M_PTQ_PCCN (300+ Questions) - Quiz Questions with Answers

1.

A 58-year-old male with a history of alcohol abuse is a heavy smoker. He complains of pain in his chest in the afternoons when he is sitting and watching TV. ECG shows elevation of ST segments. The most likely diagnosis is

unstable angina.

variant/Prinzmetal's angina.

stable angina.

gastroesophageal reflux disease.

Explanation:

Variant angina (also known as Prinzmetal's angina) results from spasms of the coronary arteries associated with or without atherosclerotic plaques; and is often related to smoking, alcohol, or illicit stimulants. Elevation of ST segments typically occurs with variant angina, which frequently occurs cyclically at the same time each day and often while the person is at rest. Stable angina occurs regularly with activity. Unstable angina occurs when there is a change in the pattern of stable angina. GERD pain may be mistaken for angina.

2.

In which type of AV block are there more P waves than QRS with no clear relationship between them and an atrial rate 2-3 times the pulse rate, with an irregular PR interval?

first degree

second degree, Mobitz type I

second degree, Mobitz type II

third degree

Explanation:

In third-degree AV block, there are more P-waves than QRS with no clear relationship between them and an atrial rate 2-3 times the pulse rate, with an irregular PR interval. If the SA node malfunctions, the AV node fires at a lower rate, and if the AV node malfunctions, the pacemaker site in the ventricles takes over at a bradycardic rate: thus, with complete AV block, the heart still contracts but often ineffectually. The atrial P (sinus rhythm or atrial fibrillation) and the ventricular QRS (ventricular escape rhythm) are stimulated by different impulses, so there is AV dissociation. The heart can't compensate with exertion.

3.

Working for the best interests of the patient despite personal values in conflict and assisting patients to have access to appropriate resources comprise

moral agency.

advocacy.

agency.

collaboration.

Explanation:

Advocacy is working for the best interests of the patient, despite personal values in conflict and assisting patients to have access to appropriate resources. Moral agency is the ability to recognize needs and take action to influence the outcome of a conflict or decision. Agency is openness and recognition of issues and a willingness to act. Collaboration is working together to achieve better results.

4.

A 22-year-old male presents with severe headache, nausea, vomiting, and nuchal rigidity, progressing to confusion, stupor and coma with decerebrate rigidity. This is indicative of

subdural hemorrhage.

stroke.

hemorrhage.

hematoma.

Explanation:

Subarachnoid hemorrhage usually presents initially with severe headache, nausea and vomiting, nuchal rigidity, palsy related to cranial nerve compression, retinal hemorrhages, and papilledema. Late complications include hyponatremia and hydrocephalus. Symptoms worsen as intracranial pressure rises, progressing to confusion and drowsiness, stupor, coma, and decerebrate rigidity. SAH may occur after trauma but is common from rupture of berry aneurysm or an arteriovenous malformation (AVM). SAH may also be caused by neoplasms, sickle cell disease, infection, hemophilia, and leukemia.

5.

The automatic implantable cardioverter defibrillator (AICD) provides

(asynchronous) electrical impulses to control pulse rate.

chamber sequential electrical impulses.

on-demand (synchronous) electrical impulses when pulse increases to a preset rate.

on-demand electrical impulses when pulse rate decreases to a preset rate.

Explanation:

The AICD, used to control tachycardia and fibrillation, provides on-demand (synchronous) small electrical impulses to the atrial or ventricular myocardium to slow the heart when the pulse rate increases to a preset rate. If fibrillation occurs, a higher energy shock is delivered. It takes 5-15 seconds for the device to detect abnormalities in the pulse rate and more than one shock may be required, so fainting may occur. Some devices can function as both a pacemaker and an ICD for those with episodes of both bradycardia and tachycardia.

6.

A patient is three hours post–cardiac surgery and is evaluated for renal function. Which of the following findings suggests ineffective renal tissue perfusion?

specific gravity 1.018

urinary output: 20 mL/hr

creatinine (Serum): 0.8 mg/dL

sodium: 135 mEq/L

Explanation:

Urinary output should be maintained at >25 mL/hr consistent with fluid intake. Output should be measured every half hour for the first 4 hours and then every 8 hours if output is normal. Specific gravity is monitored to determine the kidneys' ability to concentrate urine, and the serum creatinine and electrolytes indicate the kidneys' ability to excrete waste products. Renal damage can occur from inadequate perfusion, hemolysis, decreased cardiac output, and the use of vasopressor medications to control blood pressure.

7.

A patient with a dissecting descending thoracic aortic aneurysm will most likely complain of

severe dull pain that builds in intensity in the anterior chest, nausea, and vomiting.

severe tearing, knife-like pain that builds in intensity in the anterior chest, nausea, and vomiting.

aching posterior pain below the scapula(s), nausea, and vomiting.

severe, intense, tearing knife-like posterior pain between the scapulae, nausea, and vomiting.

Explanation:

Symptoms typical of a dissecting descending aortic aneurysm include severe, intense knife-life posterior pain between the scapulas, nausea, and vomiting. Patients may be cold and clammy. Dissection of the ascending thoracic aorta results in similar symptoms, but the pain is in the anterior chest. Pain with dissection does not generally increase in intensity, as it is severe at onset when tearing occurs. Peripheral arteries may be involved, and this can cause numbness, tingling, and evidence of vascular insufficiency in an affected limb.

8.

The nurse is interviewing a patient who is hearing-impaired. Which of the following may be an impediment to communication?

the nurse uses only a normal tone of voice and speaks with short sentences

the nurse provides assistive devices, such as writing materials

the nurse is facing the patient at distance of 8 feet

the nurse uses hand gestures while speaking

Explanation:

The nurse should face the patient at a distance of 2 to 6 feet, use a normal tone of voice and short sentences, utilize gestures, and provide assistive devices as necessary, including writing materials and TDD phone/relay service. Many hearing-impaired patients use some degree of lip-reading, so the nurse should not chew, or eat while speaking to the patient. If patients are deaf and know sign language, interpreters should be used for important communication, and the nurse should face the patient during communication, not the interpreter.

9.

The best determinant of the effectiveness of teaching is

patient's report of compliance.

patient satisfaction based on surveys.

behavior modification.

instructor's knowledge base.

Explanation:

The best determinant of teaching effectiveness is behavior modification noted through observation and measurement. Many times, compliance rates are based on patient reports, but these are not always accurate. Satisfaction does not necessarily lead to compliance. A knowledgeable instructor is important, but knowledge does not always relate to teaching abilities.

10.

Which of the following is NOT a characteristic of peripheral arterial insufficiency?

skin pale and shiny with rubor on dependency and pallor of foot upon elevation

brownish discoloration (hemosiderin) around ankles and anterior tibial areas

painful, deep, circular, often necrotic ulcers on toe tips, toe webs, heels, and other pressure areas

minimal peripheral edema

Explanation:

Brownish discoloration (hemosiderin) around ankles and anterior tibial areas is a sign of peripheral venous insufficiency. Other signs include varicosities, venous dermatitis, irregular ulcers on medial or lateral malleolus or anterior tibial area and moderate to severe edema. Peripheral pulses are often weak or absent with arterial insufficiency, and pain is either intermittent or constant and severe. With venous insufficiency, pulses are present, and pain is aching and cramping.

11.

A patient is receiving warfarin along with other treatment for atrial fibrillation. The international normalized ratio (INR) range should be

1.5-2

2-3

3-4

>4

Explanation:

While the international normalized ratio (INR) is individualized depending on baseline readings, a normal INR is approximately 1. Those receiving warfarin for atrial fibrillation are maintained at an INR of 2-3. The INR for prophylaxis for deep vein thrombosis is 1.5-2 and for pulmonary emboli and mechanical heart values is 3-4. The higher the number, the greater the anticoagulation effect, therefore a level greater than 4 may put the patient at risk for hemorrhage.

12.

A 70-year-old female patient with a leg wound is being treated with negative-pressure wound therapy using a vacuum-assisted closure system. The most appropriate non-adherent porous foam for a wound that is painful and has tunneling is

polyurethane (hydrophobic, repelling moisture).

polyvinyl (hydrophilic).

either polyurethane or polyvinyl.

neither polyurethane nor polyvinyl.

Explanation:

Polyvinyl (hydrophilic) non-adherent porous foam is used for all wounds except deep wound with moderate granulation, deep pressure ulcers, and flaps. Polyurethane (hydrophobic, repelling moisture) is used for all wounds except those that are painful, have tunneling or sinus tracts, deep trauma wounds, and wounds needing controlled growth of granulation. The foam is cut to fit and cover the wound and is secured with foam-occlusive transparent film. An opening is cut to accommodate the drainage tube, which is attached to a suction canister, creating a closed system with pressure set to a range of 75-125.

13.

According to Knowles' principles of adult learning, adult learners tend to be

unmotivated.

lacking in self-direction.

practical and goal-oriented.

insecure.

Explanation:

According to Knowles, adult learners tend to be practical and goal-oriented, so they like to remain organized and keep the goal in mind while learning. Other characteristics include:

- *Self-direction: Adults like active involvement and responsibility.*

- *Knowledgeable: Adults can relate new material to information with which they are familiar by life experience or education.*
- *Relevancy orientation: Adults like to know how they will use information.*
- *Motivated: Adults like to see evidence of their achievement, for example, through the receipt of a certificate.*

14.

A patient is being considered for thrombolytic therapy with alteplase tissue-type plasminogen activator (t-PA). Which of the following is a contraindication to thrombolytic therapy?

the patient has a 3.5-cm aortic aneurysm

the patient is 2 hours post–onset of symptoms

the patient's blood pressure has been 180/90 mmHg, but is controlled by medication

the patient had a previous ischemic stroke 6 months ago

Explanation:

Contraindications to thrombolytic therapy include aortic aneurysm, hemorrhagic stroke, recent surgery, or bleeding. While ideally, thrombolytic therapy should be administered within 90 minutes of onset of symptoms, it may be given within 6 hours for tenecteplase and within 12 hours for other thrombolytics. History of any type of stroke within 2 months or AVM precludes thrombolytic therapy. Severe hypertension (>210/130 mmHg) that is uncontrolled by medications or that occurs with retinal-vascular disease is also a contraindication.

15.

A 70-year-old female presents with cardiogenic shock secondary to myocardial infarction. Which symptoms are consistent with cardiogenic shock?

hypertension with systolic BP >90 mmHg, bradycardia <60 bpm with dysrhythmias, chest pain, and tachypnea

hypotension with systolic BP <90 mmHg, tachycardia >100 bpm with dysrhythmias, and tachypnea

hypotension with systolic BP <90 mmHg, dysrhythmias with varying heart rate, and slow labored respirations

hypotension with systolic BP <100 mmHg, bradycardia <60 bpm with regular pulse; and slow, labored respirations

Explanation:

Cardiogenic shock is characterized by hypotension with systolic BP <90 mmHg, tachycardia >100 bpm with weak, thready pulse, and dysrhythmias, decreased heart sounds, chest pain, tachypnea and basilar rales, pallor, and cool moist skin. Cardiogenic shock is often secondary to MI that reduces the contractibility of the ventricles and interferes with the pumping mechanism of the heart decreasing oxygen perfusion. Characteristics include increased preload and afterload and decreased contractibility, resulting in decreased cardiac output and increased systemic vascular resistance causing pulmonary edema and right ventricular failure.

16.

Which of the following medications may be used after cardiac surgery to treat low cardiac output?

nitroprusside

dobutamine

dopamine

isoproterenol

Explanation:

Dobutamine is used to treat low cardiac output after cardiac surgery. Nitroprusside decreases blood pressure and afterload. Dopamine treats shock and hypotension for patients who required volume resuscitation. Isoproterenol is used to stimulate the heart in patients with severe bradycardia. Other drugs include nitroglycerine, used to prevent spasm in arterial grafts and to reduce preload and afterload, and epinephrine is used to treat low cardiac output related to shock. Milrinone is also used to low cardiac output. Phenylephrine, norepinephrine, and vasopressin increase systemic vascular resistance and blood pressure, and are used to treat shock.

17.

A 76-year-old female is being treated for acute heart failure. Testing indicates enlarged ventricles with weak contractions and indications that she has developed atrial fibrillation. Which medications will she likely receive?

diuretic, vasodilator, digoxin, and anticoagulant

diuretic, digoxin, and vasodilator

diuretic and anticoagulant

diuretic and vasodilator

Explanation:

The patient with acute heart failure will most likely receive a diuretic to reduce fluid and sodium retention, a vasodilator to reduce blood pressure, digoxin to increase contractibility of the weakened ventricles, and an anticoagulant because of the enlarged ventricles and atrial

fibrillation, which increase the risk of thromboembolia. Other treatments include weight monitoring, low sodium diet, and activity restriction.

18.

A 62-year-old male patient has a regular pulse >100 bpm with P waves before QRS but sometimes preceding the T wave. QRS is of normal shape and duration. PR interval is 0.12-0.20 seconds and P: QRS ratio is 1:1. The cardiac diagnosis is

bradycardia.

tachycardia.

arrhythmia.

atrial contractions.

