

Kevin's Review - 35 NCLEX Practice Questions

1. Ms. Caputo is newly promoted to a patient care manager position. She updates her knowledge on the theories in management and leadership in order to become effective in her new role. She learns that some managers have low concern for services and high concern for staff. Which style of management refers to this?

- A. Organization Management
- B. Impoverished Management
- C. Country Club Management
- D. Team Management

Correct Answer: C. Country Club Management

Country club management style puts concern for the staff as the number one priority at the expense of the delivery of services. He/she runs the department just like a country club where everyone is happy including the manager. This leadership style assumes that if people are happy in their job, they will naturally work harder.

- **Option A:** Organization management binds the employees together and gives them a sense of loyalty towards the organization. Organization management enables the optimum use of resources through meticulous planning and control at the workplace. Organization management gives a sense of direction to the employees. The individuals are well aware of their roles and responsibilities and know what they are supposed to do in the organization.
- **Option B:** The impoverished leader has the least concern for people and for production. This leader has no system of getting work done, nor is the work environment satisfying or motivating for employees. This leader's low interest in the work and the work environment results in disorganized work, dissatisfied employees, and a lack of harmony.
- **Option D:** Team management is the ability of an individual or an organization to administer and coordinate a group of individuals to perform a task. Team management involves teamwork, communication, objective setting, and performance appraisals.

2. A 40-year-old male patient suffered a burn injury in a household accident. The burns cover his face, neck, right upper arm, and upper trunk. The nurse is using the rule of nines to estimate the total body surface area (TBSA) affected by the burns to guide treatment planning. According to the rule of nines, which area has the largest percent of burns?

- A. Face and neck
- B. Right upper arm and penis
- C. Right thigh and penis
- D. Upper trunk

Correct Answer: D. Upper trunk

The percentage designated for each burned part of the body using the rule of nines: Head and neck 9%; Right upper extremity 9%; Left upper extremity 9%; Anterior trunk 18%; Posterior trunk 18%; Right lower extremity 18%; Left lower extremity 18%; Perineum 1%.

- **Option A:** The face and neck is 9%.
- **Option B:** The right upper arm is 9% and the penis is only 1%.
- **Option C:** The right thigh is 9% and the penis is 1%.

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

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

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

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

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

4. A patient presents with symptoms of frequent urination, burning sensation during urination, and lower abdominal pain. The healthcare provider suspects a urinary tract infection (UTI) and orders diagnostic tests. Which organs are primarily involved in the urinary system?

- A. Two kidneys, two urethrae, a ureter, and a urinary bladder
- B. Two kidneys, a ureter, a urinary bladder, and a urethra
- C. Two kidneys, two ureters, a urinary bladder, and a urethra
- D. Two kidneys, two ureters, two urethrae, and a urinary bladder

Correct Answer: C. Two kidneys, two ureters, a urinary bladder, and a urethra

The urinary system consists of two kidneys, two ureters, a urinary bladder, and a urethra. The kidneys are bean-shaped organs that help the body produce urine to get rid of unwanted waste substances. When urine is formed, tubes called ureters transport it to the urinary bladder, where it is stored and excreted via the urethra. The kidneys are also important in controlling our blood pressure and producing red blood cells.

Options A, B, and D: These options are incorrect.

5. The nurse is aware that antipsychotic medications may cause which of the following adverse effects?

- A. Increased production of insulin
- B. Lower seizure threshold
- C. Increased coagulation time
- D. Increased risk of heart failure

Correct Answer: B. Lower seizure threshold

Antipsychotic medications exert an effect on brain neurotransmitters that lowers the seizure threshold and can, therefore, increase the risk of seizure activity. First-generation antipsychotics can also lower the seizure threshold, and chlorpromazine and thioridazine are more epileptogenic than others. First-generation antipsychotics are dopamine receptor antagonists (DRA) and are known as typical antipsychotics. They include phenothiazines (trifluoperazine, perphenazine, prochlorperazine, acetophenazine, triflupromazine, mesoridazine), butyrophenones (haloperidol), thioxanthenes (thiothixene, chlorprothixene), dibenzoxazepines (loxapine), dihydroxyindole (molindone), and diphenylbutylpiperidine (pimozide).

- **Option A:** Antipsychotics don't affect insulin production. First-generation antipsychotics (FGAs) are associated with significant extrapyramidal side effects. Anticholinergic adverse effects like dry mouth, constipation, urinary retention are common with low potency dopamine receptor antagonists like chlorpromazine, thioridazine. The action of H1 histamine blocking by First-generation antipsychotics causes sedation. Chlorpromazine is the most sedating, while fluphenazine, haloperidol, and pimozide are less sedating.
- **Option C:** Antipsychotics don't affect coagulation time. Thioridazine has a FDA boxed warning for sudden cardiac death. Low-potency FGAs, like chlorpromazine or thioridazine commonly cause orthostatic hypotension. This adverse effect caused by alpha-adrenergic block usually occurs when starting treatment, and patients often develop a tolerance. It is important to avoid treating hypotension with epinephrine. Leukopenia, thrombocytopenia, and blood dyscrasia are rare side effects of treatment with FGAs.
- **Option D:** Heart failure isn't an adverse effect of antipsychotic agents. Haloperidol can cause abnormal heart rhythm, ventricular arrhythmia, torsades de pointes, and even sudden death if injected intravenously. Other FGAs can cause prolongation of QTc interval, prolonged atrial and ventricular contraction, and other cardiac conduction abnormalities.

6. Which drug is used to manage preterm labor by causing smooth muscle relaxation?

- A. Oxytocin
- B. Prostaglandin

- C. Ritodrine
- D. Estrogen

Correct Answer: C. Ritodrine

Ritodrine is used to arrest uterine contractions in preterm labor. Tocolysis is effective because it focuses on both delaying and weakening uterine contractions. The pharmacology targets the activity of the myometrium. The myometrium is the smooth muscle in the uterus. Tocolysis is used in the setting of preterm labor. Preterm birth is delivery before 37 weeks gestation and after 20 weeks. To diagnose preterm labor, continued contractions happen during the gestational age range mentioned previously to produce cervical changes.

