Kevin's Review - 35 NCLEX Practice Questions

1. Preferred nurses at the Nurseslabs Medical Center are about to perform a procedure related to a genitourinary (GU) problem to a group of pediatric patients. Which of the following groups would find it especially extra stressful?

A. Infants

B. Toddlers

C. Preschoolers

D. School-age children

Correct Answer: C. Preschoolers

In general, preschoolers have more fears because of their fantasies, contributing to fears of the simplest procedures. Castration fears are also prominent at this age and may be heightened by procedures related to GU problems. The human brain is wired to alert us to and protect us from danger. Back in the day, that could mean a panther or wolf attack—so some trepidation around furry creatures is clearly in order. While babies and toddlers are usually scared of animals, too, things get turned up a notch when an active imagination kicks in at this age, explains Dr. Chansky.

- **Option A:** A common fear during infancy is stranger anxiety, or a heightened awareness of strangers, which peaks at around 6 to 8 months. Babies have, by then, formed intimate relationships with people who care for them. Unfamiliar people will stand out, and babies will be sensitive to their personal space.
- **Option B:** At about 3 ½, children often develop a variety of insecurities and physical ways of showing them. Fear of the dark and nightmares are common and may last quite a while. Although many fears are specific to an individual child, some seem to be very typical for this age group-fear of strange animals, bathtub drains, fire, thunder and lightning, snakes, and bugs.
- **Option D:** Children are at a stage of development when they may be worried about growing up and, instead, want to remain little! Often, this is related to the fear of going off to the “big” school and first grade. It is important to allow children to feel their fears, discuss them, and even allow them to stay home for a day, if necessary.

2. A client with preeclampsia has been receiving an infusion containing magnesium sulfate for a blood pressure that is 160/80; deep tendon reflexes are 1 plus, and the urinary output for the past hour is 100mL. The nurse should:

A. Continue the infusion of magnesium sulfate while monitoring the client’s blood pressure

B. Stop the infusion of magnesium sulfate and contact the physician

C. Slow the infusion rate and turn the client on her left side

D. Administer calcium gluconate IV push and continue to monitor the blood pressure

Correct Answer: A. Continue the infusion of magnesium sulfate while monitoring the client’s blood pressure

The client’s blood pressure and urinary output are within normal limits. The only alteration from normal is the decreased deep tendon reflexes. The nurse should continue to monitor the blood pressure and check the magnesium level. The therapeutic level is 4.8–9.6mg/dL. Magnesium levels must be monitored frequently by checking serum levels every 6 to 8 hours or clinically by following patellar reflexes or urinary output.

- **Option B:** Do not stop the infusion. If serum concentration levels are low, a proper dose of magnesium sulfate can be given parenterally to replete low serum concentrations with recommended follow up laboratory testing.
- **Option C:** There is no need to stop the infusion at this time or slow the rate. If patients exhibit signs and symptoms of hypermagnesemia, the recommendation is to discontinue magnesium sulfate products immediately. If the patient consumed magnesium sulfate orally, then the use of magnesium-free enemas or cathartics can be useful in removing excess magnesium from the GI tract.
- **Option D:** Calcium gluconate is the antidote for magnesium sulfate, but there is no data to indicate toxicity. Patients should receive parenteral doses of calcium gluconate to help alleviate symptoms, but continued doses may be necessary as the calcium provides temporary improvement. IV hydration should also occur if clinically appropriate.

3. A first-time mother, who is a pediatrician herself, has recently given birth to twins. While one of the twins has been diagnosed with phenylketonuria (PKU), the other has not. She approaches the nurse with a series of technical questions regarding PKU, its diagnosis, and implications. Given her medical background and the unique situation of having twins with different PKU statuses, which of the following statements made by a nurse would NOT be correct regarding PKU?

A. "A Guthrie test can be utilized to check the necessary lab values for PKU diagnosis."

B. "In PKU, the urine typically has a high concentration of phenyl pyruvic acid."

C. "Mental deficits are often a clinical manifestation in individuals with untreated PKU."

D. "The effects of PKU, once manifested, are completely reversible with dietary modifications."

E. "Regular dietary management from infancy can prevent the development of symptoms."

F. "PKU is an autosomal recessive disorder, which explains the different statuses in twins."

Correct Answer: D. “The effects of PKU, once manifested, are completely reversible with dietary modifications.”

Phenylketonuria (PKU) is an inherited disorder that increases the levels of phenylalanine (a building block of proteins) in the blood. If PKU is not treated, phenylalanine can build up to harmful levels in the body, causing intellectual disability and other serious health problems. The signs and symptoms of PKU vary from mild to severe. The most severe form of this disorder is known as classic PKU. Infants with classic PKU appear normal until they are a few months old. Without treatment, these children develop a permanent intellectual disability. Seizures, delayed development, behavioral problems, and psychiatric disorders are also common. Untreated individuals may have a musty or mouse-like odor as a side effect of excess phenylalanine in the body. Children with classic PKU tend to have lighter skin and hair than unaffected family members and are also likely to have skin disorders such as eczema. The effects of PKU stay with the infant throughout their life (via Genetic Home Reference).

The Guthrie test as a bacterial inhibition assay was formerly used, but now being replaced by tandem mass spectrometry. The Guthrie test, also called the PKU test, is a diagnostic tool to test infants for phenylketonuria a few days after birth. To administer the Guthrie test, doctors use Guthrie cards to collect capillary blood from an infant’s heel, and the cards are saved for later testing.

Phenylalanine is present in high concentrations in the urine because of its increased build up in the body. In addition to its role in protein production, phenylalanine is used to make other important

molecules in the body, several of which send signals between different parts of the body. Phenylalanine has been studied as a treatment for several medical conditions, including skin disorders, depression, and pain

Without treatment, children affected with PKU develop a permanent intellectual disability. Seizures, delayed development, behavioral problems, and psychiatric disorders are also common. Untreated individuals may have a musty or mouse-like odor as a side effect of excess phenylalanine in the body. Children with classic PKU tend to have lighter skin and hair than unaffected family members and are also likely to have skin disorders such as eczema.

