

Kevin's Review - 85 NCLEX Practice Questions

1. A teenage client is diagnosed with “strep throat.” Which clinical manifestation would the nurse expect of the client?

- A. A fiery red pharyngeal membrane and fever.
- B. Pain over the sinus area and purulent nasal secretions.
- C. Foul-smelling breath and noisy respirations.
- D. Weak cough and high-pitched noise on respirations.

Correct Answer: A. A fiery red pharyngeal membrane and fever.

Strep throat, or acute pharyngitis, results in a red throat, edematous lymphoid tissues, enlarged lymph nodes, fever, and sore throat. Physical exam findings including cervical lymphadenopathy, pharyngeal inflammation, and tonsillar exudate. Palatine petechiae and uvular edema are also suggestive.

- **Option B:** Pain over the sinus area and purulent nasal secretions would be evident with sinusitis. Major factors include facial pain/pressure, facial congestion/fullness, nasal obstruction, nasal or postnasal purulence, hyposmia, and fever.
- **Option C:** Foul-smelling breath and respirations indicate adenoiditis. Physical findings include purulent rhinorrhea, post-nasal drip, nasal obstruction, snoring, fever, mouth breathing, and halitosis. Indirect mirror exam may allow the practitioner to observe enlarged adenoids with exudates, though this can be a very challenging exam to perform in children.
- **Option D:** A weak cough and high-pitched noisy respirations are associated with foreign-body aspiration. Sudden onset of cough, choking, and/or dyspnea have been found to be the most common symptoms. One prospective study has cited a sensitivity of 91.1% and specificity of 45.2% for choking and acute cough. Wheeze on auscultation has been found to be a major physical finding and in one study was documented in 60% of cases.

2. Match the acid-base status of the following blood samples to the disorders in the given choices. (PaCO₂ values are in mm Hg and bicarbonate values in mmol/l). pH 7.17, PaCO₂ 48, HCO₃⁻ 36

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

Correct Answer: D. Respiratory Acidosis, Partially Compensated

- Based on the given ABG values, pH is 7.17. For pH, the normal range is 7.35 to 7.45. Any blood pH below 7.35 (7.34, 7.33, 7.32, and so on...) is ACIDOSIS.
- PaCO₂ is 48. The normal range for PaCO₂ is from 35 to 45. If PaCO₂ is above 45, it is acidosis. Based on the given ABG values, PaCO₂ is above 45, so it is considered ACIDOSIS.
- HCO₃⁻ is 36. The normal range for HCO₃ is from 22 to 26. If HCO₃ is above 26, it is alkalosis. Based on the given ABG values, HCO₃ is above 26, so it is considered ALKALOSIS.
- For these ABG values, pH is ACIDOSIS and lines up with PaCO₂ which is RESPIRATORY. Therefore, this group of ABG values is considered RESPIRATORY ACIDOSIS.

- Lastly, it is PARTIALLY COMPENSATED because all three (3) values are abnormal. It is considered partially compensated if all three (3) values are abnormal.

3. What criteria should the nurse use to determine normal sinus rhythm for a client on a cardiac monitor? Select all that apply.

- A. The RR intervals are relatively consistent.
- B. One P wave precedes each QRS complex.
- C. Four to eight complexes occur in a 6-second strip.
- D. The ST segment is higher than the PR interval.
- E. The QRS complex ranges from 0.12 to 0.20 second.

Correct Answers: A, B.

The consistency of the RR interval indicates regular rhythm. A normal P wave before each complex indicates the impulse originated in the SA node. Sinus arrhythmia is most typically present in young, healthy individuals. Studies have attempted to establish an increased prevalence in patients with underlying hypertension, obesity, and diabetes.

- **Option A:** Sinus rhythm (a.k.a. normal sinus rhythm) refers to the normal heart beat originating from the sinoatrial node. This is manifested as an upright P wave in lead II of the ECG. Sinus arrhythmia is a common rhythm variation. It is seen more often in children and young adults. Respirations lead to vagal stimuli resulting in R-R interval variations.
- **Option B:** Sinus arrhythmia is a commonly encountered variation of normal sinus rhythm. Sinus arrhythmia characteristically presents with an irregular rate in which the variation in the R-R interval is greater than 0.12 seconds. Additionally, P waves are typically monoform and in a pattern consistent with atrial activation originating from the sinus node.
- **Option C:** The number of complexes in a 6-second strip is multiplied by 10 to approximate the heart rate; normal sinus rhythm is 60 to 100. On the EKG, sinus rhythm appears as a beat-to-beat variation in the P-P interval. Typically, this variation is greater than 120 msec: the P-P interval increases and decreases with inspiration and exhalation.
- **Option D:** Elevation of the ST segment is a sign of cardiac ischemia and is unrelated to the rhythm. The ST Segment represents the interval between ventricular depolarization and repolarization. The most important cause of ST segment abnormality (elevation or depression) is myocardial ischaemia or infarction.
- **Option E:** The QRS duration should be less than 0.12 second; the PR interval should be 0.12 to 0.20 second. The normal duration (interval) of the QRS complex is between 0.08 and 0.10 seconds — that is, 80 and 100 milliseconds. When the duration is between 0.10 and 0.12 seconds, it is intermediate or slightly prolonged. A QRS duration of greater than 0.12 seconds is considered abnormal.

4. The nurse is finishing her shift in the pediatric unit. Because her shift is ending, which intervention takes top priority?

- A. Restocking the bedside supplies needed for a dressing change on the upcoming shift
- B. Documenting the care provided during her shift

- C. Emptying the trash cans in the assigned client room
- D. Changing the linens on the clients' beds

Correct Answer: B. Documenting the care provided during her shift

Documentation should take top priority. Documentation is the only way the nurse can legally claim that interventions were performed. An end-of-shift report allows nurses to understand where their patients stand in regard to recovery by providing a picture of a patient's improvement or decline over the last several hours. By knowing what has previously occurred in a patient's treatment plan, nurses can proceed with the right steps to contribute to positive outcomes. Pertinent patient information to support the multidisciplinary team to deliver great care.

- **Option A:** Wrapping up a nursing shift is similar to starting one. At the end of their workday, nurses often conduct their final patient rounds to check on any last-minute needs, conduct final med passes, and assist patients with their final meals if the shift ends around dinnertime.
- **Option C:** Emptying trash cans can be done by the nurse but it is not mandatory. The nurse may make sure a policy on waste management is familiar to all staff. This includes ensuring that contaminated waste is disposed of correctly. Colour coding of different types of waste is used widely and it is important not to mix up the waste that is dealt with in different ways.
- **Option D:** This option would be appreciated by the nurses on the oncoming shift but aren't mandatory and doesn't take priority over documentation. Soiled linen is infectious to the patient. If a patient is unable to move or leave the bed, the nurse will need to change the bedsheets while the patient is occupied in bed.

5. A patient who develops hives after receiving an antibiotic is exhibiting drug:

- A. Tolerance
- B. Idiosyncrasy
- C. Synergism
- D. Allergy

Correct Answer: D. Allergy

A drug-allergy is an adverse reaction resulting from an immunologic response following previous sensitizing exposure to the drug. The reaction can range from a rash or hives to anaphylactic shock.

- **Option A:** Tolerance to a drug means that the patient experiences a decreasing physiologic response to repeated administration of the drug in the same dosage.
- **Option B:** Idiosyncrasy is an individual's unique hypersensitivity to a drug, food, or other substance; it appears to be genetically determined.
- **Option C:** Synergism, is a drug interaction in which the sum of the drug's combined effects is greater than that of their separate effects.

6. The nurse is evaluating the status of a client who had a craniotomy 3 days ago. The nurse would suspect the client is developing meningitis as a complication of surgery if the client exhibits:

- A. A negative Kernig's sign.

- B. A positive Brudzinski's sign.
- C. Absence of nuchal rigidity.
- D. A Glasgow Coma Scale score of 15.

Correct Answer: B. A positive Brudzinski's sign

Signs of meningeal irritation compatible with meningitis include nuchal rigidity, positive Brudzinski's sign, and positive Kernig's sign. Brudzinski's sign is positive when the client flexes the hips and knees in response to the nurse gently flexing the head and neck onto the chest. 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.

- **Option A:** Kernig's sign is positive when the client feels pain and spasm of the hamstring muscles when the knee and thigh are extended from a flexed-right angle position. The Kernig sign is one of the eponymous clinical signs of meningitis. This test typically is performed in patients while supine and is described as resistance (or pain) with passive extension of the knees. This resistance is thought to be due to meningeal inflammation in the setting of meningitis or other clinical entities that may irritate the meninges.
- **Option C:** Nuchal rigidity is characterized by a stiff neck and soreness, which is especially noticeable when the neck is fixed. Nuchal rigidity is an inability to flex the neck forward due to rigidity of the neck muscles. Similar to Kernig's sign, research has shown that many people with meningitis don't have the Brudzinski sign or nuchal rigidity.
- **Option D:** A Glasgow Coma Scale of 15 is a perfect score and indicates the client is awake and alert with no neurological deficits. The Glasgow Coma Scale (GCS) is used to objectively describe the extent of impaired consciousness in all types of acute medical and trauma patients. The scale assesses patients according to three aspects of responsiveness: eye-opening, motor, and verbal responses. Reporting each of these separately provides a clear, communicable picture of a patient's state.

7. Nurse Mariane is caring for an infant with spina bifida. Which technique is most important in recognizing possible hydrocephalus?

- A. Obtaining skull X-ray
- B. Measuring head circumference
- C. Performing a lumbar puncture
- D. Magnetic resonance imaging (MRI)

Correct Answer: B. Measuring head circumference

Measuring head circumference is the most important assessment technique for recognizing possible hydrocephalus, and is a key part of routine infant screening. Congenital hydrocephalus is usually present at birth. An unusually large head is a significant sign of congenital hydrocephalus.

- **Option A:** X-rays of the skull may show erosion of sella turcica, or so-called "beaten copper cranium" appearance, but are seldom helpful or indicated with the availability of better imaging techniques. Ultrasonography through anterior fontanelle may be used in infants for evaluating the ventricular system and progression of hydrocephalus.
- **Option C:** A lumbar puncture isn't appropriate. CSF analysis could be done to help with the diagnosis and to exclude residual infection. Neuroimaging plays a central role in confirming the

diagnosis in suspected cases, identifying the cause and possible treatment. In cases of acute hydrocephalus, an emergency head computed tomographic (CT) scan is the first option to assess the ventricular size.

- **Option D:** MRI may be used to confirm the diagnosis. Magnetic resonance imaging (MRI) of the brain is the study of choice as it shows better the posterior fossa structures, can differentiate between brain tumors and degenerative diseases and can differentiate NPH from cerebral atrophy.

8. A client with a severe corneal ulcer has an order for Gentamicin gtt. q 4 hours and Neomycin 1 gtt q 4 hours. Which of the following schedules should be used when administering the drops?

- A. Allow 5 minutes between the two medications.
- B. The medications may be used together.
- C. The medications should be separated by a cycloplegic drug.
- D. The medications should not be used in the same client.

Correct Answer: A. Allow 5 minutes between the two medications.

When using eye drops, allow 5 minutes between the two medications. Antibiotic eye drops are prescribed by a doctor to treat bacterial eye infections. They work by killing the bacteria (microscopic organism) that entered the eye and caused the infection.

- **Option B:** Allow 5 minutes interval before administering the next eyedrops. Take the full course, don't stop early/without consulting your doctor, even if things seem better. Antibiotic eye drops usually help symptoms get better after three days. Call your doctor if your symptoms don't go away.
- **Option C:** It is not necessary to use a cycloplegic with these medications. Eye infections cause redness, tearing and drainage (yellow-green pus or watery), and can be highly contagious. A certain type of eye infection—a bacterial eye infection—may need treatment with a medicine called an antibiotic eye drop.
- **Option D:** These medications can be used by the same client. Don't use anyone else's prescription. Don't keep unused prescriptions around to use later. Ask your ophthalmologist or pharmacist if it's OK to keep the drops in the refrigerator. When the drops are cold it might be easier to feel the drop when it hits the eye, so you can tell where it has landed.

9. Which of the following clients is at greatest risk for developing acute renal failure?

- A. A dialysis client who gets influenza.
- B. A teenager who has an appendectomy.
- C. A pregnant woman who has a fractured femur.
- D. A client with diabetes who has a heart catheterization.

Correct Answer: D. A client with diabetes who has a heart catheterization

Clients with diabetes are prone to renal insufficiency and renal failure. The contrast used for heart catheterization must be eliminated by the kidneys, which further stresses them and may produce acute renal failure. The development of Acute Kidney Injury (AKI) following cardiac catheterization or

Percutaneous Coronary Interventions (PCI) is a serious complication. Around 10% to 15% of patients develop AKI after coronary interventions.

- **Option A:** A dialysis client already has end-stage renal disease and wouldn't develop acute renal failure. As the kidneys failed, the level of creatinine in the blood rose. The amount of creatinine in the blood is a factor used in calculating the GFR (glomerular filtration rate, a measure of kidney function). As creatinine goes up, GFR goes down.
- **Option B:** A teenager who has an appendectomy isn't at risk for renal failure. Postoperative abscesses, hematomas, and wound complications are all complications that can be seen after appendectomies. If the wound does get infected, one may grow Bacteroides. "Recurrent" appendicitis can occur if too much of the appendiceal stump is left after an appendectomy. This acts just like an appendix and can become occluded and infected just as with the initial episode.
- **Option C:** A pregnant woman with a fractured femur isn't at increased risk for renal failure. Orthopedic injury in pregnancy, though rare, is associated with significant morbidity and mortality to the mother and fetus. Some reports estimate that the risk of intrauterine fetal demise (IUFD) is as high as 40.1%, depending on the location of the fracture.

10. A postoperative client has been placed on a clear liquid diet. The nurse provides the client with which items are allowed to be consumed on this diet?