Explanation:

Sinus tachycardia is characterized by pulse >100 bpm. The rapid pulse decreases diastolic filling time and reduces cardiac output with resultant hypotension and pulmonary edema. Bradycardia is characterized by pulse <60 bpm. Sinus is common in children and young adults, but may occur with vagal stimulation from suctioning, vomiting, or defecating. Premature atrial contractions are essentially extra beats caused by an electrical impulse to the atrium before the sinus node impulse, resulting in an irregular pulse.

19.

Acquired immunodeficiency syndrome (AIDS) is diagnosed when the following criteria are met

HIV infection and AIDS-defining condition, such as cytomegalovirus.

HIV infection and CD4 count ≤400 cells/mm^3.

HIV infection, CD4 count <100 cells/mm^3, and AIDS-defining condition.

HIV infection, CD4 count <200 cells/mm^3, and AIDS-defining condition.

Explanation:

AIDS is diagnosed with HIV infection, CD4 count <200 cells/mm^3, and AIDS-defining condition, such as opportunistic infections (cytomegalovirus, tuberculosis), wasting syndrome, neoplasms (Kaposi's sarcoma) or AIDS dementia complex. Patients with AIDS may present with many types of symptoms, depending on the AIDS-defining condition, but more than half exhibit fever, lymphadenopathy, pharyngitis, rash, and myalgia/arthralgia.

20.

Upon physical examination a 23-year-old female complains of chest pain and faintness upon exertion, fatigue, and loss of appetite. She has tachycardia with a weak pulse. Auscultation identifies an ejection click, a brief high-pitched sound occurring immediately after S1. Which of the following cardiac disorders is the most likely diagnosis?

coronary artery disease

mitral valve stenosis

pericarditis

aortic valve stenosis

Explanation:

These symptoms, including the abnormal heart sound (ejection click), are common to aortic valve stenosis. The aortic valve controlling the flow of blood from the left ventricle narrows, causing the left ventricular wall to thicken. Aortic stenosis may result from a birth defect or from damage caused by childhood rheumatic fever. Coronary artery disease is not directly associated with abnormal heart sounds although gallop rhythms can occur with related ventricular hypertrophy. Mitral valve stenosis may cause an opening snap, while pericarditis causes a friction rub.

21.

Which of the following rhythm disturbances is most common after cardiac surgery?

ventricular fibrillation

ventricular tachycardia

premature ventricular contractions (PVCs)

atrial fibrillation, flutter, and tachycardia

Explanation:

Atrial arrhythmias, including fibrillation, flutter, and tachycardia, are very common after cardiac surgery, occurring in more than half of patients with valvular surgery. Arrhythmias occur usually in the first 2-3 postoperative days and are often transient but may recur. Arrhythmias are often related to surgical manipulation. Treatment includes digoxin, β-blockers, calcium channel blockers, and amiodarone (often given preoperatively for 7 days to reduce incidence of postoperative arrhythmias.) Electrical cardioversion may be indicated after 24 hours if sinus rhythm remains abnormal.

22.

A 64-year-old male with chronic heart failure presents with dyspnea, cough, blood-tinged frothy sputum, cyanosis, wheezing, rales, rhonchi, and diaphoresis. He is diagnosed with pulmonary

edema, placed on oxygen by mask and given morphine and IV nitrate as well as inhaled aminophylline for bronchospasm. Which of the following diuretics is the most appropriate concomitant treatment option?

furosemide (Lasix®)

spironolactone (Aldactone®)

hydrochlorothiazide (Dyazide®)

eplerenone (Inspra®)

Explanation:

A short-acting intravenous loop diuretic, such as furosemide (Lasix ®) or bumetanide (Bumex ®) is indicated to rapidly reduce fluid retention and decrease pulmonary edema. Spironolactone and eplerenone are potassium-spring diuretics that have weaker diuretic actions than loop diuretics. Hydrochlorothiazide is a long-acting thiazide diuretic given as a first line treatment for hypertension rather than for acute crises.

23.

A patient presents with the classic signs of a myocardial infarction, including crushing chest pain, radiating to the arms and neck, palpitations, pallor, and dyspnea. The patient most likely to experience these symptoms is

a 60-year-old male.

a 52-year-old male with type 1 diabetes and neuropathy.

a 54-year-old female.

an 86-year-old female with Alzheimer's disease.

Explanation:

The 60-year-old male is most likely to experience classic signs of a myocardial infarction, as they are most common in males. Females and those under 55 often present with atypical symptoms. Diabetic patients may have reduced sensation of pain due to neuropathy and may complain primarily of weakness. Elderly patients may also have neuropathic changes that reduce sensation of pain.

24.

Systemic inflammatory response syndrome (SIRS) is characterized by symptoms that may include

bradycardia.

dysrhythmia.

leukocytosis (>12,000 mm^3) or leukopenia (<4000 mm^3).

$PaCO_2$ >32 mmHg.

Explanation:

SIRS symptoms may include leukocytosis or leukopenia. SIRS is diagnosed with 2 of the following symptoms:

- *Leukocytosis (>12,000 mm^3) or leukopenia (<4000 mm^3).*
- *Elevated (>38°C) or subnormal rectal temperature (<36°C).*
- *Tachypnea or $PaCO_2$ <32 mmHg.*
- *Tachycardia.*

SIRS, a generalized inflammatory response affecting many organ systems, may be caused by infectious or noninfectious agents, such as trauma, burns, adrenal insufficiency, pulmonary

embolism, and drug overdose. If an infectious agent (such as Streptococcus pneumonia or Staphylococcus aureus) is identified or suspected, SIRS may be an aspect of sepsis.

25.

A patient has been receiving heparin for 5 days and develops type I heparin-induced thrombocytopenia and thrombosis syndrome (HITTS) with platelet count of 90,000 mm^3. Which of the following actions regarding heparin is most appropriate?

continue heparin, but monitor

stop heparin immediately

reduce dosage of heparin

switch to oral anticoagulants

Explanation:

With type I HITTS, heparin is continued while monitoring platelet count. This condition is transient but typically resolves without intervention. Type II is an autoimmune reaction to heparin that occurs in 3-5% of those receiving unfractionated heparin and also occurs with low-molecular weight heparin. It is characterized by low platelets (<50,000 mm^3) that are ≥50% below baseline. Onset is 5-14 days but can occur within hours of reheparinization. Heparin-antibody complexes form and release platelet factor 4 (PF4), which attracts heparin molecules and adheres to platelets and endothelial lining; stimulating thrombin and platelet clumping.

26.

When considering the use of a translator for a patient who does not speak English which of the following considerations is of the highest importance?

the translator has training in medical vocabulary for both languages

the translator speaks both languages well

the translator knows the patient's history

the translator is available onsite

Explanation:

The translator should have training in medical vocabulary for both languages because just speaking the languages well does not mean that the translator will adequately translate specialized vocabulary. It is not necessary for the translator to know the patient's history as the translator's job is only to translate what is said, not add to it or interpret it based on prior knowledge. While on-site translators are ideal, translation can be done with a speakerphone at a distance.

27.

Which of the following aneurysms would likely require immediate surgical repair?

a dissecting 6 cm aneurysm in the ascending aorta

a 3.5 cm saccular abdominal aneurysm

a 4 cm bulging thoracic aneurysm in the ascending aorta in a patient with Marfan's syndrome

a 5 cm fusiform abdominal aneurysm

Explanation:

A dissecting 6-cm aneurysm in the ascending aorta is a medical emergency and requires immediate repair. Abdominal aneurysm (saccular or fusiform) repair is often delayed until it reaches >5.5 cm unless an aneurysm is rapidly expanding in size. Thoracic aneurysm repair is also typically delayed until the aneurysm reaches >5.5 cm, but those with Marfan's syndrome may be advised to have surgery at 5 cm due to increased risk.

28.

A patient with a seizure disorder falls to the floor with a generalized (grand mal) seizure. Which of the following options is the most appropriate nursing action?

position the patient flat on his back and loosen his clothing

open the jaws and insert a padded tongue blade between the teeth

position the patient on one side with the head flexed forward

do not touch the patient until the seizure subsides

Explanation:

If a patient is having a generalized (grand mal) seizure, the nurse should try to position the patient on one side with the head flexed forward to allow the tongue to fall forward so that it doesn't obstruct the airway to prevent aspiration of saliva and mucus. Padding should be placed under the head to prevent injury from contact with a hard surface. The patient should not be restrained as this can cause injury. Clothing should be loosened and furniture moved out of the way. If the patient is in bed, the pillow should be removed and side rails raised.

29.

Angiotensin-converting enzyme (ACE) inhibitors are contraindicated with

hypertension.

diabetes mellitus.

heart failure.

renal failure.

Explanation:

ACE inhibitors are contraindicated with renal failure, as one of the most serious side effects is renal impairment, especially in patients also taking diuretics and NSAIDs. ACE inhibitors are commonly used to treat hypertension and heart failure. They are often combined with diuretics, such as thiazide for hypertension or Lasix® for heart failure. ACE inhibitors are sometimes given to those with diabetes mellitus to prevent diabetic neuropathy.

30.

The Health Insurance Portability and Accountability Act (HIPAA) regulates

the transfer of patients from one facility to another.

clinical trials.

workplace safety.

the rights of the individual related to privacy of health information.

Explanation:

The Health Insurance Portability and Accountability Act (HIPAA) addresses the rights of the individual related to privacy of health information. The nurse must not release any information or documentation about a patient's condition or treatment without consent, as the individual has the right to determine who has access to personal information, which is considered protected health information (PHI), including health history, condition, treatments in any form, and any documentation. Personal information can be shared with spouse, legal guardians, and those with durable power of attorney.

31.

A 24-year-old female developed hepatitis after eating contaminated food in a restaurant. Which form of hepatitis does she probably have?

fulminant hepatitis

hepatitis A

hepatitis B

hepatitis C

Explanation:

Hepatitis A is transmitted by the oral-fecal route, often from contamination on the hands or through sexual contact. Outbreaks have been traced to restaurants and kitchens in large facilities. Hepatitis B is transmitted through blood and body fluids, such as through sexual contact or sharing needles. Hepatitis C is transmitted directly through blood or items, such as shared needles contaminated with blood, and sexual contact. Fulminant hepatitis is an acute liver infection triggered by hepatitis or other viruses, toxins (carbon tetrachloride), Wilson's disease, and drugs, most commonly Tylenol ® (acetaminophen).

32.

A 48-year-old female patient has terminal ovarian cancer but states she believes her doctor has misdiagnosed her and that she wants to see a different doctor. Which stage of Elisabeth Kübler-Ross's stages of grief (death and dying) is she likely experiencing?

anger

denial

depression

bargaining

Explanation:

The patient is experiencing the stage of bargaining during which patient/family may change doctors, trying to change the outcome. People grieve individually and may not go through all stages, but most go through at least 2 stages. Kübler-Ross's 5 stages of grief include:

- *Denial: Disbelieving, confused, stunned, detached, repeating questions.*
- *Anger: Directed inward (self-blame) or outward.*
- *Bargaining: If- then thinking. (If I go to church, then I will heal.) Trying to find a different outcome.*
- *Depression: Sad, withdrawn, tearful, crying but beginning to accept loss.*
- *Acceptance: Resolution and acceptance.*

33.

A 76-year-old female with advanced Parkinson's disease develops cough, dyspnea, and wheezing. Rales are noted in the right lung, and a chest radiograph shows infiltrates in the right lung below the right bronchus. The most likely diagnosis is

foreign-body aspiration.

pulmonary edema.

pneumonia.

pulmonary embolism.

Explanation:

The most likely diagnosis is foreign-body aspiration. Patients with advanced Parkinson's disease often have dysphagia and are prone to aspiration. Foreign body aspiration can cause obstruction of the pharynx, larynx, or trachea, leading to acute dyspnea or asphyxiation, and the object may be drawn distally into the bronchial tree. With adults, most foreign bodies migrate more readily down the right bronchus. Objects in the bronchus cause cough, dyspnea, and wheezing.

34.

A patient who experienced an episode of severe chest pain and weakness 4 days earlier is undergoing diagnostic tests. Which test would provide the most accurate information to diagnose an MI after 4 days?

ECG

creatinine-kinase and isoenzyme (CK-MB)

myoglobin

troponin and its isomers (C, I, and T)

Explanation:

Troponin (protein in the myocardium) and its isomers (C, I, and T) regulate contractions, and levels increases as with CK-MB after an MI, but levels remain elevated for up to three weeks. An ECG is most helpful if taken immediately after an MI so heart changes over time can be monitored. Myoglobin levels increase in 1-3 hours after an MI and peak within 12 hours. CK-MB levels increase within a few hours and peak at about 24-27 hours (earlier with thrombolytic therapy or PTCA) for Q-wave MI and 12-13 hours for non–Q-wave MI.

35.

A patient is admitted to the unit after vomiting excessively for 4 days at home. The patient's serum pH is elevated, PCO_2 is relatively normal, and the urine pH is >6. The patient is dizzy, confused and is exhibiting tremors, seizures, tingling, tachycardia, arrhythmias, and hypoventilation. The patient is most likely exhibiting symptoms of

respiratory alkalosis.

metabolic alkalosis.

respiratory acidosis.

metabolic acidosis.