4. What is the best source to use when conducting a level I systematic meta-analysis of the literature?

A. An electronic database

B. Doctoral dissertations

C. The Cochrane Statistical Methods

D. An electronic database and Doctoral dissertations

Correct Answer: C. The Cochrane Statistical Methods

Systematic reviews and meta-analyses are situated at the top of what is known as the “Evidence Pyramid”. Systematic reviews and meta-analyses are considered to be the highest-quality evidence on a research topic because their study design reduces bias and produces more reliable findings. The Statistical Methods Group (SMG) (Cochrane Methods Statistics) is a forum where all statistical issues related to the work of Cochrane are discussed.

- **Option A:** A systematic review is a high-level overview of primary research on a particular research question that systematically identifies, selects, evaluates, and synthesizes all high-quality research evidence relevant to that question in order to answer it. In other words, it provides an exhaustive summary of the scholarly literature related to a particular research topic or question.
- **Option B:** A systematic review is often written by a panel of experts after reviewing all the information from both published and unpublished studies. The comprehensive nature of a systematic review distinguishes it from traditional literature reviews which typically examine a much smaller set of research evidence and present it from a single author’s perspective.
- **Option D:** Not all systematic reviews include meta-analysis, but all meta-analyses are found in systematic reviews. Simply put, a systematic review refers to the entire process of selecting, evaluating, and synthesizing all available evidence, while the term meta-analysis refers to the statistical approach to combining the data derived from a systematic review.

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

A. Sweating and pallor

B. Bradycardia and indigestion

C. Double vision and chest pain

D. Abdominal cramping and pain

Correct Answer: A. Sweating and pallor

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

- **Option B:** Bradycardia and indigestion are not signs of dumping syndrome. There may be GI or vasomotor symptoms. GI symptoms include nausea, vomiting, diarrhea, or belching. Vasomotor symptoms include shock, syncope, near-syncope, palpitations, dizziness, desire to lie down, or diaphoresis.
- **Option C:** Double vision and chest pain are not signs of dumping syndrome. GI hormones such as enteroglucagon, pancreatic polypeptide, peptide YY, vasoactive intestinal polypeptide, glucagon-like peptide, and neurotensin have been evident with higher values after meals. Hormonal imbalances may cause delayed motility, decreased gastric and intestinal secretions, which delay the digestion and transit of food that arrives at the small bowel.
- **Option D:** Late dumping, also known as postprandial hyperinsulinemic hypoglycemia, usually occurs 1 to 3 hours after a high-carbohydrate meal. There is an association with hypoglycemia, but the exact mechanism is unknown. It is proposed that the rapid absorption of carbohydrates exaggerates the glucose-mediated insulin response.

6. A 16 year old boy is hospitalized, according to Erik Erikson, what is an appropriate intervention?

A. Tell the friends to visit the child

B. Encourage the boy to learn missed school lessons

C. Call the priest to intervene

D. Ask the patient's girlfriend to visit

Correct Answer: A. Tell the friends to visit the child.

A 16-year-old child is in the stage of identity vs role confusion. The most significant persons in this group are their peers. Peer groups and spending time with friends is extremely important. Self-esteem is largely influenced by peer acceptance.

- **Option B:** This is appropriate for children in the school-age where they need to feel productive. Children at this age begin taking pride in their work and seek recognition for their accomplishments. They are learning rules for social cooperation and appropriate behaviors.
- **Option C:** The child is not dying and the situation did not even talk about the child's belief therefore, calling the priest is unnecessary. Adolescents enjoy watching movies and playing video games. Cell phones and the internet are common means of keeping in touch with friends.
- **Option D:** Allowing the patient's girlfriend is applicable to an adolescent in the Erickson stage of intimacy vs isolation. This stage takes place during young adulthood between the ages of approximately 19 and 40.

7. A patient has returned to his room after femoral arteriography. All of the following are appropriate nursing interventions except:

A. Assess femoral, popliteal, and pedal pulses every 15 minutes for 2 hours.

B. Check the pressure dressing for sanguineous drainage.

C. Assess vital signs every 15 minutes for 2 hours.

D. Order a hemoglobin and hematocrit count 1 hour after the arteriography.

Correct Answer: D. Order a hemoglobin and hematocrit count 1 hour after the arteriography

A hemoglobin and hematocrit count would be ordered by the physician if bleeding were suspected. Arterial puncture occurs at the start of angiography and interventional radiology, and is a very important factor determining the success or failure of successive procedures. Recently, this procedure has been performed by a range of approaches depending on the type of surgery, e.g, through the radial artery.

- **Option A:** The methods of hemostasis for the femoral artery include manual compression, which is the removal of the sheath and compression with the hands, and methods that apply compression devices1). Of these, manual compression requires absolute bed rest for a few hours. On the other hand, the level of patient discomfort is increased due to lengthy bed rest and the restriction of walking.
- **Option B:** Moreover, hematoma in the punctured area of blood vessels, formation of a pseudoaneurysm, and vascular occlusions develop in approximately 1–5% of cases). A variety of hemostasis devices have been developed to treat these complications that allow for rapid recovery of patients from bed rest. These include Angio-seal device (collagen sponge and copolymer anchor) and percutaneous placement of a device (Prostar) that utilizes two nonabsorbable sutures (Perclose, Redwood City, CA, USA).
- **Option C:** The other answers are appropriate nursing interventions for a patient who has undergone femoral arteriography. The Angio-seal device uses a method of adsorption with a collagen sponge placed within the blood vessels. The Prostar device uses a method in which the blood vessels are sutured. These hemostasis devices can reduce the discomfort and the time to hemostasis (clotting time) in the puncture area when used in patients, who cannot lie down in bed for a long time or in patients with low platelet values who have received anticoagulation treatments.

8. Cataracts result in the opacity of the crystalline lens. Which of the following best explains the functions of the lens?

A. The lens controls stimulation of the retina.

B. The lens orchestrates eye movement.

C. The lens focuses light rays on the retina.

D. The lens magnifies small objects.

Correct Answer: C. The lens focuses light rays on the retina.