- A. Vegetable juices
- B. Custard
- C. Sherbet
- D. Bouillon

Correct Answer: D. Bouillon

A clear liquid diet consists of foods that are relatively transparent to light and liquid at room and body temperature. Foods allowed on the clear liquid diet (bouillon, popsicles, plain gelatin, ice chips, sweetened tea or coffee (no creamer), carbonated beverages, and water). The clear liquid diet assists in maintaining hydration, it 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

- **Option A:** Vegetable juices are part of a full liquid diet. A patient prescribed a full liquid diet follows a specific diet type requiring all liquids and semi-liquids but no forms of solid intake. Unlike a clear liquid diet, which includes only liquids and semi-liquids that are non-opaque, a full liquid diet is more inclusive, as it allows all types of liquids.
- **Option B:** Custard is a full liquid diet. Patients not ready for a regular diet due to elective or emergent procedures or who experience irregularity in gastrointestinal function, dysphagia, a transition from prolonged fasted periods, etc., are typically placed on a restrictive diet.
- **Option C:** Sherbet is a full liquid diet. Dietary restrictions can be as restrictive as no food or liquids allowed by mouth, which may increase in a stepwise fashion until reaching regular nutrition. One step in that progression is a full liquid diet.

11. 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.

12. A patient in her 14th week of pregnancy has presented with abdominal cramping and vaginal bleeding for the past 8 hours. She has passed several clots. What is the primary nursing diagnosis for this patient?

- A. Knowledge deficit
- B. Fluid volume deficit
- C. Anticipatory grieving
- D. Pain

Correct Answer: B. Fluid volume deficit

If bleeding and clots are excessive, this patient may become hypovolemic. Pad count should be instituted. Blood volume expands during pregnancy, and a considerable portion of the weight of a pregnant woman is retained water.

- **Option A:** Knowledge deficit is an appropriate nursing diagnosis because the woman might not have any knowledge on how to manage her symptoms. However, this is not a priority diagnosis.
- **Option C:** Anticipatory grieving is the name given to the tumultuous set of feelings and reactions that occur when someone is expecting the death of a loved one.
- **Option D:** Pain may be felt due to abdominal cramping accompanied by bleeding. This is not a cause of alarm since true labor pain includes strong and regular contractions and lower back pain.

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

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

Correct Answer: A. Monitor serum calcium levels

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

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

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

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

Correct Answer: D. Increased Blood Glucose Level

In the past, people with kidney transplants usually have taken steroids (such as prednisone) as one of their immunosuppressive medications to prevent rejection. But steroids may cause weight gain, diabetes, high blood pressure, heart and blood vessel disease (cardiovascular disease), osteoporosis, and other problems.

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

- **Option C:** Orthostatic hypotension is common after kidney-pancreas transplant. It is unrelated to preexisting autonomic neuropathy or posttransplant polyuria in most patients. This complication requires further study.

15. Which of the following is not true regarding the varicella vaccine?

- A. It is administered subcutaneously.
- B. Children 13 years and older (With no history of chickenpox or have not previously vaccinated) need two doses given at least 28 days apart.
- C. Give aspirin for any injection-related pain.
- D. The most common mild side effects are pain, redness, or swelling at the injection site.

Correct Answer: C. Give aspirin for any injection-related pain.

Children receiving the varicella vaccine should avoid aspirin or aspirin-containing products because of the risk of Reye's syndrome. After administration of the vaccine, it is recommended to avoid salicylates for five weeks due to the risk of Reye's syndrome and to avoid contact with susceptible high-risk individuals.

- **Option A:** The varicella vaccine is only available to be administered subcutaneously. It is best when practitioners inject the vaccine in the outer aspect of the upper arm in the deltoid region or anterolateral thigh.
- **Option B:** The first dose is given to children between 12 to 15 months of age, and administration of the second dose is for children between 4 to 6 years old. If three months have passed since the first dose, one may opt to give the second dose earlier. If a child has never been vaccinated or had chickenpox, the practitioner should give the two doses at least 28 days apart.
- **Option D:** The most commonly reported adverse effect is soreness or swelling at the injection site. Some other mild reported reactions include fever and mild vaccine-associated varicelliform rash. The rash comprises six to ten papular, vesicular, erythematous lesions which peak around eight to 21 days after injection.

16. A female patient is receiving furosemide (Lasix), 40 mg P.O. b.i.D. in the plan of care, the nurse should emphasize teaching the patient about the importance of consuming:

- A. Fresh, green vegetables
- B. Bananas and oranges
- C. Lean red meat
- D. Creamed corn

Correct Answer: B. Bananas and oranges

Because furosemide is a potassium-wasting diuretic, the nurse should plan to teach the patient to increase intake of potassium-rich foods, such as bananas and oranges. Potassium is a mineral in the cells. It helps the nerves and muscles work as they should. The right balance of potassium also keeps the heart beating at a steady rate. Fresh, green vegetables; lean red meat; and creamed corn are not good sources of potassium.

- **Option A:** GLVs are considered as natural caches of nutrients for human beings as they are a rich source of vitamins, such as ascorbic acid, folic acid, tocopherols, β -carotene, and riboflavin, as well as minerals such as iron, calcium, and phosphorus.
- **Option C:** Lean red meat is an excellent source of high biological value protein, vitamin B12, niacin, vitamin B6, iron, zinc, and phosphorus. It is a source of long-chain omega-3 polyunsaturated fats, riboflavin, pantothenic acid, selenium, and, possibly, also vitamin D. It is also relatively low in fat and sodium.
- **Option D:** Corn has several health benefits. Because of the high fiber content, it can aid with digestion. It also contains valuable B vitamins, which are important to your overall health. Corn also provides our bodies with essential minerals such as zinc, magnesium, copper, iron, and manganese.

17. Which of the following conditions is the predominant cause of angina?

- A. Increased preload
- B. Decreased afterload
- C. Coronary artery spasm
- D. Inadequate oxygen supply to the myocardium.

Correct Answer: D. Inadequate oxygen supply to the myocardium.

Inadequate oxygen supply to the myocardium is responsible for the pain accompanying angina. The heart is dependent on adequate oxygen supply for energy production to support contractility. At the cellular level, ischemia causes an increase in anaerobic glycolysis. This increases the levels of hydrogen, potassium, and lactate in the venous return of the ischemic or affected area of the myocardium.

- **Option A:** Increased preload would be responsible for right-sided heart failure. Increases in preload, as demonstrated through an elevated PCW, are seen in several conditions such as heart failure, mitral stenosis, and mitral regurgitation. At higher preloads, the heart also has an increased oxygen demand, further debilitating the already diseased heart. In cases of heart failure, eventually, the heart cannot keep up with the increased load, and deleterious ventricular remodeling and loss of function ensue.
- **Option B:** Decreased afterload causes increased cardiac output. Afterload is the force against which the ventricles must act in order to eject blood, and is largely dependent on the arterial blood pressure and vascular tone. Similarly, reducing afterload can increase cardiac output, especially in conditions where contractility is impaired.
- **Option C:** Coronary artery spasm is responsible for variant angina. Coronary artery vasospasm (CAVS) is a constriction of the coronary arteries that can cause complete or near-complete occlusion of the vessel. In 1959, Dr. Myron Prinzmetal described a different entity of angina than the classic Heberden's angina which was originally described in 1772. This vasospastic disease can cause acute ischemia and present anywhere along the spectrum of angina from stable angina to acute coronary syndrome.

18. A client is receiving sulfasalazine (Azulfidine) for the treatment of ulcerative colitis. Which of the following assessment findings will concern the nurse most?

- A. Drowsiness
- B. Decreased urine output
- C. Urine discoloration
- D. Vomiting

Correct Answer: B. Decreased urine output

Sulfasalazine is used to treat bowel inflammation, diarrhea (stool frequency), rectal bleeding, and abdominal pain in patients with ulcerative colitis. It is nephrotoxic, so a decrease in urine output is the most serious concern.

- **Options A, C, & D:** These are also side effects but are less serious.

19. A client with stomach cancer is admitted to the oncology unit after vomiting for 3 days. Physical assessment findings include irregular pulse, muscle twitching, and complaints of prickling sensations in the fingers and hands. Laboratory results include a potassium level of 2.9 mEq/L, a pH of 7.46, and a bicarbonate level of 29 mEq/L. The client is experiencing:

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

Correct Answer: A. Metabolic alkalosis

- The client is experiencing metabolic alkalosis caused by loss of hydrogen and chloride ions from excessive vomiting. This is shown by a pH of 7.46 and elevated bicarbonate level of 29 mEq/L.

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

- A. Body image disturbance
- B. Impaired verbal communication
- C. Risk for aspiration
- D. Pain

Correct Answer: C. Risk for aspiration

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

- **Option A:** Does not apply for a child who has undergone a tonsillectomy. Assess for signs and symptoms of inadequate oxygenation. Early signs of hypoxia include confusion, irritability, headaches, pallor, tachycardia, and tachypnea.
- **Option B:** Observe the child for nonverbal indications of pain such as crying, grimacing, irritability. Provides additional information about pain. The child may find discomfort in speaking.

- **Option D:** Although these nursing diagnoses might be appropriate for this child, risk for aspiration should have the highest priority. Apply an ice collar on the neck or encourage the child to eat popsicles. Cold promotes vasoconstriction and decreases swelling that contributes to pain.

21. A client has a history of chronic undifferentiated schizophrenia. Because she has a history of noncompliance with antipsychotic therapy, she'll receive fluphenazine decanoate (Prolixin Decanoate) injections every 4 weeks. Before discharge, what should the nurse include in her teaching plan?

- A. Asking the physician for droperidol (Inapsine) to control any extrapyramidal symptoms that occur.
- B. Sitting up for a few minutes before standing to minimize orthostatic hypotension.
- C. Notifying the physician if her thoughts don't normalize within 1 week.
- D. Expecting symptoms of tardive dyskinesia to occur and to be transient.

Correct Answer: B. Sitting up for a few minutes before standing to minimize orthostatic hypotension

The nurse should teach the client how to manage common adverse reactions, such as orthostatic hypotension and anticholinergic effects. Fluphenazine has an adverse effect profile similar to other first-generation or typical antipsychotics, which is due to its dopamine receptor antagonism as well as its anticholinergic, antihistaminic, and alpha-adrenergic antagonistic properties. Common side effects include sedation, dry mouth, constipation, dry eyes, blurred vision, constipation, orthostasis, dizziness, hypotension, and urinary retention.

- **Option A:** Droperidol increases the risk of extrapyramidal effects when given in conjunction with phenothiazines such as fluphenazine. The most common behavioral adverse effects of INAPSINE (droperidol) include dysphoria, postoperative drowsiness, restlessness, hyperactivity and anxiety, which can either be the result of an inadequate dosage (lack of adequate treatment effect) or of an adverse drug reaction (part of the symptom complex of akathisia). Care should be taken to search for extrapyramidal signs and symptoms (dystonia, akathisia, oculogyric crisis) to differentiate these different clinical conditions. When extrapyramidal symptoms are the cause, they can usually be controlled with anticholinergic agents.
- **Options C:** Antipsychotic effects of the drug may take several weeks to appear. Oral fluphenazine has a half-life of 14 to 16 hours. Intramuscular (IM) formulation for acute administration is typically a 1.25 mg initial dose with options ranging from 2.5 mg to 10 mg per day. IM, short-acting formulations can be administered every 6 to 8 hours as needed for acute agitation in patients with psychosis. The half-life of the intramuscular formulation of fluphenazine is 6 to 10 days. The long-acting intramuscular or subcutaneous formulation is dosed initially 12.5 mg to 25 mg, and typical dosing is every 28 days.
- **Option D:** Tardive dyskinesia is a possible adverse reaction and should be reported immediately. Tardive dyskinesia is caused due to long-term exposure to first and second-generation neuroleptics, certain antidepressants, lithium, and some antiemetic medications. Typically, the first-generation antipsychotics with increased dopamine D2 receptor affinity are affiliated with a higher risk of causing permanent abnormal involuntary movements.

22. The lower limit of viability for infants in terms of age of gestation is:

- A. 21-24 weeks

- B. 25-27 weeks
- C. 28-30 weeks
- D. 38-40 weeks

Correct Answer: A. 21-24 weeks

Viability means the capability of the fetus to live/survive outside of the uterine environment. With the present technological and medical advances, 21 weeks AOG is considered as the minimum fetal age for viability.

- **Option B:** Fetal viability is a major issue that is dependent on the evolution and progress of modern neonatology (Beauthier, 2007). It is generally accepted that a 28-week-old fetus that doesn't need resuscitation is viable. However, according to WHO, fetal viability is possible after 20 weeks of fetal life (22 weeks of amenorrhea).
- **Option C:** A simple way to calculate fetal age (in lunar months) is to divide the fetal length (in cm) by 4 for fetuses less than 5 months' gestation. If it is less than 5 months' gestation the length (in cm) is divided by 5.
- **Option D:** Anthropometric measurements collected during examination of the fetus are used to estimate its age more accurately (Beauthier, 2011b). Three types of data can be gathered from radiologic investigations: direct fetal age estimation from measurement of the length of long bones; fetal age estimation from measurement of the long bones and calculation of fetal stature (crown-heel or crown-rump length); and a more difficult method involving the degree of deciduous teeth calcification; this method requires the conservation of dental crowns.

23. The client who has a cold is seen in the emergency room with inability to void. Because the client has a history of BPH, the nurse determines that the client should be questioned about the use of which of the following medications?

- A. Diuretics
- B. Antibiotics
- C. Antitussives
- D. Decongestants

Correct Answer: D. Decongestants

In the client with BPH, episodes of urinary retention can be triggered by certain medications, such as decongestants, anticholinergics, and antidepressants. The client should be questioned about the use of these medications if the client has urinary retention. Retention can also be precipitated by other factors, such as alcoholic beverages, infection, bedrest, and becoming chilled.

- **Option A:** Diuretics are drugs that pharmacologically tilt the renal fluid regulation in favor of excretion of water and electrolytes. Thus, diuretics are substances that increase the production and volume of urine. This class of drugs achieves this objective primarily by suppressing receptors that aid in reabsorption of Na⁺, the most abundant extracellular cation, from the renal tubules, thereby increasing the osmolality of the renal tubules and consequently suppressing water reabsorption.
- **Option B:** Gentamicin is known to cause decreased urine output. If a medication causes a release of less urine, discuss concerns with a doctor. They may change the medication or adjust the current dosage.