Explanation:

These symptoms are typical of metabolic alkalosis: Elevated serum pH, PCO_2 relatively normal (if compensated) or increased (if uncompensated), and urine pH >6 (if compensated). The patient is dizzy, confused, and is exhibiting tremors, seizures, tingling, tachycardia, and arrhythmias. Metabolic alkalosis occurs with decreased strong acid or increased base, with compensatory CO_2 retention by the lungs associated with hypoventilation. Metabolic alkalosis is usually caused by excessive vomiting, gastric suctioning, diuretics, potassium deficit, excessive mineralocorticoids, and/or excessive $NaHCO_3$ intake.

36.

A patient receiving chemotherapy for cancer has developed malnutrition and is receiving parenteral feedings, but the patient has developed abdominal discomfort, nausea, and diarrhea with resultant dehydration, hypotension, and tachycardia. What is the most appropriate action?

reduce the osmolality of the solution and then increase slowly

check tube placement

lower glucose content of solution

keep head of the bed elevated at all times

Explanation:

The correct action is to reduce the osmolality of the solution to prevent dumping syndrome. A concentrated solution with high osmolality can draw fluid into the stomach and intestines from the surrounding tissues and the blood, causing abdominal discomfort and fullness, nausea, and diarrhea, leading to dehydration and a drop in blood pressure and increased heart rate. Patients who are weak are more prone to dumping syndrome. Reducing the osmolality and gradually increasing it allows the body to adjust and relieves symptoms.

37.

Metabolic syndrome is characterized by

abdominal obesity, decreased triglyceride level, increased HDL level, and hypertension.

hypertension, abdominal obesity, and increased HDL level.

abdominal obesity, increased triglyceride level, decreased HDL level, and increased fasting blood glucose level.

hypotension, decreased fasting blood glucose level, increased triglyceride level, and decreased HDL level.

Explanation:

Metabolic syndrome (insulin resistance) puts people at risk for the development of diabetes mellitus and cardiovascular disease, and is characterized by abdominal obesity (>35 inches in women and >40 inches in men), increased triglycerides (≥150), decreased HDL level (<40 mmHg in men and <50 mmHg in women), elevation of blood pressure (≥130/≥85 mmHg), and increased fasting glucose (≥110 mg/dL). Other indicators include elevation of C-reactive protein (evidence of a proinflammatory state) and high levels of fibrinogen (evidence of a prothrombotic state).

38.

Janeway lesions, splinter hemorrhages, mucosal petechiae, and Roth's spots are most characteristic of which of the following cardiac disorders?

myocardial infarction

endocarditis

myocarditis

pericarditis

Explanation:

Endocarditis is characterized by Janeway lesions (painless areas of hemorrhage on the palms of the hands and soles of the feet), splinter hemorrhages on the nails, petechiae on the oral mucosa, and Roth's spots (hemorrhagic lesions on the retina caused by emboli on nerve fibers). Other symptoms include slow onset with low-grade or intermittent fever, anorexia, weight loss,

fatigue, anemia, splenomegaly, hepatomegaly, cyanosis and clubbing of fingers, CHF, heart murmur, and embolism to other body organs (brain, liver, bones).

39.

A patient with gastroenteritis has been diagnosed with severe dehydration (>15% fluid loss). Typical symptoms include

dry mouth and increased thirst.

dizziness, lethargy, reduced skin turgor, and orthostatic hypotension.

resting hypotension, confusion, tachycardia, and oliguria.

hypotension and anuria in addition to other symptoms.

Explanation:

Severe dehydration is fluid loss >15% and occurs when total body water decreases but sodium does not. It is characterized by marked hypotension and anuria as well as symptoms associated with lesser dehydration. Mild dehydration (5% loss) is characterized by dizziness, lethargy, reduced skin turgor, dry mucous membranes, and orthostatic hypotension. Moderate dehydration (10% loss) is characterized by confusion, resting hypotension, tachycardia, and oliguria/anuria. Dehydration may result from inadequate fluids, excess water loss, NG suctioning, drugs, diarrhea, vomiting, and fever.

40.

Neurogenic shock is often characterized by

tachycardia.

diaphoresis.

bradycardia.

hyperthermia.

Explanation:

Neurogenic shock is often characterized by bradycardia, hypotension, and warm dry skin related to lack of vascular tone that results in hypothermia from loss of cutaneous heat. Neurogenic shock can occur when spinal cord injury, neurological disease, drugs, or anesthesia impairs the autonomic nervous system that controls the cardiovascular system.

41.

Which of the following is an example of therapeutic communication?

“Don’t worry. Everything will be fine.”

“You should listen to your doctor.”

“Why are you upset?”

“Is there anything you’d like to discuss?”

Explanation:

Open-ended questions, such as “Is there anything you’d like to discuss?” encourage patients to express feelings. Nurses should avoid meaningless clichés, such as “Don’t worry. Everything will be fine,” as this may not be true, and should avoid providing direct advice with “You should…” or “The best thing to do is…,” but should provide facts and encourage patients to make decisions.

"Why are you upset?" questions behavior that may not directly relate to care and requires analysis of feelings.

42.

A patient with chronic ventilatory failure has PCO_2 >50 and pH <7.35 with dyspnea, cardiac arrhythmias, confusion, hyperkalemia, and hypotension: These findings are consistent with

respiratory acidosis.

respiratory alkalosis.

metabolic acidosis.

metabolic alkalosis.

Explanation:

Patients with chronic ventilatory failure cannot compensate for hypercapnia and the pH falls, resulting in respiratory acidosis. Symptoms include increasing dyspnea with tachypnea, gasping respirations, and use of accessory muscles. Patients may become confused as hypercapnia causes increased intracranial pressure. If pH is <7.2, cardiac arrhythmias, hyperkalemia, and hypotension can occur as pulmonary arteries constrict and the peripheral vascular system dilates. ABGs are consistent with respiratory acidosis (PCO_2 >50 and pH<7.35).

43.

The best time to initiate conflict resolution is

when those in conflict have had time to resolve their differences.

when conflict interferes with function.

when those involved ask for conflict resolution.

at the initial emergence of conflict.

Explanation:

The best time to initiate conflict resolution is when conflict first emerges, but before open conflict and hardening of positions. Steps include:

- *Allowing both parties to present their sides without bias.*
- *Encouraging operation through negotiation and compromise.*
- *Maintaining focus and avoiding arguments.*
- *Evaluating the need for renegotiation, formal resolution process, or third party.*
- *Utilizing humor and empathy to diffuse tension.*
- *Summarizing and outlining key arguments.*
- *Avoiding forcing resolution if possible.*

44.

A 75-year-old male patient had a stroke two months ago. He has left-sided paresis, left visual field defect, and impaired motor skills. His language skills are intact, but he behaves impulsively, has difficulty following directions, and suffers from short-term memory loss. His stroke most likely occurred in the

right hemisphere.

left hemisphere.

brain stem.

cerebellum.

Explanation:

These symptoms are typical of a stroke in the right hemisphere. A left hemispheric stroke results in right-sided paresis and visual field defect. Depression and cautious behavior is common. Patients have math and language difficulties that can include aphasia and difficulty with reading and writing. Patients may have short-term memory loss and difficulty learning new material. Brain stem stroke impairs cardiac and respiratory function and often results in death. Cerebellum stroke results in ataxia, nausea, vomiting, headache, and dizziness or vertigo.

45.

Which of the following disorders is medically treated with aspirin or other anti-inflammatory drugs, such as ibuprofen?

endocarditis

myocarditis

pericarditis

angina

Explanation:

Pericarditis is treated with anti-inflammatory drugs, such as aspirin or ibuprofen, activity restriction, and sometimes corticosteroids. Surgical intervention may include pericardiocentesis, which is removing fluid from the pericardial sac in order to relieve increasing pressure and to diagnose the causative agent. In some cases, a small opening may be made into the pericardium to allow continuous drainage of exudate into the chest cavity. In severe cases, the outer layer of the pericardium may be removed if it is preventing functioning of the ventricles.

46.

The “5 rights of delegation” include

right time, right place, right person, right direction, and right evaluation.

right person, right place, right time, right assignment, and right supervision.

right task, right time, right circumstance, right place, and right supervision.

right task, right circumstance, right person, right direction, and right supervision.

Explanation:

The “5 rights of delegation” include:

- *Task: The nurse determines as appropriate task to delegate for a specific patient.*
- *Circumstance: The nurse has considered all relevant information to determine the appropriateness of delegation.*
- *Person: The nurse chooses the right person based on education and skills to perform the task.*
- *Direction: The nurse provides a clear description of the task, purpose, limits, and expected outcomes.*
- *Supervision: The nurse can supervise, intervene as needed, and evaluate performance.*

47.

A 40-year-old female with type 1 diabetes presents with hyperventilation, dehydration with diuresis and increased thirst, and cardiac arrhythmias. Initial treatment will probably include

(Hyperstat®) to inhibit release of insulin.

(Glucose) for hypoglycemia and electrolyte therapy only for dehydration.

insulin therapy for ketoacidosis and fluid (non-glucose) and electrolyte replacement.

intravenous glucose solution for hypoglycemia.

Explanation:

This patient is exhibiting signs of ketoacidosis, so initial treatment will include insulin therapy per continuous infusion and fluid (non-glucose) and electrolyte therapy. Typical symptoms include Kussmaul respirations (hyperventilation with "ketone breath" to eliminate carbon dioxide), fluid imbalance with loss of potassium and other electrolytes from cellular death resulting in dehydration from diuresis with excess thirst, cardiac arrhythmias from potassium decline, and hyperglycemia (blood glucose 300-800 mg/dL).

48.

Parenteral nutrition with a total nutrient admixture that includes lipids has been ordered for a burn patient for administration throughout a 24-hour period. When preparing to administer the solution, the nurse observes that the oil has separated, forming an obvious layer. Which of the following options is the correct action to take?

administer the solution, as oil separation is normal

mix the solution by shaking the bag until no oil separation is noticeable

discard the solution

return the solution to the pharmacy for the addition of added emulsifier

Explanation:

The total nutrient admixture should be discarded if there is "cracking" of the lipid emulsion and the oil separates into a layer. With TNA, all the components of parenteral nutrition and lipids are admixed together in one container to create a 3-in-1 formula. Components of parenteral

nutrition generally include proteins, carbohydrates, fats, electrolytes, vitamins, sterile water, and trace vitamins. While most postoperative patients need 1500 calories per day to prevent protein breakdown, those with fever, burns, major surgery, trauma, or hypermetabolic disease may need up to 10,000 more calories daily.

49.

Which of the following tests is the most accurate in the diagnosis of myocarditis?

polymerase chain reaction (PCR) of biopsy specimen

echocardiogram

electrocardiogram

cardiac catheterization and biopsy

Explanation:

PCR of a biopsy specimen yields the most accurate diagnostic results for myocarditis. An echocardiogram may indicate cardiomegaly and defects in functioning. ECG changes may be non-specific. Cardiac catheterization and cardiac biopsy will yield confirmation in 65% of cases, but not all of the heart muscle may be affected, so a negative finding does not rule out myocarditis. Other tests include chest radiograph to indicate cardiomegaly or pulmonary edema and viral cultures of the nasopharynx and rectum to identify organism. Viral titres may increase with disease progression.

50.

A patient is admitted with an acute exacerbation of COPD. Under which of the following circumstances is theophylline indicated?

as first-line treatment to relieve dyspnea

after achieving no response from short-acting bronchodilators

before the administration of corticosteroids only

after no response is achieved from short-acting and/or long-acting bronchodilators or corticosteroids

Explanation:

Theophylline is usually not initiated with acute exacerbations unless there is no response to short-and/or long-acting bronchodilators or corticosteroids. Short-acting bronchodilators (albuterol) treat bronchospasm and airway obstruction but should be discontinued if ineffective. Long-acting bronchodilators (e.g. formoterol and salmeterol) are often more effective. Other treatments include inhaled and oral corticosteroids, supplemental oxygen, antibiotics if change in character of sputum, and chest physiotherapy.

51.

During the interdisciplinary team meeting, the leader stresses the importance of following the rules of the organization exactly. Of which style of leadership is this an example?

autocratic

consultative

participatory

bureaucratic

Explanation:

The leader who wants everyone to follow the organization's rules exactly is bureaucratic. Autocratic leaders make decisions independently and enforce rules while charismatic leaders rely on personal charm to influence and persuade. Consultative leaders present a decision and welcome input but rarely change decisions while participatory leaders present potential decisions but make final decisions based on input. Democratic leaders present the problem and ask teams to arrive at a solution. Laissez-faire leaders exert little control and allow staff to make decisions with little interference.

52.