- **Option A:** Oxytocin is used to stimulate labor. From a physiologic perspective, the myometrium is responsible for the contractional effort of childbirth. Like all smooth muscles, this process is calcium-mediated. The start of a contraction does not require any nerve input nor hormonal stimulus. It begins with a spontaneous depolarization of the cell surface, which opens voltage-gated calcium channels. The influx of calcium into the cells binds to intracellular calmodulin. This new complex activates myosin light chain kinase, an enzyme that phosphorylates myosin light chains, which are located on a critical portion of the myosin heads. The phosphorylation and dephosphorylation of the myosin head cause the continual bridging to actin filaments. This repetitive process results in the myometrium of contraction.
- **Option B:** Prostaglandins can cause vasodilation or vasoconstriction in vascular smooth muscle cells, activate or inhibit platelet aggregation, induce labor, regulate hormones, and decrease intraocular pressure. PGF2 alpha can be applied vaginally or intramuscularly to induce abortion in pregnant patients. In some cases, misoprostol (PGE1) can be used rectally for the treatment of postpartum hemorrhage.
- **Option D:** Estrogen is a steroid hormone associated with the female reproductive organs and is responsible for the development of female sexual characteristics. Estrogen is often referred to the following structures as either estrone, estradiol, and estriol. Of the previously mentioned forms of estrogen, estradiol is the most common form of estrogen hormone for hormone replacement therapy (HRT) in the treatment of symptoms of menopause. In the uterus, estrogen helps to proliferate endometrial cells in the follicular phase of the menstrual cycle, thickening the endometrial lining in preparation for pregnancy.

7. After 3 days of breastfeeding, a postpartum patient reports nipple soreness. To relieve her discomfort, the nurse should suggest that she:

- A. Apply warm compresses to her nipples just before feeding.
- B. Lubricate her nipples with expressed milk before feeding.
- C. Dry her nipples with a soft towel after feeding.
- D. Apply soap directly to her nipples, and then rinse.

Correct Answer: B. Lubricate her nipples with expressed milk before feeding

Measures that help relieve nipple soreness in a breastfeeding patient include lubricating the nipples with a few drops of expressed milk before feedings, applying ice compresses just before feeding, letting the nipples air dry after feedings, and avoiding the use of soap on the nipples.

- **Option A:** Cold compresses are applied instead of warm because it reduces swelling and pain. Use a piece of fabric between the skin and the cold compress. Never apply an ice pack directly to the skin.

- **Option C:** Air drying prevents the clothing from sticking to and irritating the breast.
- **Option D:** Soap removes the nipples' natural lubricants and will dry them out.

8. The LPN/LVN, under your supervision, is providing nursing care for a patient with GBS. What observation would you instruct the LPN/LVN to report immediately?

- A. Complaints of numbness and tingling.
- B. Facial weakness and difficulty speaking.
- C. Rapid heart rate of 102 beats per minute.
- D. Shallow respirations and decreased breath sounds.

Correct Answer: D. Shallow respirations and decreased breath sounds

The priority interventions for the patient with GBS are aimed at maintaining adequate respiratory function. These patients are at risk for respiratory failure, which is urgent. Upon presentation, 40% of patients have a respiratory or oropharyngeal weakness. Ventilatory failure with required respiratory support occurs in up to one-third of patients at some time during the course of their disease.

- **Option A:** These findings should be reported to the nurse but it is not an urgent matter. The typical patient with Guillain-Barré syndrome (GBS), which in most cases will manifest as acute inflammatory demyelinating polyradiculoneuropathy (AIDP), presents 2-4 weeks following a relatively benign respiratory or gastrointestinal illness with complaints of finger dysesthesias and proximal muscle weakness of the lower extremities.
- **Option B:** Facial weakness and difficulty of speaking are common signs of GBS and must be reported, but it is not a priority. The classic clinical picture of weakness is ascending and symmetrical in nature. The lower limbs are usually involved before the upper limbs. Proximal muscles may be involved earlier than the more distal ones. Trunk, bulbar, and respiratory muscles can be affected as well.
- **Option C:** A rapid heart rate is important and should be reported to the nurse, but it is not life-threatening. Autonomic nervous system involvement with dysfunction in the sympathetic and parasympathetic systems can be observed in patients with GBS.

9. A male client complains of sporadic epigastric pain, yellow skin, nausea, vomiting, weight loss, and fatigue. Suspecting gallbladder disease, the physician orders a diagnostic workup, which reveals gallbladder cancer. Which nursing diagnosis may be appropriate for this client?

- A. Chronic low self-esteem
- B. Disturbed body image
- C. Anticipatory grieving
- D. Impaired swallowing

Correct Answer: C. Anticipatory grieving

- **Option C:** Anticipatory grieving is an appropriate nursing diagnosis for this client because few clients with gallbladder cancer live more than 1 year after diagnosis.

- **Option A:** Chronic low self-esteem isn't an appropriate nursing diagnosis at this time because the diagnosis has just been made.
- **Option B:** Although surgery typically is done to remove the gallbladder and, possibly, a section of the liver, it isn't disfiguring and doesn't cause Disturbed body image.
- **Option D:** Impaired swallowing isn't associated with gallbladder cancer.

10. Chris asks the nurse whether all donor blood products are cross-matched with the recipient to prevent a transfusion reaction. Which of the following always require cross-matching?

- A. Granulocytes
- B. Platelets
- C. Plasma
- D. Packed red blood cells

Correct Answer: D. Packed red blood cells.