- **Option C:** Antitussives are medicines that suppress coughing, also known as cough suppressants. Antitussives are thought to work by inhibiting a coordinating region for coughing located in the brain stem, disrupting the cough reflex arc; although the exact mechanism of action is unknown.

24. Baby Angela was rushed to the Emergency Room following her mother's complaint that the infant has been irritable, difficult to breastfeed, and has had diarrhea for the past 3 days. The infant's respiratory rate is elevated and the fontanelles are sunken. The Emergency Room physician orders ABGs after assessing the ABCs. The results from the ABG results show pH 7.39, PaCO₂ 27 mmHg, and HCO₃ 19 mEq/L. What does this mean?

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

Correct Answer: C. Metabolic Acidosis, Fully Compensated

Baby Angela has metabolic acidosis due to decreased HCO₃ and slightly acidic pH. Her pH value is within the normal range which made the result fully compensated.

25. The nurse is caring for a client receiving chemotherapy when an anaphylactic reaction occurs from the medication. The nurse should take which actions? Select all that apply.

- A. Stop the medication.
- B. Remove the IV line.
- C. Administer Oxygen.
- D. Administer epinephrine.
- E. Position the client in a reverse Trendelenburg position.

Correct Answer: A, C, & D

During an anaphylactic reaction, the medication is immediately stopped. The nurse assesses the respiratory status and monitors the client's vital signs. The physician is contacted immediately, and an emergency medication is given such as epinephrine.

- **Option B:** The IV line is not removed because IV access is required to administer emergency IV medications.
- **Option E:** The client's head is not lowered but elevated to improve ventilation.

26. The physician orders an IV solution of dextrose 5% in water at 100ml/hour. What would the flow rate be if the drop factor is 15 gtt = 1 ml?

- A. 5 gtt/minute

- B. 13 gtt/minute
- C. 25 gtt/minute
- D. 50 gtt/minute

Correct Answer: C. 25 gtt/minute

100ml/60 min X 15 gtt/ 1 ml = 25 gtt/minute. When the nurse has an order for an IV infusion, it is her responsibility to make sure the fluid will infuse at the prescribed rate. IV fluids may be infused by gravity using a manual roller clamp or dial-a-flow, or infused using an infusion pump. Regardless of the method, it is important to know how to calculate the correct IV flow rate.

- **Option A:** When calculating the flow rate, determine which IV tubing you will be using, microdrip or macrodrip, so you can use the proper drop factor in your calculations. The drop factor is the number of drops in one mL of solution, and is printed on the IV tubing package.
- **Option B:** Macrodrop and microdrop refers to the diameter of the needle where the drop enters the drip chamber. Macrodrop tubing delivers 10 to 20 gtts/mL and is used to infuse large volumes or to infuse fluids quickly. Microdrop tubing delivers 60 gtts/mL and is used for small or very precise amounts of fluid, as with neonates or pediatric patients.
- **Option C:** To calculate the drops per minute, the drop factor is needed. The formula for calculating the IV flow rate (drip rate).. total volume (in mL) divided by time (in min), multiplied by the drop factor (in gtts/mL), which equals the IV flow rate in gtts/min.

27. A 45-year-old woman with a history of depression tells a nurse in her doctor's office that she has difficulty with sexual arousal and is fearful that her husband will have an affair. Which of the following factors would the nurse identify as least significant in contributing to the client's sexual difficulty?

- A. Education and work history
- B. Medication used
- C. Physical health status
- D. Quality of spousal relationship

Correct Answer: A. Education and work history

Education and work history would have the least significance in relation to the client's sexual problem. Depression, performance anxiety, and other sexual disorders can be strong contributing factors even when organic causes also exist. While having a sexual dysfunction can feel isolating, it's actually fairly common. About 40 percent of women experience some type of sexual dysfunction, such as FSIAD, in their life.

- **Option B:** Selective serotonin reuptake inhibitors (SSRIs), a type of antidepressant, may cause FSIAD. Female sexual arousal disorder occurs when the body doesn't respond to sexual stimulation. If you're undergoing chemotherapy or radiation, you may experience FSIAD. Likewise, a recent surgery may interfere with arousal and sexual stimulation.
- **Option C:** While FSIAD can affect any woman, older women seem to experience it more. Because FSIAD is a newly defined term according to the DSM-5, studies on its actual occurrence haven't yet been published. A 2009 study found that 3.3 percent of participants between the ages of 18 and 44 had female sexual arousal disorder, while 7.5 percent of participants between the ages of 45 and 64 experienced it.

- **Option D:** You might have trouble getting aroused if the stimulation you receive from yourself or your partner isn't sufficient. Arousal sets off a series of events in the body: Blood flow to the tissues around the vaginal opening and clitoris increases, causing swelling. The vagina produces natural lubricant. Studies on female sexual arousal disorder show that low sexual desire and problems with sexual arousal vary widely by age, cultural setting, duration of symptoms, and presence of distress.

28. Nurse Daisy is aware that the following pharmacologic agents are sedative-hypnotic medication is used to induce sleep for a client experiencing a sleep disorder is:

- A. triazolam (Halcion)
- B. paroxetine (Paxil)
- C. fluoxetine (Prozac)
- D. risperidone (Risperdal)

Correct Answer: A. triazolam (Halcion)

Triazolam is one of a group of sedative-hypnotic medications that can be used for a limited time because of the risk of dependence. Triazolam is used on a short-term basis to treat insomnia (difficulty falling asleep or staying asleep). Triazolam is in a class of medications called benzodiazepines. It works by slowing activity in the brain to allow sleep. Triazolam comes as a tablet to take by mouth. It is usually taken as needed at bedtime but not with or shortly after a meal. Triazolam may not work well if it is taken with food.

- **Option B:** Paroxetine is a serotonin-specific reuptake inhibitor used for treatment of depression, panic disorder, and obsessive-compulsive disorder. It is FDA approved for major depressive disorder (MDD), obsessive-compulsive disorder (OCD), social anxiety disorder (SAD), panic disorder, posttraumatic stress disorder (PTSD), generalized anxiety disorder (GAD), and premenstrual dysphoric disorder (PMDD), vasomotor symptoms associated with menopause.
- **Option C:** Fluoxetine is a serotonin-specific reuptake inhibitor used for depressive disorders and obsessive-compulsive disorders. Fluoxetine has FDA-approval for major depressive disorder (age eight and older), obsessive-compulsive disorder (age seven and older), panic disorder, bulimia, binge eating disorder, premenstrual dysphoric disorder, bipolar depression (as an adjunct with olanzapine also known as Symbyax), and treatment-resistant depression when used in combination with olanzapine.
- **Option D:** Risperidone is indicated for psychotic disorders. The long-acting risperidone injection has been approved for the use of schizophrenia and maintenance of bipolar disorder (as monotherapy or adjunctive to valproate or lithium) in adults. Risperidone has also been used for augmentation of antidepressant therapy in the treatment of non-psychotic unipolar depression. In addition to irritability associated with autism, risperidone has also been used for social impairment, stereotypical behaviors, cognitive problems, and hyperactivity in autism.

29. Oral steroids are prescribed on a taper in order to:

- A. Achieve optimal serum levels.
- B. Ensure drug reliability.
- C. Ensure compliance.

D. Prevent steroid withdrawal syndrome.

Correct Answer: D. Prevent steroid withdrawal syndrome.

Steroids are tapered off in order to prevent a withdrawal syndrome. Tapering the dosage over 2 months or more may be necessary for patients on prolonged treatment (more than 1 year). Depending on the dosage, duration of therapy, and risk of systemic disease, decrease dosage by the equivalent of 2.5 to 5 mg prednisone every 3 to 7 days until a dosage of 5 mg of prednisone is reached.

- **Option A:** Optimal serum levels do not require tapering in order to be maintained. Before initiating long-term systemic corticosteroid therapy, a thorough history and physical examination should be performed to assess for risk factors or pre-existing conditions that may potentially be exacerbated by GC therapy, such as diabetes, dyslipidemia, CVD, GI disorders, affective disorders, or osteoporosis.
- **Option B:** Tapering has nothing to do with drug reliability. If the client takes prednisone for more than a few weeks, the adrenal glands will decrease the natural production of cortisol. If the client stops prednisone abruptly before production is restored, the lack of hormones can trigger an array of withdrawal symptoms.
- **Option C:** Compliance is not dependent on tapering. To avoid prednisone withdrawal, the drug should be gradually reduced in stages according to a specific schedule prescribed by the doctor. An exception is if prednisone has been given over a very short period of time. Don't try to stop or taper prednisone without the doctor's knowledge or advice.

30. Soon after delivery, a neonate is admitted to the central nursery. The nursery nurse begins the initial assessment by:

- A. auscultate bowel sounds.
- B. determining chest circumference.
- C. inspecting the posture, color, and respiratory effort.
- D. checking for identifying birthmarks.

Correct Answer: C. inspecting the posture, color, and respiratory effort.

- **Option C:** One of the first assessments is a baby's Apgar score. At one minute and five minutes after birth, infants are checked for heart and respiratory rates, muscle tone, reflexes, and color. This helps identify babies that have difficulty breathing or have other problems that need further care.

31. Included as a priority of care for the client will be:

- A. Encourage verbalization of concerns instead of demonstrating them through the body.
- B. Divert attention toward activities.
- C. Place in Semi-fowler's position and render O2 inhalation as ordered.
- D. Help her recognize that her physical condition has an emotional component.

Correct Answer: C. Place in Semi-fowler's position and render O2 inhalation as ordered

Since psychophysiological disorder has an organic basis, priority intervention is directed towards disease-specific management. Failure to address the medical condition of the client may be a life

threat. Psychological factors may influence the symptoms and management of asthma, and numerous pathways may contribute to the links between asthma and psychiatric disease states such as depression. The notion that emotional stress can precipitate or exacerbate acute and chronic asthma has been recognized anecdotally for many years.

- **Option A:** Psychological barriers, such as faulty symptom attribution, adoption or rejection of the sick role, and low self-esteem, may negatively impact treatment adherence. Conversely, the presence of a chronic and potentially life-threatening illness may exert enough stress that an anxiety or depressive disorder emerges in vulnerable patients.
- **Option B:** The client has a physical symptom that is adversely affected by psychological factors. Verbalization of feelings in a non-threatening environment and involvement in relaxing activities are an adaptive way of dealing with stressors. However, these are not the priority.
- **Option D:** Helping the client connect the physical symptoms with the emotional problems can be done when the client is ready. Relaxation techniques are generally conducted with or without biofeedback and were the focus of several earlier studies of psychological interventions in asthma. Relaxation techniques control stress and anxiety, which, in asthma, may improve breathing and respiratory function.

32. A nurse in the newborn nursery is monitoring a preterm newborn infant for respiratory distress syndrome. Which assessment signs if noted in the newborn infant would alert the nurse to the possibility of this syndrome?

- A. Hypotension and Bradycardia
- B. Tachypnea and retractions
- C. Acrocyanosis and grunting
- D. The presence of a barrel chest with grunting

Correct Answer: B. Tachypnea and retractions

Respiratory distress syndrome (RDS) usually affects premature babies. It is caused by the absence or lack of surfactant, a phospholipid that lines the alveoli and reduces the surface tension to keep the alveoli from collapsing on expiration. Surfactant is not formed until the 34th week of gestation that is why premature infants are vulnerable.

- **Option B:** Infants who develop RDS have periods during the day when they are free of symptoms because of an initial release of surfactant. The initial signs of respiratory distress includes tachypnea (60 breaths per minute), sternal and subcostal retractions, nasal flaring, cyanotic mucous membranes.
- **Options A, C, & D:** These are **late** signs (after a few hours) of respiratory distress as its intensity increases. **Acrocyanosis** is the blue or cyanotic discoloration of the extremities. **Expiratory grunting** is when the infant closes the glottis in an attempt to increase pressure in the alveoli on expiration in order to keep them from collapsing. Additionally, auscultation may reveal fine rales and diminished breath sounds due to poor air entry.

33. A nurse is caring for patients in the oncology unit. Which of the following is the most important nursing action when caring for a neutropenic patient?

- A. Change the disposable mask immediately after use.

- B. Change gloves immediately after use.
- C. Minimize patient contact.
- D. Minimize conversation with the patient.

Correct Answer: B. Change gloves immediately after use.

The neutropenic patient is at risk of infection. Changing gloves immediately after use protects patients from contamination with organisms picked up on hospital surfaces. This contamination can have serious consequences for an immunocompromised patient. Wear gloves when providing direct care; perform hand hygiene after properly disposing gloves.

- **Option A:** Changing the respiratory mask is desirable, but not nearly as urgent as changing gloves. Wear personal protective equipment (PPE) properly. Use masks, goggles, face shields to protect the mucous membranes of your eyes, mouth, and nose during procedures and in direct-care activities (e.g., suctioning secretions) that may generate splashes or sprays of blood, body fluids, secretions, and excretions.
- **Option C:** Place the patient in protective isolation if the patient is at high risk of infection. Protective isolation is set when the WBC indicates neutropenia. Provide surgical masks to visitors who are coughing and provide rationale to enforce usage. Instruct visitors to cover mouth and nose (by using the elbows to cover) during coughing or sneezing; use of tissues to contain respiratory secretions with immediate disposal to a no-touch receptacle; perform hand hygiene afterward.
- **Option D:** Minimizing conversations are not necessary and may cause nursing staff to miss changes in the patient's symptoms or condition. Educating visitors on the importance of preventing droplet transmission from themselves to others reduces the risk of infection.

34. An additional Vitamin C is required during all of the following periods except:

- A. Infancy
- B. Young adulthood
- C. Childhood
- D. Pregnancy

Correct Answer: B. Young adulthood

Additional Vitamin C is needed in growth periods, such as infancy and childhood, and during pregnancy to supply demands for fetal growth and maternal tissues. Other conditions requiring extra vitamin C include wound healing, fever, infection and stress. Vitamin C is a water-soluble vitamin, antioxidant, and essential cofactor for collagen biosynthesis, carnitine and catecholamine metabolism, and dietary iron absorption. Humans are unable to synthesize vitamin C, so they can only obtain it through dietary intake of fruits and vegetables.

