1. A patient with chest palpitations becomes unresponsive. The monitor shows a wide-complex, non-perfusing tachycardia. What is the most likely interpretation of the patient’s cardiac rhythm?
   A. Ventricular tachycardia
   B. Supraventricular tachycardia
   C. Atrial fibrillation
   D. Idioventricular rhythm

2. Left ventricular heart failure commonly produces which one of the following symptoms?
   A. S1 and S2 heart sounds
   B. Enlarged liver
   C. Pulmonary edema
   D. Weight loss

3. The nurse should prepare to administer which of the following to maintain cardiac output in a patient with an acute right ventricular myocardial infarction (RVMI)?
   A. IV colloid fluids
   B. Nitroglycerin (Tridil) IV
   C. Morphine sulfate (Morphine Sulfate) IV
   D. IV crystalloid fluids

4. The classic symptom of acute myocardial infarction in patients 85 years of age and older is:
   A. elevated temperature.
   B. shortness of breath.
   C. palpitations.
   D. hypertension.

5. The QRS complex represents what mechanical event in the heart?
   A. Atrial contraction
   B. Ventricular contraction
   C. Ventricular relaxation
   D. Atrial relaxation
6. A patient, who was successfully defibrillated, now has a regular rhythm with 86 beats/minute. The patient is unresponsive with no palpable pulses. These findings are associated with which of the following?
   A. Pulseless electrical activity
   B. Cardiac tamponade
   C. Mechanical monitor failure
   D. Aortic aneurysm

7. Which of the following indicates that fibrinolytic therapy has been effective for treatment of a ST-elevation myocardial infarction (STEMI)?
   A. Elevation of cardiac markers
   B. Development of Q waves
   C. Reperfusion dysrhythmias
   D. ST-segment elevation

8. If peripheral access is not available during cardiac arrest, the best and most rapid alternate route for medication administration is:
   A. intracardiac.
   B. endotracheal tube (ET).
   C. central venous.
   D. intraosseous (IO).

9. What is the rationale for administration of heparin or a low-molecular weight heparin agent to a patient with acute coronary syndrome (ACS)?
   A. It acts as a clot “buster” for current blood clots.
   B. It decreases clotting time.
   C. It inhibits further thrombin (clot) formation.
   D. It may cause a high platelet count.

10. A patient’s cardiac monitor shows a poor electrocardiogram waveform with artifact. The monitor message says “cannot analyze electrocardiogram.” The cable is connected appropriately to the monitor and the patient is lying still. Which of the following interventions can correct this problem?
    A. Place the black (left arm) and white (right arm) electrodes at the level of the 2nd intercostal space.
    B. Increase the gain setting on the cardiac monitor.
    C. Pull the cable attached to the electrodes taut.
    D. Ensure adequate skin preparation and accurate electrode placement.

11. An asthmatic patient arrives with new onset atrial fibrillation with a rapid ventricular response. The patient is awake, alert and oriented with a blood pressure of 119/62 mmHg, HR 158 beats/minute, and RR 22 breaths/minute. What first-line medication is anticipated for this patient?
    A. Lidocaine (Xylocaine)
    B. Metoprolol (Lopressor)
    C. Adenosine (Adenocard)
    D. Diltiazem (Cardizem)
12. A patient with an implantable cardioverter/defibrillator (ICD) is being monitored for reported syncope. The patient is in normal sinus rhythm on the cardiac monitor and suddenly yells that the device “went off” and gave a shock. The nurse should anticipate which change in the treatment plan?
A. Place a magnet over the device.
B. Initiate transcutaneous pacing.
C. Tell the patient that the ICD just saved his life.
D. Inform the patient that this is an expected occurrence with an ICD.

13. A patient is diagnosed as having an inferior wall myocardial infarction (IWMI). The nurse knows that the most likely dysrhythmia to occur is:
A. tachycardia.
B. bradycardia.
C. atrial fibrillation.
D. torsades de pointes.

14. A patient presents to the emergency department with a chief complaint of chest pain. While preparing for a 12-lead electrocardiogram, the patient becomes unresponsive. What is the priority intervention for the emergency nurse?
A. Give amiodarone (Cordarone) immediately.
B. Evaluate the patient’s pulse oximetry.
C. Shake and shout.
D. Begin “hands only” cardiopulmonary resuscitation (CPR).

15. Which of the following best describes angina?
A. Tearing chest pain that radiates through to the back with blood pressure differences between the left and right side
B. Gripping substernal or upper abdominal pain that is relieved by nitrates
C. Ischemic necrosis of the myocardium
D. Ischemic chest pain that occurs when myocardial oxygen demands exceed available oxygen supply

16. An elderly patient presents to the emergency department with a 2-hour history of dizziness and fatigue. The 12-lead electrocardiogram reveals an irregular rhythm with no discernible P waves. The nurse suspects that this patient’s symptoms are due to which of the following?
A. Dehydration and hypovolemic shock
B. Ventricular tachycardia with a pulse
C. Normal changes with aging
D. Atrial fibrillation (A-fib) with rapid ventricular response

17. ST-segment elevation in leads V1–V4 represents a myocardial infarction in which area of the heart?
A. Lateral wall
B. Inferior wall
C. Anterior septal
D. Posterior wall
18. Which electrical therapy interrupts an abnormal circuit within the heart and needs to be synchronized with the peak of the QRS complex?
A. Transcutaneous pacing  
B. Cardioversion  
C. Defibrillation  
D. Transvenous pacing

19. The purpose of administering beta-blockers to patients experiencing an ST-segment elevation myocardial infarction (STEMI) is to:
A. reduce morbidity and mortality.  
B. prevent tachydyssrhythmias.  
C. induce fibrinolysis.  
D. proactively treat hypertension.

20. Bradycardia in the pediatric patient is defined as a heart rate:
A. of <100 beats/minute.  
B. of <60 beats/minute.  
C. slower than the lowest expected rate for the child’s age.  
D. 10% less than the child’s normal heart rate.

21. Which of the following electrocardiogram findings indicates an effective response to adenosine (Adenocard) administration in a patient with supraventricular tachycardia (SVT)?
A. A narrow-complex, regular rhythm at a rate of 160 beats/minute  
B. A “flat line” for up to 6 seconds followed by a narrow-complex, regular rhythm at a rate of 90 beats/minute  
C. A run of ventricular tachycardia followed by an irregular narrow-complex rhythm  
D. A wide-complex, regular rhythm at a rate of 110 beats/minute

22. Assessment of a patient involved in a high-speed, head-on motor vehicle crash (MVC) reveals a BP of 100/50 mmHg, HR 110 beats/minute, RR 22 breaths/minute, and abrasions over the left upper quadrant (LUQ) of the abdomen. A focused evaluation should be anticipated for which of the following organs?
A. Liver  
B. Kidneys  
C. Ascending colon  
D. Pancreas

23. A patient newly diagnosed with liver failure is exhibiting cognitive changes, irritability, and some muscle rigidity. Which additional assessment finding would you anticipate the patient exhibiting?
A. A flapping tremor, usually of the hand  
B. Petechial rash over the trunk  
C. Bluish discoloration over the lower abdominal flanks  
D. Worsening abdominal pain when patient lays supine
24. Which of the following bowel sounds is commonly considered a LATE sign of a bowel obstruction?
   A. Hyperactive bowel sounds
   B. High-pitched bowel sounds
   C. Absent bowel sounds
   D. Hypoactive bowel sounds

25. A patient complains of discomfort in the right upper quadrant (RUQ) and mid-epigastric area, with nausea and some vomiting. What statement increases the suspicion that the patient is exhibiting symptoms of cholecystitis?
   A. “I have severe belly pain that goes to my back.”
   B. “I vomited three times before coming to the emergency department.”
   C. “I have had stomach pain, severe at times, with vomiting and constipation.”
   D. “I had two bowls of chili and an order of French fries before the pain started.”

26. A primary adverse effect that is associated with a patient taking bethanechol (Urecholine) for gastroesophageal reflux disease (GERD) is:
   A. urinary urgency.
   B. constipation.
   C. hypertension.
   D. dry mucous membranes.

27. Which dietary recommendations are appropriate for a patient who has been diagnosed with esophagitis?
   A. Eliminate foods with sorbitol.
   B. Avoid spicy foods.
   C. Allow maximum of two alcoholic drinks per day.
   D. Eat three balanced meals per day.

28. Assessment of a patient with a suspected hepatic injury may reveal:
   A. subcutaneous emphysema.
   B. tenderness in the upper right quadrant.
   C. gross blood in gastric aspirate.
   D. left shoulder pain.

29. Following a motor vehicle crash (MVC), a patient suffering from a lap belt injury will most likely be at risk for:
   A. development of subcutaneous emphysema.
   B. laceration of the spleen.
   C. rupture of the colon.
   D. injury to the liver.

30. A young adult, who presented with nausea, vomiting, abdominal bloating, and cramping, is diagnosed with irritable bowel syndrome and is ready for discharge. Which of the following statements indicates that the patient understands discharge instructions?
   A. “Small, low-fat meals are best for me.”
   B. “I will eliminate alcohol and caffeine consumption.”
   C. “I need to eat a high fiber diet with plenty of water.”
   D. “I should not drink fluids with meals.”
31. A patient is being discharged from the emergency department with a diagnosis of acute prostatitis. The discharge instructions should include:
   A. increase the daily amount of fluid intake.
   B. take the prescribed medications for 1 week.
   C. follow-up with the family physician in 24 hours.
   D. abstain from sexual intercourse for 5 days.

32. A 29-week pregnant patient is awaiting transfer to a high-risk obstetrical unit with a diagnosis of preeclampsia. She is receiving magnesium sulfate at one (1) gram per hour via infusion. Which of the following is a priority to monitor for this patient?
   A. Respiratory rate
   B. Heart rate
   C. Hypereflexia
   D. Proteinuria

33. A patient complains of an episode of painless dark red urine. Which of the following foods does NOT cause dark red urine?
   A. Rhubarb
   B. Blackberries
   C. Strawberries
   D. Beets

34. A 38-week pregnant patient presents to triage with onset of spontaneous, bright red, painless vaginal bleeding. The most likely cause of the bleeding is:
   A. placenta abruption.
   B. placenta previa.
   C. uterine rupture.
   D. vaginal tears.

35. Which of the following would alert the emergency nurse that they should be preparing a 14-week pregnant patient for a dilation and curettage (D&C)?
   A. The patient requests a termination of the pregnancy.
   B. Minor dark red bleeding with occasional clots present.
   C. A heart rate 120 beats/minute with a blood pressure of 100/60 mmHg.
   D. Ongoing bright red bleeding with tissue present and cramping.

36. Which of the following interventions would be appropriate for a patient who has been diagnosed with renal calculi?
   A. High fiber diet and 16 oz of cranberry juice daily
   B. Ice to the area of pain
   C. Immediate surgical intervention once diagnosis is made
   D. Hydration and analgesics
37. A patient with a history of pelvic inflammatory disease (PID) presents with right lower quadrant pain, scant vaginal bleeding, and dizziness. She also has pain radiating to her left shoulder. Her vital signs are blood pressure 88/50 mmHg, HR 127 beats/minute, RR 22 breaths/minute, and T 97.5°F (36.4°C). A pregnancy test is positive. Which of the following is most likely?
   A. Ectopic pregnancy
   B. Spontaneous abortion
   C. Hydatidiform mole
   D. Appendicitis

38. A woman is complaining of a thick, white, cheese-like vaginal discharge. The nurse would expect a diagnosis of:
   A. trichomoniasis.
   B. gonorrhea.
   C. candidiasis.
   D. genital herpes.

39. Discharge instructions for a patient diagnosed with endometriosis should include:
   A. advice to complete all her antibiotics to ensure complete treatment.
   B. gynecological referral for follow-up.
   C. advice to have sexual partners treated to prevent reoccurrence.
   D. referral for an outpatient pregnancy test.

40. Which of the following would be the best indicator of a viable fetus?
   A. Four “kicks” over the course of an hour in a term fetus
   B. Fetal heart rate greater than 160 beats/minute
   C. Fundal height of 26 centimeters (cm) or more above the symphysis pubis
   D. Maternal report of contractions every three minutes

41. Damage to the epithelial layer of the cornea causing uptake of fluorescein dye is most likely caused by a(n):
   A. hyphema.
   B. traumatic iritis.
   C. corneal abrasion.
   D. chemical burn.

42. Which of the following actions of glucagon hydrochloride makes it useful in the management of an esophageal food impaction?
   A. Relaxation of smooth muscles
   B. Increased production of cyclic AMP
   C. Decreased gastrointestinal (GI) motility
   D. Positive inotropic effects

43. Which of the following consequences of a chemical burn to the eye is of greatest concern?
   A. Need for ophthalmic follow-up after discharge
   B. Altered visual sensory-perception
   C. Risk for developing an infection
   D. Anxiety related to potential loss of vision
44. The priority reassessment of a patient with a larynx fracture is:
   A. airway patency.
   B. response to analgesia.
   C. hemodynamic status.
   D. lung sounds.

45. The emergency nurse should be most concerned about which of the following physical findings that may indicate a globe disruption?
   A. A peaked, teardrop-shaped pupil in a patient with unilateral eye pain
   B. Visible blood settled in the anterior chamber
   C. A steamy or hazy cornea with scleral injection
   D. Limited and painful movement of the extraocular muscles

46. Which of the following statements by a patient diagnosed with Bell’s palsy indicates successful discharge teaching?
   A. “I will apply a cold compress to the side of my face four times a day.”
   B. “I will use artificial tears only when I notice my eye burning or stinging.”
   C. “I will wear sunglasses anytime I go outside.”
   D. “I will need to take steroids for the rest of my life.”

47. Untreated Lyme disease may cause:
   A. ascending paralysis.
   B. laryngeal edema.
   C. petechial rash.
   D. atrioventricular blocks.