Red blood cells contain antigens and antibodies that must be matched between donor and recipient. The blood products in options 2-4 do not contain red cells. Thus, they require no cross-match. The hemoglobin in red blood cells binds oxygen and is the main source of oxygen delivery in the body. A single unit of packed red blood cells is roughly 350 mL in volume and contains about 250 mg of iron.

- **Option A:** Neutrophils, basophils, and eosinophils are all granulocytes. These cells also all have azurophilic granules (lysosomes) and specific granules that contain substances unique to each cell's function. Histologically, granulocytes can be distinguished from one another by the morphology of their nucleus, their size, and how their granules stain.
- **Option B:** Platelets maintain hemostasis by adhering to the vascular endothelium, aggregating with other platelets, and initiating the coagulation cascade, leading to the production of a fibrin mesh, which effectively prevents significant blood loss.
- **Option C:** Plasma, also known as blood plasma, appears light-yellowish or straw-colored. It serves as the liquid base for whole blood. Whole blood minus erythrocytes (RBCs), leukocytes (WBCs), and thrombocytes (platelets) make up the plasma. Serum, sometimes mistakenly considered synonymous with plasma, consists of plasma without fibrinogen. Plasma contains 91% to 92% of water and 8% to 9% of solids.

11. Which level is characteristic of the strength of the evidence provided by the results of a quasi-experimental study?

- A. Level I
- B. Level II
- C. Level III
- D. Level IV

Correct Answer: C. Level III

Evidence provided by quasi-experimental studies is level III. Evidence obtained from well-designed controlled trials without randomization (i.e. quasi-experimental). Levels of evidence (sometimes called

hierarchy of evidence) are assigned to studies based on the methodological quality of their design, validity, and applicability to patient care. These decisions give the “grade (or strength) of recommendation.”

- **Option A:** Level I evidence is obtained from a systematic review of all randomized, controlled trials. Evidence is from a systematic review or meta-analysis of all relevant RCTs (randomized controlled trial) or evidence-based clinical practice guidelines based on systematic reviews of RCTs or three or more RCTs of good quality that have similar results.
- **Option B:** Level II evidence is obtained from at least one well-designed randomized, controlled trial. Evidence is obtained from at least one well-designed RCT (e.g. large multi-site RCT).
- **Option D:** Level IV evidence is obtained from nonexperimental studies. Evidence is from well-designed case-control or cohort studies. In level V, evidence is from systematic reviews of descriptive and qualitative studies (meta-synthesis). In level VI, evidence is from a single descriptive or qualitative study. Lastly, in level VII, evidence is from the opinion of authorities and/or reports of expert committees.

12. A client refuses to remain on psychotropic medications after discharge from an inpatient psychiatric unit. Which information should the community health nurse assess first during the initial follow-up with this client?

- A. Income level and living arrangements.
- B. Involvement of family and support systems.
- C. Reason for inpatient admission.
- D. Reason for refusal to take medications.

Correct Answer: D. Reason for refusal to take medications

The first area for assessment would be the client's reason for refusing medication. The client may not understand the purpose of the medication, may be experiencing distressing side effects or may be concerned about the cost of medicine. In any case, the nurse cannot provide appropriate intervention before assessing the client's problem with the medication.

- **Option A:** It can be because the medicine is hard to swallow, tastes unpleasant, or causes side effects such as nausea. If this situation arises, you should raise it with the person who prescribed the medication. The prescriber will be able to decide whether or not the person has the capacity to decide for themselves not to take their medication. If the person does not have capacity, then the prescriber will be able to make a decision about what is in their best interests.
- **Option B:** The patient's income level, living arrangements, and involvement of family and support systems are relevant issues following determination of the client's reason for refusing medication. If it is decided that taking the medication is the best option, then this should be done through the least restrictive means available. In some situations, taking the drug in a different form may be easier than swallowing a pill. For example, some dementia and painkiller drugs are available as a patch or an oral solution.
- **Option C:** The nurse providing follow-up care would have access to the client's medical record and should already know the reason for inpatient admission. When making this decision, the prescriber should talk to the person's relatives and carers, and other professionals involved in the person's care. If a health and welfare Lasting power of attorney has been set up, it is up to the attorney to make the decision, with the help of the prescriber.

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

- A. Restlessness
- B. Pale, warm, dry skin
- C. Heart rate of 110 beats/minute
- D. Urine output of 30 ml/hour

Correct Answer: A. Restlessness

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

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

14. The following are the appropriate nursing diagnosis for the client except:

- A. Ineffective individual coping
- B. Alteration in comfort, pain
- C. Altered role performance
- D. Impaired social interaction

Correct Answer: D. Impaired social interaction

The client may not have difficulty in social exchange. The cues do not support this diagnosis. Clients who somatize do not experience disordered thought processes; the content of their thinking is primarily about often exaggerated physical concerns, for example, when they have a simple cold they may be convinced it is pneumonia.

- **Option A:** The client maladaptively uses body symptoms to manage anxiety. Often, clients walk slowly or with an unusual gait because of the pain or disability caused by the symptoms; they may exhibit a facial expression of discomfort or physical distress.
- **Option B:** The client will have discomfort due to pain. Clients usually provide a lengthy and detailed account of previous physical problems, numerous diagnostic tests, and perhaps even a number of surgical procedures.

- **Option C:** The client may fail to meet environmental expectations due to pain. Mood is often labile, shifting from seeming depressed and sad when describing physical problems to looking bright and excited when talking about how they had to go to the hospital in the middle of the night by ambulance.

15. Mang Teban has a history of chronic obstructive pulmonary disease and has the following arterial blood gas results: partial pressure of oxygen (PO₂), 55 mm Hg, and partial pressure of carbon dioxide (PCO₂), 60 mm Hg. When attempting to improve the client's blood gas values through improved ventilation and oxygen therapy, which is the client's primary stimulus for breathing?