A patient is scheduled for surgery for a defective aortic valve. Which of the following procedures is probably NOT indicated?

balloon valvuloplasty

ross procedure

aortic homograft

aortic valve replacement

Explanation:

Balloon valvuloplasty of the aortic valve is probably not indicated because aortic valves are tricuspid (3 leaflets) and repair is not typically possible, so defective valves must be replaced with mechanical (metal, plastic or pyrolytic carbon) or biological (porcine or bovine) xenografts. The Ross procedure uses the patient's pulmonary artery with the pulmonary valve to replace the aortic valve and part of the aorta and then uses a donor graft to replace the pulmonary artery. An aortic homograft uses a donor's aorta with the aortic valve attached.

53.

In evaluating outcomes of nutritional intervention for a patient with type 2 diabetes mellitus and a fasting blood sugar level of 130 mg/dL three months ago, which lab result best indicates dietary compliance?

fasting blood sugar of 106 mg/dL

hemoglobin A1c of 6.6%

hemoglobin A1c of 5.5%

fasting blood sugar of 150 mg/dL

Explanation:

Hemoglobin A1C of 5.5% most indicates dietary compliance. Hemoglobin AIC comprises hemoglobin A with a glucose molecule because hemoglobin holds onto excess blood glucose, so it shows the average blood glucose levels over a three-month period and is used primarily to monitor long-term diabetic therapy: Normal value: <6% and elevation >7%. Fasting blood sugar (FBS) results can vary widely but show current serum level, so a person who stays on a diet for a few days and fasts may show a near-normal FBS for a short period even though the patient is frequently non-compliant. Normal FBS: 70-99 mg/dL.

54.

A 62-year-old male with pancreatitis has received narcotic medications to reduce pain. He has increased nausea and vomiting and his abdomen becomes distended and uncomfortable. He has an absence of flatulence and bowel sounds. The most likely diagnosis is

bowel obstruction.

paralytic ileus.

bowel infarction.

short gut syndrome.

Explanation:

The patient most likely has developed paralytic ileus (paralysis of the bowel), which can result from infection (such as pancreatitis), narcotics, excessive manipulation during surgery, and prolonged anesthesia. Symptoms of bowel obstruction are similar but often more severe with abdominal rigidity, shock, respiratory distress, and sepsis. Bowel infarction causes acute abdomen and shock. Short gut (bowel) syndrome results from a malabsorptive condition after removal of part of the small intestine.

55.

A thoracentesis is often done with the patient sitting in the upright position. An alternate position for those unable to sit upright is

lying on the affected side with the head of the bed flat.

lying on the affected side with the head of the bed elevated to 30-45°.

lying on the opposite side with the head of the bed elevated to 20°.

lying on the opposite side with the head of the bed elevated to 30-45°.

Explanation:

A thoracentesis may be done with the patient lying on the opposite side with the head of the bed elevated 30-45° so that fluid remains at the base of the lung. The patient should avoid coughing or moving during the procedure. Placement is determined by chest x-ray or ultrasound. A local anesthetic is administered and a needle (with a 20-mL syringe and 3-way stopcock with tubing and a receptacle) is advanced intercostally into the pleural space to collect fluid. A pressure dressing is applied when needle is removed. A chest x-ray checks for pneumothorax.

56.

According to the ANA Nursing Code of Ethics, nurses must support a patient's autonomy and self-determination. If a 24-year-old Asian female patient states a treatment preference but plans to leave the decision to family members, the nurse should

try to convince the patient to assert herself.

recognize that cultural values regarding individualism vary and respect the patient's right to be guided by family.

tell the family that the patient should be the one to make the decision.

ask the ethics committee to intervene.

Explanation:

Under the ANA Nursing Code of Ethics, autonomy and self-determination are viewed within the broad context of diverse cultures. The idea of individualism is less important in some cultures, so the nurse must respect and appreciate the patient's right to be guided by her family. Trying to convince the patient to assert herself may just lead to emotional conflict. This is not an appropriate concern for the ethics committee, as the woman is not being forced to comply with family decisions but chooses to do so.

57.

A patient is receiving daily warfarin after treatment for atrial fibrillation. Which of the following may interfere with the drug's effectiveness?

one 8-ounce glass of red wine daily

caffeinated beverages

a daily multivitamin

milk products

Explanation:

Caffeinated foods (tea, coffee, and hot chocolate) may increase the effects of warfarin. Alcohol intake should be limited to no more than 3 drinks daily. A daily multivitamin should not affect warfarin, but some herbal medications can affect clotting time. Milk products should not affect warfarin, but foods that are high in vitamin K may affect the medication, and should be limited and eaten in consistent amounts. These include broccoli, green leafy vegetables (kale, turnip greens, and beet greens), cauliflower, and legumes as well as soybean and canola oils.

58.

A postoperative patient develops disseminated intravascular coagulation (DIC) with bleeding from operative and puncture sites, GI bleeding with distention and bloody diarrhea, petechiae, purpura, hypotension, and acute symptoms of shock. Expected laboratory findings include

decreased prothrombin and partial prothrombin times and increased platelet count and fibrinogen.

prolonged prothrombin and partial prothrombin times and increased platelet count and decreased fibrinogen.

prolonged prothrombin and partial prothrombin times and decreased platelet count and fibrinogen.

decreased prothrombin and partial prothrombin times and decreased platelet count and increased fibrinogen.

Explanation:

Laboratory abnormalities with DIC include prolonged prothrombin and partial prothrombin times and decreased platelet count and fibrinogen with fragmented RBCs. Treatment includes identifying underlying cause, blood replacement products, and anticoagulation therapy to increase clotting time, cryoprecipitate to increase fibrinogen levels, and coagulation inhibitors and coagulation factors.

59.

A 30-year-old patient complains of post-operative pain at 8 on a 1-to-10 scale 12 hours after surgery, but is not moaning, grimacing, or exhibiting any standard physical signs of pain. The patient last received pain medication 6 hours earlier, and has orders for morphine every 4 hours as needed and ibuprofen every 6 hours as needed. Which is the most appropriate action?

administer ibuprofen

administer morphine

administer ibuprofen, and if the patient does not feel relief after one hour post-dose, then administer morphine

question present family members about the patient's pain tolerance before making a decision

Explanation:

The nurse should give morphine, as 8 on a 1-10 scale is representative of severe pain, not uncommon in the first 24 hours after surgery. Patients have a right to pain control, and the nurse should trust that the pain is what the patient says it is. Patients may show very different behavior when they are in pain. Some may cry and moan with minor pain, and others may exhibit little difference in behavior when truly suffering. Thus, judging pain by behavior can lead to the wrong conclusions. Questioning family members is not appropriate.

60.

A 40-year-old female with terminal lung cancer develops an acute sudden change in consciousness, characterized by fluctuating symptoms of disorientation, confusion, audiovisual hallucinations, sleep disturbance, and memory disturbance. The most likely diagnosis is

delirium.

metastasis.

severe malnutrition.

electrolyte imbalance.

Explanation:

While all of these conditions may cause similar symptoms, the sudden onset and fluctuating nature indicate delirium. Delirium occurs in approximately 80% of terminally ill patients and may result from drugs, such as anticholinergics and hypnotics. Delirium may also occur with numerous other conditions, including infection, hypoxia, trauma, dementia, depression, hearing and/or vision loss, surgery, alcoholism, untreated pain, fluid/electrolyte balance, and malnutrition.

61.

A team leader is preparing for a team meeting. What is the best approach to an agenda?

prepare only a general agenda and add topics as needed during the meeting

prepare a detailed agenda of topics for discussion

ask for topics of discussion at the beginning of the meeting and prioritize and create an agenda at that time

prepare no agenda but have a free discussion

Explanation:

The leader should prepare a detailed agenda for topics of discussion before the meeting. Adding topics during the meeting just takes time and adds to the confusion. Asking for topics at the beginning of the meeting is time-consuming and can devolve into conflict and discussions that are non-productive. Free discussions may lead to topics of discussion but little time is left for dealing with issues.

62.

A patient is being treated for renal disease and exhibits the following: ventricular arrhythmia with increasing ECG changes, weakness with ascending paralysis and hyperreflexia, diarrhea, and increasing confusion. The patient is most likely suffering from

hyperkalemia.

hypokalemia.

hypocalcemia.

hypercalcemia.

Explanation:

Hyperkalemia often occurs with renal disease and is characterized by ventricular arrhythmia, weakness with ascending paralysis and hyperreflexia, diarrhea, and confusion. Hypokalemia is characterized by weakness, lethargy, nausea and vomiting, paresthesias, dysrhythmias (PVCs, flattened T waves), muscle cramps with hyporeflexia, hypotension, and tetany. Hypocalcemia is characterized by tetany, tingling, seizures, altered mental status, and ventricular tachycardia. Hypercalcemia is characterized by increasing muscle weakness with hypotonicity, constipation, anorexia, nausea and vomiting, and bradycardia.

63.

A 68-year-old male is 4 hours postoperative after percutaneous transluminal coronary angioplasty (PTCA) and complains of pain in the flank area. He is restless, tachycardic, and hypotensive, and his hemoglobin and hematocrit have dropped. Which of the following nursing actions is correct?

keep the head of the bed flat and apply pressure at the sheath site to stop bleeding

notify a physician immediately and anticipate ultrasound-guided compression and possible surgery to close fistula

notify a physician immediately and anticipate anticoagulation or thrombolytic therapy

notify a physician immediately, stop anticoagulation therapy, and anticipate need for intravenous fluids and/or blood

Explanation:

This PCTA patient is probably experiencing a retroperitoneal arterial bleed into the flank area, requiring cessation of anticoagulants and preparations for IV fluids and/or blood. Bleeding or hematoma at the sheath site is treated by laying the patient flat and applying pressure to the sheath site. Ultrasound-guided compression and surgery is indicated if pulsatile mass or bruit

occurs near insertion site, indicating pseudoaneurysm or arteriovenous fistula. Anticoagulation therapy is indicated for decreased circulation in extremity related to thrombus or embolus.

64.

After a spinal tap, the patient complains of severe headache, visual disturbances, and nausea. An autologous blood patch may be injected epidurally near the puncture site in order to

prevent infection.

relieve local pain at the puncture site.

plug the puncture hole in the dura.

reduce edema at the puncture site.

Explanation:

An autologous blood patch (15-20 mL) is injected epidurally near the subarachnoid puncture site to plug the puncture hole in the dura. Postdural puncture headache (frontal and/or occipital) results from loss of cerebrospinal fluid through the puncture hole, resulting in posterior displacement of the brain and stress on supporting structures. Headache onset is usually 12-48 hours after puncture but may be delayed for weeks or months. Conservative treatment includes bed rest, fluid, and caffeine.

65.

A 30-year-old male complains of frequent nosebleeds, abdominal pain, and nausea. He has burns on his fingers and a slight cough but no needle marks, and his pupils are constricted. He sniffs repeatedly because of nasal irritation. He has a slight fever and tachycardia, and he is malnourished. What substance has he likely been abusing?

cocaine

heroin

marijuana

methadone

Explanation:

These are signs of cocaine use, both inhaled (nasal irritation and nosebleeds) and smoked (lip burns, cough). Constricted pupils, headaches, and abdominal pain are common. Most abused drugs have similar symptoms. However, heroin users would have needle tracks and would not have nasal irritation. Marijuana users may exhibit tachycardia and cough from lung irritation (similar to tobacco smokers), but usually do not develop nasal irritation or nose bleeds. Methadone abuse can cause constricted pupils and abdominal pain, but does not cause nasal symptoms.

66.

A 35-year-old female recovering from chest surgery has a chest tube to a water seal (wet suction). In which chamber(s) is sterile fluid instilled?

into the first (collection) and third (wet suction) chambers

into the water seal chamber only to the 2 cm level

into the middle water seal chamber only

into the middle water seal and the third (wet suction) chambers

Explanation:

With the 3-chamber water seal (wet suction) system, the first chamber is for collection, and sterile water is instilled into the middle water seal and third wet suction chambers. With a 3-chamber dry water seal system, sterile fluid is instilled to the 2 cm level in the water seal chamber only. The 2-chambered dry suction system requires no fluid instillation.

67.

Which of the following increases the risk of ReoPro®-induced coagulopathy and is a contraindication for use?

previous stroke within three years

platelet count of 110,000 mm^3

recent warfarin therapy

history of angina

Explanation:

ReoPro ® (abciximab) is contraindicated with recent history of oral anticoagulation (warfarin), recent bleeding or stroke within the previous 2 years, or platelet count <100,000 mm^3. ReoPro ®is used to prevent cardiac ischemia for those undergoing percutaneous cardiac intervention, such as for angina. ReoPro ® inhibits the aggregation of platelets and is used with aspirin and/or weight-adjusted, low-dose heparin as it potentiates the action of anticoagulants. However, its use with non–weight adjusted longer-acting heparin can cause thrombocytopenia with increased risk of hemorrhage.

68.

The nurse should identify learner outcomes as part of the plan for an educational offering. An example of a learner outcome for teaching diabetics about insulin reaction is

identifying the different types of insulin.

listing and describing the symptoms of insulin reaction.

identifying foods high in carbohydrates.

explaining the difference between type 1 and type 2 diabetes.