The lens allows light to pass through the pupil and focus light on the retina. The lens is a curved structure in the eye that bends light and focuses it for the retina to help you see images clearly. The crystalline lens, a clear disk behind the iris, is flexible and changes shape to help you see objects at varying distances.

- **Option A:** Retinal tissue is stimulated by light but also responds to mechanical disturbances. Flashing lights usually are caused by separation of the posterior vitreous. As the vitreous gel separates from the retina, it stimulates the retinal tissue mechanically, resulting in the release of phosphenes and the sensation of light.
- **Option B:** Because only a small portion of the retina, the fovea, is actually employed for distinct vision, it is vitally important that the motor apparatus governing the direction of gaze be extremely

precise in its operation, and rapid.

- **Option D:** The lens works much like a camera lens, bending and focusing light to produce a clear image. The crystalline lens is a convex lens that creates an inverted image focused on the retina. The brain flips the image back to normal to create what you see around you. In a process called accommodation, the elasticity of the crystalline lens allows you to focus on images at far distances and near with minimal disruption.

9. Sitty, a 66 y.o. patient underwent a colostomy for a ruptured diverticulum. She did well during the surgery and returned to your med-surg floor in stable condition. You assess her colostomy 2 days after surgery. Which finding do you report to the doctor?

A. Blanched stoma

B. Edematous stoma

C. Reddish-pink stoma

D. Brownish-black stoma

Correct Answer: D. Brownish-black stoma

A brownish-black color indicates lack of blood flow, and maybe necrosis. Necrosis occurs if the blood supply to the stoma is restricted. Initially, the stoma will become a darker red/purple and may even turn black, which is an indication that the blood supply is impaired. It may also feel cold and hard to touch. It is vital that you seek urgent medical attention.

- **Option A:** A blanched or pale stoma indicates possible decreased blood flow and should be assessed regularly. 2 days postoperatively, the stoma should be edematous and reddish-pink.
- **Option B:** It is normal for the stoma to be edematous postoperatively. Stoma edema begins immediately postoperatively. The stoma looks swollen within 4 to 6 hours, swelling progresses for the first 2 days, and by the fifth day subsides markedly.
- **Option C:** A healthy stoma is pinkish-red and moist. The stoma should stick out slightly from the skin. It is normal to see a little mucus. Spots of blood or a small amount of bleeding from the stoma is normal.

10. The mid-deltoid injection site is seldom used for I.M. injections because it:

A. Can accommodate only 1 ml or less of medication.

B. Bruises too easily.

C. Can be used only when the patient is lying down.

D. Does not readily absorb parenteral medication.

Correct Answer: A. Can accommodate only 1 ml or less of medication

The mid-deltoid injection site can accommodate only 1 ml or less of medication because of its size and location (on the deltoid muscle of the arm, close to the brachial artery and radial nerve). It is becoming increasingly important for clinicians to identify a safer intramuscular (IM) injection site in the deltoid muscle because of possible complications following the vaccine administration of IM injections.

- **Option B:** However, Cook reported that these 4 injection sites have the potential to cause injury to the subdeltoid/subacromial bursa and/or anterior branch of the axillary nerve with the arm in the anatomical position. Additionally, we showed that the axillary nerve often runs near the site 5 cm below the mid-acromion lateral border, and concluded that this site is unsuitable for IM injection in terms of the high risk for the complications related to this nerve.
- **Option C:** The deltoid muscle has been used in clinical settings because it is easy for clinicians to administer injections at this site and for patients to expose it, and it is the most commonly used site for vaccines worldwide. Four injection sites have been recommended as safer and appropriate IM injection sites in the deltoid muscle: the first site is 1 to 3 fingerbreadths (5 cm) below the mid-acromion, the second is a triangular injection site, the third is the middle third of the deltoid muscle, and the fourth is a mid-deltoid site.
- **Option D:** The following complications have been reported after the administration of IM injections: injection site reactions such as pain, erythema, and swelling due to over-or under penetration by the needle, axillary or radial nerve palsies, musculoskeletal injuries, local sepsis, and vascular complications. Therefore, it is becoming increasingly important to establish a safer site for IM injections.

11. The name selected by the original manufacturer based on the chemical structure of the drug is the:

A. Chemical name

B. Drug name

C. Generic name

D. Trade name

Correct Answer: C. Generic name

The generic name is the name of the active ingredient. The generic name is granted by the USAN Council and is commonly used to identify a drug during its useful clinical lifetime. Each medicine has an approved name called the generic name. A group of medicines that have similar actions often have similar-sounding generic names. For example, phenoxymethylpenicillin, ampicillin, amoxicillin, and flucloxacillin are in one group of antibiotics.

- **Option A:** A chemical name is given when a new chemical entity (NCE) is developed. The chemical name is a scientific name based on the compound's chemical structure (e.g., 6-thioguanine) and is almost never used to identify the drug in a clinical or marketing situation.
- **Option B:** The drug name does not exist. A marketed drug has three names: a chemical name, a generic name, and a brand name. The process for naming a marketable drug involves five steps: NCE submission and patent application, generic naming, brand naming, FDA review, and final approval.
- **Option D:** For drugs that make it all the way through development, testing, and regulatory acceptance, the pharmaceutical company then gives the drug a trade name, which is a standard term in the pharmaceutical industry for a brand name or trademark name.

12. Which of the following behaviors indicates that the client on a bladder training program has met the expected outcomes? Select all that apply.

A. Voids each time there is an urge.

B. Practices slow, deep breathing until the urge decreases.

C. Uses adult diapers, for "just in case".

D. Drinks citrus juices and carbonated beverages.

E. Performs pelvic muscle exercises.

Correct Answer: B, E

It is important for the client to inhibit the urge to void sensation when a premature urge is experienced. Bladder training, a program of urinating on schedule, enables the client to gradually increase the amount of urine the client can comfortably hold. Bladder training is a mainstay of treatment for urinary frequency and overactive bladder in both women and men, alone or in conjunction with medications or other techniques.