- A. High PCO₂
- B. Low PO₂
- C. Normal pH
- D. Normal bicarbonate (HCO₃)

Correct Answer: B. Low PO₂

A chronically elevated PCO₂ level (above 50 mmHg) is associated with inadequate response of the respiratory center to plasma carbon dioxide. The major stimulus to breathing then becomes hypoxia (low PO₂). High PCO₂ and normal pH and HCO₃ levels would not be the primary stimulus for breathing in this client.

- **Option A:** The inability to fully exhale also causes elevations in carbon dioxide (CO₂) levels. As the disease progresses, impairment of gas exchange is often seen. The reduction in ventilation or increase in physiologic dead space leads to CO₂ retention. Pulmonary hypertension may occur due to diffuse vasoconstriction from hypoxemia.
- **Option C:** An acid-base disturbance arises when arterial pH lies outside that range. If pH is less than 7.35 an acidosis is present, if pH is greater than 7.45 the alkalosis is present. Tight control on blood pH is achieved by a combination of blood buffers and the respiratory and renal systems which make adjustments to return pH toward its normal levels.
- **Option D:** Acidosis can be caused by either a rise in PaCO₂ or a fall in HCO₃. Alkalosis can be caused by either a fall in PaCO₂ or a rise in HCO₃. When the primary change is in CO₂ we name the disturbance respiratory, and when the primary change is in bicarbonate, we name the disturbance metabolic.

16. A 6-year-old is diagnosed with Legg-Calve Perthes disease. An important part of the child's care includes instructing the parents:

- A. To increase the amount of dietary protein
- B. To prevent weight bearing on the affected leg
- C. About relaxation exercises to minimize pain in the shoulder
- D. About exercises to strengthen affected muscles

Correct Answer: B. To prevent weight bearing on the affected leg

- **Option B:** The child with Legg-Calve Perthes disease should be prevented from bearing weight on the affected extremity until revascularization has occurred.

- Option A: Dietary intake of protein is not related to the condition.
- Options C and D: Legg-Calve Perthes disease does not involve the muscles or the shoulders. It is a disorder of the hip joint.

17. You're advising a 21 y.o. with a colostomy who reports problems with flatus. What food should you recommend?

- A. Peas
- B. Cabbage
- C. Broccoli
- D. Yogurt

Correct Answer: D. Yogurt

High-fiber foods stimulate peristalsis, and as a result, flatus. Yogurt reduces gas formation. Eating bland foods will help avoid uncomfortable symptoms such as diarrhea (loose or watery bowel movements), bloating, and gas. Bland foods are cooked, easy-to-digest foods that aren't spicy, heavy, or fried.

- **Option A:** Excessive gas, or flatulence, can be caused by foods, such as beans and cabbage, that have high amounts of fiber and carbohydrates which tend to ferment a lot during digestion and in turn have a greater tendency to cause bad-smelling flatulence.
- **Option B:** Well-cooked vegetables without skins or seeds, such as peeled potatoes, peeled zucchini with the seeds removed, and peeled tomatoes with the seeds removed should be included in the diet. Some vegetables, like cabbage, may cause gas or odor for some people.
- **Option C:** Include lettuce instead of broccoli in the diet. For the first few weeks after surgery, it's normal to have gas in the pouch and odor when the pouch is opened. Buttermilk, cranberry juice, parsley, and kefir help prevent gas, odor, or both.

18. A 65-year-old male patient with a known history of chronic obstructive pulmonary disease (COPD) presents to the emergency department with increased shortness of breath, productive cough, and fever. The clinical signs are suggestive of a bacterial respiratory infection, possibly exacerbated by COPD. A complete blood count (CBC) with a differential is ordered to evaluate the extent of infection and inflammatory response. The laboratory report shows a marked elevation in granulocyte count. The healthcare provider explains to the patient's family about granulocytes and their crucial role in combating bacterial infections. Granulocytes, named for the granules of enzymes they contain which aid in digesting invading microbes, constitute approximately 60% of white blood cells. Which of the following options correctly identifies the white blood cells categorized as granulocytes?

- A. erythrocytes, thrombocytes, and megakaryocytes.
- B. monocytes, macrophages, and neutrophils.
- C. neutrophils, basophils, and eosinophils.

D. lymphocytes and monocytes.

E. thrombocytes, monocytes, and macrophages.

Correct Answer: C. neutrophils, basophils, and eosinophils.

Neutrophils, basophils, and eosinophils are indeed the three types of granulocytes. They contain granules in their cytoplasm filled with enzymes crucial for digesting invading microbes. Neutrophils are the most abundant and are essential for phagocytizing bacteria. Basophils and eosinophils play roles in allergic reactions and parasitic infections, respectively.

- **Option A:** Erythrocytes (red blood cells), thrombocytes (platelets), and megakaryocytes are not white blood cells; thus, they cannot be categorized as granulocytes. Erythrocytes are involved in oxygen transport, thrombocytes in blood clotting, and megakaryocytes are the precursor cells for thrombocytes.
- **Option B:** Monocytes and macrophages are part of the mononuclear phagocyte system and are not classified as granulocytes. While neutrophils are a type of granulocyte, not all cells listed in this option are granulocytes, making this choice incorrect.
- **Option D:** Lymphocytes and monocytes are types of white blood cells but are not classified as granulocytes. Lymphocytes are vital for adaptive immunity, and monocytes differentiate into macrophages.
- **Option E:** Thrombocytes (platelets) and macrophages are not granulocytes, and monocytes are precursors to macrophages, thus not classified as granulocytes.