- **Option A:** An infant requires Vitamin C. Although most vitamin C is completely absorbed in the small intestine, the percentage of absorbed vitamin C decreases as intraluminal concentrations increase. Proline residues on procollagen require vitamin C for the hydroxylation, making it necessary for the triple-helix formation of mature collagen. The lack of a stable triple-helical structure compromises the integrity of the skin, mucous membranes, blood vessels, and bone.
- **Option C:** Children need lots of Vitamin C. Usual dietary doses of up to 100 mg/day are almost completely absorbed. The highest concentrations of ascorbic acid are in the pituitary gland, the adrenal gland, the brain, leukocytes, and eyes. Ascorbic acid functions as a cofactor, enzyme

complement, co-substrate, and a powerful antioxidant in a variety of reactions and metabolic processes. It also stabilizes vitamin E and folic acid and enhances iron absorption. It neutralizes free radicals and toxins as well as attenuates inflammatory response, including sepsis syndrome.

- **Option D:** A pregnant woman requires an abundant amount of Vitamin C. The average protective adult dose of vitamin C is 70 to 150 mg daily. Increase the dose to 300 mg to 1 g daily when scurvy is present. Daily need increases in patients with conditions like gingivitis, asthma, glaucoma, collagen disorders, heatstroke, arthritis, infections (pneumonia, sinusitis, rheumatic fever), and chronic illnesses. Hemovascular disorders, burns, and delayed wound healing are causes for an increase in daily intake.

35. A nurse is working in the hematology ward and is administering a blood transfusion to a 40-year-old patient with chronic anemia due to a genetic condition. The patient, who is a biology teacher, is curious about the physiology of red blood cells and asks, "Considering the turnover and production of red blood cells in my body, how long does a typical red blood cell live?" Given the patient's background and the context, which of the following responses is accurate?

- A. "The average lifespan of a red blood cell (RBC) is about 45 days, after which it is broken down."
- B. "Red blood cells typically survive for around 60 days in the circulatory system."
- C. "Most red blood cells have a life span of approximately 90 days before they are replaced."
- D. "A red blood cell generally has a lifespan of 120 days in the body."
- E. "The longevity of red blood cells can vary, but it's usually around 150 days."
- F. "Red blood cells continuously regenerate and can live indefinitely in the body."

Correct Answer: D. "A red blood cell generally has a lifespan of 120 days in the body."

Red blood cells (RBCs), or erythrocytes, have a typical life span of about 120 days in the human body. After this period, they are removed from the circulation and broken down in the spleen and liver. The components are then recycled to produce new RBCs in the bone marrow. This continuous process ensures that the body has an adequate supply of fresh RBCs to transport oxygen to tissues.

36. Absorption, distribution, and excretion may be increased by which of the following diseases?

- A. Hyperthyroidism
- B. Renal insufficiency
- C. Liver disease
- D. Hypothyroidism

Correct Answer: A. Hyperthyroidism.

Diseases that speed up metabolism, such as hyperthyroidism, will increase absorption, distribution, and elimination.

- **Option B:** It is clear that the effects of renal insufficiency on drug metabolism and transport are real and are clinically significant, based on many years of pharmacokinetic studies showing major

alterations in nonrenal clearance in patients with CRF. Mechanisms point to circulating inhibitory factors some of which are dialyzable.

- **Option C:** The pharmacokinetics of many types of drugs metabolized by the liver are changed in patients with cirrhosis. Liver disease can affect drug clearance by reducing drug-metabolizing capacity, reducing the synthesis of plasma proteins, and altering liver blood flow.
- **Option D:** Thyroid dysfunction can influence the physiological disposition of drugs. Depending on the pharmacokinetic properties of the individual drug, changes in the rate of metabolism ranging from profound to moderate or negligible have been observed. Since renal function is also influenced by thyroid disease, changes in the renal elimination of drugs that are excreted in the urine mainly as unchanged drugs have to be considered as another reason for altered drug disposition in thyroid disease.

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

- A. Bilateral inspiratory and expiratory crackles.
- B. Absence of breaths sound in the right thorax.
- C. Inspiratory wheezes in the right thorax.
- D. Bilateral pleural friction rub.

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

In pneumothorax, the alveoli are deflated and no air exchange occurs in the lungs. Therefore, breath sounds in the affected lung field are absent. A pneumothorax is defined as a collection of air outside the lung but within the pleural cavity. It occurs when air accumulates between the parietal and visceral pleura inside the chest. The air accumulation can apply pressure on the lung and make it collapse. The degree of collapse determines the clinical presentation of pneumothorax. None of the other options are associated with pneumothorax.

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

38. A male client is diagnosed with gonorrhea. When teaching the client about this disease, the nurse should include which instruction?

- A. "Avoid sexual intercourse until you've completed treatment, which takes 14 to 21 days."
- B. "Wash your hands thoroughly to avoid transferring the infection to your eyes."
- C. "If you have intercourse before treatment ends, tell sexual partners of your status and have them wash well after intercourse."
- D. "If you don't get treatment, you may develop meningitis and suffer widespread central nervous system (CNS) damage."

Correct Answer: B. "Wash your hands thoroughly to avoid transferring the infection to your eyes."

Adults and children with gonorrhea may develop gonococcal conjunctivitis by touching the eyes with contaminated hands. In populations other than neonates, transmission can occur via direct sexual contact with infective secretions or indirectly, for example via manual or fomite transmission, though this is thought to be less likely since *N. gonorrhoeae* does not typically survive more than a few minutes outside the human body.

- **Option A:** The client should avoid sexual intercourse until treatment is completed, which usually takes 4 to 7 days, and a follow-up culture confirms that the infection has been eradicated. Untreated cases can result in severe complications such as vision loss if the bacteria penetrate further and cause corneal ulceration and scarring. Timely ophthalmology consultation is warranted due to the significant risks to the patient's vision.
- **Option C:** A client who doesn't refrain from intercourse before treatment is completed should use a condom in addition to informing sex partners of the client's health status and instructing them to wash well after intercourse. Furthermore, attention should be given to appropriate treatment since fluoroquinolone resistance has become a growing issue, which is part of the reason why cephalosporins have become the mainstay of gonococcal treatment.
- **Option D:** Meningitis and widespread CNS damage are potential complications of untreated syphilis, not gonorrhea. The main concept is that *N. gonorrhoeae* can attach to and penetrate the epithelial cells of mucosal surfaces such as the conjunctiva. Once inside, the bacteria can proliferate and induce pro-inflammatory mechanisms. However, there is evidence that *N. gonorrhoeae* have developed methods for evading and even modulating immune responses, which can potentially lead to disseminated infection, for example, bacteremia or meningitis.

39. A 12-year-old boy was admitted to the hospital two days ago due to hyperthermia. His attending nurse, Dennis, is quite unsure about his plan of care. Which of the following nursing interventions should be included in the care plan for the client?

- A. Room temperature reduction
- B. Fluid restriction of 2,000 ml/day
- C. Axillary temperature measurements every 4 hours
- D. Antiemetic agent administration

Correct Answer: A. Room temperature reduction

For the patient with hyperthermia, reducing the room temperature may help decrease the body temperature. Tepid baths, cool compresses, and cooling blankets may also be necessary. Adjust and monitor environmental factors like room temperature and bed linens as indicated. Room temperature may be accustomed to near normal body temperature and blankets and linens may be adjusted as

indicated to regulate the temperature of the patient.

- **Option B:** Fluids should be encouraged, not restricted to compensate for insensible losses. Monitor fluid intake and urine output. If the patient is unconscious, central venous pressure or pulmonary artery pressure should be measured to monitor fluid status. Fluid resuscitation may be required to correct dehydration. The patient who is significantly dehydrated is no longer able to sweat, which is necessary for evaporative cooling.
- **Option C:** Tympanic or rectal temperature measurements are generally accepted and are more accurate than axillary measurements. Monitor the patient's HR, BP, and especially the tympanic or rectal temperature. HR and BP increase as hyperthermia progresses. Tympanic or rectal temperature gives a more accurate indication of core temperature.
- **Option D:** Antipyretics, and not antiemetics, are indicated to reduce fever. Give antipyretic medications as prescribed. Antipyretic medications lower body temperature by blocking the synthesis of prostaglandins that act in the hypothalamus.

40. The nurse is monitoring a client receiving peritoneal dialysis and the nurse notes that a client's outflow is less than the inflow. Select actions that the nurse should take.

- A. Place the client in good body alignment
- B. Check the level of the drainage bag
- C. Contact the physician
- D. Check the peritoneal dialysis system for kinks
- E. Reposition the client to his or her side

Correct Answer: A, B, D, & E.

Outflow (one-way) is the most common type of obstruction. This obstruction is caused by the closeness of the distal portion of the catheter to the omentum or intestine, which allows an infusion of the solution, but little-to-no outflow.

- **Options A and E:** If outflow drainage is inadequate, the nurse attempts to stimulate outflow by changing the client's position. Turning the client to the other side or making sure that the client is in good body alignment may assist with outflow drainage.
- **Option B:** The drainage bag needs to be lower than the client's abdomen to enhance gravity drainage. Using a titanium weight at the end of the catheter, front-loading, or laparoscopic salvage of the catheter with reposition and securing the internal tip of the catheter in the true pelvis with a stitch can prevent or correct this complication.
- **Option C:** There is no reason to contact the physician. Omental wrapping can occur at any time after catheter insertion. Conservative therapy with enemas, change in position, and ambulation often remedy this problem.
- **Option D:** The connecting tubing and the peritoneal dialysis system are also checked for kinks or twisting and the clamps on the system are checked to ensure that they are open. Persistent obstruction may require catheter manipulation with reposition or replacement in extreme cases.

41. A client with diabetes insipidus is taking antidiuretic hormone. Which of the following symptoms would alert the need to decrease the dosage?

- A. Alopecia
- B. Jaundice
- C. Diarrhea
- D. Drowsiness

Correct Answer: D. Drowsiness

One of the side effects of taking antidiuretic hormone is water intoxication which is manifested by a headache, drowsiness, light-headedness, and shortness of breath. This could indicate the need to reduce the dosage.

- **Options A, B, & C:** These are not related signs to this medication.

42. A 68-year-old client with a history of mild CHF and glaucoma is receiving IV mannitol (Osmitrol) to decrease intraocular pressure. The nurse would monitor the client for signs and symptoms of:

- A. Fluid volume excess.
- B. Fluid volume deficit.
- C. Hyperkalemia.
- D. Hyponatremia.

Correct Answer: A. Fluid volume excess.

Mannitol's osmotic effect extends to the bloodstream, where increased osmotic pressure draws fluid into the vascular space, thus elevating intravascular volume. Mannitol may be used to reduce intraocular pressure when given intravenously. The mannitol is a new solute in the intravascular space, which increases the tonicity of the blood plasma. The increased tonicity of the blood plasma draws water out of the vitreous humor of the eye and into the intravascular space. Once in the intravascular space, the mannitol and associated water are excreted by the kidney. The decreased water of the vitreous humor lowers the intraocular pressure.

- **Option B:** Mannitol can be used in acute renal failure to help prevent or treat the oliguric phase. During the oliguric phase, urine output decreases to less than 0.5 mg/kg/hour for children and less than 400 mL/day in adults. The fluid which does not get excreted remains in the body and causes fluid overload. Fluid overload causes issues such as decreased oxygenation and ventilation, electrolyte abnormalities, swelling, encephalopathy, and cardiac arrest.
- **Option C:** 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.
- **Option D:** Since mannitol is a sugar and it provides a sweet taste when ingested orally. Mannitol also mostly passes through the intestine and is excreted in the feces as the small intestine absorbs it poorly. Thus, mannitol is used as a sweetener in food for diabetic patients as mannitol can provide sweetness to the food without increasing the blood sugar as much as sucrose.

43. The client is admitted for an open reduction internal fixation of a fractured hip. Immediately following surgery, the nurse should give priority to assessing

the:

- A. Serum collection (Davol) drain
- B. Client's pain
- C. Nutritional status
- D. Immobilizer

Correct Answer: A. Serum collection (Davol) drain

Bleeding is a common complication of orthopedic surgery. The blood-collection device should be checked frequently to ensure that the client is not hemorrhaging. Maintain patency of drainage devices when present. Note characteristics of wound drainage. Reduces the risk of infection by preventing the accumulation of blood and secretions in the joint space (medium for bacterial growth). Purulent, non serous, odorous drainage is indicative of infection, and continuous drainage from incision may reflect developing skin tract, which can potentiate the infectious process.

- **Option B:** The client's pain should be assessed, but this is not life-threatening. Provide comfort measures (frequent repositioning, back rub) and diversional activities. Encourage stress management techniques (progressive relaxation, guided imagery, visualization, meditation). Provide Therapeutic Touch as appropriate. Reduces muscle tension, refocuses attention, promotes a sense of control, and may enhance coping abilities in the management of discomfort or pain, which can persist for an extended period.
- **Option C:** When the client is in less danger, the nutritional status should be assessed. Encourage intake of a balanced diet, including roughage and adequate fluids. Enhances healing and feeling of general well-being. Promotes bowel and bladder function during a period of altered activity.
- **Option D:** An immobilizer is unnecessary in this case. Demonstrate and assist with transfer techniques and use of mobility aids, e.g., trapeze, walker. Facilitates self-care and patient's independence. Proper transfer techniques prevent shearing abrasions of skin and fall.

44. Junnel, who is manic, but not yet on medication, comes to the drug treatment center. The nurse would not let this client join the group session because:

- A. The client is disruptive.
- B. The client is harmful to self.
- C. The client is harmful to others.
- D. The client needs to be on medication first.

Correct Answer: A. The client is disruptive.

Group activity provides too much stimulation, which the client will not be able to handle (harmful to self) and as a result will be disruptive to others. Decrease environmental stimuli (e.g., by providing a calming environment or assigning a private room). Helps decrease escalation of anxiety and manic symptoms.