- **Option A:** Choose an interval. Based on the typical interval between urinations, select a starting interval for training that is 15 minutes longer. If the typical interval is one hour, make a starting interval one hour and 15 minutes.
- **Option B:** When the client starts training, he should empty his bladder first thing in the morning and not again until the interval he set. If the time arrives before he can feel the urge, he should go anyway. If the urge hits first, he should remind himself that his bladder isn't really full, and use whatever techniques he can to delay going.
- **Option C:** Some clients may need diapers; this is not the best indicator of a successful program.
- **Option D:** Citrus juices may irritate the bladder. Carbonated beverages increase diuresis and the risk of incontinence.
- **Option E:** Try the pelvic floor exercises sometimes called Kegels, or simply try to wait another five minutes before walking slowly to the bathroom. Once comfortable with a set interval, increase it by 15 minutes. Over several weeks or months, the client may find that they are able to wait much longer and that they have experienced far fewer feelings of urgency or episodes of urge incontinence.

13. What is a characteristic of an intrinsic case study? It yields a better understanding of each case.

A. It yields a better understanding of each case.

B. It provides a foundation to challenge a generalization.

C. It does not include quantitative data.

D. It can scrutinize only uncomplicated phenomena.

Correct Answer: A. It yields a better understanding of each case.

An intrinsic case study is undertaken to have a better understanding of the case. An intrinsic case study is the study of a case (e.g., person, specific group, occupation, department, organization) where the case itself is of primary interest in the exploration.

- **Option B:** An intrinsic case study is typically undertaken to learn about a unique phenomenon. The researcher should define the uniqueness of the phenomenon, which distinguishes it from all others.
- **Option C:** The case study approach can offer additional insights into what gaps exist in its delivery or why one implementation strategy might be chosen over another. This in turn can help develop or refine theory.

- **Option D:** In an intrinsic case study, the case is selected on its own merits. The case is selected not because it is representative of other cases, but because of its uniqueness, which is of genuine interest to the researchers.

14. The nurse is planning care for a client admitted to the psychiatric unit with a diagnosis of paranoid schizophrenia. Which nursing diagnosis should receive the highest priority?

A. Risk for violence toward self or others

B. Imbalanced nutrition: Less than body requirements

C. Ineffective family coping

D. Impaired verbal communication

Correct Answer: A. Risk for violence toward self or others

Because of such factors as suspiciousness, anxiety, and hallucinations, the client with paranoid schizophrenia is at risk for violence toward himself or others. Paranoid schizophrenia is characterized by predominantly positive symptoms of schizophrenia, including delusions and hallucinations. These debilitating symptoms blur the line between what is real and what isn't, making it difficult for the person to lead a typical life.

- **Option B:** The positive symptoms of schizophrenia—things like hallucinations and delusions—are less likely to go unnoticed. After the prodromal phase, the patient enters the active phase of schizophrenia, during which they experience debilitating thoughts and perceptual distortions. They may experience impaired motor or cognitive functions, including disorganized speech and disorganized or catatonic behavior.
- **Option C:** Early symptoms of schizophrenia may seem rather ordinary and could be explained by a number of other factors. This includes socializing less often with friends, trouble sleeping, irritability, or a drop in grades. During the onset of schizophrenia — otherwise known as the prodromal phase — negative symptoms mount. These negative symptoms might include an increasing lack of motivation, decreasing inability to pay attention or social isolation.
- **Option D:** The paranoia in paranoid schizophrenia stems from delusions—firmly held beliefs that persist despite evidence to the contrary — and hallucinations — seeing or hearing things that others do not. Both of these experiences can be persecutory or threatening in nature. A patient may hear a voice or voices in their head that they do not recognize as their own thoughts or internal voice. These voices can be demeaning or hostile, driving a person to do things they would not do otherwise.

15. A 79-year-old man with a known history of osteoporosis is admitted to the orthopedic ward after a fall in his garden, which led to a hip fracture. The interdisciplinary team convenes to discuss his immediate care plan. Recognizing the acute nature of his injury and the associated discomfort, the nurse contemplates which intervention should take precedence to ensure optimal patient comfort and recovery. Which of the following nursing actions should be given top priority for this patient?

A. Promptly administering analgesic medications as prescribed by the physician.

B. Initiating gentle range of motion exercises for the affected limb.

C. Applying cold compresses to the fractured area to mitigate swelling.

D. Coordinating an early consultation with the physical therapy department.

- **Option B:** While range-of-motion exercises can be beneficial in the recovery phase, they are not the immediate priority following a fresh fracture. Starting them too early can exacerbate pain and potentially disrupt the healing process.
- **Option C:** Applying ice packs may not be appropriate immediately after surgery or in the presence of open wounds.
- **Option D:** Physical therapy is essential for rehabilitation after a fracture, but it's not the immediate priority. Initial focus should be on pain management and stabilization of the fracture.

16. Hannah's child is scheduled for surgery due to myelomeningocele; the primary reason for surgical repair is which of the following?

A. To prevent hydrocephalus

B. To reduce the risk of infection

C. To correct the neurologic defect

D. To prevent seizure disorders

Correct Answer: B. To reduce the risk of infection

Surgical closure decreases the risk of infection stemming from damage to the fragile sac, which can lead to meningitis. Prenatal surgery was proven to be more effective than postnatal surgery in lowering the occurrence of future complications.

- **Option A:** Surgical repair does not help relieve hydrocephalus. In fact, some researchers believe that repair exaggerates the Arnold-Chiari malformation and decreases the absorptive surface for cerebrospinal fluid, leading to the more rapid development of hydrocephalus.
- **Option C:** The neurologic deficit cannot be corrected. However, some surgeons believe that early surgery reduces the risk of stretching spinal nerves and preventing further damage. Once the diagnosis has been made, early surgical repair of the spinal lesion is essential in preventing further deficits and neurological damage.
- **Option D:** Surgical repair of the sac doesn't prevent seizure disorder, an impairment of the brain neuron tissue. If deciding to start drug therapy, many medications are options to treat a chronic seizure disorder or epilepsy as first-line medication or adjunctive medications.