19. When evaluating a severely depressed adolescent, the nurse knows that one indicator of a high risk for suicide is:

A. Depression

B. Excessive sleepiness

C. A history of cocaine use

D. A preoccupation with death

Correct Answer: D. A preoccupation with death

An adolescent who demonstrates a preoccupation with death (such as by talking about death frequently) should be considered at high risk for suicide. Repeated thoughts of death (not just fear of dying), recurrent suicidal ideation without specific plans; suicide attempt; or a definite plan to commit suicide is also observed.

- **Option A:** The occurrence of the major depressive episode cannot be explained by schizoaffective disorder, schizophrenia, schizophreniform disorder, delusional disorder, or other specified and unspecified schizophrenia spectrum and other psychotic disorders.
- **Option B:** Lack of sleep or excessive sleeping almost every day is not specific only to severely depressed adolescents. The presence of at least 5 specific symptoms in the same 2-week period with a change in the level of function. At least 1 of the items is either a depressed mood or loss of interest or pleasure. It is important to note that other medical conditions can not explain symptoms.
- **Option C:** Although a history of cocaine use may occur in suicidal adolescents; they also occur in adolescents who are not suicidal. The episode is not due to the physiological effects of a substance or another medical condition.

20. The nurse understands that the following clinical findings are indications for dialysis. Select all that apply.

- A. Volume overload
- B. BUN 18 mg/dL
- C. K 5.2 mEq/L
- D. Decreased creatinine clearance.
- E. Metabolic acidosis
- F. Cr 5.0 mg/dL

Correct Answer: A, C, E, and F.

Indications for dialysis include volume overload, weight gain, hyperkalemia, metabolic acidosis, and rising BUN (normally 10-20 mg/dL) and Cr (normally 0.5-1.5 mg/dL) levels, along with decreased urinary creatinine clearance.

- **Option A:** Hemodialysis initiation is needed for acute illness associated with AKI, life-threatening hyperkalemia, refractory acidosis, hypervolemia causing end-organ complications (e.g., pulmonary edema), or any toxic ingestion. Patients with CKD and heart failure experience fluid retention, which leads to worsening of heart failure and pulmonary edema.
- **Option B:** The BUN is normal. The decision to initiate dialysis should not be based on the level of kidney function in an asymptomatic individual. In renal failure patients, elevated urea levels can also lead to uremic pericarditis.
- **Option C:** The potassium level is hyperkalemic. The decision to initiate maintenance dialysis should be based on an assessment of signs and symptoms of renal failure (pruritus, acid-base or electrolyte abnormalities, serositis), volume or BP dysregulation, a progressive deterioration in nutritional status despite dietary intervention or impairment in cognition.
- **Option D:** It is not advisable to assign an arbitrary urea nitrogen or creatinine level for dialysis initiation due to individual variability in uremia symptom severity and renal function.
- **Option E:** Potassium abnormalities arise from acidosis (due to intracellular shift) and decreased renal excretion in chronic kidney disease or renal failure patients.
- **Option F:** The National Kidney Foundation's Kidney Disease Outcomes Quality Initiative (KDOQI) recommends that patients who reach CKD stage 4 (GFR, 30 mL/min/1.73 m²), and those with an imminent need for maintenance dialysis during the initial assessment, should be counseled about renal failure and the treatment options (kidney transplantation, hemodialysis at home or in-center, PD) and conservative treatment.

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

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

Correct Answer: B. Enhance myocardial oxygenation.

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

- **Option A:** Promote expression of feelings and fears. Let the patient/SO know these are normal reactions. Unexpressed feelings may create internal turmoil and affect self-image. Verbalization of concerns reduces tension, verifies the level of coping, and facilitates dealing with feelings. The presence of negative self-talk can increase the level of anxiety and may contribute to an exacerbation of angina attacks.
- **Option C:** Sublingual nitroglycerin is administered to treat acute angina, but the administration isn't the first priority. Nitroglycerin has been the standard for treating and preventing anginal pain for more than 100 yr. Today it is available in many forms and is still the cornerstone of antianginal therapy.
- **Option D:** Although educating the client is important in care delivery, it is not a priority when a client is compromised. Discuss the pathophysiology of condition. Stress the need for preventing and managing anginal attacks. Patients with angina need to learn why it occurs and what they can do to control it. This is the focus of therapeutic management to reduce the likelihood of myocardial infarction and promote a healthy heart lifestyle.

22. Gold salt toxicity can be reversed using which medication?

- A. Acetaminophen
- B. Dimercaprol
- C. Calcium salts
- D. Hydroxocobalamin

Correct Answer: B. Dimercaprol

Dimercaprol, a chelator, is used to treat arsenic, gold, or mercury poisoning.

- **Option A:** Acetaminophen is an analgesic/antipyretic.
- **Option C:** Calcium salt is the antidote for fluoride ingestion.
- **Option D:** Hydroxocobalamin is the antidote for cyanide poisoning.

23. A female client with Guillain-Barre syndrome has ascending paralysis and is intubated and receiving mechanical ventilation. Which of the following strategies would the nurse incorporate in the plan of care to help the client cope with this illness?

- A. Giving the client full control over care decisions and restricting visitors.
- B. Providing positive feedback and encouraging active range of motion.
- C. Providing information, giving positive feedback and encouraging relaxation.
- D. Providing intravenously administered sedatives, reducing distractions and limiting visitors.

Correct Answer: C. Providing information, giving positive feedback, and encouraging relaxation.

The client with Guillain-Barré syndrome experiences fear and anxiety from the ascending paralysis and sudden onset of the disorder. The nurse can alleviate these fears by providing accurate information about the client's condition, giving expert care and positive feedback to the client, and encouraging relaxation and distraction. The family can become involved with selected care activities and provide diversion for the client as well.