48. Priority management when caring for a patient diagnosed with myxedema coma is to:
   A. administer a beta-blocker.
   B. initiate supplemental oxygen.
   C. initiate aggressive body cooling.
   D. insert a urinary catheter.

49. Upon evaluation of a patient with adrenal crisis, the nurse would expect:
   A. bradypnea.
   B. bradycardia.
   C. hypotension.
   D. hypothermia.

50. A 10-month-old infant presents to the emergency department with fever, bluish-gray specks on the buccal mucosa, and rash on the face. This is associated with which of the following conditions?
   A. Allergic reaction
   B. Mumps
   C. Measles
   D. Varicella (chicken pox)
51. Which of the following patient statements indicates that post lumbar puncture discharge instructions were understood?
   A. “I can expect to have a severe headache.”
   B. “I shouldn’t eat or drink anything for at least 8 hours.”
   C. “I can go back to work as soon as I leave the emergency department.”
   D. “I need to watch for any fever and call my doctor if it’s higher than 101°F (38.3°C).”

52. Which of the following laboratory values would indicate viral versus bacterial meningitis?
   A. Protein 250 mg/dL
   B. Leukocytes 900 cells/mL
   C. Glucose 60 mg/dL
   D. Red blood cells (RBCs) 4 cells/mL

53. Which type of isolation precautions is most appropriate when caring for a patient with scabies?
   A. Contact precautions
   B. Airborne precautions
   C. Droplet precautions
   D. Standard precautions

54. An elderly patient presents with elevated temperature, restlessness, confusion, weakness, and a recent history of radioactive iodine administration. The emergency physician diagnoses thyroid storm. Which of the following treatment options would you anticipate?
   A. Aspirin (Acetylsalicylic Acid)
   B. Propanolol (Inderal)
   C. Sodium bicarbonate
   D. Atropine (Atropine Sulfate)

55. An insulin-dependant diabetic patient presents to the emergency department diaphoretic, feeling weak and “shaky.” The patient reports taking insulin this morning, but not having a chance to eat. What is the priority intervention for this patient?
   A. Initiate intravenous access.
   B. Obtain a finger-stick blood glucose.
   C. Obtain a 12-lead electrocardiogram.
   D. Administer oral glucose.

56. Which of the following patient statements would lead the nurse to determine that the patient understands prevention strategies for sickle cell crisis?
   A. “I should take only over-the-counter (OTC) pain medications.”
   B. “I should limit how much fluid I drink each day.”
   C. “I should avoid any confrontations with people.”
   D. “I should avoid participating in winter sporting events.”
57. An elderly patient presents in a wheelchair complaining of inability to bear weight, swelling, severe pain in the right “big toe” and fever to 100°F (37.7°C). He denies nausea, vomiting, diarrhea, cough, and chest pain. His past medical history is hypertension for which he takes hydrochlorothiazide (HCTZ) and enalapril (Vasotec). Based on his presentation, treatment orders are anticipated for:
   A. osteoporosis.
   B. systemic lupus erythematosus (SLE).
   C. gout.
   D. septic arthritis.

58. Which of the following statements from a patient diagnosed with trichomoniasis and prescribed metronidazole (Flagyl) exhibits a good understanding of discharge instructions?
   A. “I will remember to clean myself from back to front every time I go to the bathroom.”
   B. “I will avoid alcohol consumption while taking my medicine.”
   C. “I should not take a bath in warm water because it may increase my discomfort.”
   D. “It is safe for me to get pregnant while on this medicine.”

59. An elderly patient is given intravenous levothyroxine (T4) for treatment of myxedema coma. Which of the following outcomes would be indicative of patient improvement?
   A. Increased thyroid hormone level
   B. Decreased sodium level
   C. Decreased arterial pH
   D. Increased BUN

60. An elderly patient presents to the emergency department with an extremity laceration. The patient takes warfarin (Coumadin) 5mg once a day. Based on the patient’s presentation, which of the following complications would the nurse suspect?
   A. Decreased renal clearance
   B. Decreased prothrombin time
   C. Prolonged muscle weakness
   D. Prolonged wound healing

61. A patient arrives in the emergency department with generalized ecchymosis and a chief complaint of a nosebleed, which subsided prior to arrival. The patient reports a history of chronic idiopathic thrombocytopenia purpura (ITP). Diagnostic workup reveals the need to provide replacement therapy. Which of the following therapies would be most appropriate?
   A. Thrombin injection
   B. Factor IX
   C. Platelets
   D. Desmopressin acetate (DDAVP)

62. An elderly patient is admitted to the emergency department with progressive confusion over the past 3 weeks. Which of the following focal head injuries is the most likely the cause of the patient’s progressive confusion?
   A. Epidural hematoma
   B. Subdural hematoma
   C. Concussion
   D. Skull fractures
63. Following a motor vehicle crash (MVC), an adult patient is fully immobilized on a backboard, in a rigid collar and with lateral head support devices in place. After a thorough primary and secondary assessment are completed, it is determined the patient has an isolated lower extremity injury. Which intervention should the emergency nurse be prepared to perform FIRST?
   A. Obtain a complete set of vital signs.
   B. Obtain radiographs of the injured extremity.
   C. Obtain additional history.
   D. Remove the patient from the backboard.

64. The pediatric Glasgow Coma Scale (GCS) consists of:
   A. best eye opening, best motor response, and best systolic blood pressure.
   C. best eye opening, best reflexes, and best verbal response.

65. An elderly patient presents to the emergency department with complaints of severe headache and red nodules over the temporal region. Which additional complaints are usually associated with a diagnosis of temporal arteritis?
   A. Diarrhea, vomiting and weight loss
   B. Weight loss, night sweats, aching joints, and fever
   C. Fluid retention and joint swelling
   D. Sore throat and frequent colds

66. Which of the following signs and symptoms is an early indication of increased intracranial pressure?
   A. Change in level of consciousness
   B. Papilledema
   C. Respiratory depression
   D. Dilated pupils

67. The Cincinnati Prehospital Stroke Scale (CPSS) identifies stroke based on which of the following physical findings?
   A. ST-segment elevation, arm drift, and arm strength
   B. Jugular venous distension (JVD), extremity weakness, and tachycardia
   C. Facial droop, arm drift, and abnormal speech
   D. Carotid bruit, leg weakness, and hypotension

68. Which of the following is correct regarding the intravenous administration of phenytoin (Dilantin)?
   A. It can cause hypotension and bradycardia.
   B. When giving phenytoin (Dilantin) intravenously to a patient, it is recommended to give phenytoin (Dilantin) at a rate of 50 mg/minute.
   C. Phenytoin (Dilantin) can cause renal calculi due to hypercalcemia.
   D. Phenytoin (Dilantin) can be diluted in D5W when used with a filter.
69. Which of the following is considered the most reliable indicator of neurological function?
   A. Glasgow Coma Scale (GCS)
   B. Pupillary reaction
   C. Level of consciousness
   D. Motor changes

70. A patient fell, striking his head. Following a brief period of unconsciousness, he complains of a severe headache. Upon arrival to the emergency department, he is unconscious. The nurse suspects that this patient may have a(n):
   A. subdural hematoma.
   B. epidural hematoma.
   C. concussion.
   D. stroke.

71. A patient has clear fluid draining from her right nostril after a motor vehicle crash. The nurse is aware that the presence of this drainage may indicate a(n):
   A. orbital blowout fracture.
   B. sinus infection.
   C. concussion.
   D. basilar skull fracture.

72. Which of the following protocols is appropriate for administration of high-dose methylprednisolone (Solu-Medrol) in a patient with a spinal cord injury at C7-T1 level?
   A. 1 mg mixed in 250 mL D5W or normal saline to infuse at 2–10 mcg/minute
   B. 400 mg mixed in 250 mL of D5W or normal saline to infuse at 2–20 mcg/kg/minute
   C. 30 mg/kg over 15 minutes, wait 45 minutes, then 5.4 mg/kg/hr over the next 23 hours
   D. 8 mg in 250 mL of D5W to infuse at 0.5–12 mcg/minute

73. After a fall, a patient is noted to have loss of function in the upper extremities, but the lower extremity function remains intact. There was no loss of bowel or bladder control. These symptoms are associated with which of the following incomplete spinal cord injuries?
   A. Central cord syndrome
   B. Anterior cord syndrome
   C. Brown-Séquard syndrome
   D. Axial-loading event

74. A patient who suffered quadriplegia 6 months ago arrives by ambulance with anxiety, severe headache, BP 210/106 mmHg, sweating, facial flushing, and cool lower extremities. Which intervention is most emergent in the care of this patient?
   A. Administration of a sympathomimetic agent
   B. Insertion of a urinary catheter
   C. Administration of a vasoactive (vasopressor) medication
   D. Endotracheal intubation

75. Nursing intervention to minimize increases in intracranial pressure (ICP) include:
   A. supine or a flat position.
   B. position changes with other patient care activities.
   C. bright lights.
   D. providing a quiet environment.
76. Which patient would meet **EXCLUSION** criteria for the administration of intravenous alteplase (t-PA) following an embolic stroke?
   A. A patient with a history of hypertension, currently controlled at 150/80 mmHg
   B. A 45-year-old with a time of onset well established to be 120 minutes before treatment would begin
   C. A patient who is 30 years old without a family history of stroke
   D. A 58-year-old with evidence of an intracranial hemorrhage on noncontrast computed tomography (CT) scan of the head

77. Sutures of an upper or lower extremity, not involving a joint surface, should be removed in:
   A. 3 to 5 days.
   B. 7 to 10 days.
   C. 5 to 8 days.
   D. 12 to 14 days.

78. A patient with an open fracture to the forearm that was placed in a cast 2 weeks prior now presents with pain, fever, and a foul odor coming from the cast. Fingers are edematous and cold. Which of the following is suspected when cast removal reveals tissue sloughing and a foul-smelling wound?
   A. *Clostridium* gangrene
   B. Cast syndrome
   C. Nerve damage
   D. Volkman’s contracture

79. Which of the following statements regarding treatment applies to a patient who sustained a large laceration to the lower leg after slipping on rocks in a riverbed?
   A. The laceration needs to be treated aggressively because bacteria are associated with fresh water and streams.
   B. Antimicrobials are not required with fresh water exposure.
   C. Infections of this type of wound occur 7 to 10 days after injury.
   D. Meticulous irrigation is not required because the wound was cleaned in the stream when the laceration was sustained.

80. A splint has been placed on a fractured upper extremity. The patient continues to have 10/10 pain despite administration of intravenous narcotics. Which of the following conditions is the most likely cause of this patient’s unrelieved pain?
   A. Torn ligaments
   B. A history of substance abuse
   C. Compartment syndrome
   D. Excessive blood loss

81. When assessing a patient in whom a fat emboli is suspected, petechiae are typically observed on which area of the body?
   A. Face
   B. Back
   C. Thigh
   D. Chest
82. Which type of splint is indicated for a patient with a 5th metacarpal fracture?
   A. Radial gutter splint
   B. Ulnar gutter splint
   C. Thumb spica splint
   D. Volar forearm splint

83. The recommended muscle for administration of the human diploid cell vaccine (HDCV) is the:
   A. gluteus maximus.
   B. deltoid muscle.
   C. vastus lateralis.
   D. gluteus medius.

84. Which is the correct method of cane instruction for a patient with an injured right knee?
   A. The cane should be used on the left side with the elbow at a 30-degree angle of flexion.
   B. The cane should be used on the right side with the elbow at a 90-degree angle of flexion.
   C. The cane should be alternated on different days to avoid overuse of either side.
   D. The cane should be used on the left side with the elbow at a 60-degree angle of flexion.

85. People at risk for osteoporosis include postmenopausal females, chronic alcohol abusers, and those with long-term use of:
   A. benzodiazepines.
   B. steroids.
   C. prostaglandin inhibitors.
   D. anticonvulsants.

86. To confirm radial nerve function, children with elbow fractures are typically asked to perform the following:
   A. peace sign.
   B. thumbs-up sign.
   C. tight fist.
   D. OK sign.

87. A patient with a cast on the forearm complains of pain that is unrelieved with narcotic pain medication. The fingers are pale and the patient complains of tingling. The nurse should anticipate:
   A. replacing the cast with a splint.
   B. applying ice to the extremity.
   C. elevating the extremity above the heart.
   D. bi-valving the cast.

88. The diagnostic test used to confirm a shoulder dislocation would be a(n):
   A. computed tomography (CT) scan of the shoulder.
   B. magnetic resonance imaging (MRI).
   C. anterior/posterior (AP)/lateral films of the joint.
   D. arthrogram of the affected joint.
89. Which of the following mechanisms will most likely result in wounds infected with *Clostridium tetani*?
   A. Stepping on a garden hoe
   B. Cutting a bagel with a steel knife
   C. Cleaning a deli slicer
   D. Opening a plastic container

90. When titrating nitroglycerin (Tridil) for the patient with an acute inferior wall myocardial infarction, the nurse recognizes the need to decrease the drip rate when the patient experiences:
   A. a heart rate of 56 beats/minute and severe headache 10/10.
   B. a decrease in ST elevation and a blood pressure of 157/95 mmHg.
   C. a decrease in chest pain level and a blood pressure of 86/56 mmHg.
   D. an irregular heart rate at 110 beats/minute and frequent premature ventricular contractions (PVCs).