Explanation:

The learner outcome for teaching a patient about insulin reaction should relate directly to that goal list and describe the symptoms of insulin reaction. While all of the other things (different types of insulin, foods high in carbohydrates, and the difference between type 1 diabetes and type 2 diabetes) are important, they don't relate to the topic and should not be the learner outcome for this activity. In some cases, one class or session may cover multiple topics with multiple outcomes, but a patient may be overwhelmed by too much information.

69.

A patient recovering from a coronary artery bypass graft (CABG) develops disorientation that progresses to agitation, hallucinations, and paranoia on the third postoperative day. Which of the following complications of cardiac surgery does this most likely suggest?

cardiac ischemia

stroke

pulmonary embolism

post-cardiotomy delirium

Explanation:

Disorientation, agitation, hallucinations, and paranoia are indications of post-cardiotomy delirium. These symptoms usually appear between 3 and 7 days after surgery, persisting for days or weeks. Neurological status should be evaluated carefully after surgery, especially in the first 48-72 hours when subtle changes may become evident. Mild sedation or haloperidol may relieve symptoms.

70.

Q-wave myocardial infarction is characterized by

ST-T wave changes with ST depression that reverses within a few days.

small infarct size-due to spontaneous reperfusion.

peak CK levels in 12-13 hours.

complete coronary occlusion in 80-90% of patients.

Explanation:

Q-wave myocardial infarction is characterized by complete coronary occlusion in 80-90% of patients. Abnormal Q waves (wider and deeper) are especially common in the morning. Infarction is usually prolonged, resulting in transmural necrosis. Peak CK levels occur in approximately 27 hours. Non-Q-wave myocardial infarction is characterized by ST changes with

ST depression. Infarct is typically non-transmural and small with coronary occlusion in only 20-30% of patients. Peak CK levels occur in approximately 12-13 hours.

71.

Oxygen concentration with nasal cannula delivery ranges from

24-44%.

50-64%.

70-84%.

90-100%.

Explanation:

Oxygen concentration with nasal cannula ranges from approximately 24-44% because it is not an airtight system; some ambient air is breathed in as well. While a nasal cannula can be used to deliver supplemental oxygen, it is only useful for flow rates ≤6 L/min as higher rates are drying of the nasal passages.

72.

Which of the following is NOT a barrier to systems thinking?

a holistic view of interrelationships within the organization

identification with role rather than purpose

reliance on past experience

feelings of victimization

Explanation:

A holistic view of relationships within the organization facilitates problem-solving along with an understanding of how structures, patterns, and events affect outcomes. Those who identify with role rather than purpose may have difficulty understanding the needs of others. Those who rely too much on past experience may be resistant to change, and a feeling of victimization makes people feel that the organization or leadership is to blame for their own personal shortcomings, and they feel there is nothing they can do to make changes.

73.

Pulse oximetry is continually monitored after cardiac surgery. Arterial oxygen saturation (SPO_2) levels should be maintained at

≥90%.

≥92%.

≥95%.

≥98%.

Explanation:

Oxygen saturation should be maintained at 95% although some patients with chronic respiratory disorders, such as COPD may have lower SPO_2. Results may be compromised by impaired circulation, excessive light, poor positioning, and nail polish. If SPO_2 falls, the oximeter

should be repositioned, as incorrect positioning is a common cause of inaccurate readings. Oximetry is often used post surgically and when patients are on mechanical ventilation.

74.

An 80-year-old female presents with a small pneumothorax upon the administration of a chest radiograph, but is not in acute distress. Which of the following treatments is the most appropriate?

chest-tube thoracostomy with underwater seal drainage

immediate needle decompression and chest-tube thoracostomy

catheter aspiration

administration of oxygen at 3-4 L/min and observation for 3-6 hours and repeat chest x-ray to monitor change

Explanation:

A small pneumothorax may resolve or stabilize, so the patient should receive oxygen and be observed for 3-6 hours. If there is no increase in size on a repeat x-ray, the patient may be discharged but asked to return for another x-ray in 24-48 hours. Chest-tube thoracostomy with underwater seal drainage is the most common treatment for all types of pneumothoraces. A tension pneumothorax requires immediate needle decompression followed by chest-tube thoracostomy.

75.

When evaluating cardiac output in a normal heart, a decrease in heart rate should cause the stroke volume to

increase.

decrease.

remain unchanged.

vary.

Explanation:

The heart rate is controlled by the autonomic nervous system, and in a normal heart a decrease in heart rate is usually compensated for by an increase in stroke volume. However, with cardiomyopathy, this may not occur, and bradycardia may cause a decline in cardiac output. Normal cardiac output is about 5 L/min at rest for an adult although this may multiply 3 or 4 times with exercise and stress, with resultant changes in the heart rate and stroke volume.

76.

The nurse is teaching a patient to manage tracheostomy care. The nurse has prepared written directions and a video, but the patient ignores them and picks up the pieces of equipment and looks at each part, trying to figure it out. The patient's learning style is most likely

auditory.

visual.

kinesthetic.

mixed.

Explanation:

Kinesthetic learners learn best by handling, doing, practicing and should be allowed to handle supplies/equipment with minimal directions. They benefit from demonstrating their understanding by doing the procedure. Visual learners learn best by seeing and reading and benefit from written directions, videos, diagrams, pictures, and demonstrations, whereas auditory learners learn best by listening and talking, so procedures should be explained during demonstrations. Auditory learners benefit from audiotapes and extra time for questions.

77.

A 70-year-old male with chronic cirrhosis and hepatic failure has developed portal hypertension. Which of the following is the most common complication of portal hypertension?

jaundice

blockage of the bile duct

hemorrhage of esophageal varices

abdominal distention

Explanation:

Hemorrhage of esophageal varices occurs in approximately one-third of those with portal hypertension and is the most common cause of death with cirrhosis. As the portal vein becomes obstructed increased pressure develops in vessels, especially in the lower esophagus and stomach, causing collateral vessels and varicosities to form. These collateral vessels are fragile and rupture easily. Jaundice, blockage of the bile duct and abdominal distention (ascites) occur with hepatic failure and are generally present prior to the development of portal hypertension.

78.

A patient experiences diuresis and dehydration after cardiac surgery, causing his preload to

increase.

decrease.

remain unaffected.

rapidly fluctuate.

Explanation:

Preload may decrease as a result of dehydration, diuresis, or vasodilation. Preload may increase as a result of increased venous return, controlling fluid loss, transfusions, or IV fluids. Preload refers to the amount of elasticity in the myocardium at the end of diastole when the ventricles are filled to their maximum volume and the stretch on the muscle fibers is the greatest. The preload value is based on the volume in the ventricles. The amount of preload (stretch) affects stroke volume because as stretch increases, the resultant contraction also increases (Frank-Starling Law).

79.

Acute renal failure resulting from sepsis is caused by

hypoperfusion and decreased glomerular filtration rate (GFR).

hemolysis with the broken down hemoglobin concentrating and precipitating in tubules.

damage to glomeruli or kidney tubules.

increased pressure in tubules and decreased GFR.

Explanation:

Acute renal failure resulting from prerenal disorders, such as sepsis MI, HF, anaphylaxis, and hemorrhage, is caused by hypoperfusion and decreased glomerular filtration rate. Intrarenal disorders, such as burns and crush trauma, release myoglobin and hemoglobin from tissues, causing toxicity and/or ischemia. Transfusion reactions result in hemolysis with precipitates in the tubules. Some medications, such as NSAIDs and ACE inhibitors may interfere with kidney function and cause hypoperfusion and ischemia. Postrenal disorders involve distal obstruction that increases pressure in tubules and decreases GFR.

80.

A patient is one-day postoperative following surgery for peripheral vascular disease. She is increasingly restless and develops a low-grade fever, hiccups, dyspnea, cough, tachycardia, and chest pain. Which of the following diagnoses is the most likely?

atelectasis

myocardial infarction

pulmonary embolism

pneumonitis

Explanation:

This patient is exhibiting signs of pulmonary embolism. While clinical manifestations vary according to the size of the embolus and area of occlusion, common symptoms include dyspnea with tachypnea, cough (sometimes with hemoptysis), rales, and chest pain. Other signs include hiccups, tachycardia, hemodynamic instability, anxiety, restlessness and fever. ABG analysis shows hypoxemia (↓PaO_2), hypocarbia (↓$PaCO_2$) and respiratory alkalosis (↑pH). D-dimer shows elevation (>500 ng/mL).

81.

A nursing team leader delegates a task to an unlicensed assistive member of the personnel. Who is responsible for patient outcomes?

the unlicensed person who completes the task

both the team leader and the unlicensed person who completes the task

the team leader who delegates the task

the administrative staff

Explanation:

The nurse who delegates remains accountable for patient outcomes and for supervision of the person to whom the task was delegated. The scope of nursing includes delegation of tasks to unlicensed assistive personnel, providing those personnel have adequate training and knowledge. Delegation can be used to manage the workload and to provide adequate and safe care. Delegation should be done in a manner that reduces liability by providing adequate communication.

82.

Thoracic electrical bioimpedance monitoring with 4 sets of bioimpedance electrodes and 3 ECG electrodes is used to evaluate hemodynamic status of a postsurgical cardiac patient. Where are the bioimpedance electrodes placed?

one set on the arms, one set on the legs, and one set on the sides of the chest.

two sets bilaterally at the base of the neck and two sets on each side of the chest.

one set on the legs and three sets on each side of the chest.

one set on the arms, one set bilaterally at the base of the neck, and two sets on each side of the chest.

Explanation:

Two sets of bioimpedance electrodes are placed bilaterally at the base of the neck and then two sets on each side of the chest. ECG leads are placed where they consistently monitor the QRS signal, and they may need to be moved to achieve this. Chest electrodes measure changes in electrical output associated with the volume of blood through the aorta and its velocity. The monitor converts the signals to waveforms. The heart rate is shown on an ECG monitor. The equipment calculates the cardiac output based on the heart rate and fluid volume.

83.

A 50-year-old man dying of cardiovascular disease is Catholic and asks to take final communion even though it is 2:00 am. The nurse should

contact the patient's priest or a priest on call for the institution and ask him to come right away.

tell the patient that no priest is available.

ask the patient if he would be willing to see the Protestant chaplain who is on call.

tell the patient the priest will be called at 7:00 am.

Explanation:

The nurse should attend to the spiritual needs of the patient by calling a priest even though the hour is not convenient. A Protestant chaplain cannot perform specific rituals that are important to Catholics, and the patient may not survive or be able to receive communion if the call is delayed. Catholic rituals include:

- *Sacrament of the Anointing of the Sick: This replaces the last rites (Extreme Unction) and is a bedside blessing.*
- *Viaticum: This is essentially the "last" Holy Communion and is called the "food for the journey."*

84.

A 52-year-old female with a history of bipolar disease is one-day post-operative following a hip replacement. The patient slept only one or two hours during the night and is speaking rapidly, throwing her belongings at the nurses, and insisting she is going to leave the hospital against medical advice. The nurse should notify

the mental health crisis team.

social services.

a home health agency.

the patient's husband.

Explanation:

The nurse should call the mental health crisis team. Crisis teams are comprised of mental health professionals. The teams are typically available to non-psychiatric units in order to evaluate the mental status of a patient. In this case, the patient is most likely experiencing an exacerbation of her bipolar disease as a result of the stress related to surgery, and could irreparably damage her surgical repair, so the crisis team will determine whether the patient is a danger to herself or others and whether she should remain hospitalized for treatment.

85.

If all patients who develop urinary infections are evaluated per urine culture and sensitivities for microbial resistance, but only those with clinically-evident infections are included, then those with subclinical infections may be missed, skewing results. This is an example of

information bias.

selection bias.

hypothesis testing.

generalizability.

Explanation:

Selection bias occurs when the method of selecting subjects results in a cohort that is not representative of the target population because of inherent error in design. Information bias occurs when there are errors in classification, so an estimate of association is incorrect. A hypothesis should be generated about the probable cause based on the information available in laboratory and medical records, epidemiologic study, literature review, and expert opinion. Hypothesis testing includes data analysis, laboratory findings, and outcomes of testing. Generalizability is when results of research are true for similar populations.

86.

A 28-year-old male with extensive second and third-degree burns develops abdominal discomfort and vomits coffee ground emesis and frank blood. The most likely cause is

a peptic ulcer.

the erosion of the esophagus from burns.

paralytic ileus.

stress-related erosive syndrome.

Explanation:

Stress-related erosive syndrome (SRES), or stress ulcers, occur most frequently in those who are critically ill, such as those with severe or multi-organ trauma, mechanical ventilation, sepsis, severe burns, and head injury with increased intracranial pressure. Stress induces changes in the gastric mucosal lining and decreased perfusion of the mucosa, causing ischemia. SRES involves hemorrhage in ≥30% of patients with mortality rates of 30-80%. The lesions tend to be diffuse, so they are more difficult to treat than peptic ulcers. Symptoms include coffee ground emesis, hematemesis, and abdominal discomfort.

87.