- **Option A:** Allow the client to participate in their own care depending on ability and degree of paralysis; allow them to make informed choices about ADL as soon as possible. Promotes independence and control and preserves developmental status.
- **Option B:** Teach parents and the client about disease condition and manifestation. Provides information to relieve anxiety by knowledge of what to expect. Discuss each procedure or type of may therapy, effects of any diagnostic tests to parents and client as appropriate to age. Reduces fear of the unknown which increases anxiety.
- **Option D:** Therapeutically communicate with parents and child and answer questions in a calm and honest manner. Promotes an environment of support. Facilitate expression of concerns and an opportunity to ask inquiries regarding the condition and rehabilitation of the ailing child. Provides an opportunity to release feelings, secure information needed to overcome anxiety.

24. Osmotic pressure is created through the process of:

- A. Osmosis
- B. Diffusion
- C. Filtration
- D. Capillary dynamics

Correct Answer: B. Diffusion

In diffusion, the solute moves from an area of higher concentration to one of lower concentration, creating osmotic pressure. There is a form of passive transport called facilitated diffusion. It occurs when molecules such as glucose or amino acids move from high concentration to low concentration facilitated by carrier proteins or pores in the membrane.

- **Option A:** Osmotic pressure is related to the process of osmosis. Osmosis is a form of passive transport when water molecules move from low solute concentration (high water concentration) to high solute or low water concentration across a membrane that is not permeable to the solute.
- **Option C:** Filtration is created by hydrostatic pressure. Filtration is a process used to separate solids from liquids or gases using a filter medium that allows the fluid to pass through but not the solid. The term "filtration" applies whether the filter is mechanical, biological, or physical. The fluid that passes through the filter is called the filtrate.
- **Option D:** Capillary dynamics are related to fluid exchange at the intravascular and interstitial levels. Capillary dynamics are controlled by the four Starling forces. Oncotic pressure is a form of osmotic pressure exerted by proteins either in the blood plasma or interstitial fluid. ... The net filtration pressure is the balance of the four Starling forces and determines the net flow of fluid across the capillary membrane.

25. Normal venous blood pH ranges from:

- A. 6.8 to 7.2
- B. 7.31 to 7.41
- C. 7.35 to 7.45
- D. 7.0 to 8.0

Correct Answer: B. 7.31 to 7.41

Normal venous blood pH ranges from 7.31 to 7.41. Normal arterial blood pH ranges from 7.35 to 7.45. Blood gas analysis is a commonly used diagnostic tool to evaluate the partial pressures of gas in blood and acid-base content. Understanding and use of blood gas analysis enable providers to interpret respiratory, circulatory, and metabolic disorders.

- **Option A:** A “blood gas analysis” can be performed on blood obtained from anywhere in the circulatory system (artery, vein, or capillary). An arterial blood gas (ABG) tests explicitly blood taken from an artery.
- **Option C:** ABG analysis assesses a patient’s partial pressure of oxygen (PaO₂) and carbon dioxide (PaCO₂). PaO₂ provides information on the oxygenation status, and PaCO₂ offers information on the ventilation status (chronic or acute respiratory failure).
- **Option D:** PaCO₂ is affected by hyperventilation (rapid or deep breathing), hypoventilation (slow or shallow breathing), and acid-base status. Although oxygenation and ventilation can be assessed non-invasively via pulse oximetry and end-tidal carbon dioxide monitoring, respectively, ABG analysis is the standard.

26. A patient with metastatic cancer of the colon experiences severe vomiting following each administration of chemotherapy. An important nursing intervention for the patient is to

- A. Have the patient eat large meals when nausea is not present
- B. Administer prescribed antiemetics 1 hour before the treatments
- C. Teach about the importance of nutrition during treatment
- D. Offer dry crackers and carbonated fluids during chemotherapy

Correct Answer: B. Administer prescribed antiemetics 1 hour before the treatments

- **Option B:** Treatment with antiemetics before chemotherapy may help to prevent anticipatory nausea.
- **Option C:** Although nausea may lead to poor nutrition, there is no indication that the patient needs instruction about nutrition.
- **Option A:** The patient should eat small, frequent meals.
- **Option D:** Offering food and beverages during chemotherapy is likely to cause nausea.

27. A client who is recovering from surgery has been ordered a change from a clear liquid diet to a full liquid diet. The nurse would offer which full liquid item to the client?

- A. Popsicle

B. Carbonated beverages

C. Gelatin

D. Custard

Correct Answer: D. Custard

Full liquid food items include items such as plain ice cream, sherbet, breakfast drinks, milk, pudding, and custard, soups that are strained, refined cooked cereals, and strained vegetable juices. A full liquid diet is made up only of fluids and foods that are normally liquid and foods that turn to liquid when they are at room temperature, like ice cream.

- **Option A:** A clear liquid diet is a specific dietary plan that only includes liquids that are fully transparent at room temperature. Some items that may be allowed include water, ice, fruit juices without pulp, sports drinks, carbonated drinks, gelatin, tea, coffee, clear broths, and clear ice pops.
- **Option B:** Carbonated beverages are part of a clear liquid diet. Items can have color as long as they are transparent. Items such as milk and orange juice are not considered clear liquids because they are not fully transparent and may take more effort for the digestive system to break down, whereas grape juice is allowed (it is pigmented, but fully transparent).
- **Option C:** Gelatin is a clear liquid diet. The clear liquid diet assists in maintaining hydration, provides electrolytes and calories, and offers some level of satiety when a full diet is not appropriate, but may struggle to provide adequate caloric needs if employed for more than five days.

28. A major side effect of insulin use that can be life threatening is:

A. Hyperglycemia

B. Stomach upset

C. Hypoglycemia

D. Tremors

Correct Answer: C. Hypoglycemia

The action of insulin will lower glucose levels, which may prove fatal if levels drop too low.

Hypoglycemia is, by far, the most common adverse effect of insulin therapy. The other adverse effects of insulin therapy include weight gain, and rarely electrolyte disturbances like hypokalemia, especially when used along with other drugs causing hypokalemia.