91. An elderly patient with altered mental status, fever, and decreased urinary output is diagnosed with urosepsis. Which of the following interventions is LEAST likely to be recommended?
   A. Fluid replacement
   B. Delivery of oxygen
   C. Treatment with antibiotics
   D. Administration of ibuprofen (Advil) 800 mg

92. Which of the following would NOT be an indication for a designated trauma center to consider transfer of a patient with multiple injuries?
   A. A patient with an open pelvic fracture
   B. A pregnant patient with multiple internal injuries
   C. A patient who does not have health insurance
   D. An injured patient suffering multiple organ failure

93. Following a lumbar puncture, laboratory analysis detects blood in the cerebrospinal fluid (CSF). Which of the following laboratory studies would differentiate between a traumatic lumbar puncture tap and a subarachnoid hemorrhage (SAH)?
   A. Hemoglobin and hematocrit
   B. Cell count comparison between first and last tube of cerebrospinal fluid (CSF)
   C. International normalized ratio (INR)
   D. Total protein comparison between first and last tube of cerebrospinal fluid (CSF)

94. A patient with a history of breast cancer asks about taking echinacea for an upper respiratory infection. The nurse is aware that this herb is:
   A. safe and effective and should be used in this patient population.
   B. contraindicated for cancer patients and those with autoimmune diseases.
   C. safe unless the patient has an allergy to the Chrysanthemum family.
   D. contraindicated due to its carcinogenic properties.
95. The nurse caring for a patient in the emergency department is suspicious that the patient’s injuries (facial bruising, lacerations, and upper extremity pain) are the result of intimate partner violence. The patient is tearful, admits to drinking alcohol, and is reluctant to admit the injuries were not accidental. The nurse should:
A. immediately notify law enforcement of a possible domestic violence incident.
B. provide a safe environment while respecting the patient’s wishes not to identify the individual who caused the injuries.
C. convince the patient to file charges against the partner.
D. routinely initiate a call to the national domestic violence hotline for the patient.

96. When discharging a geriatric patient with a humerus fracture, the nurse recognizes more pain management teaching is needed when the patient states:
A. “I should use the ibuprofen (Advil) for a short time only because I could get bleeding in my stomach from it.”
B. “I should place ice on my elbow area off and on throughout the day to reduce pain and swelling.”
C. “I won’t take the pain medication unless I have to because it causes constipation.”
D. “I should keep my arm in the sling and lay with it elevated above my heart as much as possible.”

97. A toddler presents to the emergency department with a laceration to the left arm. While preparing the child for suturing, the nurse should consider the following:
A. placing the patient in the appropriate position for the application of an age-appropriate restraint, and then explaining the procedure to the parent.
B. explaining the procedure in detail to the child so that he or she does not imagine the worst.
C. setting time limits so the patient will understand how much time it will take to complete the procedure.
D. allowing a parent to remain with the child during the procedure.

98. All of the following pieces of information are required documentation for organ donation to take place when a patient dies EXCEPT:
A. family education.
B. notification of an organ procurement organization.
C. family notification.
D. determination and declaration of death.

99. The Emergency Medical Treatment and Active Labor Act (EMTALA) indicates that hospital property includes:
A. the hospital’s main building, including any area within 250 yards of the building.
B. the physician’s office down the street from the emergency department.
C. the facility parking garage, which is 500 yards from the building.
D. a store across from the hospital.
100. When collecting forensic evidence, the emergency nurse should do all of the following EXCEPT:
A. inform appropriate personnel if evidence contamination occurred during collection.
B. wear protective gown, mask, and hair covering when handling evidence.
C. package each clothing item separately in an airtight container.
D. do not give any of the patient’s personal items to friends or family.

101. Which of the following best exemplifies understanding and reflection on the value of evidence-based research?
A. Maintaining the same nursing perspective in future clinical situations
B. Recognizing the construction of a well-developed clinical question
C. Minimizing the nurse’s personal experience and expertise related to study topics
D. Changing current clinical practice based on data from a single study

102. Advanced directives regarding a patient’s treatment choices are applicable when the patient:
A. has an emergency nurse witness his or her signature on the advanced directive form.
B. is awake and oriented and facing a terminal or irreversible illness.
C. is recovering from a minor surgical procedure and is expected to make a full recovery.
D. has a terminal or irreversible illness and the patient is no longer able to communicate his or her wishes.

103. Which of the following is an INAPPROPRIATE entry to place in a patient’s record?
A. “Patient stated pain level changed from a 4 to a 1 after receiving pain-relieving medication.”
B. “Patient’s past medical records were ordered but were unavailable.”
C. “Patient received and acknowledged understanding of discharge instructions.”
D. “Patient fell out of bed and an unusual occurrence report was completed.”

104. Delegation of a nursing task by the emergency nurse (RN) to a less-skilled professional may be appropriate based on the:
A. RN's acceptance of accountability for the decision.
B. less-skilled person's knowledge of the nursing process.
C. RN's prediction of the outcome.
D. less-skilled person's understanding of problem-solving concepts.

105. A patient presents to the emergency department with complaints of a sudden onset of unilateral extremity weakness, difficulty speaking, and headache. The clinical educator would recognize that a nurse required more education if the nurse:
A. began an intravenous infusion of 0.9% normal saline solution.
B. administered 0.3 mg/kg of Alteplase (t-PA) to this patient.
C. maintained the patient’s temperature at 96.3°F (35.7°C).
D. began administering physician-ordered medications within 3 hours of symptom onset.
106. The local police escort a patient who was found in the parking lot of the local store without clothes on and running in circles around cars. The priority for this patient is which of the following?
A. Determine risk for injury.
B. Identify if anyone was with the patient and witnessed the event.
C. Determine the patient’s knowledge level.
D. Identify medical history.

107. An elderly patient complains of emotional lability, lack of motivation, difficulty sleeping, and loss of appetite. Which of the following medications might be causing these symptoms?
A. Rabeprazole (Aciphex)
B. Omeprazole (Prilosec)
C. Albuterol Inhaler (Proventil)
D. Fluticasone and salmeterol inhalation powder (Advair inhaler)

108. According to the Mental Health Triage Scale, which of the following patient presentations would be categorized as emergent?
A. A patient with suicidal ideation, accompanied by a friend
B. A patient with signs and symptoms of paranoia
C. A patient exhibiting extreme agitation
D. A chronic psychiatric patient requesting emergent medication refill

109. An adolescent patient complains of dizziness. The examination reveals that the patient is orthostatic, hypotensive, and tachycardic; has poor skin turgor; complains of being tired; and is experiencing amenorrhea. The emergency nurse suspects the patient has:
A. bulimia nervosa.
B. anorexia nervosa.
C. Cushing’s syndrome.
D. hypothyroidism.

110. Which of the following medications is the most appropriate to treat a patient with bipolar disorder who presents in a manic state?
A. Chlordiazepoxide (Librium) 10 mg PO
B. Amitriptyline (Elavil) 75 mg PO
C. Sertraline (Zoloft) 50 mg PO
D. Lithium (Eskalith) 600 mg PO

111. A patient presents with a heart rate of 100 beats/minute, hyperventilation, and pale and dry skin and exhibits difficulty concentrating and logically answering questions. The patient states that the symptoms all started while shopping in a crowded department store. The nurse recognizes the symptoms of:
A. mild anxiety.
B. severe anxiety.
C. a state of moderate anxiety.
D. a panic anxiety state.
112. Increasing respiratory difficulties in the elderly patient are usually due to:
   A. increased cough reflex.
   B. increased vital capacity.
   C. decreased muscle strength.
   D. decreased residual volume.

113. An asthmatic patient has responded to treatment and is ready for discharge. The provider prescribes a bronchodilating agent to be delivered via metered-dose inhaler (MDI). The nurse determines that the patient is able to use this medication delivery system effectively when the patient reports the:
   A. previous use of an MDI.
   B. device must be activated at the beginning of the inhalation phase.
   C. inhaler dose may be administered every minute until the desired result is achieved.
   D. device must be activated upon exhalation.

114. Crackles in the lungs are caused by:
   A. inflammation of the pleural lining.
   B. fluid or secretions in the large airways.
   C. fluid or secretions in the small airways or alveoli.
   D. air passing through constricted airways.

115. A patient involved in a near-strangulation event presents with respiratory distress, swelling of the neck, and subcutaneous emphysema. Which of the following is the most likely cause of the subcutaneous emphysema?
   A. Acute hypoxia
   B. Tension pneumothorax
   C. Tracheal transection
   D. Laryngeal spasm

116. An elderly patient presents with increasing shortness of breath over the past several years, which has gotten worse over the past month. The patient reports an inability to walk to the mailbox without resting due to increasing shortness of breath. History reveals hypertension and 40+ years of smoking. Based on these findings, the nurse suspects:
   A. emphysema.
   B. environmentally triggered asthma.
   C. gastroesophageal reflux.
   D. pulmonary tuberculosis (TB).

117. A priority intervention when caring for a patient with a flail chest would be:
   A. placement of sandbags.
   B. pain management.
   C. prophylactic chest tube placement.
   D. positioning patient on uninjured side.
118. After sustaining blunt chest trauma during a rollover, a patient has sudden onset of anxiety, diminished breath sounds on one side, tracheal deviation, and hypotension. The nurse recognizes that these symptoms are associated with a rapid:
   A. increase in intrathoracic pressure.
   B. decrease in intrathoracic pressure.
   C. decrease in pericardial fluid.
   D. increase of pericardial fluid.

119. A patient’s spouse reports that the patient has had a productive cough for 3 days and intermittent fever and has become progressively confused since awakening this morning. Nursing assessment reveals a well-nourished, mildly confused patient with warm flushed skin who does not appear to be in distress at this time. Which diagnostic test would be indicated as a priority for this patient?
   A. Hematocrit level
   B. Oxygen saturation measurement
   C. Capillary blood glucose level
   D. Arterial blood gas

120. The indication for using the Sellick maneuver (cricoid cartilage pressure) during rapid sequence intubation is to minimize the likelihood of:
   A. vomiting and aspiration.
   B. intubation of the right mainstem bronchus.
   C. a tracheal tear.
   D. esophageal intubation.

121. Following endotracheal tube placement, the first step to confirm placement is to:
   A. auscultate the presence of equal bilateral breath sounds.
   B. auscultate absent epigastric sounds with chest rise.
   C. obtain a portable chest radiograph.
   D. obtain an end-tidal carbon dioxide reading.

122. Which of the following statements would indicate that a nonsmoking patient has a clear understanding of the follow-up instructions for acute bronchitis?
   A. “I am going to have chronic lung disease because of the bronchitis.”
   B. “Bronchitis often turns into pneumonia.”
   C. “Bronchitis is usually a viral infection.”
   D. “I am going to be on medication for the rest of my life because of the bronchitis.”

123. While teaching a patient with chronic obstructive pulmonary disease (COPD), the nurse decides to focus on preventing exacerbations. The nurse will emphasize the need to:
   A. utilize a peak expiratory flow meter.
   B. observe sputum for changes in color and consistency.
   C. take antibiotics as ordered.
   D. stop smoking.
124. A toddler is brought to the emergency department following a history of cold symptoms, hoarse cough, and low-grade fever for a couple days. After receiving cool, humidified oxygen and a nebulized racemic epinephrine (Adrenalin) treatment for croup, there is marked improvement and the patient is ready for discharge. Which of the following statements indicates that the mother understands the discharge instructions?
A. “Are you going to give me a prescription for antibiotics?”
B. “My child is contagious.”
C. “I have to use a humidifier in his room at night.”
D. “The breathing treatment is only temporary and the cough can return.”

125. Adverse effects of albuterol sulfate (Proventil/Ventolin) administration include:
A. hyperkalemia.
B. preexisting heart block.
C. palpitations.
D. thrush.

126. Peak flow measurements would be obtained on which of the following patients?
A. 3-year-old with asthma
B. 28-year-old with respiratory distress after running
C. Hypotensive patient with chronic obstructive pulmonary disease
D. An elderly patient following cataract surgery

127. Analysis of the arterial blood gases of a pregnant patient would reveal that the:
A. PaCO₂ will be decreased.
B. bicarbonate level will be increased.
C. pH will be decreased.
D. PaO₂ will be increased.

128. An elderly patient suffered fractured ribs after a fall. An early assessment finding that may indicate pneumonia secondary to the rib fractures would be:
A. hyperresonance on percussion.
B. high fever.
C. acute onset of confusion.
D. increased heart rate.

129. Which of the following is a likely cause of airway obstruction specific to the geriatric population?
A. Goiter
B. Displaced dentures
C. Epiglottic inflammation
D. Tongue

130. Which uncrossmatched blood type should be administered for resuscitation of the patient in hemorrhagic shock?
A. B-Rh negative
B. A-Rh negative
C. O-Rh positive
D. O-Rh negative
131. Which of the following findings are associated with neurogenic shock?
   A. Bradycardia, poikilothermia, and hypotension
   B. Vasoconstriction, tachycardia, and hypothermia
   C. Fever, hypoxia, and shortness of breath
   D. Flushing, pruritus, and bronchospasm

132. A tourniquet has been applied to a severe arm laceration which is actively bleeding. Assistance is over an hour away. Which of the following interventions are recommended when using a tourniquet?
   A. Cover the area where the tourniquet is applied to avoid infection.
   B. Only tighten the tourniquet partway to avoid excessive pressure.
   C. Use padding under the tourniquet to avoid injury.
   D. Leave the tourniquet in place until the patient in an operating room.

133. Geriatric patients respond differently than younger persons to shock due to:
   A. an increase in circulating blood volume.
   B. the ability to tolerate greater changes in end-organ perfusion.
   C. cardiac output increasing with age.
   D. decreased physiologic reserves.

134. Which of the following interventions should be initiated first in the resuscitation of a patient in hypovolemic shock?
   A. Intravenous administration of isotonic fluids
   B. Prophylactic antibiotic administration
   C. Dobutamine (Dobutrex) infusion
   D. Norepinephrine (Levophed) infusion

135. An older adult enters the emergency department with progressive hemorrhagic shock. Initial vital signs are BP 84/54 mmHg, HR 80 beats/minute, SpO₂ 88% on room air, and RR 24 breaths/minute. After receiving 2 liters of warm isotonic crystalloid, the patient’s vital signs are BP 90/52 mmHg, HR 84 beats/minute, SpO₂ 90%, and RR 22 breaths/minute. What evaluation of this patient’s status would be considered correct?
   A. There are underlying cardiac issues and these vital signs are normal.
   B. The patient remains in progressive hemorrhagic shock.
   C. The patient is in need of a transvenous pacemaker.
   D. The patient is successfully volume resuscitated.