Beck's triad (increased central venous pressure with distended neck veins, muffled heart sounds, and hypotension) is indicative of which condition?

myocardial infarction

aortic valve prolapse

cardiac tamponade

pulmonary embolism

Explanation:

Beck's triad (increased central venous pressure with distended neck veins, muffled heart sounds, and hypotension) is commonly found with cardiac tamponade. Other symptoms may include a feeling of pressure or pain in the chest as well as dyspnea, and pulsus paradoxus >10 mmHg (systolic blood pressure heard during exhalation but not during inhalation). Cardiac tamponade occurs with pericardial effusion in which fluid accumulates in the pericardial sac

causing pressure against the heart. It may be a complication of trauma, pericarditis, cardiac surgery, or heart failure.

88.

Two months after an ischemic stroke, a patient has difficulty understanding and producing language in speaking, reading, and writing but can understand gestures, pictures, and diagrams. This type of aphasia is

global.

transient.

Broca's.

Wernicke's.

Explanation:

Aphasia is the loss of ability to use and/or understand written or spoken word because of damage to speech centers in the brain. Global aphasia is characterized by difficulty understanding and producing language but patients may understand gestures, pictures, and diagrams. Transient aphasia is short lasting, and often related to transient ischemic episodes. Broca's aphasia is characterized by the ability to understand, but difficulty producing language. Wernicke's aphasia is characterized by difficulty understanding language but ability to understand gestures and produce language.

89.

A patient with kidney failure exhibits tachycardia, muscle cramping, hyperreflexia, tetany, nausea, and diarrhea. The most likely cause is

hypercalcemia.

hyperkalemia.

hypernatremia.

hyperphosphatemia.

Explanation:

Hyperphosphatemia occurs with renal failure as well as hypoparathyroidism, excessive intake, neoplastic diseases, diabetic ketoacidosis, muscle necrosis, and chemotherapy and is associated with hypocalcemia. Symptoms of hyperphosphatemia include tachycardia, muscle cramping, hyperreflexia, tetany, nausea, and diarrhea. Treatment includes identifying and treating underlying cause, correcting hypocalcemia, and providing antacids and dialysis.

90.

A patient with a recent diagnosis of Parkinson's disease has exhibited positive symptom control from medications but develops mood changes, loss of interest in usual activities, loss of appetite and weight, fatigue, anxiety and insomnia. The most likely cause is

concern over the condition.

depression.

Parkinson's dementia.

inadequate medical control of Parkinson's disease.

Explanation:

The most likely cause is depression caused by medications used to treat Parkinson's disease. Other drugs that can precipitate depression include estrogen, corticosteroids, cimetidine, hydralazine, propanolol, digitalis, and indomethacin. Because the onset develops shortly after beginning therapy, the medication is more likely to blame than concern over condition. Parkinson's dementia usually develops later, and the patient's Parkinson's symptoms are well controlled by the medication.

91.

A patient with pulmonary arterial hypertension most likely has hypertrophy of the

right atrium.

right ventricle.

left atrium.

left ventricle.

Explanation:

Pulmonary arterial hypertension (PAH) may result in right ventricular hypertrophy. Typically, the pulmonary vasculature adjusts easily to accommodate blood volume from the right ventricle. If there is increased blood flow, the low resistance causes vasodilation and vice versa. However, sometimes the pulmonary vascular bed is damaged or obstructed, and this can impair the ability to handle changing volumes of blood. In that case, an increase in flow will increase the pulmonary arterial pressure, increasing pulmonary vascular resistance (PVR). This in turn, increases pressure on the right ventricle (RV) with increased RV workload, and eventual RV hypertrophy with displacement of the intraventricular septum and tricuspid regurgitation. Over time, this leads to right-sided heart failure and death.

92.

A patient with acute lung injury has crackling rales, tachypnea, and cyanosis. Oxygen therapy is instituted to maintain oxygen saturation at

≥85%.

>90%.

>95%.

≥98%.

Explanation:

Acute lung injury results in severely compromised lungs with crackling rales and wheezing, decreased pulmonary compliance, and cyanosis, so oxygen therapy is provided to maintain oxygen saturation >90%. Oxygen should be administered at 100% because of the mismatch between ventilation (V) and perfusion (Q), which can result in hypoxia upon change in positioning. Endotracheal intubation may be needed if oxygen saturation falls or carbon dioxide levels rise.

93.

A patient with ventricular tachycardia (VT) at 200 bpm and multiple PVCs loses consciousness. Which of the following treatment options is most commonly administered?

antiarrhythmic medications

emergency defibrillation

digoxin

procainamide

Explanation:

Emergency defibrillation is typically performed with VT and unconsciousness. Ventricular tachycardia is associated with ≥3 PVCs in a row and a ventricular rate of 100 to 200 bpm. The rapid rate of contractions makes VT dangerous as the ineffective beats may render the person unconscious with no palpable pulse. A detectable rate is typically regular and the QRS complex is ≥ 0.12 second and (often) abnormally shaped. The P wave may be undetectable with an irregular PR interval if the P wave is present. The P: QRS ratio is difficult to ascertain if the P wave is missing.

94.

After cardiac catheterization and removal of the sheath from the femoral artery, a manual compression device is applied and usually inflated to

the patient's current systolic pressure.

20 mmHg above the patient's diastolic pressure.

20 mmHg below the patient's systolic pressure.

20 mmHg above the patient's systolic pressure.

Explanation:

After cardiac catheterization and removal of the sheath, pressure must be applied for 5-10 minutes to prevent bleeding and hematoma formation. A manual compression device is applied by a belt around the hips with a pad over the insertion site and then inflated to 20 mmHg above the patient's systolic pressure in order to promote hemostasis. Digital compression may also be

used. Sometimes lidocaine is administered at the site to relieve discomfort, but this may result in a vasovagal response, so atropine (0.6-1.0 mg IV) should be available.

95.

A patient presents with acute bronchitis with moist productive cough associated with dyspnea, crackling rales, and expiratory high-pitched sibilant wheeze but no fever, and normal white count. The proper treatment includes

bronchodilators and antibiotics to prevent bacterial infection.

antibiotics and a cough suppressant.

bronchodilators and a cough suppressant.

antibiotics and antihistamines.

Explanation:

The best treatment for bronchitis includes bronchodilators and cough suppressant. Because most cases of acute bronchitis are caused by viruses and are self-limiting in 2 to 3 weeks, antibiotics should be avoided unless signs of infection, such as prolonged fever, elevated WBC, or change in character of sputum, occur. Antihistamines may be used for those with allergic triggers. In adults, the most common viral triggers are influenza virus, adenovirus, and respiratory syncytial virus (RSV).

96.

A legal document that specifically designates someone to make decisions regarding medical and end-of-life care for mentally incompetent patients is a(n)

advance directive.

Do-Not-Resuscitate order.

durable power of attorney.

general power of attorney.

Explanation:

The legal document that designates someone to make decisions regarding medical and end-of-life care if a patient is mentally incompetent is a durable power of attorney. This is a type of advance directive, which can include living wills or specific requests of the patient regarding treatment. A do-not-resuscitate order indicates that the patient does not want resuscitative treatment for terminal illness or condition. A general power of attorney allows a designated person to make decisions for a person over broader areas, including financial.

97.

A 28-year-old diabetic patient has had severe stomach flu rendering him unable to eat solid foods for three days, but has continued to take his regular dose of insulin. He presents with altered consciousness, lethargy, diaphoresis, tremor, tachycardia, and palpitations. Based on his symptoms, his blood glucose level is probably

101-120 mg/dL.

81-100 mg/dL.

70-80 mg/dL.

<70 mg/dL.

Explanation:

This patient exhibits signs of hypoglycemia. Symptoms are usually evident when blood glucose falls below 70 mg/dL. Hypoglycemia almost always results from treatment for diabetes mellitus, such as the use of insulin. In this case, hypoglycemia relates to too much medication (insulin or oral medications) and inadequate nutritional intake. Excessive exercise, illness, and infections that burn glucose stores can also result in hypoglycemia. Because the brain requires glucose to function, an inadequate supply of glucose can affect the central nervous system.

98.

On an electrocardiogram, ischemia is characterized by

elevation of the ST segment and elevated symmetrical T waves.

inverted T wave.

development of Q or QS waves.

abnormal Q wave or decreased elevation of the R wave without alterations of ST and T waves.

Explanation:

Ischemia is characterized by inverted T-waves. As the cardiac muscle is damaged, the ST segment is elevated with elevated symmetrical T-waves. With a Q-wave myocardial infarction, Q or QS-waves develop as repolarization is altered or absent. Changes in the Q-wave are often permanent, so an old MI is evidenced by abnormal Q-wave or decreased elevation of the R-wave without alterations of ST and T-waves. Non–Q-wave myocardial infarction does not cause Q-wave changes.

99.

A patient has severe status asthmaticus and is being evaluated for mechanical ventilation. Which is an absolute indicator of the need for intubation and ventilation?

bradycardia and absent pulse paradoxus

central cyanosis

sharply diminished breath sounds and no audible wheezing

exhaustion/muscle fatigue from exertion of trying to breathe

Explanation:

Bradycardia and absence of pulsus paradoxus are absolute indicators of the need for intubation and mechanical ventilation with status asthmaticus because these indicate imminent respiratory arrest. Additional absolute indicators include marked depression, cardiac and/or pulmonary arrest and severe hypoxia and/or apnea. Other symptoms are evaluated on an individual basis and include central cyanosis, sharply diminished breath sounds, exhaustion, deteriorating mental status, dysphonia, PaO_2 <70 mmHg on 100% O_2, pulse paradoxus >20-40 mmHg, ↑ hypercapnia, metabolic/respiratory acidosis, and pH <7.20.

100.

Which heart sound indicates atrial gallop, often associated with left ventricular hypertrophy, hypertension, or aortic stenosis?

S1

S2

S3

S4

Explanation:

S4 is an extra beat (atrial gallop) occurring just prior to S1, producing a triple "Tennessee" rhythm. It is often associated with left ventricular hypertrophy, hypertension, or aortic stenosis. S1 and S2 are normal heart sounds. S1 indicates the onset of systole with closure of both the tricuspid and mitral valves. S2 is the end of systole and indicates closure of the pulmonary and aortic valves. S3 is an extra beat producing a triple rhythm ("Kentucky") and indicates decreased ventricular compliance, often related to left ventricular failure and mitral regurgitation.

101.

The first sign of Alzheimer's disease is typically

long-term memory loss.

social withdrawal.

short-term memory loss.

confusion and disorientation.

Explanation:

The first sign of Alzheimer's disease is typically short-term memory loss with forgetting of words and misplacement of items. Social withdrawal occurs later with some loss of long-term memory. As the brain continues to atrophy with shrinkage in the cerebral cortex and hippocampus, patients become increasingly confused and disoriented, often forgetting their address and telephone number, and dressing inappropriately, as well as forgetting to eat. This is often followed by profound personality changes and severe cognitive decline in which patients become wheelchair-or bed-bound, incontinent, and unable to speak or sit up.

102.

A 40-year-old female with chronic asthma is admitted with an acute episode of wheezing and dyspnea. Her medications include a course of oral corticosteroid (prednisone) followed by inhaled corticosteroids. How many days is the patient likely to receive oral corticosteroids?

- **≤5 days**
- 7 days
- 10 days
- 14 days

Explanation:

Because of numerous side effects, glucocorticosteroids are administered orally or parentally for 5 days (prednisone, prednisolone, methylprednisolone) and then switched to inhaled steroids. If a person receives oral/parenteral glucocorticoids for longer periods, then dosages may need to be tapered. Inhaled corticosteroids include beclomethasone (Vanceril ®), budesonide (Pulmicort ®) and fluticasone propionate (Flovent ®). Corticosteroids provide anti-inflammatory action by inhibiting immune responses, decreasing edema mucus, and hyperresponsiveness.

103.

The normal blood, urea, nitrogen (BUN)/creatinine ratio is

- 5:1.
- 8:1.

10:1.

20:1.

Explanation:

The normal BUN/creatinine ratio is 10:1. Normal serum creatinine is 0.6-1.2 mg/dL and increases with impaired renal function, urinary tract obstruction, and nephritis. Levels should remain stable with normal functioning. Normal blood urea nitrogen (BUN) is 7-8 mg/dL for patients younger than age 60, and 8-20 mg/dL for patients 60 years of age and older. BUN increases with hypovolemia. The ratio remains normal with intrinsic kidney disease but both the BUN and creatinine levels are increased.

104.

Anticoagulation therapy should be given prior to

emergency defibrillation.

direct current cardioversion.

both direct current and chemical cardioversion.

chemical cardioversion.

Explanation:

Anticoagulation therapy is given prior to direct current cardioversion and in most cases prior to chemical cardioversion as well. There is no time to start anticoagulation when emergency defibrillation is needed. With fibrillation, blood clots may form within the heart, and when the pulse rate converts to normal, these clots can travel, increasing risk of heart attack or stroke, so

the patient is usually maintained on anticoagulation (commonly warfarin) for up to 6 months after cardioversion.

105.