- **Option A:** Some patients who take insulin before bed, wake up with high blood sugar levels. This effect occurs when the insulin causes a hypoglycemic condition in the body, which activates the antihyperglycemic hormones such as cortisol and adrenaline, resulting in rebound hyperglycemia.; this can be corrected by reducing the dose of bedtime insulin or changing the time of insulin dosing.
- **Option B:** The subcutaneous route of administration also has its adverse effects. Pain at the injection site, lipodystrophy at the site of injection are the most common adverse effects of daily subcutaneous injections. Other adverse effects like peripheral hyperinsulinemia and decreased compliance are also seen in the population using the subcutaneous route for administration of insulin.
- **Option D:** Insulin taken in large doses will cause symptoms of hypoglycemia in the patient. Some of these symptoms include headache, dizziness, palpitations, sweating, abdominal pain, and blurring of vision. The immediate therapy for such patients is increasing the levels of glucose. In a

conscious patient, this can be done by eating a high energy bar or drinking a glass of glucose water. If the patient is unconscious, he needs to be hospitalized and given dextrose solution intravenously and monitor glucose levels continuously.

29. You're preparing a patient with a malignant tumor for colorectal surgery and subsequent colostomy. The patient tells you he's anxious. What should your initial step be in working with this patient?

- A. Determine what the patient already knows about colostomies.
- B. Show the patient some pictures of colostomies.
- C. Arrange for someone who has a colostomy to visit the patient.
- D. Provide the patient with written material about colostomy care.

Correct Answer: A. Determine what the patient already knows about colostomies.

Initially, you should assess the patient's knowledge about colostomies and how it will affect his lifestyle. Review anatomy, physiology, and implications of surgical intervention. Discuss future expectations, including anticipated changes in the character of effluent. Provides knowledge base from which the patient can make informed choices, and offers an opportunity to clarify misconceptions regarding an individual situation.

- **Option B:** Include written, picture (photo, video, Internet) learning resources. This provides references for obtaining support, equipment, and additional information after discharge to support patient efforts for independence in self-care.
- **Option C:** Ascertain whether support and counseling were initiated when the possibility and/or necessity of ostomy was first discussed. This provides information about the patient's/SO's level of knowledge and anxiety about an individual situation.
- **Option D:** The patient may find it easier to accept or deal with an ostomy done to correct chronic or long-term disease than for traumatic injury, even if ostomy is only temporary. Also, patient who will be undergoing a second procedure (to convert ostomy to a continent or anal reservoir) may possibly encounter less severe self-image problems because body function eventually will be "more normal."

30. A nurse has taught a client taking a xanthine bronchodilator about beverages to avoid. The nurse determines that the client understands the information if the client chooses which of the following beverages from the dietary menu?

- A. Chocolate milk
- B. Cranberry juice
- C. Coffee
- D. Cola

Correct Answer: B. Cranberry juice

Cola, coffee, and chocolate contain xanthine and should be avoided by the client taking a xanthine bronchodilator. This could lead to an increased incidence of cardiovascular and central nervous system side effects that can occur with the use of these types of bronchodilators. Methylxanthines are a

purine-derived group of pharmacologic agents that have clinical use because of their bronchodilatory and stimulatory effects. This class includes several drugs, including the world's most widely used caffeine. The FDA has approved the use of several methylxanthine derivatives for the treatment of reversible airway obstruction diseases such as chronic bronchitis, emphysema, and asthma.

- **Option A:** Methylxanthines are well-documented competitive inhibitors of the enzyme phosphodiesterase (isoenzyme types III and IV), nonselective antagonists of adenosine receptors (subtypes A1, A2, and A3), and activators of histone deacetylase (isoenzyme type II), however, the complete mechanism of action of methylxanthines is not known.
- **Option C:** Methylxanthines are available as tablets, extended-release tablets, and an oral solution. When administered orally, the drug is absorbed rapidly. However, broadly fluctuating plasma drug concentrations are a well-documented disadvantage to this route of administration. Despite the development of extended-release formulations, variability in plasma drug levels has led oral administration of methylxanthines to fall out of favor clinically.
- **Option D:** Methylxanthine toxicity can present with any of the following symptoms: intractable nausea, cardiac arrhythmias, rhabdomyolysis, seizures, or cardiac arrest. Charcoal or sorbitol may be administered to reduce further GI absorption of the drug (however, this is only effective with oral dosing of the drug). There is some evidence to suggest that beta-blocker administration may decrease cardiac adverse events in patients with methylxanthine toxicity. Intravenous administration of benzodiazepines may be employed to abort seizure activity induced by toxicity.

31. Which is the best indicator of success in the long-term management of the client?

- A. His symptoms are replaced by indifference to his feelings.
- B. He participates in diversionary activities.
- C. He learns to verbalize his feelings and concerns.
- D. He states that his behavior is irrational.

Correct Answer: C. He learns to verbalize his feelings and concerns.

The client is encouraged to talk about his feelings and concerns instead of using body symptoms to manage his stressors. Accurate measurement and improvement of population mental health require the recording of indicators that capture the full spectrum of disease severity.

- **Option A:** The client is encouraged to acknowledge feelings rather than being indifferent to her feelings. Mental health surveillance will require a conglomerate of indicators, and would best be served by including upstream determinants of mental health in addition to downstream symptomatic outcomes.
- **Option B:** Participation in activities diverts the client's attention away from his bodily concerns but this is not the best indicator of success. The stigma associated with mental health disorders may lead to underreporting of symptoms by participants in the CCHS survey data, as well as by physicians in their billing practices, and thus create problems in predicting the need for mental health services.
- **Option D:** Help the client recognize that his physical symptoms occur because of or are exacerbated by a specific stressor, not as irrational. The use of a standardized set of indicators that takes into account health determinants, the severity of symptoms, and the use of healthcare services would permit more useful international comparisons.