136. Which of the following is true regarding the pediatric response to shock?
   A. A small amount of blood loss can be significant in a child.
   B. Toddlers increase stroke volume in order to increase their cardiac output.
   C. Hypotension is an early sign of shock in the pediatric patient.
   D. Children tolerate hypoxic states better than adults.

137. Which of the following assessments might best indicate pericardial tamponade?
   A. Monitoring heart rate
   B. Assessing neck veins
   C. Listening to heart sounds
   D. Checking capillary refill
138. An early sign of hypovolemic shock in adults is:
   A. a gradual increase in the rate and depth of respirations.
   B. low diastolic blood pressure.
   C. ventricular dysrhythmias.
   D. decreased level of consciousness.

139. The development of coagulopathies after autotransfusion is most likely attributable to which of the following actions?
   A. Adding citrate phosphate dextrose to the collection bag
   B. Waiting greater than six (6) hours to reinfuse blood
   C. Transfusing 25% to 50% of total blood volume
   D. Utilizing blood obtained from below the diaphragm

140. Which of the following is an absolute CONTRAINDICATION to the administration of recombinant human activated protein C (Xigris) in patients with multiple organ failure?
   A. Presence of multi-system organ failure
   B. Risk of bleeding
   C. Fever greater than 102.2°F (39°C)
   D. Concomitant antibiotic therapy

141. Following a rattlesnake bite to the leg, a patient experiences severe pain over the bite area; edema 25 cm (9.8 inches) spreading toward the trunk; petechiae and ecchymosis in the edematous area; and nausea, vomiting, and hypotension. Which of the following is the next priority?
   A. Apply a tourniquet to the leg.
   B. Apply the Australian compression dressing to the leg.
   C. Cut over the fang marks and use a suction device to remove the venom.
   D. Determine the severity of envenomation and dose of antivenin.

142. A patient presents to the emergency department with hyperthermia, confusion, hallucinations, tachypnea, pulmonary edema and dehydration, along with evidence of renal failure. History reveals the patient has been taking over-the-counter medications for arthritis as well as bismuth subsalicylate (Pepto-Bismol) for an upset stomach. The patient’s symptoms are most likely caused by toxic levels of which medication?
   A. Digoxin (Lanoxin)
   B. Acetaminophen (Tylenol)
   C. Aspirin (Acetylsalicylic Acid)
   D. Ibuprofen (Advil)

143. Which of the following assessment findings is expected in a patient with altered mental status and suspected opioid ingestion?
   A. Pinpoint, fixed pupils
   B. Dilated pupils which react to light
   C. Equal pupils which constrict to light
   D. Unilateral dilated pupils
144. Using the Rule of Nines, calculate the Total Body Surface Area (TBSA) for the following burn patient: superficial partial thickness burn to entire right leg, full thickness burn to anterior portion of left leg, and superficial burn to chest.
A. 35% TBSA
B. 27% TBSA
C. 45% TBSA
D. 18% TBSA

145. Which of the following treatments is indicated following hydrofluoric acid (HF) exposure to the skin?
A. Apply calcium gluconate.
B. Apply silver sulfadiazine (Silvadene).
C. Dilute with copious amounts of water.
D. Apply neomycin and polymyxin (Neosporin) antibiotic ointment.

146. The American Burn Association (ABA) recommends all of the following injuries be referred to a burn center **EXCEPT**:
A. partial-thickness burns covering more than 2% total body surface area (TBSA).
B. chemical and inhalation burns.
C. burns that involve the face, hands, feet, genitalia, perineum, or major joints.
D. electrical burns, including lightning injuries.

147. A patient became suddenly disoriented, drowsy and had decreased respirations minutes after ingesting a cocktail. Following respiratory arrest, the patient was quickly resuscitated but remained difficult to arouse. Within 4 hours, the patient was oriented and alert, with complaints of amnesia. Which of the following substances is most likely responsible?
A. Lysergic acid diethylamide (LSD)
B. 3,4-methylenedioxymethamphetamine (MDMA, Ecstasy)
C. Gamma-hydroxybutyric acid (GHB)
D. Phencyclidine (PCP)

148. A patient presents to the emergency department with lacrimation, salivation, nausea, vomiting, and bradycardia after eating blackberries. The nurse should anticipate the administration of:
A. epinephrine (Adrenaline).
B. methylprednisolone (Solu-Medrol).
C. diphenhydramine (Benadryl).
D. atropine sulfate (Atropine Sulfate).

149. After being stung on the foot by a stingray, a patient’s foot was immersed in hot water for 90 minutes. When should this treatment be discontinued?
A. With the cessation of bleeding
B. With relief of pain
C. When swelling begins to decrease
D. After 6 hours of treatment

150. The treatment for a cocaine overdose which manifests as acute coronary syndrome is:
A. propanolol (Inderal).
B. nitroprusside (Nipride).
C. nitroglycerin (Tridil).
D. esmolol (Brevibloc).
1. A patient with chest palpitations becomes unresponsive. The monitor shows a wide-complex, non-perfusing tachycardia. What is the most likely interpretation of the patient’s cardiac rhythm?
   A. Ventricular tachycardia
   B. Supraventricular tachycardia
   C. Atrial fibrillation
   D. Idioventricular rhythm

   **Rationale**
   A. Ventricular tachycardia is a wide-complex tachycardia that may or may not perfuse. In this instance, the rhythm is not perfusing, as demonstrated by the loss of consciousness. If the pulse was checked, the patient would be pulseless.
   B. Supraventricular tachycardia will usually have a narrow QRS complex.
   C. Generally, atrial fibrillation will not have P-waves and will show a “fibrillatory” appearance or f-waves. This results in variable R-R intervals.
   D. Idioventricular rhythms, while having a wide-QRS, will have a slower response rate, generally less than 40 beats/minute.

   **Content Category:** Cardiovascular Tasks

   **References**

2. Left ventricular heart failure commonly produces which one of the following symptoms?
   A. S1 and S2 heart sounds
   B. Enlarged liver
   C. Pulmonary edema
   D. Weight loss
Rationale
A. S1 and S2 heart sounds are normal cardiac sounds.
B. Enlarged liver is a symptom of right ventricular heart failure.
C. The left ventricle is responsible for ejecting blood into the aorta and then the central circulation. When there is left ventricular failure, the blood in the left ventricle has difficulty with forward flow. This results in engorgement in the left atria and engorgement in the pulmonary return. This causes the pulmonary edema.
D. Weight gain is common from fluid overload in left ventricular heart failure.

Content Category: Cardiovascular Tasks

Reference

3. The nurse should prepare to administer which of the following to maintain cardiac output in a patient with an acute right ventricular myocardial infarction (RVMI)?
A. IV colloid fluids
B. Nitroglycerin (Tridil) IV
C. Morphine sulfate (Morphine Sulfate) IV
D. IV crystalloid fluids

Rationale
A. Administration of IV colloids is not indicated unless the patient has a decreased hemoglobin and hematocrit.
B. Nitroglycerin decreases preload and is contraindicated in right ventricular MI.
C. Morphine decreases preload and is contraindicated in right ventricular MI.
D. With a right ventricular injury or infarction, the pump function of the right ventricle is damaged, and blood is not pumped efficiently. This leads to decreased left ventricular filling and decreased cardiac output. Increasing preload, or the volume of blood entering the right ventricle, will result in increased blood volume ejected, leading to increased stroke volume and cardiac output. If the patient is hypotensive after 2 liters of crystalloid fluids such as normal saline, an inotropic medication such as dobutamine IV may be considered. Any treatment that decreases preload in a patient with a right ventricular MI will decrease cardiac output and can cause acute hypotension and patient deterioration.

Content Category: Cardiovascular Tasks

Reference

4. The classic symptom of acute myocardial infarction in patients 85 years of age and older is:
A. elevated temperature.
B. shortness of breath.
C. palpitations.
D. hypertension.
**Rationale**

A. Elevated temperature is not a typical symptom for myocardial infarction in any age group.

B. **Atypical symptoms for myocardial infarction are characteristic in the elderly. Shortness of breath is usually experienced instead of chest pain.**

C. Palpitations may be present, but are not a primary atypical symptom in elderly patients experiencing myocardial infarction.

D. Hypertension may be present, but it is not a typical symptom indicative of myocardial infarction in the elderly.

**Content Category:** Cardiovascular Tasks—Geriatric

**Reference**


5. The QRS complex represents what mechanical event in the heart?

A. Atrial contraction

B. **Ventricular contraction**

C. Ventricular relaxation

D. Atrial relaxation

**Rationale**

A. Atrial contraction is represented by the P wave.

B. **Ventricular contraction is represented by the QRS complex.**

C. Ventricular relaxation is represented by the T wave.

D. Atrial relaxation is not displayed on an electrocardiogram by any specific waveform because it occurs simultaneously with ventricular depolarization and is electrically insignificant in contrast.

**Content Category:** Cardiovascular Tasks

**Reference**


6. A patient, who was successfully defibrillated, now has a regular rhythm with 86 beats/minute. The patient is unresponsive with no palpable pulses. These findings are associated with which of the following?

A. **Pulseless electrical activity**

B. Cardiac tamponade

C. Mechanical monitor failure

D. Aortic aneurysm
Rationale

A. **Pulseless electrical activity (PEA)** is a disturbance in the electrical/mechanical activity of the heart. The term “PEA” is used to describe the condition when electrical activity is displayed on a cardiac monitor, but the patient has no detectable pulse.

B. Cardiac tamponade occurs when rapid accumulation of blood in the pericardial sac decreases ventricular filling. Classic signs of cardiac tamponade are a combination of symptoms called “Beck’s triad”: hypotension, muffled heart tones, and distended neck veins.

C. Monitor failure would affect the electrical activity observed and would not cause the patient to lack a palpable pulse.

D. An aortic aneurysm usually occurs in a weak area of the aortic wall. The pressure of blood inside the artery forces the weak area to balloon outward. If untreated, an aneurysm may rupture, resulting in internal bleeding. Consequences depend on the size of the rupture. A large rupture may be rapidly fatal, and a small one may produce chest pain or other symptoms associated with cardiovascular emergencies. If a pulsless condition occurs, it is usually not accompanied by electrical activity.

**Content Category:** Cardiovascular Tasks

Reference


7. Which of the following indicates that fibrinolytic therapy has been effective for treatment of a ST-elevation myocardial infarction (STEMI)?

A. Elevation of cardiac markers

B. Development of Q waves

C. **Reperfusion dysrhythmias**

D. ST-segment elevation

Rationale

A. Elevated cardiac markers signify cardiac muscle damage.

B. Although resolution of pain and normalization of cardiac markers may be seen as positive signs, development of Q waves in the electrocardiogram may signify infarction or necrosis.

C. **Although the best evidence of reperfusion is angiography, typical signs that reperfusion has occurred include relief from pain, resolution of the ST-segments and reperfusion dysrhythmias such as accelerated idioventricular rhythms. Fibrinolytic therapy is not specific for coronary thromboses. Therefore, it is anticipated that bleeding may occur at puncture and injection sites. Reperfusion dysrhythmias may be seen following fibrinolytic administration.**

D. ST-segment elevation is indicative of cardiac injury.

**Content Category:** Cardiovascular Tasks

Reference

8. If peripheral access is not available during cardiac arrest, the best and most rapid alternate route for medication administration is:
   A. intracardiac.
   B. endotracheal tube (ET).
   C. central venous.
   D. **intraosseous (IO).**

   **Rationale**
   A. The intracardiac route is no longer recommended for medication administration in cardiac arrest due to the potential for causing pericardial tamponade.
   B. Although the endotracheal tube is an acceptable route of medication administration, the IV or IO route is preferred. The optimal dose of most drugs given by the ET route is unknown and needs to be diluted in 5 to 10 mL of normal saline and injected into the tube.
   C. Central venous access takes time and potentially can result in a pneumothorax, which would then cause a breathing issue in addition to the current circulation problem that occurs in arrest.
   D. **Intraosseous needles provide access to a non-collapsible marrow venous plexus, which serves as a rapid, safe, and reliable route for administration of drugs, crystalloids, colloids, and blood during resuscitation.**

   **Content Category:** Cardiovascular Tasks

   **Reference**

9. What is the rationale for administration of heparin or a low-molecular weight heparin agent to a patient with acute coronary syndrome (ACS)?
   A. It acts as a clot “buster” for current blood clots.
   B. It decreases clotting time.
   C. **It inhibits further thrombin (clot) formation.**
   D. It may cause a high platelet count.

   **Rationale**
   A. Heparin or a low-molecular weight heparin does not lyse current clots that are present.
   B. Decreasing clotting time would cause more clots.
   C. **Heparin or a low-molecular weight heparin does not lyse current clots. Its primary action is as an anti-thrombin which inhibits new clot development.**
   D. Heparin or a low-molecular weight heparin can cause thrombocytopenia or fewer platelets.

   **Content Category:** Cardiovascular Tasks

   **Reference**
10. A patient’s cardiac monitor shows a poor electrocardiogram waveform with artifact. The monitor message says “cannot analyze electrocardiogram.” The cable is connected appropriately to the monitor and the patient is lying still. Which of the following interventions can correct this problem?

A. Place the black (left arm) and white (right arm) electrodes at the level of the 2nd intercostal space.
B. Increase the gain setting on the cardiac monitor.
C. Pull the cable attached to the electrodes taut.
D. Ensure adequate skin preparation and accurate electrode placement.