17. What is the primary nursing diagnosis for a 4th to 10th-day postoperative liver transplant patient?

A. Excess Fluid Volume

B. Risk for Rejection

C. Impaired Skin Integrity

D. Decreased Cardiac Output

Correct Answer: B. Risk for Rejection

Risk for rejection is always a possibility, especially during the 4th to 10th day postoperatively. LT patients are at risk for several complications. The primary care NP should be aware of these complications and needs to know when referral back to a transplant center or hepatologist is appropriate. The most serious issues are problems with the vasculature of the liver, biliary issues, rejection, and infection. Lab abnormalities—specifically elevation in alkaline phosphatase, alanine aminotransferase (ALT), and serum bilirubin levels—are usually the first indication of a problem in one or more of these areas.

- **Option A:** Post-transplant acute kidney injury (AKI) has been reported to occur in 9-78% of cases with 10% progressing to end-stage renal failure. Early identification of potential AKI is crucial to improving patient outcomes as evidence shows that even small increases in serum creatinine are associated with a decline in overall mortality.
- **Option C:** Patients are also at risk for specific opportunistic infections in the early postoperative period. Herpes simplex virus (HSV) reactivation disease is the most common opportunistic viral infection and can quickly progress to disseminated multi-organ infection and failure.
- **Option D:** In the first month postoperatively patients are most likely to develop infections related to the surgical procedure and hospitalization, such as bacterial and fungal wound infections, urinary tract infections, bloodstream infections, pneumonia, and Clostridium difficile colitis.

18. If the LMP is Jan. 30, the expected date of delivery (EDD) is:

A. Oct. 7

B. Oct. 24

C. Nov. 7

D. Nov. 8

Correct Answer: C. Nov. 7

Based on the last menstrual period, the expected date of delivery is Nov. 7. The formula for Naegele's Rule is to subtract 3 from the month and add 7 to the day.

- **Option A:** This is an incorrect EDD. An average pregnancy lasts 280 days from the first day of the last menstrual period (LMP) or 266 days after conception. Historically, an accurate LMP is the best estimator to determine the due date.
- **Option B:** Oct 24 is incorrect. It is prudent for the obstetrician to get a detailed menstrual history, including duration, flow, previous menstrual periods, and hormonal contraceptives. These factors are used to determine the length of her cycles and ovulation period.
- **Option D:** Nov 8 is not the correct, exact EDD. Having accurate birth dating might decrease maternal/fetal morbidity and or mortality through timely consulting with experts in the field of maternal-fetal medicine, obstetrics/gynecology, oncology, or genetics. For example, fetal genetic abnormalities can be detected in a timely fashion providing the mother with sufficient time to make a lifetime decision.

19. A male client with a tentative diagnosis of hyperosmolar hyperglycemic nonketotic syndrome (HHNS) has a history of type 2 diabetes that is being controlled with an oral diabetic agent, tolazamide (Tolinase). Which of the following is the most important laboratory test for confirming this disorder?

A. Serum potassium level

B. Serum sodium level

C. Arterial blood gas (ABG) values

D. Serum osmolarity

Correct Answer: D. Serum osmolarity

Serum osmolarity is the most important test for confirming HHNS; it's also used to guide treatment strategies and determine evaluation criteria. A client with HHNS typically has a serum osmolarity of more than 350 mOsm/L. The serum osmolality is determined by the formula 2Na + Glucose /18 + BUN / 2.8. The resultant hyperglycemia increases the serum osmolarity to a significant degree. The glucose level in HHS is usually above 600 mg/dL. Hyperglycemia also creates an increase in the osmotic gradient with free water drawn out from the extravascular space from the increased osmotic gradient.

- **Option A:** Serum potassium, serum sodium, and ABG values are also measured, but they aren't as important as serum osmolarity for confirming a diagnosis of HHNS. In HHS however, because insulin is still being produced by the beta cells in the pancreas, the generation of ketone bodies is minimal. Insulin inhibits ketogenesis. That aside, in HHS there is a higher level of insulin with an associated lower level of glucagon. Therefore, ketonemia and acidemia are very mild in HHS.
- **Option B:** A client with HHNS typically has hypernatremia and osmotic diuresis. The effect of the increased serum osmolarity on the brain can be very profound. To preserve the intracellular volume, the brain produces idiogenic osmoles. Idiogenic osmoles are substances that are osmotically active. The net effect of the production of these substances is to prevent fluid from moving from the intracellular space into extracellular space and maintain a balanced equilibrium.
- **Option C:** ABG values reveal acidosis, and the potassium level is variable. Beta oxidation of fatty acids produces ketone bodies: acetone, acetoacetate, and beta oxobutyric acid. Accumulation of these substrates produces ketonemia and acidemia. Acidemia from ketone bodies stimulates the kidney to retain bicarbonate ions to neutralize the hydrogen ions. This accounts for the low serum bicarbonate level in DKA.

20. Gold compounds are contraindicated in clients with:

A. Liver dysfunction

B. Cardiac disease

C. Preexisting dermatitis

D. Rheumatoid arthritis

Correct Answer: A. Liver dysfunction

An adverse reaction to gold compounds is liver toxicity; therefore, use care in clients with preexisting liver dysfunction.

- **Option B:** Gold compounds have been shown to cause tumors and cancer of the kidney when given to animals in large amounts for a long time. However, these effects have not been reported in humans receiving gold compounds for arthritis. If there are any questions about this, check with the doctor.
- **Option C:** Gold compounds may cause some people to become more sensitive to sunlight than they are normally. These people may break out in a rash after being in the sun, or a skin rash that is already present may become worse.

- **Option D:** Immediately following injection of this medicine, side effects such as dizziness, feeling faint, flushing or redness of the face, nausea or vomiting, increased sweating, or unusual weakness may occur. These will usually go away after the client lies down for a few minutes. If any of these effects continue or become worse, or if you notice any other effects within 10 minutes or so after receiving an injection, tell a health care professional right away.

21. Which intervention is most important to use to prevent infection by autocontamination in the burned client during the acute phase of recovery?

A. Changing gloves between wound care on different parts of the client's body.

B. Avoiding sharing equipment such as blood pressure cuffs between clients.

C. Using the closed method of burn wound management.

D. Using proper and consistent handwashing.

Correct Answer: A. Changing gloves between wound care on different parts of the client's body

Autocontamination is the transfer of microorganisms from one area to another area of the same client's body, causing infection of a previously uninfected area. Use gowns, gloves, masks, and strict aseptic techniques during direct wound care and provide sterile or freshly laundered bed linens or gowns.

- **Option B:** Although all techniques listed can help reduce the risk of infection, only changing gloves between carrying out wound care on different parts of the client's body can prevent autocontamination. Depending on the type or extent of wounds and the choice of wound treatment (open versus closed), isolation may range from a simple wound and/or skin to complete or reverse to reduce the risk of cross-contamination and exposure to multiple bacterial flora.
- **Option C:** Prevent skin-to-skin surface contact (wrap each burned finger or toe separately; do not allow burned ear to touch scalp). This identifies the presence of healing (granulation tissue) and provides for early detection of burn-wound infection. Infection in a partial-thickness burn may cause conversion of burn to full-thickness injury.
- **Option D:** Emphasize and model good handwashing techniques for all individuals coming in contact with the patient. This prevents cross-contamination and reduces the risk of acquired infection.

22. The nurse is about to give a Type 2 diabetic her insulin before breakfast on her first day postpartum. Which of the following answers best describes insulin requirements immediately postpartum?

A. Lower than during her pregnancy

B. Higher than during her pregnancy

C. Lower than before she became pregnant

D. Higher than before she became pregnant

Correct Answer: C. Lower than before she became pregnant

PP insulin requirements are usually significantly lower than pre-pregnancy requirements. Occasionally, clients may require little to no insulin during the first 24 to 48 hours postpartum. Immediately after delivery, postpartum insulin requirements decrease dramatically as a result of the rapid decrease in diabetogenic placental hormone levels and resulting dissipation of pregnancy-induced insulin

resistance.

- **Option A:** The policy specifies that women with type 1 or type 2 diabetes who require ongoing insulin administration should decrease insulin doses and undergo monitoring of preprandial blood glucose values while on the postpartum unit. Glycemic targets approximating nonpregnant targets are utilized. Among women with type 1 diabetes, insulin requirements typically return to prepregnancy levels or lower following delivery.
- **Option B:** Women are typically advised to decrease basal and prandial insulin doses to 50 to 80% of their preconception doses, but recommendations are individualized. If preconception insulin doses are not known, one-third to one-half of the term pregnancy dose or weight-based dosing may be used as a starting point.
- **Option D:** Among women with type 2 diabetes, postpartum medication requirements vary depending on the severity of hyperglycemia postpartum and the prepregnancy diabetes therapeutic regimen, ranging from no medical therapy to resumption of insulin therapy at reduced doses (as above) or noninsulin therapies following delivery.

23. A client in her third trimester tells the nurse, "I'm constipated all the time!" Which of the following should the nurse recommend?

A. Daily enemas

B. Laxatives

C. Increased fiber intake

D. Decreased fluid intake

Correct Answer: C. Increased fiber intake

During the third trimester, the enlarging uterus places pressure on the intestines. This coupled with the effect of hormones on smooth muscle relaxation causes decreased intestinal motility (peristalsis). Increasing fiber in the diet will help fecal matter pass more quickly through the intestinal tract, thus decreasing the amount of water that is absorbed. As a result, the stool is softer and easier to pass.

- **Option A:** Enemas could precipitate preterm labor and electrolyte loss and should be avoided.
- **Option B:** Laxatives may cause preterm labor by stimulating peristalsis and may interfere with the absorption of nutrients. Use for more than 1 week can also lead to laxative dependency.
- **Option D:** Liquid in the diet helps provide a semisolid, soft consistency to the stool. Eight to ten glasses of fluid per day are essential to maintain hydration and promote stool evacuation

24. A nurse performs a physical assessment on a client with type 2 diabetes mellitus. Findings include fasting blood glucose of 120mg/dl, temperature of 101ºF, pulse of 88 bpm, respirations of 22 bpm, and a BP of 140/84 mmHg. Which finding would be of most concern to the nurse?

A. Pulse

B. Blood pressure

C. Respiration

D. Temperature

Correct Answer: D. Temperature

An elevated temperature may indicate infection. Infection is a leading cause of hyperglycemic hyperosmolar nonketotic syndrome or diabetic ketoacidosis. Due to the possibility of an infectious trigger for DKA, the patient may be febrile or hypothermic. If there is a superimposed infection that triggered the episode of DKA, the patient may have other infectious symptoms like fever, cough, or other urinary symptoms.

- **Option A:** The pulse rate of 88 bpm is normal. On examination, vital signs typically reveal tachycardia and tachypnea. Supraventricular tachycardia (SVT) can occur as a complication of diabetic ketoacidosis in the absence of underlying heart disease, and the risk is increased by the electrolyte, acid-base, and fluid balance disturbances, as in the previous case reports.
- **Option B:** A blood pressure of 140/84 mmHg is hypertensive. Blood pressure may also vary, though hypotension is possible and indicative of a more severe disease process. Insulin is known to decrease the catecholamine-induced production of these 2 potent vasodilators. Severe insulin deficiency as seen in DKA thus leads to increased production of PGI2 and PGE2, which leads to vasodilation and hypotension.
- **Option C:** Respirations of 22 bpm are normal. Kussmaul's breathing, which is labored, deep, and tachypneic, may occur in clients with DKA. Some providers may appreciate a fruity scent to the patient's breath, indicative of the presence of acetone.

25. The nurse is caring for a client who is unconscious following a fall. Which comment by the nurse will help the client become reoriented when he regains consciousness?

A. "I am your nurse and I will be taking care of you today."

B. "Can you tell me your name and where you are?"

C. "I know you are confused right now, but everything will be alright."

D. "You were in an accident that hurt your head. You are in the hospital."

Correct Answer: D. "You were in an accident that hurt your head. You are in the hospital."