- **Option B:** Frequently assess client's behavior for signs of increased agitation and hyperactivity. Early detection and intervention of escalating mania will prevent the possibility of harm to self or others, and decrease the need for seclusions.
- **Option C:** Redirect agitation and potentially violent behaviors with physical outlets in an area of low stimulation (e.g., punching bag). Can help to relieve pent-up hostility and relieve muscle tension.

Remain neutral as possible; Do not argue with the client. The client can use inconsistencies and value judgments as justification for arguing and escalating mania.

- **Option D:** Chart, in nurse's notes, behaviors; interventions; what seemed to escalate agitation; what helped to calm agitation; when as-needed (PRN) medications were given and their effect; and what proved most helpful. Staff will begin to recognize potential signals for escalating manic behaviors and have a guideline for what might work best for the individual client.

45. A client is admitted with a venous stasis leg ulcer. A nurse assesses the ulcer, expecting to note that the ulcer:

- A. Has a pale colored base.
- B. Is deep, with even edges.
- C. Has little granulation tissue.
- D. Has brown pigmentation around it.

Correct Answer: D. Has brown pigmentation around it.

Venous leg ulcers, also called stasis ulcers, tend to be more superficial than arterial ulcers, and the ulcer bed is pink. The edges of the ulcer are uneven, and granulation tissue is evident. The skin has a brown pigmentation from the accumulation of metabolic waste products resulting from venous stasis. The client also exhibits peripheral edema.

- **Option A:** Necrotic-base ulcers have a black appearance and are non-viable, indicating a peripheral arterial disease or an infection. Fibrotic-base ulcers have a white to yellowish stringy appearance and tend to halt the formation of the granulation tissue. Granular-base ulcers have a beefy red appearance and indicate a positive healing potential.
- **Option B:** In the visual assessment of the wound, we are looking for any possible erythemas, edema, fluid discharges, crepitations, or abscess collections. Inspect wound edges for any possible formation of hyperkeratotic tissues which tends to halt the tissue healing. A hyperkeratotic border results from increased stress on the tissue; therefore, the focal pressure should be evaluated.
- **Option C:** This is due to tissue malnutrition, and thus an arterial problem. Quantitative measurements should be checked at every clinic visit. A comparison of the wound dimensions, including the width, length, and depth over time allows for the evaluation of the wound contracture. Ulceration discharge cultures can be obtained to target antibiotic therapy in the presence of an infection.

46. During a routine health assessment at a nursing clinic, a 65-year-old patient, who recently experienced a loss of smell after recovering from a viral infection, inquired about the intricacies of the olfactory system. The patient is curious about how exactly the sense of smell travels from the nostrils to the brain. The nurse, eager to satisfy the patient's curiosity and offer a deeper understanding of the body's mechanisms, illustrates the process through a series of steps, posing a question about the correct sequence of events. During a nursing assessment, a patient asks about the neuronal pathway for olfaction (sense of smell). To provide an accurate response, which of the following best describes the neuronal pathway for olfaction?

- A. Olfactory tracts — Olfactory cortex — Interneurons — Olfactory bulb— Axons from olfactory neurons — Foramina of the cribriform plate
- B. Olfactory bulb — Axons from olfactory neurons — Foramina of the cribriform plate — Interneurons — Olfactory tracts — Olfactory cortex
- C. Foramina of the cribriform plate — Axons from olfactory neurons — Olfactory bulb — Interneurons — Olfactory tracts — Olfactory cortex
- D. Axons from olfactory neurons — Foramina of the cribriform plate — Olfactory bulb — Interneurons — Olfactory tracts — Olfactory cortex

Correct Answer: D. Axons from olfactory neurons — Foramina of the cribriform plate — Olfactory bulb — Interneurons — Olfactory tracts — Olfactory cortex

Olfactory signals begin with the reception of smell by olfactory neurons in the nasal cavity. These neurons have long axons that pass through the foramina of the cribriform plate of the ethmoid bone to reach the olfactory bulb. Within the olfactory bulb, these axons synapse with interneurons. The axons of these interneurons then form the olfactory tracts which project directly to the olfactory cortex in the brain, allowing the perception of smell.

- **Option A:** This sequence is largely reversed and does not represent the correct order of the neuronal pathway for olfaction.
- **Option B:** The order in this option does not begin with the initial reception of the smell (via the axons of olfactory neurons). Additionally, the sequence is somewhat jumbled and does not represent the flow of olfactory information.
- **Option C:** The pathway does start with the axons from olfactory neurons, but the order presented here is not correct. The olfactory bulb does not directly follow the cribriform plate.

47. A client with C7 quadriplegia is flushed and anxious and complains of a pounding headache. Which of the following symptoms would also be anticipated?

- A. Decreased urine output or oliguria
- B. Hypertension and bradycardia
- C. Respiratory depression
- D. Symptoms of shock

Correct Answer: B. Hypertension and bradycardia

Hypertension, bradycardia, anxiety, blurred vision, and flushing above the lesion occur with autonomic dysreflexia due to uninhibited sympathetic nervous system discharge. The other options are incorrect. C5 to C7 are responsible for deep tendon reflexes of the biceps, brachioradialis, and triceps respectively. C5 controls shoulder abduction with the aid of C4 and elbow flexion with the aid of C6. C6 to C7 are responsible for elbow extension, wrist extension, and flexion.

- **Option A:** Conus medullaris Syndrome is caused by injury to the terminal aspect of the spinal cord, just proximal to the cauda equina. It characteristically presents with loss of sacral nerve root functions. Loss of Achilles tendon reflexes, bowel and bladder dysfunction, and sexual dysfunction may be observable.
- **Option C:** C3 to C4 contributes to breathing by controlling the muscles of the diaphragm. Patients with an injury in this area of the cervical spine can complain of difficulty breathing. If C3 or C4 are involved, abnormal breathing or respiratory failure can occur.

- **Option D:** Neurogenic Shock results from high cervical injuries affecting the cervical ganglia, which leads to a loss of sympathetic tone. Loss of sympathetic tone results in a shock state characterized by hypotension and bradycardia.

48. A female client with cancer is being evaluated for possible metastasis. Which of the following is one of the most common metastasis sites for cancer cells?

- A. Colon
- B. Liver
- C. Reproductive tract
- D. White blood cells (WBCs)

Correct Answer: B. Liver

- **Option B:** The liver is one of the five most common cancer metastasis sites. The others are the lymph nodes, lung, bone, and brain.
- **Options A, C, and D:** The colon, reproductive tract, and WBCs are occasional metastasis sites.

49. The nurse is discussing breastfeeding with a postpartum client. Breastfeeding is contraindicated in the postpartum client with:

- A. Diabetes
- B. Positive HIV
- C. Hypertension
- D. Thyroid disease

Correct Answer: B. Positive HIV

Clients with HIV should not breastfeed because the infection can be transmitted to the baby through breast milk. The best way to prevent transmission of HIV to an infant through breast milk is to not breastfeed. In the United States, where mothers have access to clean water and affordable replacement feeding (infant formula), the CDC and the American Academy of Pediatrics recommend that HIV-infected mothers completely avoid breastfeeding their infants, regardless of ART and maternal viral load.

- **Option A:** Among women who had gestational diabetes, breastfeeding was associated with a lower rate of type 2 diabetes for up to 2 years after childbirth. The results suggest that breastfeeding after gestational diabetes may have lasting effects that reduce a woman's chance of developing type 2 diabetes.
- **Option C:** More children breastfed and longer duration of breastfeeding were associated with a lower risk of hypertension in postmenopausal women, and the degree of obesity and insulin resistance moderated the breastfeeding-hypertension association.
- **Option D:** The client with thyroid disease can be allowed to breastfeed. Some breastfeeding mothers with hypothyroidism struggle to make a full milk supply. Thyroid hormones play a role in normal breast development and helping breasts to make milk. When not enough thyroid hormones are made, a mother's milk supply may be affected.

50. A 25-year-old male is seen in the endocrinology clinic for unexplained fatigue, weight gain, and low energy levels. After a series of diagnostic tests, he is diagnosed with hypothyroidism. The healthcare provider prescribes levothyroxine (Synthroid) 50 mcg/day by mouth. As the nurse educates the client about this medication, which point should be emphasized?

- A. Should be taken in the morning
- B. May decrease the client's energy level
- C. Must be stored in a dark container
- D. Will decrease the client's heart rate

Correct Answer: A. Should be taken in the morning

- **Option A:** Levothyroxine (Synthroid) has a side effect of insomnia. Taking it in the morning could prevent interfering with the client's sleeping pattern.
- **Option B:** Some of the side effects of Levothyroxine include hyperactivity and an increase in heart rate.
- **Option C:** Keep this drug in a cool, dark, and dry place.
- **Option D:** A decrease in the heart rate is the desired effect of Levothyroxine.

51. 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.

52. The nurse in charge is teaching a client with emphysema how to perform pursed-lip breathing. The client asks the nurse to explain the purpose of this breathing technique. Which explanation should the nurse provide?

- A. It helps prevent early airway collapse.
- B. It increases inspiratory muscle strength.
- C. It decreases use of accessory breathing muscles.
- D. It prolongs the inspiratory phase of respiration.

Correct Answer: A. It helps prevent early airway collapse.

Pursed-lip breathing helps prevent early airway collapse. Learning this technique helps the client control respiration during periods of excitement, anxiety, exercise, and respiratory distress. The positive pressure created opposes the forces exerted on the airways from the flow of exhalation. As a result, pursed-lip breathing helps support breathing by the opening of the airways during exhalation and increasing excretion of volatile acids in the form of carbon dioxide preventing or relieving hypercapnia.

- **Option B:** To increase inspiratory muscle strength and endurance, the client may need to learn inspiratory resistive breathing. Inspiratory resistive breathing is a clinically relevant model encountered in many disease states such as upper airway obstruction, chronic obstructive pulmonary disease (COPD) exacerbations and asthma attacks. Resistive breathing increases the plasma level of proinflammatory cytokines.
- **Option C:** To decrease accessory muscle use and thus reduce the work of breathing, the client may need to learn diaphragmatic (abdominal) breathing. Diaphragmatic breathing is a type of breathing exercise that helps strengthen the diaphragm, an important muscle that helps breathe as it represents 80% of breathing. This breathing exercise is also sometimes called (belly breathing or abdominal breathing).
- **Option D:** In pursed-lip breathing, the client mimics a normal inspiratory-expiratory (I:E) ratio of 1:2. (A client with emphysema may have an I:E ratio as high as 1:4.). The expiratory phase of respiration is going to prolong when compared to inspiration to expiration ratio in normal breathing.

53. Since admission 4 days ago, a client has refused to take a shower, stating, "There are poison crystals hidden in the showerhead. They'll kill me if I take a shower." Which nursing action is most appropriate?

- A. Dismantling the showerhead and showing the client that there is nothing in it.
- B. Explaining that other clients are complaining about the client's body odor.
- C. Asking a security officer to assist in giving the client a shower.
- D. Accepting these fears and allowing the client to take a sponge bath.

Correct Answer: D. Accepting these fears and allowing the client to take a sponge bath

By acknowledging the client's fears, the nurse can arrange to meet the client's hygiene needs in another way. Attempt to understand the significance of these beliefs to the client at the time of their presentation. Important clues to underlying fears and issues can be found in the client's seemingly

illogical fantasies. Recognize the client's delusions as the client's perception of the environment. Recognizing the client's perception can help you understand the feelings he or she is experiencing.

- **Option A:** Because these fears are real to the client, providing a demonstration of reality wouldn't be effective at this time. Interact with clients on the basis of things in the environment. Try to distract the client from their delusions by engaging in reality-based activities (e.g., card games, simple arts and crafts projects etc). When thinking is focused on reality-based activities, the client is free of delusional thinking during that time. Helps focus attention externally.
- **Option B:** Initially do not argue with the client's beliefs or try to convince the client that the delusions are false and unreal. Arguing will only increase a client's defensive position, thereby reinforcing false beliefs. This will result in the client feeling even more isolated and misunderstood.
- **Option C:** These would violate the client's rights by shaming or embarrassing the client. Do not touch the client; use gestures carefully. Suspicious clients might misinterpret touch as either aggressive or sexual in nature and might interpret it as a threatening gesture. People who are psychotic need a lot of personal space.

54. Nurse Mary is caring for a wheelchair-bound client. Which piece of equipment impedes circulation to the area it's meant to protect?

- A. Polyurethane foam mattress
- B. Ring or donut
- C. Gel flotation pad
- D. Waterbed

Correct Answer: B. Ring or donut

Rings or donuts aren't to be used because they restrict circulation. Selection of a device may depend on factors such as mobility of the individual, the results of skin assessment, the level of and site at risk, weight, staff availability and skill plus the general health and condition of the individual. It is also important that any device is able to be cleaned and decontaminated effectively. It is accepted that these devices should be used in conjunction with other preventative strategies such as repositioning.

- **Option A:** Foam mattresses evenly distribute pressure. All studies showed a clinical benefit of higher specification foam mattresses (cubed foam mattress, soft foam mattress, pressure redistributing foam mattress), in reducing the incidence of pressure ulcers when compared to standard hospital mattresses.
- **Option C:** Gel pads redistribute with the client's weight. A gel-filled pad and a pressure-reducing cushion (designed to improve tissue tolerance in sitting by providing more surface area and reducing peak pressure) were clinically beneficial compared to foam cushions for reducing the incidence of pressure ulcers in people who use a wheelchair.
- **Option D:** The water bed also distributes pressure over the entire surface. Both a bead-filled mattress and a water-filled mattress showed a clinical benefit for reducing the incidence of pressure ulcers when compared to standard hospital mattresses (type not specified).

55. Which of the following characteristics or situations is indicated when a client with borderline personality disorder has a crisis?

- A. Antisocial behavior

- B. Suspicious behavior
- C. Relationship problems
- D. Auditory hallucinations

Correct Answer: C. Relationship problems

Relationship problems can precipitate a crisis because they bring up issues of abandonment. Clients with borderline personality disorder aren't usually suspicious; they're more likely to be depressed or highly anxious.