**Rationale**

A. Accurate placement of the white and black electrodes is near the shoulder under the clavicle. Placing the electrodes at the precordial area can result in excessive artifact and inaccurate or unclear tracings.
B. Increasing the gain will not solve a problem of artifact or a poor signal, but it may be helpful if there is a tracing with low voltage.
C. Tension on the cable can pull the electrodes away from the skin and prevent adequate conduction of the electrical signal.
D. Inadequate skin preparation interferes with conduction of the electrocardiogram signal. Inaccurate electrode placement is a common cause of artifact or inability of the monitor to interpret the rhythm.

**Content Category:** Cardiovascular Tasks

**Reference**


11. An asthmatic patient arrives with new onset atrial fibrillation with a rapid ventricular response. The patient is awake, alert and oriented with a blood pressure of 119/62 mmHg, HR 158 beats/minute, and RR 22 breaths/minute. What first-line medication is anticipated for this patient?

A. Lidocaine (Xylocaine)
B. Metoprolol (Lopressor)
C. Adenosine (Adenocard)
D. Diltiazem (Cardizem)

**Rationale**

A. Lidocaine (Xylocaine) is used to treat ventricular ectopy, not atrial fibrillation.
B. Beta blockers, such as metoprolol (Lopressor), should be used with caution in patients with asthma.
C. Adenosine (Adenocard) is used to treat supraventricular tachycardia, not atrial fibrillation with rapid ventricular response.
D. Diltiazem (Cardizem) is first-line therapy for treatment of atrial fibrillation in patients with asthma.

**Content Category:** Cardiovascular Tasks
12. A patient with an implantable cardioverter/defibrillator (ICD) is being monitored for reported syncope. The patient is in normal sinus rhythm on the cardiac monitor and suddenly yells that the device “went off” and gave a shock. The nurse should anticipate which change in the treatment plan?

A. Place a magnet over the device.
B. Initiate transcutaneous pacing.
C. Tell the patient that the ICD just saved his life.
D. Inform the patient that this is an expected occurrence with an ICD.

Rationale
A. Placing a magnet over the device will temporarily deactivate it and prevent inappropriate firing of the defibrillator until the device can be interrogated and corrected if necessary.
B. There is no indication for pacing because a rhythm is present.
C. The ICD fired inappropriately because the patient was in normal sinus rhythm.
D. Inappropriate firing of the ICD is not expected. It should fire when the patient has a shockable rhythm. If combined with a pacemaker, the device may also perform demand-pacing functions.

Content Category: Cardiovascular Tasks

Reference

13. A patient is diagnosed as having an inferior wall myocardial infarction (IWMI). The nurse knows that the most likely dysrhythmia to occur is:

A. tachycardia.
B. bradycardia.
C. atrial fibrillation.
D. torsades de pointes.

Rationale
A. Tachycardias may be normal responses to demand for increased cardiac output or sympathetic stimulation. They are not specifically seen in IWMI.
B. Bradydysrhythmias are often seen in the presence of inferior wall myocardial infarction due to ischemia to the right coronary artery.
C. Atrial fibrillation is usually associated with heart failure, atrial enlargement, or hypertension.
D. Torsades de pointes, also known as polymorphic ventricular tachycardia, is usually the result of a prolonged QT interval, drug toxicity, or hypokalemia.

Content Category: Cardiovascular Tasks

Reference
14. A patient presents to the emergency department with a chief complaint of chest pain. While preparing for a 12-lead electrocardiogram, the patient becomes unresponsive. What is the priority intervention for the emergency nurse?
A. Give amiodarone (Cordarone) immediately.
B. Evaluate the patient’s pulse oximetry.
C. Shake and shout.
D. Begin “hands only” cardiopulmonary resuscitation (CPR).

**Rationale**
A. Until it is determined that the patient has a cardiac rhythm, such as ventricular tachycardia, no drug therapy is indicated. It is important to first establish if the patient is responsive or may need further intervention with cardiopulmonary resuscitation.
B. Having information regarding the patient’s oxygenation status is important; however, this does not supersede efforts to determine if the patient may need cardiopulmonary resuscitation.
C. **Shake and shout is the initial intervention to determine if the patient is responsive to stimuli. This step needs to be performed prior to any cardiopulmonary resuscitation efforts.**
D. The first priority is to determine if the patient is unresponsive or needs cardiopulmonary resuscitation. Hands-only CPR should only be performed by the lay public; health care professionals are expected to perform cardiopulmonary resuscitation, including artificial breathing for the patient, if indicated.

**Content Category:** Cardiovascular Tasks

**References**

15. Which of the following best describes angina?
A. Tearing chest pain that radiates through to the back with blood pressure differences between the left and right side
B. Gripping substernal or upper abdominal pain that is relieved by nitrates
C. Ischemic necrosis of the myocardium
D. **Ischemic chest pain that occurs when myocardial oxygen demands exceed available oxygen supply**
Rationale
A. Tearing chest pain that radiates through the back with blood pressure differences between the left and right side are findings associated with a dissecting aortic aneurysm.
B. Angina may or may not be relieved by nitrates. Technically, angina describes an oxygen deficiency to myocardial tissues.
C. Ischemic necrosis of the myocardium is the definition of a myocardial infarction.
D. **Myocardial tissue demands must be met with available oxygen. When there is a deficit in available oxygen or oxygen delivery, anginal chest pain occurs, but not necrosis.**

Content Category: Cardiovascular Tasks

Reference

16. An elderly patient presents to the emergency department with a 2-hour history of dizziness and fatigue. The 12-lead electrocardiogram reveals an irregular rhythm with no discernible P waves. The nurse suspects that this patient’s symptoms are due to which of the following?

A. Dehydration and hypovolemic shock
B. Ventricular tachycardia with a rhythm
C. Normal changes with aging
D. **Atrial fibrillation (A-fib) with rapid ventricular response**

Rationale
A. Although older adults are more prone to dehydration, this patient has no history of recent illness to indicate significant volume loss.
B. Ventricular tachycardia is a regular rhythm. This patient has an irregularly irregular rhythm.
C. Vague presentations and symptoms are more common in older adults, but they frequently have an acute underlying cause. Acute onset of fatigue or weakness, acute functional decline, and dizziness are not anticipated physiologic changes with aging. The patient should be assessed for cardiac, metabolic, neurologic, infectious, trauma-related, psychiatric, and medication-related conditions.
D. **The most common cause of an irregular heart rhythm and the most common dysrhythmia in older adult patients is atrial fibrillation (A-fib).** With A-fib, there is a loss of atrial kick, or coordinated filling and pumping of blood into the ventricles, which normally contributes about 30% of cardiac output. In addition, when the ventricular rate is increased, the ventricles do not fill completely, further decreasing cardiac output. Older adult patients have a decreased ability to compensate for, and do not tolerate this drop in cardiac output as well as younger patients. They are more likely to report clinical symptoms such as fatigue, weakness, and dizziness.

Content Category: Cardiovascular Tasks

Reference
17. ST-segment elevation in leads V1–V4 represents a myocardial infarction in which area of the heart?
   A. Lateral wall
   B. Inferior wall
   C. Anterior septal
   D. Posterior wall

   **Rationale**
   A. ST-segment elevation in leads V4, V5 and leads I and AVL indicate lateral wall MI.
   B. Electrocardiogram changes associated with inferior wall MI are seen in leads II, III, and AVF.
   C. **ST-segment elevation in leads V1–V4 is indicative of an anterior septal myocardial infarction (MI).**
   D. A posterior electrocardiogram is needed for diagnosis of a posterior wall MI. It is not diagnosed with anterior and frontal chest leads.

   **Content Category:** Cardiovascular Tasks

   **Reference**

18. Which electrical therapy interrupts an abnormal circuit within the heart and needs to be synchronized with the peak of the QRS complex?
   A. Transcutaneous pacing
   B. **Cardioversion**
   C. Defibrillation
   D. Transvenous pacing

   **Rationale**
   A. Transcutaneous pacing delivers an electrical impulse to the heart to increase and regulate the heart rate. There are different modes of pacing, so the setting will impact which chambers of the heart are paced.
   B. **Synchronized cardioversion is the delivery of an electrical impulse at a specific point in the cardiac cycle, during ventricular depolarization (as represented by the QRS complex).**
   C. Defibrillation is the delivery of an electrical current sufficient to depolarize the entire heart muscle and is used to treat ventricular fibrillation and pulseless ventricular tachycardia. The electrical shock is delivered randomly during the cardiac cycle.
   D. Transvenous pacing functions similarly to transcutaneous pacing (TCP), but electrical conduction is placed directly over the heart muscle. The electrical activity does not synchronize with the QRS.

   **Content Category:** Cardiovascular Tasks

   **Reference**
19. The purpose of administering beta-blockers to patients experiencing an ST-segment elevation myocardial infarction (STEMI) is to:
   A. **reduce morbidity and mortality.**
   B. prevent tachydysrhythmias.
   C. induce fibrinolysis.
   D. proactively treat hypertension.

**Rationale**
A. Current guidelines from the American Heart Association and the American College of Cardiology recommend administration of beta-blockers on arrival (or within 24 hours) to reduce morbidity and mortality in patients with STEMI if there are no contraindications.
B. Although beta-blockers may be used for tachydysrhythmias, the primary reason to administer them to STEMI patients is to reduce morbidity and mortality. If there are no contraindications, they should be given whether or not tachycardia is present.
C. Beta-blockers do not have fibrinolytic effects.
D. Although beta-blockers may be used for hypertension, the primary reason to administer them to STEMI patients is to reduce morbidity and mortality. If there are no contraindications, they should be given whether or not hypertension is present.

**Content Category:** Cardiovascular Tasks

**References**

20. Bradycardia in the pediatric patient is defined as a heart rate:
   A. of <100 beats/minute.
   B. of <60 beats/minute.
   C. **slower than the lowest expected rate for the child’s age.**
   D. 10% less than the child’s normal heart rate.

**Rationale**
A. In the pediatric population, the heart rate for bradycardia is age dependent.
B. In the pediatric population the heart rate for bradycardia is age dependent.
C. In the pediatric population, normal ranges of heart rate are based on the child’s age. Therefore, bradycardia in the pediatric patient is based on the lowest expected heart rate for the age norms of the child.
D. In the pediatric population, normal ranges of heart rate change based on the child’s age. Therefore, bradycardia in the pediatric patient is based on the lowest expected rate for the age norms of the child, not by the percentage of heart rate decline.

**Content Category:** Cardiovascular Tasks—Pediatric

**Reference**
21. Which of the following electrocardiogram findings indicates an effective response to adenosine (Adenocard) administration in a patient with supraventricular tachycardia (SVT)?

A. A narrow-complex, regular rhythm at a rate of 160 beats/minute
B. A “flat line” for up to 6 seconds followed by a narrow-complex, regular rhythm at a rate of 90 beats/minute
C. A run of ventricular tachycardia followed by an irregular narrow-complex rhythm
D. A wide-complex, regular rhythm at a rate of 110 beats/minute

Rationale
A. A narrow-complex, regular rhythm at a rate of 160 beats/minute suggests continued SVT; adenosine has not been effective.

B. Adenosine interrupts conduction at the AV node, causing an apparent asystole, which can last up to 10 seconds. This allows the SA node to take over and regular impulses to be conducted.

C. Ventricular tachycardia is not an expected response to adenosine.

D. Wide-complex rhythms are ventricular in origin. After effective adenosine administration, the SA node should resume function as the pacemaker for the heart. This results in narrow-complex QRS complexes because the impulse originates above the AV node.

Content Category: Cardiovascular Tasks

Reference

22. Assessment of a patient involved in a high-speed, head-on motor vehicle crash (MVC) reveals a BP of 100/50 mmHg, HR 110 beats/minute, RR 22 breaths/minute, and abrasions over the left upper quadrant (LUQ) of the abdomen. A focused evaluation should be anticipated for which of the following organs?

A. Liver
B. Kidneys
C. Ascending colon
D. Pancreas

Rationale
A. The liver is located in the right upper quadrant under the anterior 8th to 12th ribs. This patient’s injuries are on the left upper quadrant.

B. The kidneys lie in the retroperitoneal area of the lower abdominal area and are at risk for injury from blunt and penetrating forces. Renal injuries should be suspected if the patient has fractures to the lower posterior ribs.

C. The ascending colon is located in the right upper quadrant (RUQ) near the right lobe of the liver. The majority of injuries are related to penetrating, not blunt trauma.

D. The body of the pancreas lies in the upper left quadrant, behind the stomach in the retroperitoneal area. Direct blunt force to the epigastric area may result in pancreatic injury with a mortality rate as high as 50%. Other areas of potential injury would be the spleen, duodenum, jejunum, ileum, transverse colon, descending colon, and the stomach.

Content Category: Gastrointestinal Tasks
References


23. A patient newly diagnosed with liver failure is exhibiting cognitive changes, irritability, and some muscle rigidity. Which additional assessment finding would you anticipate the patient exhibiting?

A. A flapping tremor, usually of the hand
B. Petechial rash over the trunk
C. Bluish discoloration over the lower abdominal flanks
D. Worsening abdominal pain when patient lays supine

Rationale

A. Asterixis, a flapping tremor usually of the hand, is an early indication of hepatic encephalopathy along with muscle rigidity and hyperreflexia. Have the patient hold their arm and hand out as if to stop traffic; involuntary hand “flapping” is a positive sign.

B. Bruising and bleeding tendencies may develop as a result of impaired clotting factors and sequestration of platelets in the spleen. This is not manifested as a petechial rash.

C. The presence of a bluish discoloration over the lower abdominal flanks is indicative of hemorrhagic pancreatitis.

D. Abdominal pain that is exacerbated when the patient is supine and relieved when the patient sits and leans forward is usually seen with acute pancreatitis.

Content Category: Gastrointestinal Tasks

References


24. Which of the following bowel sounds is commonly considered a **LATE** sign of a bowel obstruction?

A. Hyperactive bowel sounds
B. High-pitched bowel sounds
C. Absent bowel sounds
D. Hypoactive bowel sounds
Rationale
A. Hyperactive bowel sounds (audible borborygmus) indicate increased peristalsis.
B. A “rush” or “tinkling” (higher-pitched frequency) of air coincides with an abrupt, severe spasmomadic pain “cramp.” These peristaltic rush sounds are proximal to the area of obstruction.
C. Absent bowel sounds are indicative of paralytic ileus or diminished perfusion indicating a closed bowel lumen (complete bowel obstruction).
D. Hypoactive bowel sounds indicate decreased peristalsis.

Content Category: Gastrointestinal Tasks

References

25. A patient complains of discomfort in the right upper quadrant (RUQ) and mid-epigastric area, with nausea and some vomiting. What statement increases the suspicion that the patient is exhibiting symptoms of cholecystitis?
A. “I have severe belly pain that goes to my back.”
B. “I vomited three times before coming to the emergency department.”
C. “I have had stomach pain, severe at times, with vomiting and constipation.”
D. “I had two bowls of chili and an order of French fries before the pain started.”

Rationale
A. Severe abdominal pain radiating through to the back correlates with pancreatitis.
B. Although vomiting may occur with cholecystitis, it can also be caused by many other disease processes, and further evaluation would be necessary.
C. Symptoms of stomach pain, vomiting, and constipation suggest possible bowel obstruction.
D. Cholecystitis is an inflammation of the gallbladder. History reveals RUQ or epigastric pain following a fatty food diet. Other symptoms would be indigestion, nausea, anorexia, and/or vomiting.

Content Category: Gastrointestinal Tasks

Reference

26. A primary adverse effect that is associated with a patient taking bethanechol (Urecholine) for gastroesophageal reflux disease (GERD) is:
A. urinary urgency.
B. constipation.
C. hypertension.
D. dry mucous membranes.
Rationale
A. Urecholine is a cholinergic drug. In the patient with GERD, it increases sphincter pressure and facilitates gastric emptying. Adverse effects of cholinergic drugs may include urinary urgency, diarrhea, abdominal cramping, hypotension, and increased salivation.
B. Diarrhea is a common side effect of cholinergic drugs.
C. Hypotension is a more likely side effect of cholinergic drugs.
D. Cholinergic drugs increase salivation.

Content Category: Gastrointestinal Tasks

References

27. Which dietary recommendations are appropriate for a patient who has been diagnosed with esophagitis?
A. Eliminate foods with sorbitol.
B. Avoid spicy foods.
C. Allow maximum of two alcoholic drinks per day.
D. Eat three balanced meals per day.

Rationale
A. Patients with a diagnosis of irritable bowel syndrome, not esophagitis, are instructed to avoid sorbitol-containing foods because they can cause gas bubbles to form in the intestine.
B. Patients with esophagitis, an inflammatory response to the mucosa, need to avoid causative factors such as spicy foods.
C. Patients with esophagitis should avoid all alcohol because it could exacerbate an esophagitis attack.
D. Patients with esophagitis should eat small frequent meals.

Content Category: Gastrointestinal Tasks

Reference

28. Assessment of a patient with a suspected hepatic injury may reveal:
A. Subcutaneous emphysema.
B. Tenderness in the upper right quadrant.
C. Gross blood in gastric aspirate.
D. Left shoulder pain.
Rationale
A. Subcutaneous emphysema would be found in a patient with an esophageal injury.
B. The liver is located in the upper right quadrant and extends transversely across the midline. Pain and tenderness would, therefore, be elicited in the upper right quadrant. The liver is very vascular, and injury could result in profuse hemorrhage.
C. Gross blood in gastric aspirate would be found in a patient with a suspected gastric or esophageal injury.
D. Left shoulder pain (Kehr’s sign) may be found in a splenic injury and caused by irritation to the diaphragm.

Content Category: Gastrointestinal Tasks

Reference

29. Following a motor vehicle crash (MVC), a patient suffering from a lap belt injury will most likely be at risk for:
A. development of subcutaneous emphysema.
B. laceration of the spleen.
C. rupture of the colon.
D. injury to the liver.

Rationale
A. Subcutaneous emphysema usually occurs with trauma to the esophagus.
B. Laceration of the spleen usually occurs with blunt trauma to the left 10th to 12th ribs causing splenic laceration. Lap belts would not be worn that high on the body.
C. Lap belts causing compression can result in the rupture of the small bowel or colon.
D. Hepatic injury rarely occurs from a lap belt injury due to the protective nature of the right ribs and the anatomical placement of the lap belt.

Content Category: Gastrointestinal Tasks

Reference

30. A young adult, who presented with nausea, vomiting, abdominal bloating, and cramping, is diagnosed with irritable bowel syndrome and is ready for discharge. Which of the following statements indicates that the patient understands discharge instructions?
A. “Small, low-fat meals are best for me.”
B. “I will eliminate alcohol and caffeine consumption.”
C. “I need to eat a high fiber diet with plenty of water.”
D. “I should not drink fluids with meals.”
A. Eating small, low-fat meals is necessary with a diagnosis of gastroesophageal reflux disease (GERD).
B. A diagnosis of pancreatitis necessitates the elimination of alcohol and caffeine.
C. High-fiber diets with plenty of water are necessary with a diagnosis of intestinal obstruction.
D. **In irritable bowel syndrome, fluids should not be taken with meals because it may cause distention.**

**Content Category:** Gastrointestinal Tasks

**References**

31. A patient is being discharged from the emergency department with a diagnosis of acute prostatitis. The discharge instructions should include:
A. increase the daily amount of fluid intake.
B. take the prescribed medications for 1 week.
C. follow-up with the family physician in 24 hours.
D. abstain from sexual intercourse for 5 days.

**Rationale**
A. **Increase daily fluid intake to assist in eliminating the bacteria.**
B. Medications should be taken as directed and could be for a varied time frame, which is typically for several weeks.
C. The patient should follow-up with their physician within the next week but not necessarily within the next 24 hours.
D. There are no restrictions regarding sexual activity.

**Content Category:** Genitourinary/Gynecology/Obstetrical Tasks

**Reference**

32. A 29-week pregnant patient is awaiting transfer to a high-risk obstetrical unit with a diagnosis of preeclampsia. She is receiving magnesium sulfate at one (1) gram per hour via infusion. Which of the following is a priority to monitor for this patient?
A. Respiratory rate
B. Heart rate
C. Hypereflexia
D. Proteinuria

**Rationale**
A. Respiratory rate
B. Heart rate
C. Hypereflexia
D. Proteinuria
Rationale
A. An adverse effect of the magnesium is muscle weakness; therefore, the respiratory rate must be closely monitored.
B. Although the heart rate may be a bit fast due to anxiety, the heart rate is generally not of concern.
C. Because the patient is receiving a magnesium sulfate infusion, she would be monitored for hyporeflexia.
D. It would be normal for a patient with preeclampsia to have protein in her urine.

Content Category: Genitourinary/Gynecology/Obstetrical Tasks

Reference

33. A patient complains of an episode of painless dark red urine. Which of the following foods does NOT cause dark red urine?
A. Rhubarb
B. Blackberries
C. Strawberries
D. Beets

Rationale
A. Red urine may be caused by beets, rhubarb, or blackberries, as well as several medications.
B. Red urine may be caused by beets, rhubarb, or blackberries, as well as several medications.
C. Strawberries do not cause red urine. Red urine may be caused by beets, rhubarb, or blackberries, as well as several medications.
D. Red urine may be caused by beets, rhubarb, or blackberries, as well as several medications.

Content Category: Genitourinary/Gynecology/Obstetrical Tasks

Reference

34. A 38-week pregnant patient presents to triage with onset of spontaneous, bright red, painless vaginal bleeding. The most likely cause of the bleeding is:
A. placenta abruption.
B. placenta previa.
C. uterine rupture.
D. vaginal tears.
**Rationale**

A. Placenta abruption is premature separation of the normally implanted placenta from the uterine wall. It is usually painful. Classic signs of abruption include vaginal bleeding, uterine tenderness, abdominal pain, back pain, and uterine hyperactivity with poor relaxation between contractions. Presentation may be vague or severe.

B. **Placenta previa** is a condition in which the placenta is abnormally implanted in the lower uterine segment. It may partially or completely cover the cervical os. As the cervix starts to dilate, the placenta may be torn and bleeding will be bright red as opposed to the darker blood often associated with an abruption. Early dilation may not be felt by the mother; therefore, there is no pain associated with early bleeding of a previa.

C. Abdominal pain associated with uterine rupture may be acute and severe. Injury involving sudden deceleration, severe abdominal compression, or direct force to the abdomen can result in uterine rupture.

D. Vaginal tears may be associated with trauma, but the nurse should first consider previa, which can be life threatening.

**Content Category:** Genitourinary/Gynecology/Obstetrical Tasks

**References**


35. Which of the following would alert the emergency nurse that the nurse should be preparing a 14-week pregnant patient for a dilation and curettage (D&C)?

A. The patient requests a termination of the pregnancy.

B. Minor dark red bleeding with occasional clots present.

C. A heart rate 120 beats/minute with a blood pressure of 100/60 mmHg.

D. **Ongoing bright red bleeding with tissue present and cramping.**

**Rationale**

A. Therapeutic abortions are not performed in the emergency department.

B. The patient does not appear to be bleeding profusely, and the darkening of the blood indicates that this is not fresh bleeding.

C. This patient is tachycardic, but her blood pressure is still within normal range. The vital signs alone are not an indication for surgery.

D. **This patient needs a D&C if the bleeding does not decrease. She is at high risk for hypovolemia and coagulopathy if the bleeding continues.**

**Content Category:** Genitourinary/Gynecology/Obstetrical Tasks

**Reference**

36. Which of the following interventions would be appropriate for a patient who has been diagnosed with renal calculi?
A. High fiber diet and 16 oz of cranberry juice daily
B. Ice to the area of pain
C. Immediate surgical intervention once diagnosis is made
**D. Hydration and analgesics**

**Rationale**
A. High-fiber diets with plenty of water are necessary with a diagnosis of intestinal obstruction.
B. Ice is not indicated with renal calculi.
C. Rarely is surgery indicated. Laser lithotripsy or extracorporeal shock wave lithotripsy may be utilized, but these are not the initial emergency department interventions.
D. Administer IV fluids to help flush out the stone. Analgesics (meperidine [Demerol], morphine [Morphine Sulfate], or ketorolac [Toradol]), as well as antiemetics, may be needed.

**Content Category:** Genitourinary/Gynecology/Obstetrical Tasks

**References**

37. A patient with a history of pelvic inflammatory disease (PID) presents with right lower quadrant pain, scant vaginal bleeding, and dizziness. She also has pain radiating to her left shoulder. Her vital signs are blood pressure 88/50 mmHg, HR 127 beats/minute, RR 22 breaths/minute, and T 97.5°F (36.4°C). A pregnancy test is positive. Which of the following is most likely?
A. Ectopic pregnancy
B. Spontaneous abortion
C. Hydatidiform mole
D. Appendicitis

**Rationale**
A. Pelvic inflammatory disease may lead to scarring of the fallopian tubes, which can make it difficult for a fertilized ovum to move into the uterus. The tube can rupture and cause severe bleeding within the peritoneum. Blood irritating the diaphragm causes pain radiating to the left shoulder (Kehr’s sign).
B. Spontaneous abortion more commonly presents with moderate or heavy vaginal bleeding and uterine cramping.
C. Spontaneous delivery of a hydatidiform mole more commonly presents with vaginal presentation of “grape-like” structures and moderate or heavy vaginal bleeding.
D. Appendicitis is not related to pregnancy or vaginal bleeding. The pain may be in the right lower quadrant, but it is not associated with signs of hypovolemic shock. The patient with appendicitis is more commonly nauseated, with rebound tenderness.

**Content Category:** Genitourinary/Gynecology/Obstetrical Tasks
Reference

38. A woman is complaining of a thick, white, cheese-like vaginal discharge. The nurse would expect a diagnosis of:
A. trichomoniasis.
B. gonorrhea.
C. candidiasis.
D. genital herpes.

Rationale
A. Trichomoniasis is associated with a gray or greenish discharge.
B. Gonorrhea is suggested by a yellow discharge.
C. A thick, white, cheese-like discharge suggests candidiasis.
D. Genital herpes is not associated with a vaginal discharge. Lesions may be present.

Content Category: Genitourinary/Gynecology/Obstetrical Tasks

Reference

39. Discharge instructions for a patient diagnosed with endometriosis should include:
A. advice to complete all her antibiotics to ensure complete treatment.
B. gynecological referral for follow-up.
C. advice to have sexual partners treated to prevent reoccurrence.
D. referral for an outpatient pregnancy test.

Rationale
A. Endometriosis is not treated with antibiotics.
B. **Endometriosis occurs when endometrial tissue grows outside of the uterus. During menstruation, the tissue sloughs and causes pain. Although the tissue is often found in the peritoneal area, endometriosis has been found in the lungs, brain, and many non-peritoneal sites. Analgesia is appropriate and referral for hormonal therapy is indicated. Surgery may be necessary but is not emergent.**
C. Endometriosis is not a sexually transmitted disease (STD); however, an STD should be included in the differential diagnosis and ruled out prior to discharge.
D. A pregnancy test is an essential part of a workup for endometriosis. Pregnancy should be ruled out before the patient is discharged from the emergency department.