- Option D: Telling the client what happened and where he is helps with reorientation.
- Option A: This does not explain what happened to the client.
- Option B: This is not helpful because the client regaining consciousness will not know where he is.
- Option C: The nurse should not offer false reassurances, such as "everything will be alright".

26. Which of the following tests should be performed before beginning a prescription of Accutane?

A. Check the calcium level

B. Perform a pregnancy test

C. Monitor apical pulse

D. Obtain a creatinine level

Correct Answer: B. Perform a pregnancy test

Accutane is contraindicated for use by pregnant clients because it causes teratogenic effects. Isotretinoin was a pregnancy category X drug under the previous FDA system and is contraindicated in women who are pregnant or who may become pregnant. There have been severe, documented congenital disabilities when pregnant women have taken isotretinoin.

- **Option A:** Calcium levels are unnecessary. To prescribe and receive isotretinoin, the Food and Drug Administration requires prescribers and patients to register with the iPLEDGE program. iPLEDGE ensures the fulfillment of appropriate requirements before the distribution of isotretinoin to prevent the use of this medication during pregnancy.
- **Option C:** Apical pulse is not necessary. Two negative pregnancy tests are necessary before the initiation of therapy with isotretinoin. The first pregnancy test occurs up to 30 days prior to medication initiation. The second pregnancy test must occur at least 19 days after the first negative pregnancy test and within the first five days of the patient's menstrual cycle. Each subsequent month the patient must have a recorded negative pregnancy test to continue therapy. After discontinuation of therapy, a final pregnancy test should take place at 30 days following therapy completion.
- **Option D:** Liver function tests (LFTs), fasting lipid profile (including triglycerides), blood glucose, creatinine phosphokinase (CPK), and complete blood counts (CBC) with differential should be drawn before initiating therapy with isotretinoin. Screening for mood alteration, psychosis, aggression, suicidal ideation, skin changes, and visual changes should also take place prior to starting therapy.

27. Nurse Oliver is attending to a child with Cushing's syndrome. Which of the following nursing interventions would be most necessary?

A. Observing the child for signs and symptoms of metabolic acidosis

B. Handling the child carefully to prevent bruising

C. Monitoring vital signs for hypertension and tachycardia

D. Monitoring the child for signs and symptoms of hypoglycemia

Correct Answer: B. Handling the child carefully to prevent bruising.

The nurse should handle the child carefully because Cushing's syndrome causes capillary fragility, resulting in easy bruising and calcium excretion, resulting in osteoporosis. Glucocorticoids also increase catabolism of proteinaceous tissues such as collagen, causing skin atrophy fragility with striae and easy bruising.

- **Option A:** Cushing's syndrome causes increased excretion of hydrogen ions, resulting in alkalosis and increased water and sodium retention. High cortisol levels also cause immune disruptions; this hormone leads to a decrease in lymphocyte levels and increases the neutrophils. It causes detachment of the marginating pool of neutrophils in the bloodstream and increases the circulating neutrophil levels although there is no increased production of the neutrophils.
- **Option C:** Cushing's syndrome causes increased excretion of potassium and hypokalemia resulting in a sluggish and irregular heartbeat. Cortisol decreases glomerular filtration rate, and renal plasma flow from the kidneys thus increasing phosphate excretion, as well as increasing sodium and water retention and potassium excretion by acting on mineralocorticoid receptors.
- **Option D:** Cushing's syndrome causes hyperglycemia, not hypoglycemia. The excess of cortisol results in an increased rate of gluconeogenesis, glycogenolysis and increases insulin resistance. Cortisol is a steroid hormone, and it directly affects the transcription and translation of enzyme proteins involved in the metabolism of fats, glycogen, protein synthesis, and Kreb's cycle.

28. Which of the following assessment findings would the nurse expect if the client develops DVT?

A. Mid Calf pain, tenderness, and redness along the vein.

B. Chills, fever, malaise, occurring 2 weeks after delivery.

C. Muscle pain, the presence of Homans sign, and swelling in the affected limb.

D. Chills, fever, stiffness, and pain occurring 10 to 14 days after delivery.

Correct Answer: C. Muscle pain the presence of Homans sign, and swelling in the affected limb

Classic symptoms of DVT include muscle pain, the presence of Homans sign, and swelling of the affected limb.

- **Option A:** Midcalf pain, tenderness, and redness, along the vein reflect superficial thrombophlebitis. In the absence of a triggering event, neither venous stasis nor abnormal coagulability alone causes clinically important thrombosis, but vascular endothelial injury does reliably result in thrombus formation. The initiating injury triggers an inflammatory response that results in immediate platelet adhesion at the injury site. Further platelet aggregation is mediated by thromboxane A2 (TxA2) and by thrombin.
- **Option B:** Chills, fever, and malaise occurring 2 weeks after delivery reflect pelvic thrombophlebitis. The body naturally produces more clotting proteins during pregnancy. This ensures that the blood forms clots quickly after delivery to avoid excess bleeding. These natural changes are meant to protect you from complications during your pregnancy. But they also increase your risk of having a blood clot. Any medical procedure, including delivery of a baby, also carries a risk of infection. Septic pelvic vein thrombophlebitis is caused when a blood clot forms in the pelvic veins and becomes infected by bacteria present in the uterus.
- **Option D:** Chills, fever, stiffness, and pain occurring 10 to 14 days after delivery suggest femoral thrombophlebitis. The femoral vein runs along the inside of the legs from the groin area downward. Femoral vein thrombosis refers to a blood clot present in those veins. These veins are superficial, or close to the surface of the skin, and are often more prone to blood clots than deeper veins.

29. During the postpartum period, the fundus of the uterus is expected to go down normally about how many centimeters per day?

A. 1.0 cm

B. 2.0 cm

C. 2.5 cm

D. 3.0 cm

Correct Answer: A. 1.0 cm

The uterus will begin involution right after delivery. It is expected to regress/go down by 1 cm. per day and becomes no longer palpable about 1 week after delivery.

- **Option B:** During the normal puerperium period, the uterine involution is defined by the changing indices of the uterine size, the uterine cavity inserts, and the uterine artery flow. Most of the studies publish the first ultrasound examination findings on the 1st, 2nd, and 3rd postpartum days, but there is not a single ultrasound study examining the uterus within the first two hours after delivery.