Atrial-septal defect is characterized by

shunting of blood returning from the lungs through the left atrium back to the right atrium and pulmonary circulation.

left to right shunt, increased pulmonary hypertension and right-sided heart failure.

right ventricular hypertrophy from increased pressure in the right ventricle and decreased pulmonary blood flow.

left ventricular wall hypertrophy as it increases pressure to overcome valvular resistance.

Explanation:

Atrial septal defect is characterized by shunting of blood returning from the lungs through the left atrium back to the right atrium, and pulmonary circulation. Ventricular septal defect is characterized by left to right shunt and with Eisenmenger's syndrome (in 10%) causing increased pulmonary hypertension and right-sided heart failure. Pulmonic stenosis causes right ventricular hypertrophy from increased pressure in right ventricle and decreased pulmonary blood flow. Aortic stenosis causes left ventricular wall hypertrophy as pressure increases to overcome valvular resistance.

106.

Which of the following is an appropriate action to assess the fifth cranial nerve?

lightly stroke the forehead, cheek, and jaw, have the patient open the mouth, and palpate the

muscles for size and strength

using a penlight, check the eyes for size, shape, reaction to light and accommodation

have the patient follow a moving finger with his eyes on the vertical plane

check balance with tandem gait and Romberg's test and hearing with Weber's test and Rinne's test

Explanation:

The fifth cranial nerve (trigeminal) is tested by lightly stroking the forehead, cheek, and jaw and having the patient open the mouth. The muscles of the jaw should be palpated for size and strength. The third cranial nerve (oculomotor) is checked with a penlight while the fourth cranial nerve (trochlear), which examines eye muscles (upward movement), is checked by having the eyes follow a moving finger vertically. The eighth cranial nerve (vestibulocochlear) is assessed for balance and hearing.

107.

The best method to evaluate a patient's educational outcomes related to being taught a procedure is to

ask the patient for feedback.

ask the patient to do a demonstration.

give the patient an oral test.

give the patient a written test.

Explanation:

The best method to evaluate a patient's educational outcomes related to being taught a procedure is to ask the patient to do a demonstration. Patient feedback isn't a reliable indicator of ability to perform. Tests, whether oral or written, can identify what a patient knows and may be appropriate for testing general knowledge about a subject (such as diet), but knowing and doing are different skills, so demonstration is critical and allows the nurse to provide feedback or additional training if needed.

108.

A patient has a tracheostomy and requires regular suctioning. What vacuum pressure is appropriate for suctioning a tracheostomy tube?

40-60 mmHg

60-80 mmHg

80-100 mmHg

100-120 mmHg

Explanation:

Vacuum pressure for suctioning a tracheostomy tube is 80-100 mmHg. The suction catheter should be 50% the size of the tracheostomy tube in order to allow ventilation during suctioning, and the catheter should be only inserted ≤ 0.5 cm beyond the tube to avoid damage to tissues or perforation. The catheter should be inserted without suction and intermittent suction used on withdrawal. The patient must have continuous monitoring of vital signs and respiratory status to ensure patency of tracheostomy.

109.

A patient receiving unfractionated heparin therapy develops a sudden drop in platelet count to 45,000 mm^3 from a baseline of 120,000 mm^3 after 5 days of treatment, suggesting heparin-induced thrombocytopenia. The patient is at risk for

hemorrhage.

thrombosis and vessel occlusion.

shock.

infection.

Explanation:

Heparin-induced thrombocytopenia can cause a thrombosis syndrome that puts the patient at increased risk of thrombosis and vessel occlusion rather than hemorrhage. Because the drop in platelet count is to below 50,000 mm^3, this indicates this is type II (rather than transient type I), an auto immune reaction to heparin, which causes heparin-antibody complexes to form and release platelet factor 4, which in turn attracts heparin molecules and adheres to platelets and endothelial lining, stimulating thrombin and platelet clumping. Discontinuation of the heparin and treatment with direct thrombin inhibitors (Lepirudin, Argatroban®) is indicated.

110.

With hypovolemic shock, absolute fluid loss caused by hemorrhage with loss of 30-40% of total circulating volume (1500-2000 mL) and heart rate >120 with hypotension is classified as

class I.

class II.

class III.

class IV.

Explanation:

This indicates class III hypovolemic shock. Hypovolemic shock occurs with inadequate intravascular fluid. The loss may be absolute, caused by internal shifting of fluid or external loss of fluid. Loss may also be relative, related to vasodilation, increased capillary membrane permeability from sepsis or injuries, and decreased colloidal osmotic pressure. Hypovolemic classifications include:

- *Class I: <750 mL or ≤15% of total circulating volume (TCV). HR <100, BP normal.*
- *Class II: 750-1500 mL or 15%-20% of TCV. HR >100, BP normal.*
- *Class III: 1500-2000 mL or 30%-40% of TC. HR >120, BP decreased.*
- *Class IV: >2000 mL or >40% of TCV. HR >140, BP decreased.*

111.

A patient requires a non-rebreather mask. What action must be completed first?

fit the mask over the nose and mouth

position the elastic strap used to secure the mask

inflate the reservoir to approximately 1 liter with oxygen at 8-15 L/min

install the one-way valve

Explanation:

A 1.5-L reservoir bag is attached and connects to the oxygen source. The bag is inflated to about 1 liter at the rate of 8-15 L/min before the mask is applied as the patient breathes from

this reservoir. A one-way valve is part of the mask and prevents most exhaled air from being rebreathed. The non–rebreather mask can be used to deliver higher concentrations (60%-90%) of oxygen. The mask fits over the nose and mouth and is secured by an elastic strap.

112.

The jugular venous pulse can be used to assess

right atrial function.

left atrial function.

right ventricular function.

left ventricular function.

Explanation:

The jugular venous pulse, observing the right internal jugular vein, can be used to assess right atrial function. The "a" wave that occurs with the atrial contraction can be observed in the internal jugular vein preceding the carotid pulsation. The "v" wave, after the carotid pulsation, occurs with atrial filling. The "a" wave is absent in atrial fibrillation. Large "a" waves indicate obstructed atrial blood flow. Very large (cannon) "a" waves may indicate closed tricuspid valve, AV block, junctional bradycardia, SVT, and VT. Large "v" waves occur with incompetent tricuspid valve.

113.

A patient receives conscious sedation for a procedure with midazolam and fentanyl. Onset of sedation with midazolam occurs

in 1-5 minutes.

in 6-10 minutes.

in 11-15 minutes.

immediately.

Explanation:

Midazolam (Versed ®) is a short-acting water-soluble sedative with onset of 1-5 minutes, peaking in 30 minutes, and duration of about an hour (although it may last up to 6 hours). Fentanyl is a short-acting opioid with immediate onset, peaking in 10-15 minutes and with duration of about 20-45 minutes. The fentanyl/midazolam combination provides both sedation and pain control. In most cases, conscious sedation requires 6 hours of fasting prior to administration.

114.

A myocardial infarction usually causes damage to the myocardium, progressing from the endocardium to the epicardium. The first stage in myocardial damage is

formation of zone of ischemia.

formation of zone of necrosis.

formation of zone of injury.

decreased perfusion from hypotension.

Explanation:

An MI causes damage to the myocardium in stages beginning when ischemia develops, creating a zone of ischemia with viable cells. Cellular injury then occurs to those cells surrounding the infarcted area in the zone of injury. Infarction with necrosis of tissue comprises the zone of infarction, where cells are destroyed and eventually replaced with scar tissue. People may exhibit either hypertension or hypotension during an MI.

115.

When doing research, which of the following sources are NOT valid?

juried medical journal

popular press report

professional physician's association

chief of medical staff

Explanation:

Popular press, including both print and other media (television, Internet) is not a valid source of information. Juried medical journals and professional physician's associations are valid because they present information based on research and best practices. Physicians on staff may also provide valid information, but should not be relied on solely as they may have bias.

116.

A patient requires a 12-lead electrocardiogram. Where is the V4 precordial lead placed?

right sternal border at the 4^{th} intercostal space

left sternal border at the 4th intercostal space

midway between V5 and V3

left midclavicular line at the 5th intercostal space

Explanation:

V4 is placed at the left midclavicular line. The standard 12-lead ECG gives a picture of electrical activity from 12 perspectives through placement of 10 body leads. Four limb leads are placed distally on the wrists and ankles (but may be placed more proximally if necessary).

Precordial leads:

- *V1 right sternal border at 4th intercostal space*
- *V2 left sternal border at 4th intercostal space*
- *V3: midway between V2 and V4*
- *V4 left midclavicular line at 5th intercostal space*
- *V5 horizontal to V4 at left anterior axillary line*
- *V6 horizontal to V5 at left midaxillary line*

117.

Electrocardiograph changes characteristic of hypokalemia include

peaked T waves with widening and increased amplitude of QRS and prolongation of the QT interval.

U wave more than 1 mm high after the T wave, AV block, and flat or inverted T waves.

dysrhythmias with prolonged PR and QT intervals and broad, flat T waves.

nonspecific changes.

Explanation:

A U-wave more than 1 mm high after the T-wave, AV block, and flat or inverted T-waves, are characteristic of hypokalemia. Tall, peaked T-waves with widening and increased amplitude of QRS and prolongation of the QT interval are characteristic of hyperkalemia. Dysrhythmias with prolonged PR and QT intervals and broad, flat T-waves are characteristic of hypomagnesemia. Other electrolyte imbalances are not reflected by specific ECG changes although hypermagnesemia can lead to cardiac arrest and hypercalcemia can cause dysrhythmias (similar to those of digitalis toxicity).

118.

Which of the following diagnoses is characterized by marked elevations of blood pressure that can cause severe organ damage if left untreated?

aortic aneurysm

primary hypertension

secondary hypertension

hypertensive crisis

Explanation:

Hypertensive crisis is marked elevation of blood pressure that can cause severe organ damage if left untreated. It may be related to either primary or secondary hypertension, dissection of aortic aneurysm, pulmonary edema, CNS disorders, eclampsia, and failure to take medications correctly. Hypertension emergency (>120 mm Hs diastolic) requires immediate treatment to prevent organ damage. Hypertensive urgency requires treatment within a few hours, but organs are not in immediate danger. BP is lowered more slowly to avoid hypotension and organ

ischemia (1/2 reduction in 6 hours, 1/3 reduction in the next 24 hours, and 1/3 reduction over 2-4 days).

119.

Which of the following vasodilators primarily dilates coronary arteries and is used to treat angina and supraventricular tachycardia?

diltiazem (Cardizem®)

capoten (Captopril®)

nitroglycerine

sodium nitroprusside (Nipride®)

Explanation:

Diltiazem (Cardizem ®) is a calcium channel blocker that primarily dilates coronary arteries. Capoten (Captopril ®) is an ACE inhibitor that primarily causes peripheral vasodilation and is used to decrease afterload and preload for heart failure. Nitroglycerine, a smooth muscle relaxant, primarily dilates veins and reduces preload for heart failure, unstable angina, and acute MI. Sodium nitroprusside (Nipride ®), another smooth muscle relaxant, dilates both arteries and veins, treats hypertension, and reduces afterload for heart failure.

120.

A newly hired nurse is assisting her team leader, who is preparing to insert an IV catheter. The team leader drops the sterile catheter onto the bed linens and then picks up the contaminated catheter and continues to prepare for insertion. Which of the following responses is the most appropriate for the newly hired nurse?

wait until the team leader finishes the procedure and ask why she used the contaminated catheter

report the team leader's behavior to a supervisor after the catheter is inserted

say nothing to anyone, as the linens were clean

immediately say: "The catheter was contaminated when it fell. Would you like me to get another setup or stay with the patient while you get it?"

Explanation:

As an advocate for the patient, the nurse must prevent possible injury to a patient: "The catheter was contaminated when it fell," states the problem. "Would you like me to get another setup or stay with the patient?" suggests a solution without assigning blame. A contaminated catheter could cause a serious infection. Reporting the team leader's behavior to the supervisor, while appropriate, does not protect the patient. Saying nothing protects only the first nurse from possible repercussions and is unprofessional conduct.

121.

Which of the following conditions is associated with uremic syndrome related to end-stage renal disease (ESRD)?

hypokalemia

erythrocytopenia

metabolic alkalosis

thrombocytosis

Explanation:

Uremic syndrome (US) related to ESRD includes erythrocytopenia because the kidney is unable to produce adequate erythropoietin in the peritubular cells, resulting in anemia. Other indications of US include thrombocytopenia leading to bleeding disorders, metabolic acidosis, as the tubular cells are unable to regulate acid-base metabolism and phosphate, sulfuric, hippuric, and lactic acids increase, leading to CHF, and weakness. Hyperkalemia occurs because the nephrons cannot excrete adequate amounts of potassium.

122.

Which of the following blood abnormalities is a common finding with obstructive sleep apnea?

increased hematocrit

decreased hematocrit

leukopenia

leukocytosis

Explanation:

Increased hematocrit is a common finding with obstructive sleep apnea. OSA results from passive collapse of the pharynx during sleep, often associated with narrow or restricted upper airway (micrognathia, obesity, enlarged tonsils). It is most common in middle-age overweight males, and is exacerbated by drinking and ingesting alcohol or sedative drugs before sleeping. Symptoms include daytime somnolence, headache, cognitive impairment, depression, personality changes, recent increase in weight, and impotence. Patients often snore loudly with cycles of breath cessation caused by apneic periods of up to 60 seconds, occurring at least 30 times a night.