- **Option A:** Antisocial personality disorder (ASPD) is a deeply ingrained and rigid dysfunctional thought process that focuses on social irresponsibility with exploitive, delinquent, and criminal behavior with no remorse. Disregard for and the violation of others' rights are common manifestations of this personality disorder, which displays symptoms that include failure to conform to the law, inability to sustain consistent employment, deception, manipulation for personal gain, and incapacity to form stable relationships.
- **Option B:** Individuals with paranoid personality disorder typically experience symptoms that interfere with daily life. In general, people with this condition feel suspicious of others. While this mistrust is unfounded, their distrust of others makes it difficult to form relationships and can interfere with many aspects of life including at home, at school, and at work. People with PPD do not see their behaviors as out of the ordinary but are perceived by others as hostile and suspicious.
- **Option D:** Derived from the Greek 'schizo' (splitting) and 'phren' (mind) with the term first coined by Eugen Bleuler in 1908, schizophrenia is a functional psychotic disorder characterized by the presence of delusional beliefs, hallucinations, and disturbances in thought, perception, and behavior.

56. A client with paranoid schizophrenia repeatedly uses profanity during an activity therapy session. Which response by the nurse would be most appropriate?

- A. "Your behavior won't be tolerated. Go to your room immediately."
- B. "You're just doing this to get back at me for making you come to therapy."
- C. "Your cursing is interrupting the activity. Take time out in your room for 10 minutes."
- D. "I'm disappointed in you. You can't control yourself even for a few minutes."

Correct Answer: A. "Your behavior won't be tolerated. Go to your room immediately."

The nurse should set limits on client behavior to ensure a comfortable environment for all clients. The nurse should accept hostile or quarrelsome client outbursts within limits without becoming personally offended. Maintain a consistent approach, employ consistent expectations, and provide a structured environment. Clear and consistent limits and expectations minimize the potential for client's manipulation of staff.

- **Option B:** This is incorrect because it implies that the client's actions reflect feelings toward the staff instead of the client's own misery. Remain neutral as possible; Do not argue with the client. The client can use inconsistencies and value judgments as justification for arguing and escalating mania. Use a calm and firm approach; provide structure and control for a client who is out of control.
- **Option C:** Redirect agitation and potentially violent behaviors with physical outlets in an area of low stimulation (e.g., punching bag). This can help to relieve pent-up hostility and relieve muscle

tension. Decrease environmental stimuli (e.g., by providing a calming environment or assigning a private room); helps decrease the escalation of anxiety and manic symptoms.

- **Option D:** Judgmental remarks may decrease the client's self-esteem. Use short, simple, and brief explanations or statements. A short attention span limits understanding to small pieces of information. Chart, in nurse's notes, behaviors; interventions; what seemed to escalate agitation; what helped to calm agitation; when as-needed (PRN) medications were given and their effect; and what proved most helpful.

57. In a complex pediatric clinical scenario, an assessment of maternal-infant attachment is crucial, especially in cases where the neonate has been diagnosed with a congenital condition requiring prolonged hospitalization. Given this context, which of the following maternal behaviors most accurately indicates that the mother is initiating a healthy bond with her infant?

- A. The client adheres to a regimented schedule of enteral feeding for the neonate every three hours.
- B. The client requests recommendations from the nursing staff for comprehensive literature on neonatal care and management of congenital conditions.
- C. The client engages in direct verbal communication with the neonate, and when he exhibits signs of distress, she is prompt in providing tactile comfort.
- D. The client delegates the task of administering supplemental hydration to the infant's father, due to her own feelings of emotional distress.
- E. The client consistently inquires about the neonate's vitals and expresses concern over deviations from established norms.
- F. The client displays hesitation in handling the neonate, citing anxiety about the medical equipment and the infant's fragility.

Correct Answer: C. The client engages in direct verbal communication with the neonate, and when he exhibits signs of distress, she is prompt in providing tactile comfort.

Communicating with the neonate and responding to cries by providing comfort are behaviors indicative of bonding. These actions show an emotional connection and recognition of the infant's needs, which are fundamental aspects of maternal-infant bonding.

- **Option A:** Adhering to a strict feeding schedule is important for the neonate's nutrition, particularly in a hospital setting, but it does not necessarily reflect emotional bonding. Bonding transcends routine care and encompasses emotional and affective interaction.
- **Option B:** Requesting information indicates a proactive approach towards understanding and managing the neonate's condition. While this is indicative of concern, it does not directly illustrate the formation of an emotional bond.
- **Option D:** While involving the father in care is positive, it doesn't directly showcase the mother's bonding process. The additional note of her emotional distress might suggest challenges in the bonding process.
- **Option E:** Showing concern for the neonate's health is important, but without additional affective behaviors, it doesn't solely indicate bonding. Bonding is characterized by emotional connection, not just clinical concern.
- **Option F:** Hesitation and anxiety in handling the neonate might reflect a disruption in the bonding process, potentially due to the medical complexity of the situation. Support and counseling may be required to facilitate bonding.

58. A 55-year-old female patient is receiving combination chemotherapy for the treatment of metastatic carcinoma. The patient has been experiencing fatigue and nausea. The nurse is closely monitoring the patient for potential systemic side effects of the chemotherapy treatment. Which of the following systemic side effects should the nurse monitor for in this patient?

- A. Ascites
- B. Nystagmus
- C. Leukopenia
- D. Polycythemia

Correct Answer: C. Leukopenia

Leukopenia, a reduction in WBCs, is a systemic effect of chemotherapy as a result of myelosuppression.

- **Option A:** Ascites is common in some cancers that have reached the advanced stages and spread in the abdominal area. Sometimes chemotherapy might help manage ascites; it is not a side effect of chemotherapy.
- **Option B:** Platinum-based chemotherapy is an effective antineoplastic intervention that is used for a variety of human malignancies. There were reports of spontaneous nystagmus in 7 out of 10 patients (70%) and positional nystagmus (60%).
- **Option D:** While polycythemia vera is not a side effect of chemotherapy, it can become drug-induced with the excess use of rHuEPO or anabolic steroids.

59. Which question will critique the credibility of a research project?

- A. Is the strategy used for analysis compatible with the purpose of the study?
- B. Does the researcher document the research process?
- C. Are the researcher's conceptualizations true to the data?
- D. Has adequate time been allowed to fully understand the phenomenon?

Correct Answer: D. Has adequate time been allowed to fully understand the phenomenon?

This question will critique the credibility of a research project. "The necessary elements in a research critique can be compiled in a series of questions for the process of critiquing research" (Boswell & Cannon, 2009, p. 308).

- **Option A:** A research critique is an analysis of a research undertaking that focuses on its strengths and limitations. Critiquing is a systematic process for evaluating research studies and the results reported.
- **Option B:** This question will critique the auditability of a research project. Understand the purpose and problem, while determining if the design and methodology are consistent with the purpose.
- **Option C:** This question will critique the significance of a research project. "The purpose of a research critique is to determine whether the findings are usable for you" (Brink & Wood, 2001, p. 57).

60. A 37-year-old client with uterine cancer asks the nurse, “Which is the most common type of cancer in women?” The nurse replies that it’s breast cancer. Which type of cancer causes the most deaths in women?

- A. Breast cancer
- B. Lung cancer
- C. Brain cancer
- D. Colon and rectal cancer

Correct Answer: B. Lung cancer

Lung cancer is the most deadly type of cancer in both women and men.

- **Option A:** Breast cancer is the second most deadly type of cancer in women.
- **Option C:** Brain cancer is the 10th most deadly type of cancer among women.
- **Option D:** Colon and rectal cancer rank third in women.

61. A clinic nurse interviews a parent who is suspected of abusing her child. Which of the following characteristics is the nurse least likely to find in an abusing parent?

- A. Low self-esteem
- B. Unemployment
- C. Self-blame for the injury to the child
- D. Single status

Correct Answer: C. Self-blame for the injury to the child.

The profile of a parent at risk of abusive behavior includes a tendency to blame the child or others for the injury sustained. Abusers typically blame others, especially their partners, for the mistakes in their lives. This is related to hypersensitivity, but they are not necessarily alike. This occurs because most abusive people don’t hold themselves as being accountable for the actions they commit. Instead, they’ll try to shift the blame to the person that they have abused and somehow say they “deserved it” or that they were forced into a corner.

- **Option A:** Basically, domestic violence offenders always feel the need to be in control of their victims. The less in control an offender feels, the more they want to hurt others.
- **Option B:** One study suggests that unemployment can cause an increase in child neglect because parents have more limited access to the resources required to provide for a child’s basic needs, such as clothing, food, and medical care.
- **Option D:** A “favorite” of abusers is to isolate their partners from family or friends. This type of isolation is often very common and often represents the first step in an abusive relationship. The abusive partner will attempt to set up an “us versus them” attitude and will begin isolating family members. This can work through the abuser’s use of jealousy, controlling behavior, or veiled concern.

62. A 32-year-old male patient presents to a dental clinic for a routine check-up after several years of neglecting his oral health. The dental hygienist notes that, despite some plaque and minor gum inflammation, the patient seems to have all his permanent teeth, with none missing or extracted. Given the patient's age and dental history, the instructor uses this clinical scenario as an opportunity to gauge the students' knowledge about the normal distribution of permanent teeth in each quadrant of an adult mouth. Reflecting on the oral anatomy of this patient, and considering the standard distribution of adult teeth, the instructor poses the question: Each quadrant of the adult mouth typically holds how many permanent ___ incisors, ___ canines, ___ premolars, and ___ molars?

- A. 1, 2, 3, 2
- B. 1, 2, 2, 3
- C. 2, 1, 3, 2
- D. 2, 1, 2, 3

Correct Answer: D. 2, 1, 2, 3

There are 32 teeth in the normal adult mouth, located in the mandible and maxillae. The teeth can be divided into quadrants: right upper, left upper, right lower, and left lower. In adults, each quadrant contains one central and one lateral incisor; one canine; first and second premolars; and first, second, and third molars.

- **Option A:** This is incorrect. Adults have 2 incisors (1 central and 1 lateral) in each quadrant. Also, adults do not have 3 premolars in each quadrant; they typically have 2 (1 first premolar and 1 second premolar).
- **Option B:** This is incorrect. Adults have 2 incisors in each quadrant, not 1. Also, there is typically 1 canine in each quadrant, not 2.
- **Option C:** This is incorrect. While adults have 2 incisors and 1 canine in each quadrant, they typically do not have 3 premolars; they have 2 (1 first premolar and 1 second premolar).

63. Which of the following health promotion activities should the nurse include in the discharge teaching plan for a client with asthma?

- A. Incorporate physical exercise as tolerated into the treatment plan.
- B. Monitor peak flow numbers after meals and at bedtime.
- C. Eliminate stressors in the work and home environment.
- D. Use sedatives to ensure uninterrupted sleep at night.

Correct Answer: A. Incorporate physical exercise as tolerated into the treatment plan.

Physical exercise is beneficial and should be incorporated as tolerated into the client's schedule. Peak flow numbers should be monitored daily, usually in the morning (before taking medication). Encourage breathing exercises and controlled breathing and relaxation. Prevents attack before it begins and increases ventilation.

- **Option B:** Peak flow does not need to be monitored after each meal. Monitor peaked expiratory flow rates and forced expiratory volume as taken by the respiratory therapist. The severity of the

exacerbation can be measured objectively by monitoring these values. The peak expiratory flow rate is the maximum flow rate that can be generated during a forced expiratory maneuver with fully inflated lungs.

- **Option C:** Stressors in the client's life should be modified but cannot be totally eliminated. Instruct folks to modify the home environment to reduce dust, exposure to pets and indoor plants, foods (peanut, egg), changing of filters.
- **Option D:** Although adequate sleep is important, it is not recommended that sedatives be routinely taken to induce sleep. Schedule and provide rest periods in a calm peaceful environment. Promotes adequate rest and decreases stimuli.

64. Hypophosphatemia may result from which of the following diseases?

- A. Liver cirrhosis
- B. Renal failure
- C. Paget's disease
- D. Alcoholism

Correct Answer: D. Alcoholism

Hypophosphatemia may occur secondary to alcoholism. Hypophosphatemia is typically asymptomatic and is present in up to 5% of patients. It is much more prevalent in alcoholism, diabetic ketoacidosis, or sepsis, with a frequency of up to 80%. The morbidity of hypophosphatemia is highly dependent on its etiology and severity.

- **Option A:** Chronic liver diseases usually progress to cirrhosis. In the developed world, the most common causes of cirrhosis are hepatitis C virus (HCV), alcoholic liver disease, and nonalcoholic steatohepatitis (NASH), while hepatitis B virus (HBV) and HCV are the most common causes in the developing world.
- **Option B:** Renal failure is usually associated with hyperphosphatemia. Renal failure is the most common cause of hyperphosphatemia. A glomerular filtration rate of less than 30 mL/min significantly reduces the filtration of inorganic phosphate, increasing its serum level. Other less common causes include a high intake of phosphorus or increased renal reabsorption.
- **Option C:** Some literary sources suggest that the family of paramyxoviruses solely causes Paget. However, many studies have come to determine that the osteoclast generation of a unique cytokine found exclusively in the bone marrow of patients diagnosed with Paget disease may be the primary insult. This cytokine is known as IL-6.

65. The nurse observes a client pacing in the hall. Which statement by the nurse may help the client recognize his anxiety?

- A. "I guess you're worried about something, aren't you?"
- B. "Can I get you some medication to help calm you?"
- C. "Have you been pacing for a long time?"
- D. "I notice that you're pacing. How are you feeling?"

Correct Answer: D. "I notice that you're pacing. How are you feeling?"

By acknowledging the observed behavior and asking the client to express his feelings the nurse can best assist the client to become aware of his anxiety. Recognition acknowledges a patient's behavior and highlights it without giving an overt compliment. A compliment can sometimes be taken as condescending, especially when it concerns a routine task like making the bed. However, saying something like "I noticed you took all of your medications" draws attention to the action and encourages it without requiring a compliment.

- **Option A:** The nurse is offering an interpretation that may or may not be accurate; the nurse is also asking a question that may be answered by a "yes" or "no" response, which is not therapeutic. Therapeutic communication is often most effective when patients direct the flow of conversation and decide what to talk about. To that end, giving patients a broad opening such as "What's on your mind today?" or "What would you like to talk about?" can be a good way to allow patients an opportunity to discuss what's on their mind.
- **Option B:** The nurse is intervening before accurately assessing the problem. By using nonverbal and verbal cues such as nodding and saying "I see," nurses can encourage patients to continue talking. Active listening involves showing interest in what patients have to say, acknowledging that you're listening and understanding, and engaging with them throughout the conversation. Nurses can offer general leads such as "What happened next?" to guide the conversation or propel it forward.
- **Option C:** This statement encourages a "yes" or "no" response, avoids focusing on the client's anxiety, which is the reason for his pacing. Observations about the appearance, demeanor, or behavior of patients can help draw attention to areas that might pose a problem for them. Observing that they look tired may prompt patients to explain why they haven't been getting much sleep lately; making an observation that they haven't been eating much may lead to the discovery of a new symptom.

66. When teaching a client about propranolol hydrochloride, the nurse should base the information on the knowledge that propranolol hydrochloride:

- A. Blocks beta-adrenergic stimulation and thus causes decreased heart rate, myocardial contractility, and Conduction.
- B. Increases norepinephrine secretion and thus decreases blood pressure and heart rate.
- C. Is a potent arterial and venous vasodilator that reduces peripheral vascular resistance and lowers blood pressure.
- D. Is an angiotensin-converting enzyme inhibitor that reduces blood pressure by blocking the conversion of angiotensin I to angiotensin II.

Correct Answer: A. Blocks beta-adrenergic stimulation and thus causes decreased heart rate, myocardial contractility, and conduction.

Propranolol hydrochloride is a beta-adrenergic blocking agent. Actions of propranolol hydrochloride include reducing heart rate, decreasing myocardial contractility, and slowing conduction. Propranolol can be used to ameliorate the sympathetic response in angina, tachyarrhythmias, prevention of acute ischemic attacks, migraine prophylaxis, and restless leg syndrome. Propranolol can be used in almost all cases if the desired result is to slow contractility and decrease a patient's heart rate.

- **Option B:** Propranolol is a nonselective beta-adrenoceptor antagonist, also classified as a class II antiarrhythmic. It exerts its response by competitively blocking beta-1 and beta-2 adrenergic stimulation in the heart, which is typically induced by epinephrine and norepinephrine.

- **Option C:** Vasodilators are useful in treating a variety of medical conditions, most commonly systemic hypertension. Other diseases include myocardial infarction (both ST-segment elevation and non-ST-segment elevation), angina, heart failure, stroke, chronic kidney disease, preeclampsia, hypertensive emergency.
- **Option D:** They do interfere with the renin-angiotensin-aldosterone system, but their effect is not directly related to renin levels in the blood. ACE inhibitors, as the name implies, blocks an angiotensin-converting enzyme that converts angiotensin I to angiotensin II.

67. A 19-year-old patient comes to the ED with acute asthma. His respiratory rate is 44 breaths/minute, and he appears to be in acute respiratory distress. Which of the following actions should you take first?

- A. Take a full medical history.
- B. Give a bronchodilator by nebulizer.
- C. Apply a cardiac monitor to the patient.
- D. Provide emotional support for the patient.

Correct Answer: B. Give a bronchodilator by nebulizer.

The patient having an acute asthma attack needs more oxygen delivered to his lungs and body. Nebulized bronchodilators open airways and increase the amount of oxygen delivered.

- **Options A and D:** Important but not a priority as of the moment; emotional support can help calm the patient but can be done after medical intervention.
- **Option C:** The patient may not need cardiac monitoring because he's only 19 years old unless he has a medical history of cardiac problems.

68. Referencing the image below, what is the name of the structure marked #4.

- A. Cortical blood vessels
- B. Portal artery
- C. Portal vein
- D. Renal pyramid
- E. Renal calyx
- G. Minor calyx
- H. Major calyx
- I. Renal artery
- J. Renal vein

Correct answer: #4 is Option J. Renal vein

The renal vein is a blood vessel that carries deoxygenated blood from the kidney to the inferior vena cava. There is one renal vein for each kidney. The renal veins are formed by the confluence of the interlobar veins of one kidney. They enter the kidney at the hilum, which is the indented area on the medial side of the kidney. The renal veins then drain into the inferior vena cava, which is a large vein that carries blood directly to the heart.

69. To be effective in meeting various ethnic needs, the nurse should:

- A. Treat all clients alike.
- B. Be aware of the client's cultural differences.
- C. Act as if he or she is comfortable with the client's behavior.
- D. Avoid asking questions about the client's cultural background.

Correct Answer: B. Be aware of the client's cultural differences.

Nurses can pay close attention to their own biases and how they react to people whose backgrounds and cultural experiences differ from their own. For example, a person who becomes conscious that they think of immigrants as illegal aliens achieves cultural awareness of that particular bias.

- **Option A:** Once nurses tap into awareness, they can actively analyze their increased awareness and internal belief systems. Using the above example, the person can examine their background, beliefs, and values to understand their cultural bias regarding immigrants.
- **Option C:** Often, individual beliefs and values do not correspond to their behavior and actions. Nurses can work to acknowledge that this disconnect exists and view knowledge as an important element of developing cultural competence. Research has shown that people who score low on prejudice tests may still use labels such as "illegal alien."
- **Option D:** Nurses put their awareness, attitude, and knowledge into practice by repeating culturally competent behaviors until they become integrated into their daily interactions. These behaviors include effective and respectful communication and body language. Among various cultures, nonverbal communication methods, such as gestures, can mean very different things.

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. Nurse Zeny is caring for a client in an acute Addisonian crisis. Which laboratory data would the nurse expect to find?

- A. Hyperkalemia
- B. Reduced blood urea nitrogen (BUN)
- C. Hyponatremia
- D. Hyperglycemia

Correct Answer: A. Hyperkalemia

In adrenal insufficiency, the client has hyperkalemia due to reduced aldosterone secretion.

- **Option B:** BUN increases as the glomerular filtration rate is reduced. BUN is handled primarily by glomerular filtration with little or no renal regulation or adaptation in the course of declining renal function, they essentially reflect GFR.
- **Option C:** Hyponatremia is caused by reduced aldosterone secretion. Aldosterone deficiency causes hyponatremia through two mechanisms: the increased levels of ADH and subsequent upregulation of aquaporin-2 water channels in the renal tubules, and the extracellular volume depletion-induced reduction in glomerular filtration rate.
- **Option D:** Reduced cortisol secretion leads to impaired gluconeogenesis and a reduction of glycogen in the liver and muscle, causing hypoglycemia.

72. The nurse assesses a male client’s respiratory status. Which observation indicates that the client is experiencing difficulty breathing?

- A. Diaphragmatic breathing
- B. Use of accessory muscles
- C. Pursed-lip breathing

D. Controlled breathing

Correct Answer: B. Use of accessory muscles

The use of accessory muscles for respiration indicates the client is having difficulty breathing. Accessory muscles of respiration are muscles other than the diaphragm and intercostal muscles that may be used for labored breathing. The sternocleidomastoid, spinal, and neck muscles may be used as accessory muscles of respiration; their use is a sign of an abnormal or labored breathing pattern. Diaphragmatic and pursed-lip breathing are two controlled breathing techniques that help the client conserve energy.

- **Option A:** Diaphragmatic breathing is a type of breathing exercise that helps strengthen the diaphragm, an important muscle that helps breathe as it represents 80% of breathing. This breathing exercise is also sometimes called (belly breathing or abdominal breathing).
- **Option C:** Pursed lip breathing is a technique that helps people living with asthma or COPD when they experience shortness of breath. Pursed lip breathing helps control shortness of breath, and provides a quick and easy way to slow the pace of breathing, making each breath more effective.
- **Option D:** Controlled breathing (sometimes called 'pursed lips breathing') will help the client to get as much air as possible into the lungs. This may help to ease shortness of breath. It is one way to slow down breathing and to make each breath as effective as possible.

73. A client is struggling to explore and solve a problem. Which nursing statement would verbalize the implication of the client's actions?

- A. "You seem to be motivated to change your behavior."
- B. "How will these changes affect your family relationships?"
- C. "Why don't you make a list of the behaviors you need to change."
- D. "The team recommends that you make only one behavioral change at a time."

Correct Answer: A. "You seem to be motivated to change your behavior."

This is an example of the therapeutic communication technique of verbalizing the implied. Verbalizing the implied puts into words what the client has only implied or said indirectly. The nurse should take care to express only what is fairly obvious; otherwise, the nurse may be jumping to conclusions or interpreting the client's communication.

- **Option B:** This statement can be referred to as formulating a plan of action, wherein the nurse is asking the client to consider the kinds of behavior likely to be appropriate in future situations. It may be helpful for the client to plan in advance what he or she might do in future similar situations.
- **Option C:** Usually a "why" question is intimidating. In addition, the client is unlikely to know why and may become defensive trying to explain himself. Requesting an explanation or asking the client to provide reasons for thoughts, feelings, behaviors or events is nontherapeutic.
- **Option D:** Advising refers to telling the client what to do; giving an opinion or making decisions for the client is inappropriate. It implies that the client cannot handle life decisions and only the nurse knows what is best for the client.

74. In reviewing the burned client's laboratory report of white blood cell count with differential, all the following results are listed. Which laboratory finding indicates the possibility of sepsis?

- A. The total white blood cell count is 9000/mm³.
- B. The lymphocytes outnumber the basophils.
- C. The “bands” outnumber the “segs.”
- D. The monocyte count is 1,800/mm³.

Correct Answer: C. The “bands” outnumber the “segs.”

Normally, the mature segmented neutrophils (“segs”) are the major population of circulating leukocytes, constituting 55% to 70% of the total white blood count. Fewer than 3% to 5% of the circulating white blood cells should be the less mature “band” neutrophils. A left shift occurs when the bone marrow releases more immature neutrophils than mature neutrophils. Such a shift indicates severe infection or sepsis, in which the client’s immune system cannot keep pace with the infectious process.

- **Option A:** The normal WBC count is 4,500 to 11,000/mm³. Burn injury causes systemic inflammatory response. The magnitude of the changes is roughly a function of burn size that is manifested by increased body temperature, increased WBC count, and increased metabolic rate, which makes diagnosis of infection in the burned patient more difficult.
- **Option B:** Peripheral blood lymphocytes represent the most important line of host defense against pathogenic microorganisms in humans. Researchers found a reduction in the number of lymphocytes as well as WBC, which may contribute to the impairment of general mechanisms for immune regulation during burn shock and transition of blood to the level of self-regulation.
- **Option D:** The normal monocyte count ranges from 100-700 per mm³ (2–8%). Severe burn and sepsis profoundly inhibit the functions of DC, monocyte, and macrophage. These phagocytes are the first cellular responders to severe burn injury after acute disruption of the skin barrier.

75. When monitoring the daily weight of a patient with fluid volume deficit (FVD), the nurse is aware that fluid loss may be considered when weight loss begins to exceed:

- A. 0.25 lb
- B. 0.50 lb
- C. 1 lb
- D. 1 kg

Correct Answer: B. 0.50 lb

Weight loss of more than 0.50 lb. is considered to be a fluid loss. Weigh daily with the same scale, and preferably at the same time of day. Weight is the best assessment data for possible fluid volume imbalance. An increase of 2 lbs a week is considered normal.

- **Option A:** Severe dehydration by clinical examination suggests a fluid deficit of 10-15% of body weight in infants and 6-9% of body weight in older children. The daily maintenance fluid is added to the fluid deficit.
- **Option C:** In general, the recommended administration is one-half of this volume administered over 8 hours and administration of the remainder over the following 16 hours. Continued losses (eg, emesis, diarrhea) must be promptly replaced.
- **Option D:** An alternative approach to the deficit therapy approach is rapid replacement therapy. With this approach, a child with severe isonatremic dehydration is administered 20-40 mL/kg of

isotonic sodium chloride solution or lactated Ringer solution over 15-60 minutes.

76. A client is undergoing fluid replacement after being burned 20% of her body 12 hours ago. The nursing assessment reveals a blood pressure of 90/50 mm Hg, a pulse rate of 110 beats per minute, and a urine output of 25 ml over the past hour. The nurse reports the findings to the physician and anticipates which of the following orders?

- A. Increasing the amount of intravenous (IV) lactated Ringer's solution administered per hour.
- B. Transfusing 1 unit of packed red blood cells.
- C. Administering diuretic to increase urine output.
- D. Changing the IV lactated Ringer's solution into dextrose in water.

Correct Answer: A. Increasing the amount of intravenous (IV) lactated Ringer's solution administered per hour.

The client's urine output indicates inadequate fluid resuscitation. Hence the physician would order an increased amount of lactated Ringer's solution administered hourly. Patients with burns of more than 20% – 25% of their body surface should be managed with aggressive IV fluid resuscitation to prevent "burn shock." Urine output of 0.5 mL/kg or about 30 – 50 mL/hr in adults and 0.5-1.0 mL/kg/hr in children less than 30kg is a good target for adequate fluid resuscitation.

- **Option B:** Blood transfusion is not used for fluid resuscitation therapy unless there is an indication of a low hemoglobin level. This response, along with decreased cardiac output and increased vascular resistance, can lead to marked hypovolemia and hypoperfusion called "burn shock." This can be managed with aggressive fluid resuscitation and close monitoring for adequate, but not excessive, IV fluids.
- **Option C:** Diuretic works by removing circulating volume, thereby further compromising the inadequate tissue perfusion. The patient's vital signs, mental status, capillary refill, and urine output must be monitored and fluid rates adjusted accordingly. Again, adequate fluid resuscitation is the goal.
- **Option D:** Dextrose in water will only maintain fluid balance since it is an isotonic solution, therefore will not be helpful in this situation. $\text{Four mL lactated ringers solution} \times \text{percentage total body surface area (\%TBSA) burned} \times \text{patient's weight in kilograms} = \text{total amount of fluid given in the first 24 hours.}$

77. Maria, an 85-year-old patient with a feeding tube, has been experiencing severe watery stool. The patient is lethargic and has poor skin turgor, a pulse of 120, and hyperactive reflexes. Nursing interventions would include:

- A. Measuring and recording intake and output and daily weights.
- B. Administering salt tablets and monitoring hypertonic parenteral solutions.
- C. Administering sedatives.
- D. Applying wrist restraints to avoid displacement of the feeding tube.

Correct Answer: A. Measuring and recording intake and output and daily weights.

The patient is exhibiting signs of hypernatremia and dehydration. The most appropriate nursing intervention is to measure and record intake and output and daily weight. Monitor intake and output and specific gravity. Assess the presence and location of edema. Weigh the client daily. These parameters are variable, depending on the fluid status, and are indicators of therapy needs and effectiveness.

- **Option B:** Restrict sodium intake and administer diuretics as indicated. Sodium intake restriction while promoting renal clearance decreases serum sodium levels in the presence of extracellular fluid excess.
- **Option C:** Monitor level of consciousness and muscular strength, tone, and movement. Sodium imbalances may cause changes that vary from irritability and confusion to seizures and coma. In the presence of a water deficit, rapid rehydration may cause cerebral edema.
- **Option D:** Provide safety and seizure precaution as indicated: bed in a low position and use of padded side rails. Cerebral edema and sodium excess increase the risk of convulsions.

78. A female client being seen in a physician's office has just been scheduled for a barium swallow the next day. The nurse writes down which instruction for the client to follow before the test?

- A. Fast for 8 hours before the test
- B. Eat a regular supper and breakfast
- C. Continue to take all oral medications as scheduled
- D. Monitor own bowel movement pattern for constipation

Correct Answer: A. Fast for 8 hours before the test.

A barium swallow is an x-ray study that uses a substance called barium for contrast to highlight abnormalities in the gastrointestinal tract. The client should fast for 8 to 12 hours before the test, depending on physician instructions. The barium swallow study, also known as a barium esophagogram or esophagram, is a contrast-enhanced radiographic study commonly used to assess structural characteristics of the entire esophagus.

- **Option B:** Patients must be capable of swallowing relatively large amounts of contrast without assistance and be able to protect their airways. For visual studies focusing on the pharynx and esophagus, minimal preparation is required. However, patients should be able to tolerate swallowing liquids.
- **Option C:** Most oral medications also are withheld before the test. Oral barium contrast has relatively few adverse effects in standard practice. Most commonly, patients complain of nausea and vomiting within 30 minutes of ingestion. Hypersensitivity reactions have been reported but are uncommon. Most adverse effects are related to the extravasation of contrast into the mediastinum or from aspiration.
- **Option D:** After the procedure, the nurse must monitor for constipation, which can occur as a result of the presence of barium in the gastrointestinal tract. The barium esophagogram is noninvasive and readily performed, requiring only radiographic still-image capability and contrast medium. As such, it is a useful exam despite the current wide availability of CT imaging.

79. Which nursing intervention ensures adequate ventilating exchange after surgery?

- A. Remove the airway only when the client is fully conscious
- B. Assess for hypoventilation by auscultating the lungs
- C. Position client laterally with the neck extended
- D. Maintain humidified oxygen via nasal cannula

Correct Answer: C. Position client laterally with the neck extended

Positioning the client laterally with the neck extended does not obstruct the airway so that drainage of secretions and oxygen and carbon dioxide exchange can occur. This position promotes oxygenation via maximum chest expansion and is implemented during events of respiratory distress. Do not let the client slide down; this causes the abdomen to compress the diaphragm, which could cause respiratory change.

- **Option A:** The client should be weaned first before removing the airway. Weaning from mechanical ventilation is the process of reducing ventilatory support, ultimately resulting in a patient breathing spontaneously and being extubated. This process can be achieved rapidly in 80% of patients when the original cause of the respiratory failure has improved.
- **Option B:** Assessing hypoventilation through the lungs would provide inadequate results. Changes in the respiratory rate and rhythm are early signs of possible respiratory distress. As moving air in and out of the lungs becomes more difficult, the breathing pattern changes to include the use of accessory muscles to increase chest excursions.
- **Option D:** Oxygen may be maintained after surgery but this might be inadequate. The key is that the client receives oxygenation support at all times until mechanical ventilation is no longer required.

80. A nurse is admitting a client with a possible diagnosis of chronic bronchitis. The nurse collects data from the client and notes which of the following signs supports this diagnosis? Select all that apply.

- A. Scant mucus
- B. Early onset cough
- C. Marked weight loss
- D. Purulent mucus production
- E. Mild episodes of dyspnea

Correct Answer: B, D, & E.

Key features of pulmonary emphysema include dyspnea that is often marked, late cough (after the onset of dyspnea), scant mucus production, and marked weight loss. By contrast, chronic bronchitis is characterized by an early onset of cough (before dyspnea), copious purulent mucus production, minimal weight loss, and milder severity of dyspnea.

- **Option A:** Most patients with emphysema present with very nonspecific symptoms of chronic shortness of breath and cough with or without sputum production. As the disease process advances, the shortness of breath and cough progressively get worse.
- **Option B:** The most common symptom of patients with chronic bronchitis is a cough. The history of a cough typical of chronic bronchitis is characterized to be present for most days in a month lasting for 3 months with at least 2 such episodes occurring for 2 years in a row. The characteristic cough of bronchitis is caused by the copious secretion of mucus in chronic bronchitis.

- **Option C:** As COPD advances, patients can lose significant body weight due to systemic inflammation and increased energy spent in the work of breathing. Also, there are frequent intermittent exacerbations as the obstruction of the airways increases.
- **Option D:** The airways become clogged by debris and this further increases the irritation. A productive cough with sputum is present in about 50% of patients. The sputum color may vary from clear, yellow, green, or at times blood-tinged. The color of the sputum may be dependent on the presence of secondary bacterial infection.
- **Option E:** During an acute exacerbation of chronic bronchitis, the bronchial mucous membrane becomes hyperemic and edematous with diminished bronchial mucociliary function. This, in turn, leads to airflow impediment because of luminal obstruction to small airways.

81. Type A chronic gastritis can be distinguished from type B by its ability to:

- A. Cause atrophy of the parietal cells.
- B. Affect only the antrum of the stomach.
- C. Thin the lining of the stomach walls.
- D. Decrease gastric secretions.

Correct Answer: A. Cause atrophy of the parietal cells.

Type A causes changes in parietal cells. Type A is caused by the immune system destroying stomach cells. And it can increase the risk of vitamin deficiencies, anemia, and cancer. Chronic gastritis occurs when the stomach lining becomes inflamed. Bacteria, consuming too much alcohol, certain medications, chronic stress, or other immune system problems can lead to inflammation.

- **Option B:** Type B, the most common type, is caused by *Helicobacter pylori* bacteria, and can cause stomach ulcers, intestinal ulcers, and cancer. Because chronic gastritis occurs over a long period of time it gradually wears away at the stomach lining. And it can cause metaplasia or dysplasia. These are precancerous changes in the cells that can lead to cancer if untreated.
- **Option C:** Type C is caused by chemical irritants like NSAIDs, alcohol, or bile. And it can also cause stomach lining erosion and bleeding. When inflammation occurs, the stomach lining changes and loses some of its protective cells. It may also cause early satiety. This is where the stomach feels full after eating just a few bites of food.
- **Option D:** A stressful lifestyle or a traumatic experience can decrease the stomach's ability to protect itself. In addition, the risk increases if the patient has autoimmune diseases or certain illnesses like Crohn's disease.

82. An adolescent who sustained a tibia fracture in a motor vehicle accident has a cast. What should the nurse do to help relieve the itching?

- A. Apply hydrocortisone cream under the cast using sterile applicator
- B. Apply cool air under the cast with a blow-dryer
- C. Use sterile applicators to scratch the itch
- D. Apply cool water under the cast

Correct Answer: B. Apply cool air under the cast with a blow-dryer

Itching underneath a cast can be relieved by directing the blow-dryer, set, on the cool setting, toward the itchy area. Therefore, one of the best ways to relieve moisture is, of course, to dry it off. The client may find ways to blow cool air into and through the cast. The client may be able to do that using specific settings on a hairdryer, for example.

- **Option A:** Do not stick objects such as coat hangers inside the splint or cast to scratch itching skin. Do not apply powders or deodorants to itching skin. If itching persists, contact a doctor.
- **Option C:** Skin breakdown can occur if anything is placed under the cast. Therefore, the client should be cautioned not to put any object down the cast in an attempt to scratch. Scratching in this way could lead to an open wound or developing sores.
- **Option D:** Moisture weakens plaster and damp padding next to the skin can cause irritation. Use two layers of plastic or purchase waterproof shields to keep the splint or cast dry while showering or bathing.

83. A nurse is developing a care plan for a client with an injury to the frontal lobe of the brain. Which nursing interventions should be included as part of the care plan? Select all that apply.

- A. Keep instructions simple and brief because the client will have difficulty concentrating.
- B. Speak clearly and slowly because the client will have difficulty hearing.
- C. Assist with bathing because the client will have vision disturbances.
- D. Orient the client to person, place, and time as needed because of memory problems.
- E. Assess vital signs frequently because vital bodily functions are affected.

Correct Answer: A & D.

Damage to the frontal lobe affects personality, memory, reasoning, concentration, and motor control of speech. The cortex of the frontal lobe is the largest of the four and in many ways the lobe which participates most in making us human.

- **Option A:** The prefrontal cortex is known to be the higher-order association center of the brain as it is responsible for decision making, reasoning, personality expression, maintaining social appropriateness, and other complex cognitive behaviors.
- **Option B:** Damage to the temporal lobe, not the frontal lobe, causes hearing and speech problems. Another study divides the temporal area into 4 major subregions: a) dorsal, mostly language and auditory/somatosensory networks b) ventromedial, mostly visual network c) medial, connected to paralimbic structures and d) anterolateral, associated with a default-semantic network. These areas have many important functions such as processing of language, social cues, and emotions, facial recognition (auditory and visual aspects), emotional processing of different stimuli (auditory, olfactory, and visual), and theory of mind.
- **Option C:** Damage to the occipital lobe causes vision disturbances. The occipital lobe is the visual processing area of the brain. It is associated with visuospatial processing, distance and depth perception, color determination, object and face recognition, and memory formation.
- **Option D:** Research has proven that the dominant (left) superior frontal gyrus is a key component in the neural network of working memory as well as spatial processing. Research has proven that the dominant (left) superior frontal gyrus is a key component in the neural network of working memory as well as spatial processing.

- **Option E:** Damage to the brain stem affects vital functions. The brainstem is the structure that connects the cerebrum of the brain to the spinal cord and cerebellum. It is composed of four sections in descending order: the diencephalon, midbrain, pons, and medulla oblongata. It is responsible for many vital functions of life, such as breathing, consciousness, blood pressure, heart rate, and sleep.

84. Which of the following is the primary predisposing factor related to mastitis?

- A. Epidemic infection from nosocomial sources localizing in the lactiferous glands and ducts.
- B. Endemic infection occurring randomly and localizing in the peri glandular connective tissue.
- C. Temporary urinary retention due to decreased perception of the urge to void.
- D. Breast injury caused by overdistention, stasis, and cracking of the nipples.

Correct Answer: D. Breast injury caused by overdistention, stasis, and cracking of the nipples

With mastitis, injury to the breast, such as overdistention, stasis, and cracking of the nipples, is the primary predisposing factor.

- **Option A:** If a breast doesn't completely empty at feedings, one of the milk ducts can become clogged. The blockage causes milk to back up, leading to breast infection.
- **Option B:** Bacteria from your skin's surface and baby's mouth can enter the milk ducts through a crack in the skin of your nipple or through a milk duct opening. Stagnant milk in a breast that isn't emptied provides a breeding ground for the bacteria.
- **Option C:** Temporary urinary retention due to decreased perception of the urge to void is a contributory factor to the development of urinary tract infection, not mastitis.

85. A nurse is preparing to initiate a bladder training program for a client who has a voiding disorder. Which of the following actions should the nurse take? Select all that apply.

- A. Establish a schedule of voiding prior to meal times.
- B. Have the client record voiding times.
- C. Gradually increase the voiding intervals.
- D. Reminded client to hold urine until next scheduled voiding time.
- E. Provide a sterile container for voiding.

Correct Answer: B, C, and D

Ask the client to keep track of voiding times is an appropriate nursing action. Gradually increasing the voiding interval is an appropriate nursing action. The client should be reminded to hold urine until the next scheduled voiding time. Bladder training involves voiding at scheduled in frequent intervals and gradually increasing these intervals to four hours.

- **Option A:** Mealtimes are not regular, and the intervals may be longer than every four hours. Bladder training requires following a fixed voiding schedule, whether or not one feels the urge to urinate. If one feels an urge to urinate before the assigned interval, he should use urge suppression techniques — such as relaxation and Kegel exercises.

- **Option B:** Keeping a diary of bladder activity is very important. This helps the health care provider determine the correct place to start the training and to monitor progress throughout the program.
- **Option C:** Bladder training is an important form of behavior therapy that can be effective in treating urinary incontinence. The goals are to increase the amount of time between emptying the bladder and the amount of fluids the bladder can hold. It also can diminish leakage and the sense of urgency associated with the problem.
- **Option D:** When the client feels the urge to urinate before the next designated time, he should use “urge suppression” techniques or try relaxation techniques like deep breathing. Focus on relaxing all other muscles. If possible, he must sit down until the sensation passes. If the urge is suppressed, adhere to the schedule. If the client cannot suppress the urge, wait five minutes then slowly make way to the bathroom. After urinating, re-establish the schedule. Repeat this process every time an urge is felt.
- **Option E:** A sterile container is not used in a bladder training program. When the client has accomplished the initial goal, he should gradually increase the time between emptying the bladder by 15-minute intervals. He should try to increase the interval each week. However, he will be the best judge of how quickly he can advance to the next step. Increase the time between each urination until he reaches a three- to four-hour voiding interval.