32. Mrs. Parker, a 70-year-old woman with severe macular degeneration, was admitted to the hospital the day before a scheduled surgery. The nurse's preoperative goals for Mrs. M. would include:

- A. Independently ambulating around the unit
- B. Reading the routine preoperative education materials
- C. Maneuvering safely after orientation to the room
- D. Using a bedpan for elimination needs

Correct Answer: C. Maneuvering safely after orientation to the room.

Maneuvering safely after orientation to the room is a realistic goal for a person with impaired vision. Orienting the client to the room should help the client to move safely. The client should be familiarized with the bed, location of the bathroom, furniture, and other environmental hazards that can cause older patients to trip or fall.

- **Option A:** Independently ambulating around the unit is not appropriate because the unit environment can change and injury could result. Place assistive devices and commonly use items within reach. This provides easy access to assistive devices and personal care items. Items such as call bell, telephone, and water should be kept close to avoid frequent reaching.
- **Option B:** Assistance is necessary because of the client's visual deficit. It is unlikely the client can see well enough to read the materials. Ensure the client's eyesight is regularly checked and explain the importance of wearing eyeglasses if needed. Make sure glasses and hearing aids are always worn.
- **Option D:** Using the bedpan is an unnecessary restriction on the client as she can be oriented to the bathroom or to call for assistance. Instruct the client how to ambulate at home, including using safety measures such as handrails in the bathroom.

33. A 43-year-old male with a history of recurrent renal calculi is admitted to the emergency department presenting with severe left flank pain radiating to the groin, nausea, and an episode of vomiting. He also reports burning and urgency during urination. His vital signs reveal a temperature of 100.8°F (38.2°C), blood pressure of 145/90 mmHg, pulse of 100 beats/min, and respiratory rate of 20 breaths/min. The client is visibly anxious and uncomfortable due to the severity of the pain. The nurse is assigned to care for the patient and must prioritize the nursing goals to ensure optimal care. Which nursing goal should be the top priority for this client?

- A. Maintain fluid and electrolyte balance
- B. Control nausea
- C. Manage pain
- D. Prevent urinary tract infection

Correct Answer: C. Manage pain

Managing pain is always a priority because it ultimately improves the quality of life. The cornerstone of ureteral colic management is analgesia, which can be achieved most expediently with parenteral

narcotics or nonsteroidal anti-inflammatory drugs (NSAIDs).

- **Option A:** IV hydration in the setting of acute renal colic is controversial. Whereas some authorities believe that IV fluids hasten the passage of the stone through the urogenital system, others express concern that additional hydrostatic pressure exacerbates the pain of renal colic.
- **Option B:** Because nausea and vomiting frequently accompany acute renal colic, antiemetics often play a role in renal colic therapy. Several antiemetics have a sedating effect that is often helpful.
- **Option D:** Overuse of the more effective antibiotic agents leaves only highly resistant bacteria, but failure to adequately treat a UTI complicated by an obstructing calculus can result in potentially life-threatening urosepsis and pyonephrosis.

34. A nurse is assisting a physician with the removal of a chest tube. The nurse should instruct the client to:

- A. Exhale slowly
- B. Stay very still
- C. Inhale and exhale quickly
- D. Perform the Valsalva maneuver

Correct Answer: D. Perform the Valsalva maneuver.

When the chest tube is removed, the client is asked to perform the Valsalva maneuver (take a deep breath, exhale, and bear down). The tube is quickly withdrawn, and an airtight dressing is taped in place. An alternative instruction is to ask the client to take a deep breath and hold the breath while the tube is removed.

- **Option A:** The removal of the chest tube is usually performed quickly and without sedation. The doctor will give specific instructions on how to breathe when the tube is removed. In most cases, the chest tube will be removed as the client is holding his breath. This ensures extra air doesn't get into the lungs.
- **Option B:** Digital drainage systems have the advantage of accurately measuring the presence of air leak and thereby eradicating interobserver variability. These devices are gaining increasing popularity and are the subject of ongoing research on tube thoracostomy management. Additionally, they may play a useful role in younger pediatric patients who are unable to perform forceful expiratory maneuvers or cough on demand; however, this possibility has not yet been well studied.
- **Option C:** No air leak should be present—that is, no bubbling should be seen in the air-leak chamber during forced expiratory maneuvers (eg, Valsalva maneuver) or cough. The swing in the fluid level in the tube in the underwater seal bottle should be minimal, relating to the normal negative pressures in the chest during the phases of respiration.

35. A male nurse is providing a bedtime snack for his patient. This is based on the knowledge that intermediate-acting insulins are effective for an approximate duration of:

- A. 6-8 hours
- B. 10-14 hours

C. 14-18 hours

D. 24-28 hours

Correct Answer: C. 14-18 hours

Intermediate-acting insulins include Humulin N and Novolin N. They have an onset of two to four hours, a peak of 4 to 12 hours, and a duration of 14 to 18 hours. They are absorbed more slowly, and last longer. They are also used to control the blood sugar overnight while fasting and between meals.

- **Option A:** Regular or short-acting insulins include Humulin R and Novolin R. They have an onset of half an hour, a peak of two to three hours, and a duration of six to eight hours. The larger the dose of regular the faster the onset of action, but the longer the time to peak effect and the longer the duration of the effect.
- **Option B:** NPH human insulin has an onset of insulin effect of 1 to 2 hours, a peak effect of 4 to 6 hours, and a duration of action of more than 12 hours. Very small doses will have an earlier peak effect and shorter duration of action, while higher doses will have a longer time to peak effect and prolonged duration.
- **Option D:** Long-acting insulins include Levemir and Lantus. They have an onset of several hours, minimal or no peak, and a duration of 24 hours or more. The insulin effect plateaus over the next few hours and is followed by a relatively flat duration of action that lasts 12-24 hours for insulin detemir and 24 hours for insulin glargine.