123.

Which members of the healthcare institution are responsible for identifying quality performance improvement projects?

administrative staff

nursing team leaders

physicians

all staff

Explanation:

All staff members are responsible for identifying quality performance improvement projects. Performance improvement must be a continuous process. Continuous Quality Improvement (CQI) is a management philosophy that emphasizes the organization and the systems and processes within that organization rather than individuals. Total Quality Management (TQM) is a management philosophy that espouses a commitment to meeting the needs of the customers (patients, staff) at all levels within an organization. Both management philosophies recognize that change can be made in small steps and should involve staff at all levels.

124.

A patient is recovering from open-heart surgery. Which of the following electrolyte values is outside of the normal range?

potassium: 3.8 mEq/L

sodium: 128 mEq/L

calcium: 9 mg/100 mL

magnesium: 2 mEq/L

Explanation:

A sodium level of 128 mEq/L indicates hyponatremia. Normal values range from 135-145 mEq/L. Both hypernatremia and hyponatremia can occur after cardiac surgery although hyponatremia is more common. Hyponatremia may result from loss of sodium or increase in fluid. Symptoms include:

- *Irritability to lethargy to lethargy and alterations in consciousness*
- *Cerebral edema with seizures and coma*
- *Dyspnea to respiratory failure*

125.

A patient presents with pulmonary edema characterized by tachypnea, tachycardia, hypertension, cough, fever, and cough with frothy sanguineous sputum. What initial treatments are most common?

oxygen, nitroglycerine, loop diuretics (furosemide), and morphine

oxygen, thiazide diuretics, and ACE inhibitors

oxygen and thiazide diuretics

oxygen, morphine, and calcium channel blockers

Explanation:

The most common initial treatment of acute pulmonary edema is oxygen to relieve dyspnea, nitroglycerine to reduce preload, loop diuretics, usually furosemide, to promote diuresis and

venodilation, and morphine to reduce associated anxiety (although some doctors avoid morphine because of side effects). ACE inhibitors are also sometimes used to reduce afterload, but thiazide diuretics are not used to treat acute pulmonary edema. Calcium channel blockers may induce acute pulmonary edema if used with tocolytics.

126.

Which of the following corticosteroids is long acting?

Hydrocortisone

Methylprednisolone

Triamcinolone

Dexamethasone

Explanation:

Dexamethasone is a long-acting corticosteroid. Short-acting corticosteroids last for 8-12 hours and include hydrocortisone and cortisone acetate. Intermediate corticosteroids last from 12-36 hours and include prednisone, prednisolone, methylprednisolone, and triamcinolone. Long-acting corticosteroids last from 36-72 hours and include betamethasone and dexamethasone. Long-acting corticosteroids are about 25 times more potent than short-acting corticosteroids. For example, 40 mg of hydrocortisone is equivalent to 1.2 mg of betamethasone.

127.

The nurse is interviewing a patient who is hearing-impaired. Which of the following may be an impediment to communication?

the nurse uses only a normal tone of voice and speaks with short sentences

the nurse provides assistive devices, such as writing materials

the nurse is facing the patient at distance of 8 feet

the nurse uses hand gestures while speaking

Explanation:

The nurse should face the patient at a distance of 2 to 6 feet, use a normal tone of voice and short sentences, utilize gestures, and provide assistive devices as necessary, including writing materials and a telecommunications device for the deaf (TDD) phone/relay service. Many hearing-impaired patients use some degree of lip-reading, so the nurse should not chew, or eat while speaking to the patient. If patients are deaf and know sign language, interpreters should be used for important communication, and the nurse should face the patient during communication, not the interpreter.

128.

According to Knowles' principles of adult learning, adult learners tend to be

unmotivated.

lacking in self-direction.

practical and goal-oriented.

insecure.

Explanation:

According to Knowles, adult learners tend to be practical and goal-oriented, so they like to remain organized and keep the goal in mind while learning. Other characteristics include:

- *Self-direction: Adults like active involvement and responsibility.*
- *Knowledgeable: Adults can relate new material to information with which they are familiar by life experience or education.*
- *Relevancy orientation: Adults like to know how they will use information.*
- *Motivated: Adults like to see evidence of their achievement, for example, through the receipt of a certificate.*

129.

Systemic inflammatory response syndrome (SIRS) is characterized by symptoms that may include

bradycardia.

dysrhythmia.

leukocytosis (>12,000 mm^3) or leukopenia (<4000 mm^3).

$PaCO_2$ >32 mmHg.

Explanation:

SIRS symptoms may include leukocytosis or leukopenia. SIRS is diagnosed with 2 of the following symptoms:

- *Leukocytosis (>12,000 mm^3) or leukopenia (<4000 mm^3).*
- *Elevated (>38°C) or subnormal rectal temperature (<36°C).*
- *Tachypnea or $PaCO_2$ <32 mmHg.*
- *Tachycardia.*

SIRS, a generalized inflammatory response affecting many organ systems, may be caused by infectious or noninfectious agents, such as trauma, burns, adrenal insufficiency, pulmonary

embolism, and drug overdose. If an infectious agent (such as Streptococcus pneumonia or Staphylococcus aureus) is identified or suspected, SIRS may be an aspect of sepsis.

130.

The Health Insurance Portability and Accountability Act (HIPAA) regulates

the transfer of patients from one facility to another.

clinical trials.

workplace safety.

the rights of the individual related to privacy of health information.

Explanation:

HIPAA regulations are designed to protect the rights of individuals regarding the privacy of their health information. The nurse must not release any information or documentation about a patient's condition or treatment without consent. The individual has the right to determine who has access to personal information—which is considered protected health information (PHI)—including health history, condition, treatments in any form, and any documentation. Personal information can be shared with a spouse, legal guardians, and those with durable power of attorney.

131.

A 48-year-old female patient has terminal ovarian cancer but states she believes her doctor has misdiagnosed her and that she wants to see a different doctor. Which stage of Elisabeth Kübler-Ross's stages of grief (death and dying) is she likely experiencing?

anger

denial

depression

bargaining

Explanation:

The patient is experiencing the stage of bargaining during which patient/family may change doctors, trying to change the outcome. People grieve individually and may not go through all stages, but most go through at least 2 stages. Kübler-Ross's 5 stages of grief include:

- *Denial: Disbelieving, confused, stunned, detached, repeating questions.*
- *Anger: Directed inward (self-blame) or outward.*
- *Bargaining: If- then thinking. (If I go to church, then I will heal.) Trying to find a different outcome.*
- *Depression: Sad, withdrawn, tearful, crying but beginning to accept loss.*
- *Acceptance: Resolution and acceptance.*

132.

The best time to initiate conflict resolution is

when those in conflict have had time to resolve their differences.

when conflict interferes with function.

when those involved ask for conflict resolution.

at the initial emergence of conflict.

Explanation:

The best time to initiate conflict resolution is when conflict first emerges, but before open conflict and hardening of positions. Steps include:

- *Allowing both parties to present their sides without bias.*
- *Encouraging operation through negotiation and compromise.*
- *Maintaining focus and avoiding arguments.*
- *Evaluating the need for renegotiation, formal resolution process, or third party.*
- *Utilizing humor and empathy to diffuse tension.*
- *Summarizing and outlining key arguments.*
- *Avoiding forcing resolution if possible.*

133.

The "5 rights of delegation" include

right time, right place, right person, right direction, and right evaluation.

right person, right place, right time, right assignment, and right supervision.

right task, right time, right circumstance, right place, and right supervision.

right task, right circumstance, right person, right direction, and right supervision.

Explanation:

The "5 rights of delegation" include:

- *Task: The nurse determines as appropriate task to delegate for a specific patient.*
- *Circumstance: The nurse has considered all relevant information to determine the appropriateness of delegation.*
- *Person: The nurse chooses the right person based on education and skills to perform the task.*
- *Direction: The nurse provides a clear description of the task, purpose, limits, and expected outcomes.*

- *Supervision: The nurse can supervise, intervene as needed, and evaluate performance.*

134.

A patient is receiving daily warfarin after treatment for atrial fibrillation. Which of the following may interfere with the drug's effectiveness?

one 8-ounce glass of red wine daily

caffeinated beverages

a daily multivitamin

milk products

Explanation:

Caffeinated foods (tea, coffee, and hot chocolate) may increase the effects of warfarin. Alcohol intake should be limited to no more than 3 drinks daily. A daily multivitamin should not affect warfarin, but some herbal medications can affect clotting time. Milk products should not affect warfarin, but foods that are high in vitamin K may affect the medication, and should be limited and eaten in consistent amounts. These include broccoli, green leafy vegetables (kale, turnip greens, and beet greens), cauliflower, and legumes, as well as soybean and canola oils.

135.

Which of the following corticosteroids is long acting?

Hydrocortisone

Methylprednisolone

Triamcinolone

Dexamethasone

Explanation:

Dexamethasone is a long-acting corticosteroid. Short-acting corticosteroids last for 8-12 hours and include hydrocortisone and cortisone acetate. Intermediate corticosteroids last from 12-36 hours and include prednisone, prednisolone, methylprednisolone, and triamcinolone. Long-acting corticosteroids last from 36-72 hours and include betamethasone and dexamethasone. Long-acting corticosteroids are about 25 times more potent than short-acting corticosteroids. For example, 40 mg of hydrocortisone is equivalent to 1.2 mg of betamethasone.

136.

A 50-year-old man dying of cardiovascular disease is Catholic and asks to take final communion even though it is 2:00 am. The nurse should

contact the patient's priest or a priest on call for the institution and ask him to come right away.

tell the patient that no priest is available.

ask the patient if he would be willing to see the Protestant chaplain who is on call.

tell the patient the priest will be called at 7:00 am.

Explanation:

The nurse should attend to the spiritual needs of the patient by calling a priest even though the hour is not convenient. A Protestant chaplain cannot perform specific rituals that are important to Catholics, and the patient may not survive or be able to receive communion if the call is delayed. Catholic rituals include:

- *Sacrament of the Anointing of the Sick: This replaces the last rites (Extreme Unction) and is a bedside blessing.*
- *Viaticum: This is essentially the "last" Holy Communion and is called the "food for the journey."*

137.

With hypovolemic shock, absolute fluid loss caused by hemorrhage with loss of 30-40% of total circulating volume (1500-2000 mL) and heart rate >120 with hypotension is classified as

class I.

class II.

class III.

class IV.

Explanation:

This indicates class III hypovolemic shock. Hypovolemic shock occurs with inadequate intravascular fluid. The loss may be absolute, caused by internal shifting of fluid or external loss of fluid. Loss may also be relative, related to vasodilation, increased capillary membrane permeability from sepsis or injuries, and decreased colloidal osmotic pressure. Hypovolemic classifications include:

- *Class I: <750 mL or ≤15% of total circulating volume (TCV). HR <100, BP normal.*
- *Class II: 750-1500 mL or 15%-20% of TCV. HR >100, BP normal.*
- *Class III: 1500-2000 mL or 30%-40% of TC. HR >120, BP decreased.*
- *Class IV: >2000 mL or >40% of TCV. HR >140, BP decreased.*

138.

A patient requires a 12-lead electrocardiogram. Where is the V4 precordial lead placed?

right sternal border at the 4th intercostal space

left sternal border at the 4th intercostal space

midway between V5 and V3

left midclavicular line at the 5th intercostal space

Explanation:

V4 is placed at the left midclavicular line. The standard 12-lead ECG gives a picture of electrical activity from 12 perspectives through placement of 10 body leads. Four limb leads are placed distally on the wrists and ankles (but may be placed more proximally if necessary).

Precordial leads:

- *V1 right sternal border at 4th intercostal space*
- *V2 left sternal border at 4th intercostal space*
- *V3: midway between V2 and V4*
- *V4 left midclavicular line at 5th intercostal space*
- *V5 horizontal to V4 at left anterior axillary line*
- *V6 horizontal to V5 at left midaxillary line*

139.

A patient is recovering from open-heart surgery. Which of the following electrolyte values is outside of the normal range?

potassium: 3.8 mEq/L

sodium: 128 mEq/L

calcium: 9 mg/100 mL

magnesium: 2 mEq/L

Explanation:

A sodium level of 128 mEq/L indicates hyponatremia. Normal values range from 135-145 mEq/L. Both hypernatremia and hyponatremia can occur after cardiac surgery although hyponatremia is more common. Hyponatremia may result from loss of sodium or increase in fluid. Symptoms include:

- *Irritability to lethargy to lethargy and alterations in consciousness*
- *Cerebral edema with seizures and coma*
- *Dyspnea to respiratory failure*

140.

A post-MI patient is started on an angiotensin converting enzyme (ACE) inhibitor during his hospital stay. Which of the following is the most common serious side effect that may occur?

non-productive cough

pedal edema

swelling of the tongue and face

rhinorrhea

Explanation: