to relieve depressive symptoms.

- **Option A:** Clinical and preclinical trials suggest a disturbance in central nervous system serotonin (5-HT) activity as an important factor. Other neurotransmitters implicated include norepinephrine (NE), dopamine (DA), glutamate, and brain-derived neurotrophic factor (BDNF).
- **Option B:** The role of CNS 5-HT activity in the pathophysiology of major depressive disorder is suggested by the therapeutic efficacy of selective serotonin reuptake inhibitors (SSRIs). Research

findings imply a role for neuronal receptor regulation, intracellular signaling, and gene expression over time, in addition to enhanced neurotransmitter availability.

- **Option C:** According to current research, dopamine, thyroxine, GABA, acetylcholine, cortisone, and epinephrine are not directly related to depression. The underlying pathophysiology of major depressive disorder has not been clearly defined. Current evidence points to a complex interaction between neurotransmitter availability and receptor regulation and sensitivity underlying the affective symptoms.

28. Clients with chronic illnesses are more likely to get pneumonia when which of the following situations is present?

- A. Dehydration
- B. Group living
- C. Malnutrition
- D. Severe periodontal disease

Correct Answer: B. Group living

Clients with chronic illnesses generally have poor immune systems. Often, residing in group living situations increases the chance of disease transmission. Pneumonia is a fairly prevalent disease and carries a heavy burden in all populations. A study carried out by the US Centers for Disease Control and Prevention (CDC) aimed at estimating its burden in North America found that CAP accounted for the eighth leading cause of mortality in the United States and the seventh leading cause of mortality in Canada after adjusting for various gender and age differences.

- **Option A:** Pneumonia can also cause dehydration from fever and decreased thirst and appetite, which may require treatment with extra fluids intravenously. Potential benefits of fluids are replacing fluid lost because of fever or rapid breathing, treating dehydration, and reducing the viscosity of mucus.
- **Option C:** Pneumonia is common in malnourished children and is frequently associated with fatal outcomes, especially in children younger than 24 months of age. Studies consistently reported a two- to threefold greater risk of mortality in cases with pneumonia associated with malnutrition. Therefore, pneumonia and malnutrition are two of the biggest killers in childhood diseases.
- **Option D:** Various pathogenic bacteria have been found in patients with deep periodontal pockets. The association between periodontal disease and pneumonia may be due to colonization by pathogenic bacteria in the periodontal pocket, as inhalation of a pathogen is considered a risk factor for pneumonia.

29. A client with subdural hematoma was given mannitol to decrease intracranial pressure (ICP). Which of the following results would best show the mannitol was effective?

- A. Urine output increases.
- B. Pupils are 8 mm and nonreactive.
- C. Systolic blood pressure remains at 150 mm Hg.
- D. BUN and creatinine levels return to normal.

Correct Answer: A. Urine output increases.

Mannitol promotes osmotic diuresis by increasing the pressure gradient in the renal tubes. The mannitol causes the cells in the brain to dehydrate mildly. The water inside the brain cells (intracellular water) leaves the cells and enters the bloodstream as the mannitol draws it out of the cells and into the bloodstream. Once in the bloodstream, the extra water is whisked out of the skull. When the mannitol gets to the kidneys, the kidneys filter the mannitol into the urine. The mannitol again draws the water with it, and diuresis (increased urination) ensues.

- **Option B:** Fixed and dilated pupils are symptoms of increased ICP or cranial nerve damage. Clinical suspicion for intracranial hypertension should be raised if a patient presents with the following signs and symptoms: headaches, vomiting, and altered mental status varying from drowsiness to coma. Visual changes can range from blurred vision, double vision from cranial nerve defects, photophobia to optic disc edema, and eventually optic atrophy.
- **Option C:** There is no indication that mannitol is being given for renal dysfunction or blood pressure maintenance. Intradialytic hypotension and dialysis disequilibrium symptoms are common in hemodialysis patients. This is due to a drop in intradialytic osmolality. Mannitol can be used to prevent intradialytic hypotension by raising serum osmolality.
- **Option D:** No information is given about abnormal BUN and creatinine levels. Much like mannitol given for oliguria of acute renal failure, mannitol can be given to increase the excretion of toxic materials, substances, and drugs. The kidneys excrete mannitol. The mannitol is poorly reabsorbed once excreted and thus draws extra water with it into the renal collecting ducts. The extra water in the renal collecting ducts can help increase the excretion of water-soluble toxic materials, substances, and drugs.

30. To enhance milk production, a lactating mother must do the following interventions, except:

- A. Increase fluid intake including milk.
- B. Eat foods that increase lactation which is called galactagogues.
- C. Exercise adequately like aerobics.
- D. Have adequate nutrition and rest.

Correct Answer: C. Exercise adequately like aerobics.

All the above nursing measures are needed to ensure that the mother is in a healthy state. However, aerobics does not necessarily enhance lactation.

- **Option A:** It is widely assumed that milk production requires a high fluid intake on the part of the mother, yet the evidence suggests that lactating women can tolerate a considerable amount of water restriction and that supplemental fluids have little effect on milk volume. However, thirst may sometimes function too slowly to prevent dehydration among women with high fluid losses resulting from exercise or high ambient temperature (experienced by many women without air conditioning in the summer).
- **Option B:** A galactagogue or galactogogue (pronounced gah-lak'tah-gog) is something that can help a breastfeeding mother to increase her breast milk supply. The word itself is a combination of the Greek terms "galact-" meaning milk, and "-agogue" meaning leading to or promoting. Herbs are commonly used to boost low milk supply, but certain actions, foods, and medications can help a breastfeeding mom make more breast milk as well.

- **Option D:** Maternal anxiety and stress, which may be exacerbated by poor lactation management, are believed to influence milk production by inhibiting the milk-ejection reflex. This reflex usually operates well in women who are relaxed and confident of their ability to breastfeed. In tense women, however, the reflex may be impaired. Early studies in humans by Gopalan (1958) and Edozien et al. (1976) suggest the same relationship: milk output of women in India and Nigeria increased when protein intake was increased from 50 to 60 g/day to approximately 100 g/day.

31. Which drug is indicated for pain related to acute renal calculi?

- A. Narcotic analgesics
- B. Nonsteroidal anti-inflammatory drugs (NSAIDs)
- C. Muscle relaxants
- D. Salicylates

Correct Answer: A. Narcotic analgesics

Narcotic analgesics are usually needed to relieve the severe pain of renal calculi. Narcotic analgesics act at the central nervous system (CNS) mu receptors and are commonly used in the treatment of renal colic. They are inexpensive and proven effective. Disadvantages include sedation, respiratory depression, smooth muscle spasm, and potential for abuse and addiction.

- **Option B:** Nonsteroidal anti-inflammatory drugs (NSAIDs) inhibit pain and inflammatory reactions by decreasing the activity of cyclooxygenase, which is responsible for prostaglandin synthesis. Both properties are beneficial in the management of renal (ureteral) colic.
- **Option C:** Muscle relaxants are typically used to treat skeletal muscle spasms. Muscle relaxants are used to treat muscle spasm, which may play a role in patient discomfort. Skeletal muscle relaxant used in conjunction with other therapies to treat pain and discomfort associated with musculoskeletal conditions. Reduces nerve impulse transmission from spinal cord to skeletal muscle.
- **Option D:** Salicylates are used for their anti-inflammatory and antipyretic properties and to treat less severe pain. Aspirin is a cyclooxygenase-1 (COX-1) inhibitor. It is a modifier of the enzymatic activity of cyclooxygenase-2 (COX-2). Unlike other NSAIDs (ibuprofen/naproxen), which bind reversibly to this enzyme, aspirin binding is irreversible. It also blocks thromboxane A2 on platelets in an irreversible fashion preventing platelet aggregation.

32. A 61-year-old woman who is 5 feet, 3 inches tall and weighs 125 pounds (57 kg) tells the nurse that she has a glass of wine two or three times a week. The patient works for the post office and has a 5-mile mail-delivery route. This is her first contact with the health care system in 20 years. Which of these topics will the nurse plan to include in patient teaching about cancer? Select all that apply

- A. Mammography
- B. Physical activity
- C. Body weight
- D. Colorectal screening
- E. Tobacco use

- F. Alcohol use
- G. Pap testing
- H. Sunscreen use

Correct Answer: A, D, G, and H

- **Options A, D, G, and H:** The patient's age, gender, and history indicate a need for teaching about or screening or both for colorectal cancer, mammography, Pap smears, and sunscreen.
- **Options B, C, E, and F:** The patient does not use excessive alcohol or tobacco, she is physically active, and her body weight is healthy.

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

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

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

Promote venous return by applying external pressure on veins.

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

34. Nurse Wayne is aware that a positive Chvostek's sign indicates?

- A. Hypocalcemia
- B. Hyponatremia
- C. Hypokalemia
- D. Hypermagnesemia

Correct Answer: A. Hypocalcemia

Chvostek's sign is elicited by tapping the client's face lightly over the facial nerve, just below the temple. If the client's facial muscles twitch, it indicates hypocalcemia. Chvostek's sign is another manifestation of heightened neuromuscular excitability. It is the spasm of facial muscles in response to tapping the facial nerve near the angle of the jaw.

- **Option B:** Hyponatremia is indicated by weight loss, abdominal cramping, muscle weakness, headache, and postural hypotension. Symptoms depend upon the degree and chronicity of hyponatremia. Patients with mild-to-moderate hyponatremia (greater than 120 mEq/L) or gradual

decrease in sodium (greater than 48 hours) have minimal symptoms. Patients with severe hyponatremia (less than 120 mEq/L) or rapid decrease in sodium levels have multiple varied symptoms.

- **Option C:** Hypokalemia causes paralytic ileus and muscle weakness. Significant muscle weakness occurs at serum potassium levels below 2.5 mmol/L but can occur at higher levels if the onset is acute. Similar to the weakness associated with hyperkalemia, the pattern is ascending in nature affecting the lower extremities, progressing to involve the trunk and upper extremities and potentially advancing to paralysis.
- **Option D:** Clients with hypermagnesemia exhibit a loss of deep tendon reflexes, coma, or cardiac arrest. The most frequent symptoms and signs may include weakness, nausea, dizziness, and confusion (less than 7.0 mg/dL). Increasing values (7 to 12 mg/dL) induce decreased reflexes, worsening confusional state, drowsiness, bladder paralysis, flushing, headache, and constipation. A slight reduction in blood pressure and blurred vision caused by diminished accommodation and convergence can manifest.

35. Which of the following risk factors for coronary artery disease cannot be corrected?

- A. Cigarette smoking
- B. DM
- C. Heredity
- D. HPN

Correct Answer: C. Heredity

Because “heredity” refers to our genetic makeup, it can’t be changed.

- **Option A:** Cigarette smoking cessation is a lifestyle change that involves behavior modification. Smoking raises the risk of getting CAD and dying early from CAD. Carbon monoxide, nicotine, and other substances in tobacco smoke can promote atherosclerosis and trigger symptoms of coronary artery disease.
- **Option B:** Diabetes mellitus is a risk factor that can be controlled with diet, exercise, and medication. Over time, high blood sugar can damage blood vessels and the nerves that control the heart. People with diabetes are also more likely to have other conditions that raise the risk for heart disease: High blood pressure increases the force of blood through your arteries and can damage artery walls.
- **Option D:** Altering one’s diet, exercise, and medication can correct hypertension. British Hypertension Society (BHS) guidelines state that advice should be provided for prevention as well as treatment of hypertension and should be given to pre-hypertensives and those with a strong family history. They point out that effective lifestyle modification can lower blood pressure by at least as much as a single antihypertensive drug.

36. The client with a new colostomy is concerned about the odor from the stool in the ostomy drainage bag. The nurse teaches the client to include which of the following foods in the diet to reduce odor?

- A. Yogurt

- B. Broccoli
- C. Cucumbers
- D. Eggs

Correct Answer: A. Yogurt

The client should be taught to include deodorizing foods in the diet, such as beet greens, parsley, buttermilk, and yogurt. Drinking buttermilk and/or eating yogurt or parsley can help to reduce odors from colostomy and ileostomy bags. In the case of urostomy patients, asparagus and fish will make the urine smell stronger. Spinach also reduces odor but is a gas-forming food as well. Broccoli, cucumbers, and eggs are gas-forming foods.

- **Option B:** High-fiber foods are difficult to digest. Although very good for people's overall health and well-being, these slow-digesting foods break down or ferment in the digestive tract. The fermentation process produces odorous gas.
- **Option C:** In some cases, foods higher in fiber have a distinctive odor. The natural odor from these foods can also cause flatulence to be smelly. High-fiber foods often also contain more sulfur than other types. This can cause the makeup of a person's fart to change to include more sulfur, which has a distinct odor and will cause the person to produce smellier gas.
- **Option D:** When trying eggs, start with a small amount (such as 1 egg). Eggs may cause a bad odor (smell) when the client opens the pouch. Eating bland foods will help avoid uncomfortable symptoms such as diarrhea (loose or watery bowel movements), bloating, and gas.

37. The nurse is monitoring a female client for the early signs and symptoms of dumping syndrome. Which of the following indicate this occurrence?

- A. Sweating and pallor
- B. Bradycardia and indigestion
- C. Double vision and chest pain
- D. Abdominal cramping and pain

Correct Answer: A. Sweating and pallor

Early manifestations of dumping syndrome occur 5 to 30 minutes after eating. Symptoms include vertigo, tachycardia, syncope, sweating, pallor, palpitations, and the desire to lie down. In early dumping, the symptoms usually occur within 10 to 30 minutes after a meal. The rapid transit of hyperosmolar chyme from the stomach into the duodenum causes fluid to shift from the vasculature to the intestinal lumen, leading to increased volume in the small bowel.

- **Option B:** Bradycardia and indigestion are not signs of dumping syndrome. There may be GI or vasomotor symptoms. GI symptoms include nausea, vomiting, diarrhea, or belching. Vasomotor symptoms include shock, syncope, near-syncope, palpitations, dizziness, desire to lie down, or diaphoresis.
- **Option C:** Double vision and chest pain are not signs of dumping syndrome. GI hormones such as enteroglucagon, pancreatic polypeptide, peptide YY, vasoactive intestinal polypeptide, glucagon-like peptide, and neurotensin have been evident with higher values after meals. Hormonal imbalances may cause delayed motility, decreased gastric and intestinal secretions, which delay the digestion and transit of food that arrives at the small bowel.

- **Option D:** Late dumping, also known as postprandial hyperinsulinemic hypoglycemia, usually occurs 1 to 3 hours after a high-carbohydrate meal. There is an association with hypoglycemia, but the exact mechanism is unknown. It is proposed that the rapid absorption of carbohydrates exaggerates the glucose-mediated insulin response.

38. The nurse is preparing to teach a client about the prescribed spironolactone (Aldactone) to monitor for adverse effects of the drug. The nurse should instruct the client about which adverse effects? Select all that apply.

- A. Confusion.
- B. Fatigue.
- C. Hypertension.
- D. Leg cramps.
- E. Weakness.
- F. Urinary retention.

Correct Answer: A, B, & E.

Spironolactone (Aldactone) is used to treat hypertension and edema by removing excess fluid. Aldactone is known as a potassium-sparing diuretic. Confusion, fatigue, and weakness are signs of hyperkalemia, an adverse effect of spironolactone.

- **Option A:** One study mentions the following additional adverse effects in order from more to less common: dehydration, hyponatremia, gastrointestinal problems (nausea, vomiting, diarrhea or anorexia), neurological abnormalities (headache, drowsiness, asterixis, confusion, or coma), and skin rashes.
- **Option B:** Spironolactone blocks the hormone aldosterone, which can lead to fatigue. In addition, it can lower the blood pressure, and if this drop is sudden, the client may feel tired.
- **Option C:** Spironolactone is used to treat hypertension, so it would not produce this effect. Spironolactone is recommended in patients with resistant hypertension which is defined as uncontrolled blood pressure despite three antihypertensive drug combinations including a diuretic. Spironolactone is a mineralocorticoid receptor antagonist and causes anti-androgenic side effects.
- **Option D:** Leg cramps are an adverse effect of hypokalemia. Hyperkalemia is an adverse effect of spironolactone. This drug is contraindicated in patients with hyperkalemia and in those at increased risk of developing hyperkalemia.
- **Option E:** Symptoms of hypokalemia may include attacks of severe muscle weakness, eventually leading to paralysis and possibly respiratory failure. Muscular malfunction may result in paralysis of the bowel, low blood pressure, muscle twitches and mineral deficiencies (tetany).
- **Option F:** Urinary retention is a side effect of anticholinergics. Medications with anticholinergic properties, such as tricyclic antidepressants, cause urinary retention by decreasing bladder detrusor muscle contraction.

39. A client with liver cirrhosis has been advised to follow a high-protein diet. The nurse evaluates the effectiveness of the diet if the total protein level is which of the following values?

- A. 6.9 g/dL.
- B. 4.9 g/dL.
- C. 2.9 g/dL.
- D. 0.9 g/dL.

Correct Answer: A. 6.9 g/dL.

The normal value for total serum protein is 6 to 8 g/dL. The client with liver cirrhosis has low total protein levels secondary to inadequate nutrition. Protein deficiency is often associated with liver disease. The principal cause of protein deficiency is decreased dietary intake. Deficiencies in digestion and absorption that are common in alcoholics contribute to protein deficiency in alcoholic liver disease.

- **Option B:** 4.9 mg/dl is a low value for total serum protein. The protein requirements in most patients with compensated chronic liver disease are not different from normal but increase during episodes of hepatocellular deterioration. Increased demand for protein after liver injury drains nitrogen from other organs such as muscle.
- **Option C:** 2.9 mg/dl is a very low total serum protein level. Circulating proteins synthesized by the liver, such as albumin and clotting factors, are frequently decreased in chronic liver disease. Vitamin deficiencies that are common in liver disease contribute to abnormalities of protein metabolism. Hepatic regeneration following hepatic resection or injury is adversely affected by protein and vitamin deficiencies and by alcohol ingestion.
- **Option D:** 0.9 mg/dl is an abnormally low total serum protein value. This is because some conditions affect the amounts of albumin or globulin in the blood. A low A/G ratio may be due to an overproduction of globulin, underproduction of albumin, or loss of albumin, which may indicate the following: an autoimmune disease, cirrhosis, involving inflammation and scarring of the liver.

40. A 6-year-old with cystic fibrosis has an order for Creon (pancrelipase). The nurse knows that the medication will be given:

- A. Daily in the morning
- B. Twice daily
- C. With meals and snacks
- D. At bedtime

Correct Answer: C. With meals and snacks

- Option C: Pancreatic enzyme replacement such as Creon is given with each meal and each snack to replace the enzymes that the pancreas isn't producing that usually happen in cystic fibrosis.

41. Her former manager demonstrated passion for serving her staff rather than being served. She takes time to listen, prefers to be a teacher first before being a leader, which is characteristic of:

- A. Transformational leader
- B. Transactional leader
- C. Servant leader

D. Charismatic leader

Correct Answer: C. Servant leader

Servant leaders are open-minded, listen deeply, try to fully understand others, and not being judgmental. Servant leadership is a leadership philosophy in which the goal of the leader is to serve. A servant leader shares power puts the needs of the employees first and helps people develop and perform as highly as possible. Servant leadership inverts the norm, which puts the customer service associates as the main priority.

- **Option A:** Transformational leadership is a leadership style that can inspire positive changes in those who follow. Transformational leaders are generally energetic, enthusiastic, and passionate. Not only are these leaders concerned and involved in the process; they are also focused on helping every member of the group succeed as well.
- **Option B:** A transactional leader is someone who values order and structure. They are likely to command military operations, manage large corporations, or lead international projects that require rules and regulations to complete objectives on time or move people and supplies in an organized way. Transactional leaders are not a good fit for places where creativity and innovative ideas are valued.
- **Option D:** The charismatic leadership style relies on the charm and persuasiveness of the leader. Charismatic leaders are driven by their convictions and commitment to their cause. Charismatic leaders also are sometimes called transformational leaders because they share multiple similarities. Their main difference is focus and audience. Charismatic leaders often try to make the status quo better, while transformational leaders focus on transforming organizations into the leader's vision.

42. Which of the following best describes the development of a school-age child. Select all that apply.

- A. Death has yet no meaning
- B. Same-sex peers are more important than family
- C. School-age children are concerned about how they appear to others
- D. Children enjoys playing board games and sports
- E. Causes of injuries include bicycle crashes, head injuries, and sprains

Correct Answer: B, D, & E

School-age children feel a greater sense of affiliation with peers of the same sex and prefer socializing with them over family members; With a decreased attention span, play for school-age children lean towards following rules designed by others such as board games and sports; With an increase in motor skills, and independence, school-age children are prone to injuries that are caused by their physical activities.

- **Option A:** School-age children start to have an understanding of death and often view it as someone who "goes to heaven". School-aged children have a more realistic understanding of death. Although death may be personified as an angel, skeleton, or ghost, this age group is starting to view death as permanent. They know that everyone dies.
- **Option B:** A child's social world expands considerably as they enter school and gain new friendships with peers. Through social interactions, children begin to develop a sense of pride in their accomplishments and abilities.

- **Option C:** School-aged children are not particularly concerned about how they appear from others but rather are more concerned with understanding social roles and responsibilities.
- **Option D:** During the industry versus inferiority stage, children become capable of performing increasingly complex tasks. As a result, they strive to master new skills. Children who are encouraged and commended by parents and teachers develop a feeling of competence and belief in their abilities.
- **Option E:** Children enjoy challenges and risks in play. This might be climbing trees or going fast on bikes or scooters. When children take these types of risks, they're building physical and problem-solving skills. They're also learning about their physical and emotional limits.

43. Gravida refers to which of the following descriptions?

- A. A serious pregnancy.
- B. Number of times a female has been pregnant.
- C. Number of children a female has delivered.
- D. Number of term pregnancies a female has had.

Correct Answer: B. Number of times a female has been pregnant.

Gravida refers to the number of times a female has been pregnant, regardless of pregnancy outcome or the number of neonates delivered.

- **Option A:** The term gravida comes from the Latin word gravidus. It is used to describe a woman who is pregnant and is also a medical term for the total number of confirmed pregnancies a woman has had, regardless of the outcome of the pregnancy.
- **Option C:** Parity is defined as the number of times that she has given birth to a fetus with a gestational age of 24 weeks or more, regardless of whether the child was born alive or was stillborn.
- **Option D:** ACOG and SMFM use these definitions to describe term pregnancies: Early term: The baby is born between 37 weeks, 0 days and 38 weeks, 6 days. Full term: The baby is born between 39 weeks, 0 days and 40 weeks, 6 days. Late-term: The baby is born between 41 weeks, 0 days and 41 weeks, 6 days.

44. When taking a dietary history from a newly admitted female client, Nurse Len should remember which of the following foods is a common allergen?

- A. Bread
- B. Carrots
- C. Orange
- D. Strawberries

Correct Answer: D. Strawberries

Common food allergens include berries, peanuts, Brazil nuts, cashews, shellfish, and eggs.

- **Option A:** Bread is not a common allergen. Wheat, a common ingredient in some breads, may cause wheat allergy in some people.

- **Option B:** Carrots rarely cause allergies. An allergic reaction to carrots can be one element of oral allergy syndrome, which is also known as pollen-food allergy syndrome.
- **Option C:** Oranges rarely cause allergic reactions. If they do, the reaction is mild.

45. As a knowledgeable nurse, you know that the following are part of the 10 rights except:

- A. Right dose
- B. Right route
- C. Right drug
- D. Right room

Correct Answer: D. Right room

Right room is not one of the 10 rights. The five rights are the right client, route, dose, drug, time and frequency, documentation, history and assessment, drug approach and right to refuse, drug-drug interaction and evaluation, and education and information. .

- **Option A:** Check the medication sheet and the doctor’s order before medicating. Be aware of the difference between an adult and a pediatric dose. Confirm appropriateness of the dose using the BNF or local guidelines. If necessary, calculate the dose and have another nurse calculate the dose as well.
- **Option B:** Check the order if it’s oral, IV, SQ, IM, etc. Confirm that the patient can take or receive the medication by the ordered route.
- **Option C:** The first right of drug administration is to check and verify if it’s the right name and form. Beware of look-alike and sound-alike medication names. Misreading medication names that look similar is a common mistake. These

46. A client with schizophrenia hears a voice telling him he is evil and must die. The nurse understands that the client is experiencing:

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

Correct Answer: D. Hallucination

A hallucination is a sensory perception, such as hearing voices and seeing objects, that only the client experiences. The word “hallucination” comes from Latin and means “to wander mentally.” Hallucinations are defined as the “perception of a nonexistent object or event” and “sensory experiences that are not caused by stimulation of the relevant sensory organs.” Hallucinations occur frequently in people with psychiatric conditions, including schizophrenia and bipolar disorder, however, you don’t necessarily need to have a mental illness to experience hallucinations.

- **Option A:** A delusion is a false belief. Delusions are defined as fixed, false beliefs that conflict with reality. Despite contrary evidence, a person in a delusional state can’t let go of their convictions. Delusions are often reinforced by the misinterpretation of events. Many delusions also involve

some level of paranoia. For example, someone might contend that the government is controlling our every move via radio waves despite evidence to the contrary. Delusions are often part of psychotic disorders. They may occur along with hallucinations, which involve perceiving something that isn't really there, like hearing voices or feeling bugs crawling on your skin.

- **Option B:** Flight of ideas refers to a speech pattern in which the client skips from one unrelated subject to another. A nearly continuous flow of accelerated speech with abrupt changes from topic to topic that are usually based on understandable associations, distracting stimuli, or plays on words. When severe, speech may be disorganized and incoherent. It is part of the DSM -5 criteria for Manic episodes.
- **Option C:** Ideas of reference refers to the mistaken belief that someone or something outside the client is controlling the client's ideas or behavior. In people with bipolar disorder, mania and hypomania can comprise various symptoms, from reckless spending to sexual promiscuity. In addition, some more subtle symptoms may also occur, such as the belief held by some patients that everything occurring around them is related somehow to them when in fact it isn't. This symptom is known as ideas of reference. An extension of those irrational beliefs, delusions of reference, can cause patients to change their behavior significantly because of this mistaken belief.

47. A nurse reinforces instructions to the mother of a child who has been hospitalized with croup. Which of the following statements, if made by the mother, would indicate the need for further instruction? Select all that apply.

- A. "I will give my child cough syrup if a cough develops."
- B. "During an attack, I will take my child to a cool location."
- C. "I will give acetaminophen (Tylenol) if my child develops a fever."
- D. "I will be sure that my child drinks at least three to four glasses of fluids every day."
- E. "I will place my child in a room with dry air."
- F. "I will let my child sit under the shower until the cough subsides."

Correct Answer: A, E, & F.

Croup is a common respiratory illness of the trachea, larynx, and bronchi that can lead to inspiratory stridor and barking cough. The parainfluenza virus typically causes croup, but a bacterial infection can also cause it. Croup is primarily a clinical diagnosis.

- **Option A:** Cough syrups and cold medicines are not to be given, because they may dry and thicken secretions. Cough medicines, which usually contain dextromethorphan or guaifenesin, are discouraged.
- **Option B:** During a croup attack, the child can be taken to a cool basement or garage. Provide a calm, quiet environment for the child. Anxiety affects respirations and a calm environment lessens anxiety.
- **Option C:** Acetaminophen is used if a fever develops. Educate the parents on the administration and uses of prescribed medications. This facilitates appropriate medication administration and recognition of adverse side effects.
- **Option D:** Adequate hydration of 500 to 1000 mL of fluids daily is important for thinning secretions. Advise increase fluid intake and maintain intravenous fluid as prescribed. Adequate hydration can help loosen mucus in the oropharynx and prevent dehydration.

- **Option E:** Have the child breathe moist air. Warm, moist air may help the child breathe easier. Cool mist and humidity soothe inflamed airways and decrease the viscosity of the mucus thus helps in clearing the airway.
- **Option F:** If the child has symptoms of croup, take him into the bathroom, close the bathroom door, and turn on a hot shower. Do not put your child under the shower. Sit with the child in the warm, moist air for 15 to 20 minutes.

48. The expected respiratory rate of a neonate within three (3) minutes of birth may be as high as:

- 50
- 60
- 80
- 100

Correct Answer: B. 60.

- **Option B:** The respiratory rate is associated with activity and can be as rapid as 60 breaths per minute; over 60 breaths per minute are considered tachypneic in the infant.

49. The nurse has identified the nursing diagnosis of imbalanced nutrition: less than body requirements related to altered taste sensation in a patient with lung cancer who has had a 10% loss in weight. An appropriate nursing intervention that addresses the etiology of this problem is to

- A. Add strained baby meats to foods such as soups and casseroles
- B. Provide foods that are highly spiced to stimulate the taste buds
- C. Avoid presenting foods for which the patient has a strong dislike
- D. Teach the patient to eat whatever is nutritious since food is tasteless

Correct Answer: C. Avoid presenting foods for which the patient has a strong dislike

- **Option C:** The patient will eat more if disliked foods are avoided and foods that patient likes are included instead.
- **Option A:** Adding baby meats to foods will increase calorie and protein levels, but does not address the issue of taste.
- **Option B:** Additional spice is not usually an effective way to enhance the taste.
- **Option D:** Patients will not improve intake by eating foods that are beneficial but have an unpleasant taste.

50. A 28-year-old male patient presents to the emergency department with a sudden onset of severe headache, neck stiffness, and confusion. His roommate mentions that the patient had been complaining of flu-like symptoms for the past few days. Given the patient's presentation and the information provided, the nurse suspects acute meningitis. As the nurse continues the assessment,

the patient, though disoriented, tries to describe some of the symptoms he has been experiencing. Based on the suspicion of acute meningitis, which of the following symptoms reported by the patient would the nurse consider not expected for this condition?

- A. A sudden increase in appetite over the past 24 hours
- B. Episodes of vomiting, especially in the morning
- C. High fever and chills
- D. Sensitivity to light, preferring to stay in a dark room
- E. Muscle aches and joint pain
- F. Ringing in the ears

Correct Answer: A. A sudden increase in appetite over the past 24 hours

Loss of appetite would be expected, not increase in appetite. Most cases of meningitis are caused by an infectious agent that has colonized or established a localized infection elsewhere in the host. Potential sites of colonization or infection include the skin, the nasopharynx, the respiratory tract, the gastrointestinal (GI) tract, and the genitourinary tract. The organism invades the submucosa at these sites by circumventing host defenses (eg, physical barriers, local immunity, and phagocytes or macrophages).

Vomiting occurs in 35% of patients with meningitis. The brain is naturally protected from the body's immune system by the barrier that the meninges create between the bloodstream and the brain. Normally, this protection is an advantage because the barrier prevents the immune system from attacking the brain. However, in meningitis, the blood-brain barrier can become disrupted; once bacteria or other organisms have found their way to the brain, they are somewhat isolated from the immune system and can spread.

The classic triad of meningitis consists of fever, nuchal rigidity, and altered mental status. When the body tries to fight the infection, the problem can worsen; blood vessels become leaky and allow fluid, WBCs, and other infection-fighting particles to enter the meninges and brain. This process, in turn, causes brain swelling and can eventually result in decreasing blood flow to parts of the brain, worsening the symptoms of infection.

Other symptoms include photalgia (photophobia): discomfort when the patient looks into bright lights. Depending on the severity of bacterial meningitis, the inflammatory process may remain confined to the subarachnoid space. In less severe forms, the pial barrier is not penetrated, and the underlying parenchyma remains intact. However, in more severe forms of bacterial meningitis, the pial barrier is breached, and the underlying parenchyma is invaded by the inflammatory process. Thus, bacterial meningitis may lead to widespread cortical destruction, particularly when left untreated.

51. Nurse Trish suggests a crisis intervention group to a client experiencing a developmental crisis. These groups are successful because the:

- A. Crisis intervention worker is a psychologist and understands behavior patterns.
- B. Crisis group supplies a workable solution to the client's problem.
- C. Clients are encouraged to talk about personal problems.
- D. Client is assisted to investigate alternative approaches to solving the identified problem.

Correct Answer: D. Client is assisted to investigate alternative approaches to solving the identified problem

Crisis intervention groups help clients reestablish psychologic equilibrium by assisting them to explore new alternatives for coping. It considers realistic situations using rational and flexible problem-solving methods. Crisis intervention is a short-term management technique designed to reduce potential permanent damage to an individual affected by a crisis. A crisis is defined as an overwhelming event, which can include divorce, violence, the passing of a loved one, or the discovery of a serious illness.

- **Option A:** There are many approaches to integrating crisis intervention, and a member of the healthcare team can complete each step. First responders can triage and assess the situation and administer psychological first aid as needed to victims of a traumatic event to prevent any long-term mental health problems. This approach allows immediate access to crisis intervention, which will facilitate care and lead to improved outcomes. In a hospital setting, the needs of a patient in crisis should be well communicated throughout the management team. As one study suggests, in times of crisis intervention, health professionals should discuss in advance and agree on a plan of care to better facilitate the recovery of the patient.
- **Option B:** A successful intervention involves obtaining background information on the patient, establishing a positive relationship, discussing the events, and providing emotional support. SAFER-R is a common intervention model used, which consists of stabilization, acknowledgment, facilitate understanding, encouragement, recovery, and referral. SAFER-R helps patients return to their mental baseline following a crisis.
- **Option C:** Based on prior studies, it is evident that crisis intervention plays a significant role in enhancing outcomes in psychiatric cases. Community Mental Health Centers and local government agencies often have crisis intervention teams that provide support to the local community at times of mental health crisis. These teams can also be helpful at times of natural or man-made emergencies. Crisis intervention teams often assess and triage the situation and can diffuse the situation and triage for urgent attention of medical or mental health personnel in emergency or community care settings.

52. A toddler has recently been diagnosed with cerebral palsy. Which of the following information should the nurse provide to the parents? Select all that apply.

- A. Regular developmental screening is important to avoid secondary developmental delays.
- B. Cerebral palsy is caused by injury to the upper motor neurons and results in motor dysfunction, as well as possible ocular and speech difficulties.
- C. Developmental milestones may be slightly delayed but usually will require no additional intervention.
- D. Parent support groups are helpful for sharing strategies and managing health care issues.
- E. Therapies and surgical interventions can cure cerebral palsy.

Correct Answer: A, B, and D.

Delayed developmental milestones are characteristic of cerebral palsy, so regular screening and intervention is essential. Because of injury to upper motor neurons, children may have ocular and speech difficulties. Parent support groups help families to share and cope. Physical therapy and other interventions can minimize the extent of the delay in developmental milestones.

- **Option A:** During a developmental screening, a short test is given to see if the child has specific developmental delays, such as motor or movement delays. If the results of the screening test are

cause for concern, then the doctor will make referrals for developmental and medical evaluations.

- **Option B:** Cerebral palsy (CP) is a group of disorders that affect a person's ability to move and maintain balance and posture. CP is the most common motor disability in childhood. Cerebral means having to do with the brain. Palsy means weakness or problems with using the muscles. CP is caused by abnormal brain development or damage to the developing brain that affects a person's ability to control his or her muscles.
- **Option C:** Delayed developmental milestones definitely need interventions and constant follow ups. Developmental monitoring (also called surveillance) means tracking a child's growth and development over time. If any concerns about the child's development are raised during monitoring, then a developmental screening test should be given as soon as possible.
- **Option D:** Both early intervention and school-aged services are available through a special education law—the Individuals with Disabilities Education Act (IDEA). Part C of IDEA deals with early intervention services (birth through 36 months of age), while Part B applies to services for school-aged children (3 through 21 years of age). Even if the child has not been diagnosed with CP, he or she may be eligible for IDEA services.
- **Option E:** Cerebral palsy has no cure, but treatment can improve the lives of those who have the condition. After a CP diagnosis is made, a team of health professionals works with the child and family to develop a plan to help the child reach his or her full potential. Common treatments include medicines; surgery; braces; and physical, occupational, and speech therapy. No single treatment is the best one for all children with CP. Before deciding on a treatment plan, it is important to talk with the child's doctor to understand all the risks and benefits.

53. Antidepressants generally exert influence by:

- A. Increasing the reuptake of norepinephrine
- B. Altering the action of the cyproprotein (MAO)
- C. Changing the availability of dopamine
- D. Changing the availability of select neurotransmitters

Correct Answer: D. Changing the availability of select neurotransmitters

This choice best describes the effect of antidepressants in general. All currently licensed antidepressants are believed to work by increasing the neurotransmitters serotonin or norepinephrine, or both, in the synapse. The mechanisms to increase these neurotransmitters vary, though antidepressant drugs target reuptake by the nerve terminals.

- **Option A:** Selective serotonin reuptake inhibitors (SSRIs) work by inhibiting 5-HT reuptake by the presynaptic cleft in a synapse, thus increasing available serotonin levels. Serotonin and norepinephrine reuptake inhibitors (SNRIs) block serotonin reuptake, like SSRIs, however, they also block norepinephrine reuptake in the synapse.
- **Option B:** Monoamine oxidase inhibitors (MAOIs), work by inhibiting the monoamine oxidase enzyme, which catabolizes serotonin, norepinephrine, and dopamine. Another antidepressant drug that does not work by blocking reuptake is mirtazapine. Mirtazapine works by blocking alpha-2 adrenergic receptors on the cell bodies and nerve terminals, promoting the release of norepinephrine into the synapse.
- **Option C:** Another atypical antidepressant, agomelatine, works by agonizing melatonin receptors MT1 and MT2 while antagonizing serotonergic 5-HT_{2C} receptors, promoting dopamine and norepinephrine release. Serotonin modulators, like nefazodone, may work by down-regulating

postsynaptic serotonin 5-HT_{2A} receptors.

54. A client with emphysema is prescribed corticosteroid therapy on a short-term basis for acute bronchitis. The client asks the nurse how the steroids will help him. The nurse responded by saying that the corticosteroids will do which of the following?

- A. Promote bronchodilation
- B. Help the client to cough
- C. Prevent respiratory infection
- D. Decrease inflammation in the airways

Correct Answer: D. Decrease inflammation in the airways

Glucocorticoids are prescribed because of their anti-inflammatory effect. Options 1, 2, and 4 are not achieved with glucocorticoids. Corticosteroids produce their effect through multiple pathways. In general, they produce anti-inflammatory and immunosuppressive effects, protein and carbohydrate metabolic effects, water and electrolyte effects, central nervous system effects, and blood cell effects.

- **Option A:** The glucocorticoid receptor is located intracellularly within the cytoplasm and upon binding trans-locates rapidly into the nucleus where it affects gene transcription and causes inhibition of gene expression and translation for inflammatory leukocytes and structural cells such as epithelium. This action leads to a reduction in proinflammatory cytokines, chemokines, and cell adhesion molecules, as well as other enzymes involved in the inflammatory response.
- **Option B:** The non-genomic mechanism occurs more rapidly and is mediated through interactions between the intracellular glucocorticoid receptor or a membrane-bound glucocorticoid receptor. Within seconds to minutes of receptor activation, a cascade of effects is set off, including inhibition of phospholipase A₂, which is critical for the production of inflammatory cytokines, impaired release of arachidonic acid, and regulation of apoptosis in thymocytes.
- **Option C:** Their nonendocrine role regularly takes advantage of their potent anti-inflammatory and immunosuppressive effects to treat patients with a wide range of immunologic and inflammatory disorders. Corticosteroids are used at physiologic doses as replacement therapy in cases of adrenal insufficiency and supraphysiologic doses in treatments for anti-inflammatory and immunosuppressive effects.

55. One leadership theory states that “leaders are born and not made,” which refers to which of the following theories?

- A. Trait
- B. Charismatic
- C. Great Man
- D. Situational

Correct Answer: C. Great Man

Leaders become leaders because of their birthright. This is also called Genetic theory or the Aristotelian theory. This quote sums up the basic tenet of the Great Man theory of leadership, which suggests that the capacity for leadership is innate. According to this theory, you're either a natural-born

leader or you're not. The term "Great Man" was used because, at the time, leadership was thought of primarily as a male quality, especially in terms of military leadership.

- **Option A:** According to trait leadership theory, effective leaders have in common a pattern of personal characteristics that support their ability to mobilize others toward a shared vision. These traits include dimensions of personality and motives, sets of skills and capabilities, and behavior in social relationships.
- **Option B:** Charismatic leadership is a trait-based leadership theory where the leaders act as visionary driven by their convictions and motivate their followers to work towards a common vision using their charm and persuasiveness. Leaders are able to cultivate a profound sense of trust with the group of followers.
- **Option D:** The situational theory of leadership refers to those leaders who adopt different leadership styles according to the situation and the development level of their team members. It is an effective way of leadership because it adapts to the team's needs and sets a beneficial balance for the whole organization.

56. A client with a deep decubitus ulcer is receiving therapy in the hyperbaric oxygen chamber. Before therapy, the nurse should:

- A. Apply an occlusive dressing to the site
- B. Apply a lanolin-based lotion to the skin
- C. Wash the skin with water and pat dry
- D. Cover the area with a petroleum gauze

Correct Answer: C. Wash the skin with water and pat dry

- Option C: The client going for therapy in the hyperbaric oxygen chamber requires no special skincare; therefore, washing the skin with water and patting it dry is suitable.
- Options A, B, and D: Lotions, petroleum products, perfumes, and occlusive dressings interfere with oxygenation of the skin.

57. A nurse is preparing to obtain a sputum specimen from a male client. Which of the following nursing actions will facilitate obtaining the specimen?

- A. Limiting fluid.
- B. Having the client take deep breaths.
- C. Asking the client to spit into the collection container.
- D. Asking the client to obtain the specimen after eating.

Correct Answer: B. Having the client take deep breaths.

To obtain a sputum specimen, the client should rinse the mouth to reduce contamination, breathe deeply, and then cough into a sputum specimen container. To cough deeply from the lungs, the client might need to take three deep breaths before he coughs forcefully.

- **Option A:** Sputum can be thinned by fluids or by a respiratory treatment such as inhalation of nebulized saline or water. Drinking plenty of fluids can help loosen the secretions and make it easier to cough up sputum. The doctor may ask the client to rinse out his mouth with clear water to

help get rid of any other bacteria and extra saliva.

- **Option C:** The client should be encouraged to cough and not spit so as to obtain sputum. To be sure the test is accurate, the client must cough up sputum from deep inside the lungs. Sputum from the lungs is usually thick and sticky. Saliva comes from your mouth and is watery and thin. Do not collect saliva.
- **Option D:** The optimal time to obtain a specimen is on rising in the morning. As soon as the client wakes up in the morning (before he eats or drinks anything), he should brush his teeth and rinse his mouth with water. Do not use mouthwash.

58. Which of the following is the most appropriate activity for a 5-year-old child?

- A. Squeeze toy
- B. Board games
- C. Play-Doh
- D. Computer games

Correct Answer: C. Play-Doh

In the preschooler, play is simple and imaginative that includes activities such as puppets, play-doh, and coloring books. While the kids are molding play dough into different shapes, they are actually building up strength in their tiny hands. The acts of squishing, rolling, flattening, and more help your children develop muscles used in their hands for fine motor movements useful in the future, such as holding a pencil or using scissors.

- **Option A:** Easy and safe to hold toys such as squeeze toys are appropriate for infants. Infants are fascinated with movement, sounds, and simple black and white visuals. They are discovering their own bodies, working on eye-hand coordination, reaching, and grasping.
- **Option B:** Toys that require concentration such as board games are appropriate for the school-age child. In addition to teaching them about teamwork, patience, and how to win and lose gracefully, board games can actually benefit kids' brains and language development.
- **Option D:** A play that requires problem-solving techniques like computer games is appropriate for an adolescent. Some games might improve kids' hand-eye coordination and problem-solving skills. Video games that require kids to actually move or manipulate the game through their own physical movement can even get sedentary kids moving.

59. Instructions for a client with systemic lupus erythematosus (SLE) would include information about which of the following blood dyscrasias?

- A. Dressler's syndrome
- B. Polycythemia
- C. Essential thrombocytopenia
- D. Von Willebrand's disease

Correct Answer: C. Essential thrombocytopenia

Essential thrombocytopenia is linked to immunologic disorders, such as SLE and the human immunodeficiency virus.

- **Option A:** Dressler's syndrome is pericarditis that occurs after myocardial infarction and isn't linked to SLE.
- **Option B:** Moderate to severe anemia is associated with SLE, not polycythemia. It is found in about 50% of patients, with anemia of chronic disease being the most common form.
- **Option D:** Von Willebrand disease is a blood disorder in which the blood doesn't clot properly. Blood contains many proteins that help the body stop bleeding. One of these proteins is called von Willebrand factor.

60. The care for the client places priority on which of the following:

- A. Monitoring his vital signs every hour.
- B. Providing a quiet, dim room.
- C. Encouraging adequate fluids and nutritious foods.
- D. Administering Librium as ordered.

Correct Answer: A. Monitoring his vital signs every hour

Pulse and blood pressure are usually elevated during withdrawal; Elevation may indicate impending delirium tremens. Patients with severe withdrawal symptoms may require escalating doses and intensive care level monitoring. Alcohol withdrawal can range from very mild symptoms to the severe form, which is named delirium tremens. The hallmark is autonomic dysfunction resulting from the excitation of the central nervous system.

- **Option B:** The client needs a quiet, well-lighted, consistent, and secure environment. Excessive stimulation can aggravate anxiety and cause illusions and hallucinations. Patients should be kept calm in a controlled environment to try to reduce the risks of progression from mild symptoms to hallucinations. With mild to moderate symptoms, patients should receive supportive therapy in the form of intravenous rehydration, correction of electrolyte abnormalities, and have comorbid conditions as listed above ruled out.
- **Option C:** Adequate nutrition with supplements of Vit. B should be ensured. Alcoholics tend to have nutritional deficiencies and thus should be provided with folic and thiamine supplements. Some patients may benefit from magnesium supplements.
- **Option D:** Sedatives are used to relieve anxiety. The hallmark of management for severe symptoms is the administration of long-acting benzodiazepines. The most commonly used benzodiazepines are intravenous diazepam (Valium) or intravenous lorazepam (Ativan) for management.

61. All of the following can cause tachycardia except:

- A. Fever
- B. Exercise
- C. Sympathetic nervous system stimulation
- D. Parasympathetic nervous system stimulation

Correct Answer: D. Parasympathetic nervous system stimulation

Parasympathetic nervous system stimulation of the heart decreases the heart rate as well as the force of contraction, rate of impulse conduction and blood flow through the coronary vessels. Fever, exercise, and sympathetic stimulation all increase the heart rate. The parasympathetic nervous system (PNS) releases the hormone acetylcholine to slow the heart rate. Such factors as stress, caffeine, and excitement may temporarily accelerate your heart rate, while meditating or taking slow, deep breaths may help to slow your heart rate.

- **Option A:** Tachypnea and tachycardia develop, and the patient becomes dehydrated because of sweating and vapor losses from the increased respiratory rate. Many manifestations of fever are related to the increased metabolic rate, increased need for oxygen, and use of body proteins as an energy source.
- **Option B:** Often, ventricular tachycardia will occur during the recovery period post exercise due to increased levels of adrenaline. In a study conducted in 1991, it was found that 70% of patients tested experienced idiopathic ventricular tachycardia as a result of exercise. Exercising for any duration will increase your heart rate and will remain elevated for as long as the exercise is continued. At the beginning of exercise, your body removes the parasympathetic stimulation, which enables the heart rate to gradually increase. As you exercise more strenuously, the sympathetic system “kicks in” to accelerate your heart rate even more.
- **Option C:** Heart rate is controlled by the two branches of the autonomic (involuntary) nervous system. The sympathetic nervous system (SNS) and the parasympathetic nervous system (PNS). The sympathetic nervous system (SNS) releases the hormones (catecholamines – epinephrine and norepinephrine) to accelerate the heart rate.

62. A labyrinthectomy can be performed to treat Meniere’s syndrome. This procedure results in:

- A. Anosmia
- B. Absence of pain
- C. Reduction in cerumen
- D. Permanent irreversible deafness

Correct Answer: D. Permanent irreversible deafness.

The labyrinth is the inner ear and consists of the vestibule, cochlea, semicircular canals, utricle, saccule, cochlear duct, and membranous semicircular canals. A labyrinthectomy is performed to alleviate the symptoms of vertigo but results in deafness, because the organ of Corti and cochlear nerve are located in the inner ear. Its goal is to ablate abnormal signals from a diseased vestibular system in order to facilitate central compensation, and it is generally very successful.

- **Option A:** Anosmia is the inability to perceive smell/odor. It can be temporary or permanent and acquired or congenital. There are many causes. Neurological causes can include disturbances to the sensory nerves that make up the olfactory bulb or anywhere along the path in which the signal of smell is transferred to the brain.
- **Option B:** Total hearing loss, not absence of pain, in the operated ear is expected. Vertigo control rates are high (95 to 100%), but there is a significant possibility of persistent disequilibrium.
- **Option C:** The dizziness resulting from a stable vestibulopathy (such as loss of a vestibular organ, or one-time damage to a vestibular organ) can typically be alleviated by central compensation, which can be facilitated by physiotherapy and rehabilitation. Labyrinthectomy is one option for the surgical ablation of the affected organ(s) of the vestibular system, essentially converting an unstable vestibulopathy to a stable one.

63. Which of the following is true about protease inhibitors?

- A. Work better when used alone.
- B. Are the same as nucleoside analogs.
- C. Affect replication of HIV at different stages than nucleoside analogs.
- D. Have a high level of toxicity.

Correct Answer: C. Affect replication of HIV at different stages than nucleoside analogs.

Protease inhibitors cleave the viral polyprotein precursors that are essential for the maturation of infectious viruses. HIV-1 protease causes cleavage of protein precursors generating new viral particles. Protease inhibitors disrupt this cleavage process, hence interrupting the production of new viral particles.

- **Option A:** Protease inhibitors work best when used in combination with other drugs. Lopinavir/ritonavir, in combination with other standard ARV medications, has provided significant virological suppression and better immune outcomes in both treatment-naive and treatment-experienced patients.
- **Option B:** Nucleosides interfere with the replication of HIV by inhibiting reverse transcriptase. The nucleoside/nucleotide reverse transcriptase inhibitors (NRTIs) were the first class of antiretroviral drugs to be approved by the FDA. NRTIs are taken as prodrugs and must be taken into the host cell and phosphorylated before they become active. Once inside the host cell, cellular kinases will activate the drug. The drug exerts its effect through its structure.
- **Option D:** Because there is a small quantity of ritonavir in combination with lopinavir/ritonavir, there are few reports of ritonavir toxicity. However, there have been a few case reports suggesting retinal toxicity secondary to ritonavir. One such case showed an improvement after discontinuing ritonavir after 2 and 4 weeks.

64. When examining the fetal monitor strip after the rupture of the membranes in a laboring client, the nurse notes variable decelerations in the fetal heart rate. The nurse should:

- A. Stop the oxytocin infusion
- B. Change the client's position
- C. Prepare for immediate delivery
- D. Take the client's blood pressure

Correct Answer: B. Change the client's position.

Variable decelerations usually are seen as a result of cord compression; a change of position will relieve pressure on the cord. Variable decelerations can be seen resulting from the fetal movement if the fetus is premature. In the term fetus, variable decelerations result from vagus nerve-mediated parasympathetic effects on the heart. There are several theories regarding the pathway that leads to this vagal stimulation.

- **Option A:** If a patient is having uterine tachysystole, reducing the number of contractions by decreasing oxytocin or administration of a beta-agonist may be appropriate.

- **Option C:** Ultimately, if the fetal heart tracing is persistently abnormal, facilitating delivery is indicated. In the term, laboring patient, an operative vaginal delivery may be considered. If the patient is remote from delivery, it may indicate the need for cesarean delivery. In a patient with preterm prelabor rupture of membranes, induction or augmentation of labor may be the next step if the fetus is in the vertex presentation. Alternatively, cesarean delivery may be indicated if the fetus is in the breech presentation.
- **Option D:** Fetal heart rate tracings reflect the response of the fetal central nervous system to intrauterine hypoxia. Variable decelerations are under vagal mediation through baroreceptors or chemoreceptors. Possibly, direct cord compression leads to fetal hypertension, which in turn leads to baroreceptor response and subsequent vagal-mediated heart rate decrease. Alternatively, hypoxemia resulting from decreased uteroplacental perfusion triggers chemoreceptors, which in turn lead to a cascade of physiologic responses that ultimately result in vagal-mediated heart rate decrease.

65. The placenta should be delivered normally within how many minutes after the delivery of the baby?

- A. 5 minutes
- B. 30 minutes
- C. 45 minutes
- D. 60 minutes

Correct Answer: B. 30 minutes

The placenta is delivered within 30 minutes from the delivery of the baby. If it takes longer, probably the placenta is abnormally adherent and there is a need to refer already to the obstetrician.

- **Option A:** The absolute time limit for delivery of the placenta, without evidence of significant bleeding, remains unclear. Periods ranging from 30-60 minutes have been suggested.
- **Option C:** Retained placenta can be defined as lack of expulsion of the placenta within 30 minutes of delivery of the infant. This is a reasonable definition in the third trimester when the third stage of labor is actively managed (ie, administration of a uterotonic agent before delivery of the placenta, controlled cord traction) because 98 percent of placentas are expelled by 30 minutes in this setting.
- **Option D:** Physiologic management of the third stage (ie, delivery of the placenta without the use of uterotonic agents or cord traction) increases the frequency of retained placenta: only 80 percent of placentas are expelled by 30 minutes and it takes approximately 60 minutes before 98 percent of placentas are expelled.

66. A male client blood test results are as follows: white blood cell (WBC) count, 100ul; hemoglobin (Hb) level, 14 g/dl; hematocrit (HCT), 40%. Which goal would be most important for this client?

- A. Promote fluid balance
- B. Prevent infection
- C. Promote rest
- D. Prevent injury

Correct Answer: B. Prevent infection

The client is at risk for infection because WBC count is dangerously low. Neutrophils play an essential role in immune defenses because they ingest, kill, and digest invading microorganisms, including fungi and bacteria. Failure to carry out this role leads to immunodeficiency, which is mainly characterized by the presence of recurrent infections. Hb level and HCT are within normal limits; therefore, fluid balance, rest, and prevention of injury are inappropriate.

- **Option A:** Neutrophils play a role in the immune defense against extracellular bacteria, including Staphylococci, Streptococci, and Escherichia coli, among others. They also protect against fungal infections, including those produced by Candida albicans. Once their count is below $1 \times 10^6/L$ recurrent infections start. As compensation, the monocyte count may increase.
- **Option C:** Application of granulocyte-colony stimulating factor (G-CSF) can improve neutrophil functions and number. Prophylactic use of antibiotics and antifungals is reserved for some forms of alteration in neutrophil function such as chronic granulomatous disease CGD).
- **Option D:** In primary neutropenia disorders such as chronic granulomatous disease presents with recurrent infections affecting many organs since childhood. It is caused by a failure to produce toxic reactive oxygen species so that the neutrophils can ingest the microorganisms, but they are unable to kill them, as a significant consequence granuloma can obstruct organs such as the stomach, esophagus, or bladder. Patients with this disease are very susceptible to opportunistic infections by certain bacteria and fungi, especially with Serratia and Burkholderia.

67. Which nurse should be assigned to care for the postpartum client with preeclampsia?

- A. The RN with 2 weeks of experience in postpartum
- B. The RN with 3 years of experience in labor and delivery
- C. The RN with 10 years of experience in surgery
- D. The RN with 1 year of experience in the neonatal intensive care unit

Correct Answer: B. The RN with 3 years of experience in labor and delivery

The nurse with 3 years of experience in labor and delivery knows the most about possible complications involving preeclampsia. Registered nurses need to know their rights and responsibilities when considering a patient assignment. The nurse-patient assignment process is also often a manual process in which the charge nurse must sort through multiple decision criteria in a limited amount of time.

- **Option A:** The nurse is a new staff to the unit hence lacking the experience needed. Most nurse-patient assignment models have focused on balancing patient acuity measures. This focus on patient acuity concentrates workload measures on direct patient care activities. While this is very important for the care of the patient, it does not necessarily take into account all of the activities comprising a nurse's workload.
- **Option C:** The nurse with experience in surgery does not have the same experience in labor and delivery. Balancing workload among nurses on a hospital unit is important for the satisfaction and safety of nurses and patients. To balance nurse workloads, direct patient care activities, indirect patient care activities, and non-patient care activities that occur throughout a shift must be considered.
- **Option D:** This nurse lacks sufficient experience with a postpartum client. Limitations in experience and knowledge may not require refusal of the assignment, but rather an agreement regarding

supervision or a modification of the assignment to ensure patient safety. If no accommodation for limitations is considered, the nurse has an obligation to refuse an assignment for which she or he lacks education or experience.

68. Which of the following assessment data indicated nuchal rigidity?

- A. Positive Kernig's sign
- B. Negative Brudzinski's sign
- C. Positive Homan's sign
- D. Negative Kernig's sign

Correct Answer: A. Positive Kernig's sign

A positive Kernig's sign indicated nuchal rigidity, caused by an irritative lesion of the subarachnoid space. Brudzinski's sign is also indicative of the condition. To elicit the Kernig sign, clinicians typically perform the exam with the patient lying supine with the thighs flexed on the abdomen, and the knees flexed. The examiner then passively extends the legs. In the presence of meningeal inflammation, the patient will resist leg extension or describe pain in the lower back or posterior thighs, which indicates a positive sign.

- **Option B:** Brudzinski's sign is characterized by reflexive flexion of the knees and hips following passive neck flexion. To elicit this sign, the examiner places one hand on the patient's chest and the other hand behind the patient's neck. The examiner then passively flexes the neck forward and assesses whether the knees and hips flex. Upon passive neck flexion, a positive test results when the patient flexes his knees and hips.
- **Option C:** Homan's sign test also called dorsiflexion sign test is a physical examination procedure that is used to test for deep vein thrombosis (DVT). A positive Homan's sign in the presence of other clinical signs may be a quick indicator of DVT. Clinical evaluation alone cannot be relied on for patient management, but when carefully performed, it remains useful in determining the need for additional testing (like D-dimer test, ultrasonography, multidetector helical computed axial tomography (CT), and pulmonary angiography)
- **Option D:** When the meninges in the spinal cord and spinal nerves are inflamed, patients will resist stretching the cord and the nerves to prevent pain resulting from this inflammation. These clinical maneuvers appear to provoke this stretching.; this is why contractures occur when performed, resulting in a positive test.

69. As goals, outcomes, and interventions are developed, the nurse must:

- A. Be in charge of all care and planning for the client.
- B. Be aware of and committed to accepted standards of practice from nursing and other disciplines.
- C. Not change the plan of care for the client.
- D. Be in control of all interventions for the client.

Correct Answer: B. Be aware of and committed to accepted standards of practice from nursing and other disciplines.

Whenever a healthcare provider intervenes or implements care, they must reassess or evaluate to ensure the desired outcome has been met. Reassessment may frequently be needed depending upon

overall patient condition. The plan of care may be adapted based on new assessment data.

- **Option A:** Patients' participation in decision-making in health care and treatment is not a new area, but currently it has become a political necessity in many countries and health care systems around the world. Emphasizing the importance of participation in the decision-making process motivates the service provider and the health care team to promote participation of patients in treatment decision-making.
- **Option C:** A review of some literature reveals that participation of patients in health care has been associated with improved treatment outcomes. Moreover, this participation causes improved control of diabetes, better physical functioning in rheumatic diseases, enhanced patients' compliance with secondary preventive actions, and improvement in health of patients with myocardial infarction.
- **Option D:** With enhanced patient participation, and considering patients as equal partners in healthcare decision making patients are encouraged to actively participate in their own treatment process and follow their treatment plan and thus a better health maintenance service would be provided.

70. The nurse is evaluating a client recently diagnosed with primary open angle glaucoma (POAG). What will an important nursing action be? Select all that apply.

- A. Review meds the client is currently on to determine whether any of them cause an increased intraocular pressure as a side effect.
- B. Determine whether the client has any sudden loss of vision accompanied by pain.
- C. Discuss with the client the importance of controlling blood pressure to decrease the potential loss of peripheral vision.
- D. Instruct the client to take analgesics as soon as any discomfort occurs in the eye and to notify clinic if pain is not relieved.
- E. Have the client demonstrate the use of eye drops.
- F. Assess the client for chronic diseases such as diabetes.

Correct Answer: A, E, and F.

Open-angle glaucoma is a chronic, progressive, and irreversible multifactorial optic neuropathy that is characterized by an open angle of the anterior chamber, optic nerve head changes, progressive loss of peripheral vision, followed by central visual field loss.

- **Option A:** Medications must be evaluated in terms of their potential for increasing the intraocular pressure. An increase in intraocular pressure could cause further damage to a patient with POAG.
- **Option B:** POAG is painless. Early changes in OAG involve a loss of peripheral vision that the patient is usually not aware of until 40% of their nerve fibers have been compromised, only then do they start to notice having "tunnel vision."
- **Option C:** The question states the client is already diagnosed. Open-angle glaucoma is often asymptomatic in its early stages, therefore, a thorough and comprehensive history and exam can be instrumental in detecting the disease early.
- **Option D:** POAG is not correlated to BP. Elevated intraocular pressure is an important risk factor for open-angle glaucoma and can be a result of primary or secondary causes.

- **Option E:** Ophthalmic drops are often prescribed for glaucoma and clients should know how to administer them correctly. Some patients will attempt to use their drops every day but will fail to properly deliver the medications into their eyes and thus the medication will not be absorbed, specifically at-risk elder populations, who may struggle with administering drops into their own eyes.
- **Option F:** Diabetes is a risk factor and its management is important in helping slow POAG. Type 2 diabetes is a risk factor for primary open-angle glaucoma. This has been demonstrated by large epidemiologic studies including the Los Angeles Latino Eye Study and the Blue Mountains eye study in Australia.

71. When used with hyperacidic disorders of the stomach, antacids are given to elevate the gastric pH to:

- A. 2.0
- B. 4.0
- C. 6.0
- D. >8.0

Correct Answer: A. 2.0

Antacids are a group of drugs that have been on the market for many years. They were initially first-line defense against peptic ulcer disease; however, the discovery of proton pump inhibitors revolutionized the treatment of peptic ulcer disease. Currently, antacid use is restricted to the relief of mild intermittent gastroesophageal reflux disease (GERD) associated with heartburn.

- **Option B:** The formulation of aluminum hydrochloride and water results in the neutralization of the acid in the stomach. It is also known to inhibit pepsin activity. Aluminum hydroxide is complexed with a sulfated polysaccharide sucrose octasulfate to form sucralfate. This complex does not have a significant buffering action against the acid or has no effect on the pepsin secretion and does not alter the gastric acid production in any way.
- **Option C:** Calcium salts neutralize gastric acidity resulting in increased gastric and duodenal bulb pH; they additionally inhibit the proteolytic activity of pepsin if the pH is greater than 4 and increase lower esophageal sphincter tone. The calcium released from calcium carbonate is known to increase peristalsis in the esophagus, pushing the acid into the stomach and providing relief from symptoms of heartburn.
- **Option D:** The dose for antacids depends upon the age of the patient, the purpose of administration (neutralization of acid or off-label use), and the presence of other comorbidities like renal or hepatic impairment. As all the forms of these medications are available as over-the-counter medication, the dosing recommendation varies by product/and or manufacturer.

72. As the client reaches 8 cm dilation, the nurse notes late decelerations on the fetal monitor. The FHR baseline is 165–175 bpm with variability of 0–2bpm. What is the most likely explanation of this pattern?

- A. The baby is asleep.
- B. The umbilical cord is compressed.
- C. There is a vagal response.

D. There is uteroplacental insufficiency.

Correct Answer: D. There is uteroplacental insufficiency.

This information indicates a late deceleration. This type of deceleration is caused by uteroplacental lack of oxygen. Late decelerations are one of the precarious decelerations among the three types of fetal heart rate decelerations during labor. They are caused by decreased blood flow to the placenta and can signify an impending fetal acidemia.

- **Option A:** Has no relation to the readings. The primary etiology of a late declaration is found to be uteroplacental insufficiency. Decreased blood flow to the placenta causes a reduced amount of blood and oxygen to the fetus.
- **Option B:** Compressed umbilical cord results in a variable deceleration. The central pathophysiology behind late deceleration involves uterine contraction constricting blood vessels in the wall of the uterus which decreases blood flow through the intervillous space of the placenta, reducing diffusion of oxygen into fetal capillaries causing decreased fetal PO₂.
- **Option C:** A vagal response is indicative of an early deceleration. When fetal PO₂ decreases, chemoreceptors initiate an autonomic response in the fetus causing intense vasoconstriction with increased blood pressure. The elevated blood pressure is perceived by the baroreceptors which ultimately stimulate the parasympathetic system to decrease the fetal heart rate, causing late deceleration.

73. A nurse in a newborn nursery is performing an assessment of a newborn infant. The nurse is preparing to measure the head circumference of the infant. The nurse would most appropriately:

- A. Wrap the tape measure around the infant's head and measure just above the eyebrows.
- B. Place the tape measure under the infant's head at the base of the skull and wrap around to the front just above the eyes
- C. Place the tape measure under the infant's head, wrap around the occiput, and measure just above the eyes
- D. Place the tape measure at the back of the infant's head, wrap around across the ears, and measure across the infant's mouth.

Correct Answer: C. Place the tape measure under the infant's head, wrap around the occiput, and measure just above the eyes.

Option C: To measure the head circumference, the nurse should place the tape measure under the infant's head, wrap the tape around the occiput, and measure just above the eyebrows so that the largest area of the occiput is included.

74. The nurse is handling a client with chronic pancreatitis. Upon reviewing the client's record, which of the following serum amylase levels is to be expected?

- A. 50 units/L.
- B. 150 units/L.
- C. 350 units/L.
- D. 650 units/L.

Correct Answer: C. 350 units/L.

The normal serum amylase level is 25 to 151 unit/L. Clients with chronic pancreatitis have an increased level of serum amylase which does not exceed three times the normal value. Serum amylase and lipase levels may be slightly elevated in chronic pancreatitis; high levels are found only during acute attacks of pancreatitis.

- **Option A:** 50 units/L is a low serum amylase level. Low serum amylase (hypoamylasemia) has been reported in certain common cardiometabolic conditions such as obesity, diabetes (regardless of type), and metabolic syndrome, all of which appear to have a common etiology of insufficient insulin action due to insulin resistance and/or diminished insulin secretion.
- **Option B:** 150 units/L is within the normal values. However, in the later stages of chronic pancreatitis, atrophy of the pancreatic parenchyma can result in normal serum enzyme levels because of significant fibrosis of the pancreas, resulting in decreased concentrations of these enzymes within the pancreas.
- **Option D:** 650 units/L is seen with acute pancreatitis since the value may exceed five times the normal value. The sensitivity and specificity of amylase as a diagnostic test for acute pancreatitis depends on the chosen threshold value. By raising the cut-off level to 1000 IU/l (more than three times the upper limit of normal), amylase has a specificity approaching 95%, but sensitivity as low as 61% in some studies.

75. Which of the following does not match with the appropriate position?

- A. Vaginal examination: Lithotomy position.
- B. Thyroidectomy: Fowler's position.
- C. Hemorrhoidectomy: Lateral position.
- D. Hypophysectomy: Prone position.

Correct Answer: D. Hypophysectomy: Prone position.

Hypophysectomy is the surgical removal of the hypophysis (pituitary gland). After the surgery, the client's head is elevated to prevent increased intracranial pressure. CSF fluid around the brain and spine leaks into the nervous system. This requires treatment with a procedure called a lumbar puncture, which involves inserting a needle into the spine to drain excess fluid.

- **Option A:** Lithotomy position is commonly used during gynecologic, rectal, and urologic surgeries with a patient lying supine with legs abducted 30 to 45 degrees from midline with knees flexed and legs held supported with the foot of the bed lowered or removed to facilitate the procedure.
- **Option B:** When a patient comes back from having their thyroidectomy surgery, place them in a semi-Fowler's position. Sitting totally upright would put the patient at a 90-degree angle, but in a semi-Fowler's position, they are angled between 15 and 45 degrees.
- **Option C:** In lateral position, the lower extremities are carefully padded between the knees and below the dependent knee to avoid excessive external pressure over bony prominences. The dependent lower extremity is somewhat flexed to avoid stretch or compression of the lower extremity nerves.

76. A nurse is performing an assessment on a newly admitted patient who is taking propylthiouracil (PTU) daily. The nurse suspects that the client has a history of?

- A. Addison's disease
- B. Cushing's syndrome
- C. Grave's disease
- D. Myxedema

Correct Answer: C. Grave's disease

Graves' disease is an autoimmune disease that is characterized by overactivity of the thyroid gland resulting in the excessive production of thyroid hormone. The primary goal of treatment for graves disease is to eliminate excess thyroid hormone and decrease the occurrence of long term complications. It includes antithyroid medications such as propylthiouracil (PTU) which inhibits the synthesis of thyroid hormone.

- **Options A & B:** These are disorders related to adrenal function.
- **Option D:** Myxedema indicates hypothyroidism.

77. The doctor has prescribed aspirin 325 mg daily for a client with transient ischemic attacks. The nurse knows that aspirin was prescribed to:

- A. Prevent headaches
- B. Boost coagulation
- C. Prevent cerebral anoxia
- D. Keep platelets from clumping together

Correct Answer: D. Keep platelets from clumping together

- Option D: Aspirin prevents the platelets from clumping together to slow down the blood's clotting action. It reduces the risk of recurrent stroke when used immediately after a transient ischemic attack.
- Options A, B, and D: A low-dose aspirin will not prevent headaches, cerebral anoxia, and boost coagulation.

78. When attending a client with a head and neck trauma following a vehicular accident, the nurse's initial action is to?

- A. Provide oxygen therapy
- B. Initiate intravenous access
- C. Immobilize the cervical area
- D. Do oral and nasal suctioning

Correct Answer: C. Immobilize the cervical area

Clients with suspected or possible cervical spine injury must have their neck immobilized until formal assessment occurs. Maintain cervical spine spinal immobilization and minimize neck movement particularly during transport. Beware that absence of neurologic findings does not eliminate the possibility of spinal cord injury.

- **Option A:** Immediate measures are necessary to maintain breathing and hemodynamic stability, such as oxygen therapy. Hyperbaric oxygen (HBO) therapy has also been shown to exert neuroprotective effects when administered before or after SCI. Experimental studies have revealed various mechanisms that contribute to these neuroprotective effects, including improved spinal cord oxygen tension, decreased apoptosis, reduced inflammation, attenuation of oxidative stress, and improved angiogenesis and autophagy.
- **Option B:** Rapid infusion as quickly as possible of large volumes of crystalloids to restore blood volume and blood pressure is now the standard treatment for patients with combined traumatic brain injury and hemorrhagic shock. The final goal of fluid management is to optimize the circulatory system to ensure the sufficient delivery of oxygen to organs.
- **Option D:** Suctioning is also done after the cervical spine is immobilized. Patients with known or suspected cervical spine injury may require emergent intubation for airway protection and ventilatory support or elective intubation for surgery with or without rigid neck stabilization (i.e., halo).

79. A nurse is planning dietary counseling for the client taking triamterene (Dyrenium). The nurse plans to include which of the following in a list of foods that are acceptable?

- A. Baked potato
- B. Bananas
- C. Oranges
- D. Pears canned in water

Correct Answer: D. Pears canned in water

Triamterene is a potassium-sparing diuretic, and clients taking this medication should be cautioned against eating foods that are high in potassium, including many vegetables, fruits, and fresh meats. Because potassium is very water-soluble, foods that are prepared in water are often lower in potassium.

- **Option A:** Among the potassium-sparing diuretics, triamterene was the second drug of this class to be FDA approved for use in the US following spironolactone. However, despite these two drugs being within the same class and achieving the same desired result, they have two distinct mechanisms of action. While spironolactone is an aldosterone receptor antagonist operating at the late distal tubule and collecting tubules of the nephron on the apical aspect of these sites, triamterene acts at the same region of the nephrons but specifically at the epithelial sodium channels (ENaC) which are on the luminal side. These channels are transmembrane channels that operate to increase sodium uptake in exchange for secreting potassium.
- **Option B:** Potassium-sparing diuretics overdose is relatively rare, and there are no reports of deaths. With mild to moderate toxicity, there can be the development of nausea, vomiting, diarrhea, mild dehydration, and hyperkalemia. If there is severe toxicity, there can be the development of severe dehydration coupled with hyperkalemia, which may lead to dysrhythmias, tachycardia, hypotension, hyperactive deep tendon reflexes, and possibly changes in mental status.
- **Option C:** With the use of triamterene, it is essential to monitor specific labs and blood pressure of patients taking this drug in either its sole or combination form with HCTZ. BUN/creatinine, blood pressure, urine output, serum uric acid, CBC, and electrolytes in particular serum potassium should be monitored at a baseline when first placed on the drug. Once findings indicate the establishment of a stable tolerance of the drug, it can be periodically monitored, specifically when dose changes

are made and during illnesses.

80. An unexpected effect of the drug is known as a(n):

- A. Side effect
- B. Adverse effect
- C. Toxic reaction
- D. Allergic reaction

Correct Answer: B. Adverse effect

An adverse reaction is a harmful and unexpected reaction. An unexpected medical problem that happens during treatment with a drug or other therapy. Adverse effects may be mild, moderate, or severe, and may be caused by something other than the drug or therapy being given. C and D are incorrect because a toxic reaction is a type of adverse reaction.

- **Option A:** A side effect is expected and predictable. A side effect is usually regarded as an undesirable secondary effect which occurs in addition to the desired therapeutic effect of a drug or medication. Side effects may vary for each individual depending on the person's disease state, age, weight, gender, ethnicity, and general health.
- **Option C:** Drug toxicity can occur as a result of the over-ingestion of a medication—having too much of a drug in a person's system at once. This can happen if the dose taken exceeds the prescribed dose, either intentionally or accidentally. With certain medications, drug toxicity can also occur as an adverse drug reaction (ADR).
- **Option D:** An allergic reaction occurs when cells in the immune system interpret a foreign substance or allergen as harmful. The immune system overreacts to these allergens and produces histamine, which is a chemical that causes allergy symptoms, such as inflammation, sneezing, and coughing.

81. 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.

82. The psychiatrist orders lithium carbonate 600 mg p.o t.i.d for a female client. Nurse Katrina would be aware that the teaching about the side effects of this drug were understood when the client state, “I will call my doctor immediately if I notice any:

- A. Sensitivity to bright light or sun.
- B. Fine hand tremors or slurred speech.
- C. Sexual dysfunction or breast enlargement.
- D. Inability to urinate or difficulty when urinating.

Correct Answer: B. Fine hand tremors or slurred speech

These are common side effects of lithium carbonate. Lithium can cause several adverse effects. Typically the side effects are dose-related. Notable side effects include confusion, memory problems, new or worsening tremor, hyperreflexia, clonus, slurred speech, ataxia, stupor, delirium, coma, and seizures (rarely). These effects are theoretically due to excess action on the same sites that mediate therapeutic action.

- **Option A:** Lithium does not cause photosensitivity. Some patients on haloperidol and lithium may develop an encephalopathic syndrome similar to neuroleptic malignant syndrome. Other side effects include acne, rash, and weight gain. Lithium-induced weight gain is more common in women than in men.
- **Option C:** Lithium toxicity can cause interstitial nephritis, arrhythmia, sick sinus syndrome, hypotension, T wave abnormalities, and bradycardia. Rarely, toxicity can cause pseudotumor cerebri and seizures. The mechanism of action of lithium is not known. It is rapidly absorbed, has a small volume of distribution, and is excreted in the urine unchanged (there is no metabolism of lithium).
- **Option D:** Lithium toxicity has no antidote. Treatment for lithium toxicity is primarily hydration and to stop the drug. Give hydration with normal saline, which will also enhance lithium excretion. Avoid all diuretics. If the patient has severe renal dysfunction or failure, or severely altered mental status, then start with hemodialysis. 20 to 30 mg of propranolol given 2 to 3 times per day may help reduce tremors.

83. A schizophrenic client states, “I hear the voice of King Tut.” Which response by the nurse would be most therapeutic?

- A. “I don’t hear the voice, but I know you hear what sounds like a voice.”

- B. "You shouldn't focus on that voice."
- C. "Don't worry about the voice as long as it doesn't belong to anyone real."
- D. "King Tut has been dead for years."

Correct Answer: A. "I don't hear the voice, but I know you hear what sounds like a voice."

This response states reality about the client's hallucination. Voicing doubt can be a gentler way to call attention to the incorrect or delusional ideas and perceptions of patients. By expressing doubt, nurses can force patients to examine their assumptions.

- **Option B:** Sometimes during a conversation, patients mention something particularly important. When this happens, nurses can focus on their statement, prompting patients to discuss it further. Patients don't always have an objective perspective on what is relevant to their case; as impartial observers, nurses can more easily pick out the topics to focus on.
- **Option C:** For patients experiencing sensory issues or hallucinations, it can be helpful to ask about them in an encouraging, non-judgmental way. Phrases like "What do you hear now?" or "What does that look like to you?" give patients a prompt to explain what they're perceiving without casting their perceptions in a negative light.
- **Option D:** The other options are judgmental, flippant, or dismissive. Similar to active listening, asking patients for clarification when they say something confusing or ambiguous is important. Saying something like "I'm not sure I understand. Can you explain it to me?" helps nurses ensure they understand what's actually being said and can help patients process their ideas more thoroughly.

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

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

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

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

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

85. A client's ABG analysis reveals a pH of 7.18, PaCO₂ of 72 mm Hg, PaO₂ of 77 mm Hg, and HCO₃⁻ of 24 mEq/L. What do these values indicate?

- A. Metabolic acidosis
- B. Respiratory alkalosis
- C. Metabolic alkalosis

D. Respiratory acidosis

Correct Answer: D. Respiratory acidosis

Respiratory acidosis is a state in which there is usually a failure of ventilation and an accumulation of carbon dioxide. The primary disturbance of elevated arterial PCO₂ is the decreased ratio of arterial bicarbonate to arterial PCO₂, which leads to a lowering of the pH. To compensate for the disturbance in the balance between carbon dioxide and bicarbonate (HCO₃⁻), the kidneys begin to excrete more acid in the forms of hydrogen and ammonium and reabsorb more base in the form of bicarbonate. This compensation helps to normalize the pH.

- **Option A:** Metabolic acidosis is characterized by an increase in the hydrogen ion concentration in the systemic circulation resulting in a serum HCO₃ less than 24 mEq/L. Blood pH distinguishes between acidemia (pH less than 7.35) and alkalemia (pH greater than 7.45). Metabolic acidosis is due to alterations in bicarbonate, so the pCO₂ is less than 40 since it is not the cause of the primary acid-base disturbance. In metabolic acidosis, the distinguishing lab value is a decreased bicarbonate (normal range 21 to 28 mEq/L).
- **Option B:** A decrease in pH below this range is acidosis, an increase above this range is alkalosis. Respiratory alkalosis is by definition a disease state where the body's pH is elevated to greater than 7.45 secondary to some respiratory or pulmonary process.
- **Option C:** A decrease in pH below this range is acidosis, an increase over this range is alkalosis. Metabolic alkalosis is defined as a disease state where the body's pH is elevated to greater than 7.45 secondary to some metabolic process.

86. A clinical nurse specialist is a nurse who has:

- A. Been certified by the National League for Nursing.
- B. Received credentials from the American Nurses' Association.
- C. Graduated from an associate degree program and is a registered professional nurse.
- D. Completed a master's degree in the prescribed clinical area and is a registered professional nurse.

Correct Answer: D. Completed a master's degree in the prescribed clinical area and is a registered professional nurse.

A clinical nurse specialist must have completed a master's degree in a clinical specialty and be a registered professional nurse. A clinical nurse specialist (CNS) is a graduate-level registered nurse who is certified in a specialty of choice. Obtaining specialty certification demonstrates an advanced level of knowledge as well as advanced clinical skills in a niche area of nursing. There are differences between a nurse practitioner (NP) and CNS.

- **Option A:** The National League of Nursing accredits educational programs in nursing and provides a testing service to evaluate student nursing competence but it does not certify nurses.
- **Option B:** The American Nurses Association identifies requirements for certification and offers examinations for certification in many areas of nursing, such as medical-surgical nursing. This certification (credentialing) demonstrates that the nurse has the knowledge and the ability to provide high-quality nursing care in the area of her certification.
- **Option C:** A graduate of an associate degree program is not a clinical nurse specialist; however, she is prepared to provide bedside nursing with a high degree of knowledge and skill. She must successfully complete the licensing examination to become a registered professional nurse.

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

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

Correct Answer: C. Fresh raw pepper

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

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

88. Which of the following is the primary reason to teach pursed-lip breathing to clients with emphysema?

- A. To promote oxygen intake.
- B. To strengthen the diaphragm.
- C. To strengthen the intercostal muscles.
- D. To promote carbon dioxide elimination.

Correct Answer: D. To promote carbon dioxide elimination.

Pursed lip breathing prolongs exhalation and prevents air trapping in the alveoli, thereby promoting carbon dioxide elimination. By prolonged exhalation and helping the client relax, pursed-lip breathing helps the client learn to control the rate and depth of respiration. Pursed-lip breathing does not promote the intake of oxygen, strengthen the diaphragm, or strengthen intercostal muscles.

- **Option A:** For those suffering from chronic obstructive pulmonary disease, the ability to take in oxygen is a constant struggle. It's possible to increase oxygen levels in other ways, such as cellular therapy. Cellular therapy may promote the healing of lung tissue, potentially improving lung function. When lung function improves, the client is able to take in more oxygen as well as expel carbon dioxide because the lungs are working more effectively.
- **Option B:** Diaphragmatic breathing is a type of a breathing exercise that helps strengthen the diaphragm, an important muscle that helps us breathe. This breathing exercise is also sometimes

called belly breathing or abdominal breathing.

- **Option C:** Breathing exercises slowly fill the lungs with air to expand the chest and work the intercostal muscles. To do this exercise, it is typically recommended to sit or stand with the back straight, then take a full breath from the bottom of the lungs. It can help to think of breathing from the diaphragm, by slowly expanding the abdominal muscles while inhaling, then pushing air from the lungs using these same muscles.

89. Anthony suffers burns on the legs, which nursing intervention helps prevent contractures?

- A. Applying knee splints.
- B. Elevating the foot of the bed.
- C. Hyperextending the client's palms.
- D. Performing shoulder range-of-motion exercises.

Correct Answer: A. Applying knee splints.

Applying knee splints prevents leg contractures by holding the joints in a position of function.

- **Option B:** Elevating the foot of the bed can't prevent contractures because this action doesn't hold the joints in a position of function.
- **Option C:** Hyperextending a body part for an extended time is inappropriate because it can cause contractures.
- **Option D:** Performing shoulder range-of-motion exercises can prevent contractures in the shoulders, but not in the legs.

90. You have a patient that might have a urinary tract infection (UTI). Which statement by the patient suggests that a UTI is likely?

- A. "I pee a lot."
- B. "It burns when I pee."
- C. "I go hours without the urge to pee."
- D. "My pee smells sweet."

Correct Answer: B. "It burns when I pee."

A common symptom of a UTI is dysuria. A patient with a UTI often reports frequent voiding of small amounts and the urgency to void. Symptoms of uncomplicated UTI are pain on urination (dysuria), frequent urination (frequency), inability to start the urine stream (hesitation), sudden onset of the need to urinate (urgency), and blood in the urine (hematuria). Usually, patients with uncomplicated UTI do not have fever, chills, nausea, vomiting, or back pain, which are signs of kidney involvement or upper tract disease/pyelonephritis.

- **Option A:** High amounts of solutes within the renal tubules cause a passive osmotic diuresis (solute diuresis) and thus an increase in urine volume. The classic example of this process is the glucose-induced osmotic diuresis in uncontrolled diabetes mellitus, when high urinary glucose levels (> 250 mg/dL [13.88 mmol/L]) exceed tubular reabsorption capacity, leading to high glucose levels in the renal tubules; water follows passively, resulting in glucosuria and increased urine

volume.

- **Option C:** Oliguria can be the result of various causes that can be apparent or subclinical. Oliguria can arise as a result of the normal physiological response of the body or due to an underlying pathology affecting the kidney or urinary tract. The most common prerenal cause is reduced blood flow to the kidney secondary to intravascular volume depletion, heart failure, sepsis, or as a side effect of medication.
- **Option D:** Urine that smells sweet is often associated with diabetic ketoacidosis. Commonly accepted criteria for diabetic ketoacidosis are blood glucose greater than 250 mg/dl, arterial pH less than 7.3, serum bicarbonate less than 15 mEq/l, and the presence of ketonemia or ketonuria.

91. Which type of research study can be affected by detracting values of the researcher?

- A. Qualitative
- B. Naturalistic
- C. Ethnographic
- D. Quantitative

Correct Answer: D. Quantitative

Quantitative research is the process of collecting and analyzing numerical data. It can be used to find patterns and averages, make predictions, test causal relationships, and generalize results to wider populations.

- **Option A:** The values of the researcher must be acknowledged in qualitative research. Qualitative research involves collecting and analyzing non-numerical data (e.g., text, video, or audio) to understand concepts, opinions, or experiences. It can be used to gather in-depth insights into a problem or generate new ideas for research.
- **Option B:** The values of the researcher must be acknowledged in naturalistic research. Naturalistic observation is a nonexperimental, primarily qualitative research method in which organisms are studied in their natural settings. Behaviors or other phenomena of interest are observed and recorded by the researcher, whose presence might be either known or unknown to the subjects.
- **Option C:** The values of the researcher must be acknowledged in qualitative research. In ethnography, a type of qualitative research, researchers are never considered neutral. Researchers immerse themselves in groups or organizations to understand their cultures.

92. The nurse provides wound care for a client 48 hours after a burn injury. To achieve the desired outcome of the procedure, which nursing action will be carried out first?

- A. Applies silver sulfadiazine (Silvadene) ointment
- B. Covers the area with an elastic wrap
- C. Places a synthetic dressing over the area
- D. Removes loose nonviable tissue

Correct Answer: D. Removes loose nonviable tissue

The first step in this process is removing exudates and necrotic tissue. Burn patients are at high risk for infection, especially drug-resistant infection, which often results in significantly longer hospital stays, delayed wound healing, higher costs, and higher mortality

- **Option A:** Since the adoption of topical antibiotics, such as mafenide in the 1960s and silver sulfadiazine in the 1970s, and of early excision and grafting in the 1970s and thereafter, systemic infections and mortality have consistently decreased. However, Gram-positive and Gram-negative bacterial infections still remain one of the most common causes of mortality following burn injury.
- **Option B:** While many factors must be considered in dressing selection, the goals in selecting the most appropriate dressing should include providing protection from contamination (bacterial or otherwise) and from physical damage, allowing gas exchange and moisture retention, and providing comfort to enhance functional recovery.
- **Option C:** The selection of an appropriate dressing depends on several factors, including depth of burn, condition of the wound bed, wound location, desired moisture retention and drainage, required frequency of dressing changes, and cost.

93. Which of the following groups of symptoms indicated a ruptured abdominal aneurysm?

- A. Lower back pain, increased BP, decreased RBC, increased WBC
- B. Severe lower back pain, decreased BP, decreased RBC, increased WBC
- C. Severe lower back pain, decreased BP, decreased RBC, decreased WBC
- D. Intermittent lower back pain, decreased BP, decreased RBC, increased WBC

Correct Answer: B. Severe lower back pain, decreased BP, decreased RBC, increased WBC

Severe lower back pain indicates an aneurysm rupture, secondary to pressure being applied within the abdominal cavity. When a rupture occurs, the pain is constant because it can't be alleviated until the aneurysm is repaired. Blood pressure decreases due to the loss of blood. After the aneurysm ruptures, the vasculature is interrupted and blood volume is lost, so blood pressure wouldn't increase. For the same reason, the RBC count has decreased – not increased. The WBC count increases as cells migrate to the site of injury.

- **Option A:** The pain felt during rupture is severe. Due to the loss of blood, the blood pressure decreases.
- **Option C:** The WBC count increases because the cells migrate to the site of injury.
- **Option D:** The pain is not intermittent during an aneurysm; it is constant and severe.

94. Ethical dilemmas often arise over a conflict of opinion. Once the nurse has determined that the dilemma is ethical, a critical first step in negotiating the difference of opinion would be to:

- A. Consult a professional ethicist to ensure that the steps of the process occur in full.
- B. Gather all relevant information regarding the clinical, social, and spiritual aspects of the dilemma.
- C. List the ethical principles that inform the dilemma so that negotiations agree on the language of the discussion.

D. Ensure that the attending physician has written an order for an ethics consultation to support the ethics process.

Correct Answer: B. Gather all relevant information regarding the clinical, social, and spiritual aspects of the dilemma

Each step in the processing of an ethical dilemma resembles steps in critical thinking. The nurse begins by gathering information and moves through assessment, identification of the problem, planning, implementation, and evaluation.

- **Option A:** To address health inequity factors, nurses are encouraged to be aware of health disparities that could impair treatment outcomes. They can then refer patients to social workers, case managers, and other healthcare team members for additional services. Nurses should be mindful of the social and economic factors that affect patient and community health.
- **Option C:** Nurses make decisions based on the information available to them in the current situation. The more relevant information they have, the more likely their decision will have a positive outcome. When a nurse's decision leads to a negative outcome, the question becomes: What critical pieces of information were lacking at the time of the decision? Nurses must take responsibility for their decisions and strive to understand why some decisions have negative outcomes.
- **Option D:** Even the most extensive code of ethics can't account for all the potential dilemmas that nurses may encounter in their work. That's the reason that one of the duties stated in the nursing code of ethics is to seek the advice and counsel of others whenever a nurse is uncertain about a medical decision's ethical aspects.

95. Which of the following is the most important nursing order in a client with major head trauma who is about to receive bolus enteral feeding?

- A. Measure intake and output
- B. Check albumin level
- C. Monitor glucose levels
- D. Increase enteral feeding

Correct Answer: A. Measure intake and output

It is important to measure intake and output, which should be equal. Water given before feeding will present a hyperosmotic diuresis. I and O measures assess fluid balance. A urinary catheter is inserted to assess the adequacy of renal perfusion. The kidney requires 20% to 25% of cardiac output; commonly, it's the first organ to show the effects of impaired perfusion or intravascular volume.

- **Option B:** Osmotherapy aims to increase the osmolality of the intravascular space, which in turn helps mobilize excess fluid from brain tissue. If ICP increases, mannitol (an osmotic diuretic) may be given to decrease cerebral edema, transiently increase intravascular volume, and improve cerebral blood flow.
- **Option C:** Low peripheral oxygen saturation values or low arterial blood oxygen values (as shown by arterial blood gas testing) should be avoided. Maintaining adequate brain tissue oxygenation seems to improve patient outcomes.
- **Option D:** Enteral feedings are hyperosmotic agents pulling fluid from cells into the vascular bed. Initially, a nasogastric or orogastric tube is inserted to decompress the stomach and reduce the aspiration risk. (Typically, the nasal route is avoided as it can obstruct sinus drainage, leading to

sinusitis or VAP).

96. A male client on prolonged bed rest has developed a pressure ulcer. The wound shows no signs of healing even though the client has received skin care and has been turned every 2 hours. Which factor is most likely responsible for the failure to heal?

- A. Inadequate vitamin D intake.
- B. Inadequate protein intake.
- C. Inadequate massaging of the affected area.
- D. Low calcium level.

Correct Answer: B. Inadequate protein intake.

A client on bed rest suffers from a lack of movement and a negative nitrogen balance. Therefore, inadequate protein intake impairs wound healing. Decubitus ulcers, also termed bedsores or pressure ulcers, are skin and soft tissue injuries that form as a result of constant or prolonged pressure exerted on the skin. These ulcers occur at bony areas of the body such as the ischium, greater trochanter, sacrum, heel, malleolus (lateral than medial), and occiput. Inadequate vitamin D intake and low calcium levels aren't factors in poor healing for this client. A pressure ulcer should never be massaged.

- **Option A:** Decubitus ulcer formation is multifactorial (external and internal factors), but all these results in a common pathway leading to ischemia and necrosis. Tissues can sustain an abnormal amount of external pressure, but constant pressure exerted over a prolonged period is the main culprit.
- **Option C:** External pressure must exceed the arterial capillary pressure (32 mmHg) to impede blood flow and must be greater than the venous capillary closing pressure (8 to 12 mmHg) to impair the return of venous blood. If the pressure above these values is maintained, it causes tissue ischemia and further resulting in tissue necrosis. This enormous pressure can be exerted due to compression by a hard mattress, railings of hospital beds, or any hard surface with which the patient is in contact.
- **Option D:** Friction caused by skin rubbing against surfaces like clothing or bedding can also lead to the development of ulcers by contributing to breaks in the superficial layers of the skin. Moisture can cause ulcers and worsens existing ulcers via tissue breakdown and maceration.

97. Mr. Miyazaki, who is diagnosed with bipolar disorder has been drinking copious amounts of water and voiding frequently. The patient is experiencing muscle cramps, twitching, and is reporting dizziness. the nurse checks lab work for:

- A. Complete blood count results, particularly the platelets.
- B. Electrolytes, particularly the serum sodium.
- C. Urine analysis, particularly for the presence of white blood cells.
- D. EEG results

Correct Answer: B. Electrolytes, particularly the serum sodium.

The patient is exhibiting behavior that could lead to a sodium and water imbalance and is exhibiting signs of hyponatremia. The nurse would check the electrolytes with attention to the sodium level. Monitor serum and urine electrolytes and osmolality. Evaluates therapy needs and effectiveness.

- **Option A:** The monitoring of platelet quantity and function is frequently useful in evaluating the bleeding risk in hospitalized patients. In healthy patients, platelets are incredibly numerous, with a range of 150 to 350 x10/L. A drop in this number can indicate the consumption of platelets by a condition such as disseminated intravascular coagulation, or autoimmune destruction of platelets, as in immune thrombocytopenia.
- **Option C:** When this test is positive and/or the WBC count in urine is high, it may indicate that there is inflammation in the urinary tract or kidneys. The most common cause for WBCs in urine (leukocyturia) is a bacterial urinary tract infection (UTI), such as a bladder or kidney infection.
- **Option D:** An electroencephalogram (EEG) is an essential tool that studies the brain's electrical activity. Despite the development of more advanced imaging techniques, EEG remains the essential paraclinical tool for seizure evaluation. It is primarily used to assess seizures and conditions that may mimic seizures.

98. A 44-year-old female patient presents to the clinic with recurring abdominal pain, bloating, and frequent episodes of acid reflux. After several diagnostic tests, the gastroenterologist identifies the presence of a gastrinoma, a rare tumor that secretes excessive amounts of the hormone gastrin. This excessive gastrin secretion stimulates the stomach to produce too much acid, leading to Zollinger-Ellison syndrome, a condition marked by peptic ulcers and gastroesophageal reflux disease (GERD). The medical students present during the consultation are then posed with a related question to fortify their understanding of gastric hormones. Keeping in mind the patient's diagnosis and the role of gastrin in gastric acid production, which type of cells should the instructor ask the students to identify as responsible for producing gastrin?

- A. Mucous neck cells
- B. Parietal cells
- C. Chief cells
- D. Endocrine cells
- E. Surface mucous cells

Correct Answer: D. Endocrine cells

Endocrine cells, such as those in the stomach lining, produce hormones like gastrin. Gastrin is a specific hormone that stimulates the production of stomach acid and helps regulate digestion by acting on various digestive organs.

- **Option A:** Mucous neck cells produce mucus, which protects the stomach lining from the corrosive action of stomach acid. They are not responsible for producing gastrin.
- **Option B:** Parietal cells are responsible for secreting hydrochloric acid (HCl) and intrinsic factor, which is essential for vitamin B12 absorption in the intestines. They do not produce gastrin.
- **Option C:** Chief cells produce pepsinogen, which is later activated to pepsin in the presence of stomach acid. Pepsin plays a role in protein digestion. Chief cells do not produce gastrin.

- **Option E:** Foveolar cells or surface mucous cells are mucus-producing cells which cover the inside of the stomach, protecting it from the corrosive nature of gastric acid.

100. Which of the following best reflects the frequency of reported postpartum “blues”?

- A. Between 10% and 40% of all new mothers report some form of postpartum blues.
- B. Between 30% and 50% of all new mothers report some form of postpartum blues.
- C. Between 50% and 80% of all new mothers report some form of postpartum blues.
- D. Between 25% and 70% of all new mothers report some form of postpartum blues.

Correct Answer: C. According to statistical reports, between 50% and 80% of all new mothers report some form of postpartum blues.

The ranges of 10% to 40%, 30% to 50%, and 25% to 70% are incorrect. Postpartum blues, also known as “baby blues,” affect approximately 50% to 80% of new mothers.

- **Option A:** Symptoms may include mood swings with times of feeling anxious, irritable, or tearful interspersed with times of feeling well. Sleeping difficulties may also occur. The symptoms usually begin 3-4 days after delivery, worsen by days 5-7, and tend to resolve by day 12.
- **Option B:** For symptoms that last longer than 2 weeks, it is important for the individual to seek medical attention since approximately 1 in 5 women with postpartum blues develops postpartum major depression.
- **Option D:** In developed countries, PPD occurs in about 12% to 13% of postpartum women. More recently, the rates in the United States have been reported as 10% to 20%. Transculturally, the rates are estimated at 10% to 15%, with a higher rate in adolescent mothers.