- **Option C:** The most obvious postpartum change is involution of the uterus from a 1-kg structure with a 5- to 10-L volume to a 60-g structure holding 3 to 5 mL. This involution begins during the third stage of labor, accelerates after expulsion of the placenta, and continues over the next 5 to 6 weeks. Typically, the uterus is at the umbilicus after delivery of the placenta, and it decreases in height by about a centimeter a day until it again becomes a pelvic organ at about 12 days postpartum. Slower involution continues over the next several weeks until prepregnant size is attained. Restoration of the normal endometrial lining occurs by the 16th day postpartum.
- **Option D:** The most intensive uterine involution period is the first month after delivery. The trend of involution in primiparous and multiparous women is similar; however, in multiparous women, it lasts longer than 6–8 weeks.

30. Nurse Margie just administered an ACE inhibitor to her client. Before ambulating the client for the first time after administration, the nurse should monitor for:

A. Hypokalemia

B. Irregular heartbeat

C. Edema

D. Hypotension

Correct Answer: D. Hypotension

ACE inhibitors prevent vasoconstriction and lower blood pressure, placing the client at greater risk for postural (orthostatic) hypotension. Angiotensin II acts as a potent vasoconstrictor that, when inhibited, can reduce blood pressure by dilating vessels and decreasing aldosterone secretion.

- **Option A:** ACE inhibitors reduce potassium excretion placing the client at risk for hyperkalemia. Hyperkalemia from ACE inhibitors is a direct result of the mechanism of action. The blockade of angiotensin II prevents the downstream secretion of aldosterone. Aldosterone causes reabsorption of sodium and, subsequently, water. Consequently, protons and potassium get secreted into the urine. Without the secretion of potassium through aldosterone, potassium can easily increase in patients on ACE inhibitors. Comorbidities that decrease kidney function or medications that cause potassium retention increases the risk of hyperkalemia.
- **Option B:** ACE inhibitors do not affect heart rate. ACE inhibitors can be used for the treatment of hypertension (HTN) either alone or in conjunction with other antihypertensives in adults or children greater than six years old. Hypertension guidelines recommend the initiation of ACE inhibitors for the management of HTN to lower blood pressure (BP).
- **Option C:** ACE inhibitors promote sodium excretion thereby decreasing edema. Angioedema is a rare but potentially life-threatening side effect of ACE inhibitor use. The side effect is a swelling of the face, lips, and upper airway in an episodic nature. The inflammation creates difficulty in the patient's ability to maintain an airway; therefore, endotracheal intubation is necessary to secure the airway. The mechanism of angioedema is thought to be through an extensive accumulation of bradykinins in select individuals.

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

A. Depression

B. Sleep disturbances (such as bizarre dreams)

C. Inability to concentrate

D. Decreased appetite

Correct Answer: A. Depression

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

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

32. A 40-year-old construction worker presents to the emergency department after falling from a height. Radiographic imaging is ordered to assess potential fractures. The radiologist pays special attention to the areas where two or more bones come together, as these are common sites of injury. Which term best describes these areas?

A. Cartilage

B. Tendon

C. Ligament

D. Joint

- **Option A:** Cartilage is a connective tissue that provides cushioning between bones in a joint.
- **Option B:** Tendons connect muscles to bones.
- **Option C:** Ligaments connect bones to bones.

33. If a client requires a pneumonectomy, what fills the area of the thoracic cavity?

A. The space remains filled with air only.

B. The surgeon fills the space with a gel.

C. Serous fluids fill the space and consolidate the region.

D. The tissue from the other lung grows over to the other side.

Correct Answer: C. Serous fluids fill the space and consolidate the region

Serous fluid fills the space and eventually consolidates, preventing extensive mediastinal shift of the heart and remaining lung.

- **Option A:** Air can't be left in space. Air in the chest cavity is called a pneumothorax, and it may cause the lungs to collapse.
- **Option B:** There's no gel that can be placed in the pleural space. The pleural cavity is the space that lies between the pleura, the two thin membranes that line and surround the lungs. It contains a small amount of liquid known as pleural fluid.
- **Option D:** The tissue from the other lung can't cross the mediastinum, although a temporary mediastinal shift exists until space is filled.

34. The nurse is teaching the client with polycythemia vera about prevention of complications of the disease. Which of the following statements by the client indicates a need for further teaching?

A. "I will drink 500mL of fluid or less each day."

B. "I will wear support hose when I am up."

C. "I will use an electric razor for shaving."

D. "I will eat foods low in iron."

Correct Answer: A. "I will drink 500mL of fluid or less each day."

The client with polycythemia vera is at risk for thrombus formation. Hydrating the client with at least 3L of fluid per day is important in preventing clot formation, so the statement to drink less than 500mL is incorrect.

- **Option B:** Wearing a support hose promotes venous return.
- **Option C:** The electric razor prevents bleeding due to injury.
- **Option D:** A diet low in iron is essential to preventing further red cell formation.

35. He asserts the importance of promoting a positive organizational culture in their unit. Which of the following behaviors indicate that this is attained by the group?

A. Proactive and caring with one another

B. Competitive and perfectionist

C. Powerful and oppositional

D. Obedient and uncomplaining

Correct Answer: A. Proactive and caring with one another

Without a positive corporate culture, many employees will struggle to find the real value in their work, and this leads to a variety of negative consequences for the bottom line. Employers who invest in the well-being of their employees will be rewarded with happy, dedicated employees

- **Option B:** A positive culture gives an organization a competitive advantage. People want to work for companies with a good reputation from previous and current employees. A company with a positive culture will attract the type of talent that is willing to make their next workplace a home, rather than just a stepping-stone.
- **Option C:** Maintaining positive company culture is a guaranteed way to boost employee morale. Employees will naturally feel happier and enjoy their work more when they work in a positive environment.
- **Option D:** Employees are much more likely to come together as a team at companies with a strong culture. A positive culture facilitates social interaction, teamwork, and open communication. This collaboration can lead to some amazing results.