Content Category: Genitourinary/Gynecology/Obstetrical Tasks

References
40. Which of the following would be the best indicator of a viable fetus?
   A. Four “kicks” over the course of an hour in a term fetus
   B. Fetal heart rate greater than 160 beats/minute
   **C. Fundal height of 26 centimeters (cm) or more above the symphysis pubis**
   D. Maternal report of contractions every three minutes

**Rationale**
A. Approximately 10 “kicks” in an hour are an indicator of fetal well-being. No fetal movement over the course of an hour may indicate fetal demise. An ultrasound should be done to assist in evaluation of fetal status.
B. Normal rate for a term fetus is between 100 to 160 beats/minute. A fetal heart rate greater than or equal to 160 beats/minute may indicate a young, nonviable fetus or a distressed fetus.
C. **Fundal height measured 26 cm above the symphysis pubis is indicative of a 26-week-old fetus, which is considered viable.**
D. Although contractions may indicate active labor, they do not indicate fetal viability.

**Content Category:** Genitourinary/Gynecology/Obstetrical Tasks

**Reference**

41. Damage to the epithelial layer of the cornea causing uptake of fluorescein dye is most likely caused by a(n):
   A. hyphema.
   B. traumatic iritis.
   C. corneal abrasion.
   D. chemical burn.

**Rationale**
A. Hyphema involves bleeding into the anterior chamber, which is detected by the presence of RBCs visible on slit lamp examination.
B. Iritis involves the iris and/or choroid body, which are deeper structures in the eye. The superficial layer of the cornea remains intact, so there is no uptake of dye.
C. **The denudation or scraping away of the most superficial layer of the cornea alters the surface and causes fluorescein dye to adhere to the tissue.**
D. The surface of the cornea may or may not be disrupted by a chemical, but that does not cause a specific area of fluorescein dye uptake like a corneal abrasion.

**Content Category:** Maxillofacial/Ocular Tasks

**References**
42. Which of the following actions of glucagon hydrochloride makes it useful in the management of an esophageal food impaction?

A. **Relaxation of smooth muscles**  
B. Increased production of cyclic AMP  
C. Decreased gastrointestinal (GI) motility  
D. Positive inotropic effects

**Rationale**

A. Relaxation of esophageal smooth muscles aids with passage of a food impaction into the stomach.

B. Cyclic adenosine monophosphate (cAMP) assists in regulation of glycogen, sugar, and lipid metabolism. Increased cAMP production has no role in food impaction management.

C. Decreased GI motility does not promote passage of a food impaction. This action can be diagnostically beneficial in radiographic examination of the GI tract.

D. Positive inotropic effects result in increased heart rate and myocardial contractility, neither of which is beneficial in the management of a food impaction.

**Content Category:** Maxillofacial/Ocular Tasks

**Reference**


43. Which of the following consequences of a chemical burn to the eye is of greatest concern?

A. Need for ophthalmic follow-up after discharge  
B. Altered visual sensory-perception  
C. Risk for developing an infection  
D. Anxiety related to potential loss of vision

**Rationale**

A. Not all patients require ophthalmic follow-up. When it is indicated, the emergency physician can make an appropriate referral.

B. Chemical burns of the eye will cause some degree of impaired vision and are, therefore, considered emergent. Any disruption of the visual senses will alter the sensory-perception of the patient. Immediate initiation of eye irrigation is needed to minimize the exposure of tissue to caustic chemicals.

C. Infection is an uncommon complication of ocular chemical burns. Damage to the eye from increased intraocular pressure and necrosis of the tissue is of more concern.

D. Any problem that alters a patient’s sensory-perceptual state will cause anxiety. Pain and concern about possible permanent loss of vision will also increase apprehension. Anxiety is a valid problem for the patient but is less emergent than a sensory-perceptual defect.

**Content Category:** Maxillofacial/Ocular Tasks

**Reference**

44. The priority reassessment of a patient with a larynx fracture is:
   A. **airway patency.**
   B. response to analgesia.
   C. hemodynamic status.
   D. lung sounds.

   **Rationale**
   A. The larynx is a vital part of the upper airway structures and injury can lead to immediate or progressive airway obstruction. Ongoing monitoring and reassessment are essential to be prepared for immediate intervention if needed to maintain airway patency. Nursing assessments include observation for hoarseness, stridor, hemoptysis, dyspnea, cough, and painful or difficult speech.
   B. Injuries to the larynx can be painful and require adequate analgesia, but attention to the adequacy of the airway is of prime importance.
   C. The larynx is supplied by various branches of the thyroid artery, and damage to these structures can result in local bleeding. However, hemodynamic instability is not a common complication of laryngeal fractures.
   D. Auscultated lung sounds reflect the movement of air in the lower airways. The larynx is an upper airway structure and causes hoarseness and stridor if injured.

   **Content Category:** Maxillofacial/Ocular Tasks

   **References**

45. The emergency nurse should be most concerned about which of the following physical findings that may indicate a globe disruption?
   A. A **peaked, teardrop-shaped pupil in a patient with unilateral eye pain**
   B. Visible blood settled in the anterior chamber
   C. A steamy or hazy cornea with scleral injection
   D. Limited and painful movement of the extraocular muscles
Rationale
A. A ruptured globe is a major ocular emergency that may require immediate surgical intervention. Although a ruptured globe may be an occult injury, key assessment findings include an irregular pupil that may be peaked or tear-drop shaped. Enophthalmos, an afferent papillary defect, and possible extrusion of aqueous or vitreous humor may also be noted. A shallow anterior chamber may be the only abnormal finding and is associated with a poor prognosis.
B. A hyphema, blood in the anterior chamber, may be caused by disruption of the ciliary body and is a possible concurrent injury in the patient with globe disruption.
C. A steamy, hazy cornea with scleral injection is a common finding associated with acute narrow-angle glaucoma. In the patient with globe rupture, scleral redness would be more likely due to severe conjunctival hemorrhage rather than injection.
D. Associated periorbital bony injuries may involve the extraocular muscles and lead to entrapment. All periorbital injuries increase the index of suspicion for the emergent finding of ruptured globe.

Content Category: Maxillofacial/Ocular Tasks

References

46. Which of the following statements by a patient diagnosed with Bell’s palsy indicates successful discharge teaching?
A. “I will apply a cold compress to the side of my face four times a day.”
B. “I will use artificial tears only when I notice my eye burning or stinging.”
C. “I will wear sunglasses anytime I go outside.”
D. “I will need to take steroids for the rest of my life.”

Rationale
A. Cold exposure can be a precipitating factor and should be avoided.
B. The patient will need to instill artificial tears on a regular basis.
C. Eye protection is essential to keep debris out of the eye due to the loss of the normal blink response.
D. Steroid therapy is short term.

Content Category: Maxillofacial/Ocular Tasks

Reference

47. Untreated Lyme disease may cause:
A. ascending paralysis.
B. laryngeal edema.
C. petechial rash.
D. atrioventricular blocks.
Rationale

A. Tick paralysis is not found with Lyme disease (deer ticks) but is caused by wood or dog ticks. Tick paralysis is an ascending motor paralysis occurring over 1 to 2 days. Symptoms include ataxia, lower extremity weakness progressing to the upper extremities, paresthesia, decreased or absent reflexes, and eventually respiratory failure. Treatment is to remove the tick and supportive care. Symptoms usually resolve within 72 hours.

B. Laryngeal edema is not caused by Lyme disease. Laryngeal edema may be caused by hymenoptera stings from bees, wasps, hornets, and fire ants. Treatment is to remove the stinger and apply ice to the wound. If the reaction is severe, antihistamines and treatment for anaphylaxis should be initiated.

C. *Rickettsia rickettsii* causes Rocky Mountain spotted fever and is transmitted by wood and dog ticks. If left untreated, classic symptoms are a petechial rash often on the palms, wrists, soles of the feet, or ankles. Mortality is between 8% to 25% for these untreated cases. Treatment would be antibiotics and supportive care.

D. *Borrelia burgdorferi* is transmitted by the deer tick causing Lyme disease. If left untreated, common symptoms are an expanding bull’s-eye circle on the skin, flu-like symptoms, atrioventricular blocks, meningitis, hepatitis, and arthralgia. Treatment would be antibiotics and supportive care.

Content Category: Medical Emergency Tasks

References


48. Priority management when caring for a patient diagnosed with myxedema coma is to:

A. administer a beta-blocker.

B. initiate supplemental oxygen.

C. initiate aggressive body cooling.

D. insert a urinary catheter.

Rationale

A. Patients with myxedema coma exhibit diminished stroke volume and decreased cardiac output. They are often severely bradycardic. Administering a beta-blocker would further diminish their pulse rate and should be avoided.

B. Myxedema coma can affect the airway and breathing of a patient. The tongue can become swollen and impede the airway. Hypoventilation is not uncommon, and the patient’s respiratory drive is often decreased, leading to alveolar hypoventilation. Improving the patient’s oxygenation level, by initiating oxygen therapy to maintain oxygen saturations above 92%, is a high priority. Rapid sequence intubation and ventilatory support are often required for a patient with a compromised airway.

C. The patient with myxedema coma is peripherally vasoconstricted and will exhibit a lower core body temperature. Aggressive cooling would increase the patient’s metabolic demands and should be avoided. The patient should be passively rewarmed slowly.

D. Myxedema coma will require the use of a urinary catheter to monitor urinary output, but it is not the highest priority when caring for this patient.
**Content Category:** Medical Emergency Tasks

**References**


49. Upon evaluation of a patient with adrenal crisis, the nurse would expect:
   A. bradypnea.
   B. bradycardia.
   C. **hypotension.**
   D. hypothermia.

**Rationale**

A. Tachypnea is frequently seen with patients in adrenal crisis.

B. With adrenal insufficiency, tachycardia would be noted.

C. **Patients with adrenal crisis or insufficiency fail to produce glucocorticoid and mineralocorticoid hormones.** Hypotension is generally noted, along with electrolyte disturbances, including hyperkalemia and hyponatremia. Death occurs due to circulatory collapse and hyperkalemia-induced dysrhythmias.

D. Elevated temperature is a common finding with patients in adrenal crisis.

**Content Category:** Medical Emergency Tasks

**Reference**


50. A 10-month-old infant presents to the emergency department with fever, bluish-gray specks on the buccal mucosa, and rash on the face. This is associated with which of the following conditions?
   A. Allergic reaction
   B. Mumps
   C. **Measles**
   D. Varicella (chicken pox)

**Rationale**

A. Fever is not associated with an allergic reaction.

B. Rash is not associated with mumps. Signs and symptoms of mumps are swelling and tenderness to salivary and parotid glands.

C. **Infants are immunized for measles between 12 and 15 months.** A 10-month-old infant has not had the vaccine. The bluish-gray specks on the buccal mucosa are called Koplik’s spots and are classic for measles.

D. The rash in chicken pox starts on the trunk; Koplik’s spots are not present.

**Content Category:** Medical Emergency Tasks—Pediatric
51. Which of the following patient statements indicates that post lumbar puncture discharge instructions were understood?
A. “I can expect to have a severe headache.”
B. “I shouldn’t eat or drink anything for at least 8 hours.”
C. “I can go back to work as soon as I leave the emergency department.”
D. “I need to watch for any fever and call my doctor if it’s higher than 101°F (38.3°C).”

**Rationale**
A. A severe or prolonged headache unrelieved by analgesics or other prescribed headache medications may be a spinal headache and should be reported.
B. Increased fluid intake is believed to help replace cerebral spinal fluid (CSF) and prevent spinal headache.
C. Remaining flat for at least 2 hours post procedure helps prevent spinal headache.
D. An infection is usually related to poor aseptic technique or a puncture through irritated or infected tissue.

**Content Category:** Medical Emergency Tasks

**Reference**

52. Which of the following laboratory values would indicate viral versus bacterial meningitis?
A. Protein 250 mg/dL
B. **Leukocytes 900 cells/mL**
C. Glucose 60 mg/dL
D. Red blood cells (RBCs) 4 cells/mL

**Rationale**
A. Protein is less than 200 mg/dL in viral meningitis and higher than 200 mg/dL in bacterial meningitis; normal range is 15 to 45 mg/100 mL.
B. **Leukocytes are less than 1000 cells/mL in viral meningitis and greater than 1000 cells/mL in bacterial meningitis; normal range is 0 to 5 white blood cells.**
C. Glucose is elevated in viral meningitis and low in bacterial meningitis. Normal range is 50 to 80 mg/100 mL (or approximately 2/3 of blood sugar level).
D. RBCs are not normally found in the CSF; if present they are indicative of bleeding into the spinal fluid or a traumatic LP.

**Content Category:** Medical Emergency Tasks

**References**
53. Which type of isolation precautions is most appropriate when caring for a patient with scabies?
   A. Contact precautions
   B. Airborne precautions
   C. Droplet precautions
   D. Standard precautions

Rationale
A. Scabies is transmitted by intimate personal or sexual contact with an infected person.
   Health care providers can spread the disease by casual contact with an infected person.
   Contact precautions require that health care personnel wear a gown and gloves for all
   interactions that may involve contact with the patient or potentially contaminated ar-
   eas in the patient's environment. Donning personal protective equipment (PPE) before
   room entry and discarding before exiting the patient room are done to contain patho-
   gens, especially those that have been implicated in transmission through environmental
   contamination. Standard precautions are always done in conjunction with any additional
   precautions.
B. Scabies is not an airborne disease and cannot be transmitted through the air. Airborne pre-
   cautions prevent transmission of infectious agents that remain infectious over long distances
   when suspended in the air (e.g., rubeola virus [measles], varicella virus [chickenpox], and
   Mycobacterium tuberculosis).
C. Droplet precautions are intended to prevent transmission of pathogens spread through close
   respiratory or mucous membrane contact with respiratory secretions. Scabies is not spread
   in this manner. Examples of patients requiring droplet precautions would include those with
   pertussis, influenza virus, adenovirus, rhinovirus, N. meningitides, and group A streptococ-
   cus (for the first 24 hours of antimicrobial therapy).
D. Standard precautions include infection prevention practices that apply to all patients, re-
   gardless of suspected or confirmed infection status, in any setting in which health care is
   delivered. This alone is not enough to prevent the spread of scabies.

Content Category: Medical Emergency Tasks

References
Thomas (Eds.), Emergency nursing core curriculum (6th ed., pp. 438–482). St. Louis, MO: Else-
vier Saunders.

54. An elderly patient presents with elevated temperature, restlessness, confusion, weakness,
   and a recent history of radioactive iodine administration. The emergency physician diagno-
   ses thyroid storm. Which of the following treatment options would you anticipate?
   A. Aspirin (Acetylsalicylic Acid)
   B. Propanolol (Inderal)
   C. Sodium bicarbonate
   D. Atropine (Atropine Sulfate)
Rationale
A. Aspirin should not be administered to patients with thyroid storm because it displaces thyroid hormone from binding sites. If an antipyretic is needed, acetaminophen (Tylenol) would be the drug of choice.

B. Beta-blockers, such as propranolol (Inderal) or esmolol (Brevibloc), are frequently administered to patients with thyroid storm to control tachycardia and maintain a heart rate less than 100 beats/minute.

C. Sodium bicarbonate should be administered if treating acidosis. There is no indication that this patient is acidic as presented.

D. Atropine would be administered to patient with bradycardia, not tachycardia, which is seen in patients with thyroid storm.

Content Category: Medical Emergency Tasks—Geriatric

Reference

55. An insulin-dependant diabetic patient presents to the emergency department diaphoretic, feeling weak and “shaky.” The patient reports taking insulin this morning, but not having a chance to eat. What is the priority intervention for this patient?

A. Initiate intravenous access.

B. Obtain a finger-stick blood glucose.

C. Obtain a 12-lead electrocardiogram.

D. Administer oral glucose.

Rationale
A. Intravenous access may be necessary later in the course of therapy, but the priority is to determine if the blood glucose level is abnormal in order to determine if emergent action is indicated.

B. The first action is to determine if the patient’s symptoms are related to a low blood glucose level. Obtaining a finger-stick blood glucose will immediately alert the nurse if the patient’s blood glucose level is abnormal.

C. Although diabetic patients are at higher risk for cardiac-related events, the 12-lead electrocardiogram would not be the first action for this patient. It may be indicated later in the course of therapy.

D. Oral glucose will help this patient if the symptoms are related to low blood glucose. The first action is to determine if there is a glucose abnormality.

Content Category: Medical Emergency Tasks

Reference
56. Which of the following patient statements would lead the nurse to determine that the patient understands prevention strategies for sickle cell crisis?
   A. “I should take only over-the-counter (OTC) pain medications.”
   B. “I should limit how much fluid I drink each day.”
   C. “I should avoid any confrontations with people.”
   D. “I should avoid participating in winter sporting events.”

   **Rationale**
   A. Nonnarcotic and/or narcotic medications may be prescribed for pain management. All prescribed medications should be reviewed with the patient.
   B. Dehydration may precipitate a crisis by causing a microcirculation obstruction. Adequate fluid intake each day prevents a crisis.
   C. Avoidance may produce more stress and precipitate a crisis. Stress reduction and comfort techniques are therapeutic strategies for prevention.
   D. **Avoiding cold weather is a prevention strategy. Cold causes vasoconstriction, which then leads to microcirculation obstruction and may precipitate a sickle cell crisis.**

   **Content Category:** Medical Emergency Tasks

   **References**

57. An elderly patient presents in a wheelchair complaining of inability to bear weight, swelling, severe pain in the right “big toe” and fever to 100°F (37.7°C). He denies nausea, vomiting, diarrhea, cough, and chest pain. His past medical history is hypertension for which he takes hydrochlorothiazide (HCTZ) and enalapril (Vasotec). Based on his presentation, treatment orders are anticipated for:
   A. osteoporosis.
   B. systemic lupus erythematosus (SLE).
   C. gout.
   D. septic arthritis.
Rationale

A. Osteoporosis most commonly occurs in postmenopausal women, persons who take steroids, and persons who consume alcohol. Pain usually occurs in the back, hip, or wrist from microscopic or obvious fractures caused by inadequate production and/or excessive removal of bone.

B. Systemic lupus erythematosus (SLE) is a multisystem autoimmune disorder most commonly found in women of childbearing age. The patient presents when autoantibodies are generated by the body, exacerbating symptoms to respiratory, cardiac, abdominal, renal, or neurologic systems. They will have a diffuse facial erythema, acute pain, hemoptysis, elevated temperature, and tachypnea.

C. Gout affects the first metatarsophalangeal joint and often occurs at night. Pain is intolerable and any clothing, weight bearing, or range of motion causes severe pain. There is often a complaint of low-grade fever with the first episode. Medical history often includes alcohol use, elevated triglycerides, and hypertension controlled with a thiazide diuretic. Treatment includes avoiding alcohol, taking colchicine (Colsalide), indomethacin (Indocin), probenecid (Benemid), or allopurinol (Zyloprim), stopping thiazide diuretics, and weight reduction.

D. Septic arthritis is usually caused by *Staphylococcus aureus* and affects large weight-bearing joints, such as the knees. Symptoms include a warm joint that gets progressively warmer, more painful, and swollen.

Content Category: Medical Emergency Tasks—Geriatric

Reference


58. Which of the following statements from a patient diagnosed with trichomoniasis and prescribed metronidazole (Flagyl) exhibits a good understanding of discharge instructions?

A. “I will remember to clean myself from back to front every time I go to the bathroom.”

B. “I will avoid alcohol consumption while taking my medicine.”

C. “I should not take a bath in warm water because it may increase my discomfort.”

D. “It is safe for me to get pregnant while on this medicine.”

Rationale

A. After voiding, women should always wipe and clean themselves from front to back and always discard the tissue to avoid cross contamination from the vagina into the urethra. They should also avoid the use of excessive sprays, perfumes, scented soaps and douching when they have an infection.

B. The combination of alcohol and metronidazole (Flagyl) can produce a disulfiram (Antabuse) reaction which includes violent vomiting episodes. Persons prescribed metronidazole (Flagyl) should be counseled to avoid alcohol in any form, including mouthwash, during the course of the medication and up to 48 hours after use of the drug.

C. Sitz baths will often alleviate discomfort by applying warm water to any open lesions.

D. Metronidazole (Flagyl) is not safe in pregnancy; it is a class B drug and should be avoided in the 2nd and 3rd trimester and is contraindicated in the 1st trimester.

Content Category: Medical Emergency Tasks
59. An elderly patient is given intravenous levothyroxine (T4) for treatment of myxedema coma. Which of the following outcomes would be indicative of patient improvement?

A. Increased thyroid hormone level
B. Decreased sodium level
C. Decreased arterial pH
D. Increased BUN

Rationale

A. Myxedema coma occurs in patients with long-standing or undiagnosed hypothyroidism. Administration of levothyroxine (T4) saturates empty sites and replenishes peripheral circulating levels. Increased thyroid hormone levels would indicate that the treatment was successful.

B. Patients with myxedema coma typically present with hyponatremia (low sodium level) along with hypochloremia (low chloride level).

C. Abnormal arterial blood gas values such as hypoventilation, hypercarbia, and hypoxia are all symptoms of myxedema coma. Decreasing arterial pH (more acidotic) would not be an improvement in status related to administration of levothyroxine (T4).

D. During myxedema coma, renal blood flow and glomerular filtration decrease. An elevated BUN (normal 7 to 20 mg/dL) indicates a decrease in perfusion and function of the kidney. As the hypothyroidism is corrected, BUN levels should decrease as kidney flow is improved.

Content Category: Medical Emergency Tasks

References


60. An elderly patient presents to the emergency department with an extremity laceration. The patient takes warfarin (Coumadin) 5mg once a day. Based on the patient’s presentation, which of the following complications would the nurse suspect?

A. Decreased renal clearance
B. Decreased prothrombin time
C. Prolonged muscle weakness
D. Prolonged wound healing
Rationale

A. Elderly patients have a decrease in renal function. However, renal clearance is considered to be a minor component of warfarin (Coumadin) clearance, and no dosage adjustment is necessary in patients with renal impairment. Renal clearance would not be a direct complication related to a laceration.

B. Patients on warfarin (Coumadin) will likely have an increased prothrombin time. Warfarin (Coumadin) interferes with hepatic synthesis of vitamin K–dependent clotting factors, resulting in depletion of coagulation factors II, VII, IX, and X. Reduction in prothrombin levels results in a decrease in the amount of thrombin that can be generated for clotting.

C. Although elderly patients have decreasing muscle strength as they age, there is no indication that muscle weakness would result from this situation.

D. Changes of aging result in a decrease in skin tensile strength, subcutaneous fat, and the ability to tamponade underlying bleeding, all of which lead to prolonged wound healing.

Content Category: Medical Emergency Tasks—Geriatric

References


61. A patient arrives in the emergency department with generalized ecchymosis and a chief complaint of a nosebleed, which subsided prior to arrival. The patient reports a history of chronic idiopathic thrombocytopenia purpura (ITP). Diagnostic workup reveals the need to provide replacement therapy. Which of the following therapies would be most appropriate?

A. Thrombin injection
B. Factor IX
C. Platelets
D. Desmopressin acetate (DDAVP)

Rationale

A. Intramuscular injections should be minimized in patients with chronic ITP. Thrombin may be considered as a topical medication for minor wounds and epistaxis.

B. Hemophilia B, or Christmas disease, results from the absence or deficiency of Factor IX. The condition is rare and clinically difficult to distinguish from hemophilia A. Factor IX would be administered to persons with hemophilia B.

C. Patients with chronic idiopathic thrombocytopenia purpura or chronic ITP have a decreased production of platelets. Patients typically have a platelet count of less than 150,000/microliter (normal platelet value is 150,000 to 450,000/microliter). Treatment for patients with chronic ITP would include platelet administration.

D. Desmopressin acetate (DDAVP) may be used for mild to moderate severity hemophilia disease. It serves to increase the levels of Factor VIIIc.

Content Category: Medical Emergency Tasks

Reference

62. An elderly patient is admitted to the emergency department with progressive confusion over the past 3 weeks. Which of the following focal head injuries is the most likely the cause of the patient’s progressive confusion?

A. Epidural hematoma
B. Subdural hematoma
C. Concussion
D. Skull fractures

**Rationale**

A. Epidural hematoma presents with acute mental status changes and can occur in any age group.

B. With a chronic subdural hematoma, blood collects in the subdural space over a period of up to 2 weeks to months. The geriatric brain loses mass over time, and this bleeding process produces symptoms over time, often subtly.

C. Concussion is a more global or diffuse event and can occur in any age group.

D. It could be argued that because geriatric patients have subdermal layers that are thinner and less protective, they are at greater risk for skull fractures. However, skull fractures are common in all age groups except the pre-ambulatory child, excluding cases of abuse.

**Content Category:** Neurological Tasks

**Reference**


63. Following a motor vehicle crash (MVC), an adult patient is fully immobilized on a backboard, in a rigid collar and with lateral head support devices in place. After a thorough primary and secondary assessment are completed, it is determined the patient has an isolated lower extremity injury. Which intervention should the emergency nurse be prepared to perform **FIRST**?

A. Obtain a complete set of vital signs.
B. Obtain radiographs of the injured extremity.
C. Obtain additional history.
D. Remove the patient from the backboard.

**Rationale**

A. Completing a full set of vital signs is part of the secondary examination and will have been completed by the end of the initial assessment. Obtaining vital signs is an assessment measure and not an intervention.

B. Although radiographs are indicated, they should not precede removing the patient from the backboard. In addition, radiographs are diagnostic measures and not an intervention.

C. Obtaining additional history is part of the secondary examination and will have been obtained by the end of the initial assessment. History is an assessment component and not an intervention.

D. After initial assessment and resuscitation, the patient should be removed from the backboard as soon as possible. Patients who have sustained neurological injury, particularly those with sensory loss are at great risk for backboard complications, including decubitus formation.
Content Category: Neurological Tasks

Reference

64. The pediatric Glasgow Coma Scale (GCS) consists of:
A. best eye opening, best motor response, and best systolic blood pressure.
C. best eye opening, best reflexes, and best verbal response.

Rationale
A. Systolic blood pressure is not a component of the Glasgow Coma Scale. It is utilized along with the respiratory rate and GCS in order to calculate the Revised Trauma Score (RTS).
B. Respiratory rate is not a component of the Glasgow Coma Scale. It is utilized along with the GCS and systolic blood pressure in determining the RTS.
C. Although infant motor responses are primarily reflexive in nature, reflexes are not a component of the Glasgow Coma Scale.
D. The adult and pediatric versions of the Glasgow Coma Scale consist of best eye opening, best motor response, and best verbal response. There are age-related variations in the pediatric GCS, but the basic components are unchanged.

Content Category: Neurological Tasks—Pediatric

References

65. An elderly patient presents to the emergency department with complaints of severe headache and red nodules over the temporal region. Which additional complaints are usually associated with a diagnosis of temporal arteritis?
A. Diarrhea, vomiting and weight loss
B. Weight loss, night sweats, aching joints, and fever
C. Fluid retention and joint swelling
D. Sore throat and frequent colds
**Rationale**

A. Although weight loss is an associated symptom with temporal arteritis, the patient does not typically complain of gastrointestinal symptoms.

B. **Weight loss, night sweats, aching joints, and fever are classic systemic symptoms associated with temporal arteritis, which is inflammation of the branches of the temporal artery.**

C. The patient may experience joint pain, but swelling is not typical. Fluid retention is not associated with temporal arteritis.

D. Sore throat and frequent colds are not associated with temporal arteritis.

**Content Category:** Neurological Tasks

**Reference**


66. Which of the following signs and symptoms is an early indication of increased intracranial pressure?

A. **Change in level of consciousness**
B. Papilledema
C. Respiratory depression
D. Dilated pupils

**Rationale**

A. **An alteration in level of consciousness is a classic early sign of increased intracranial pressure.**

B. Papilledema is a late sign of increased intracranial pressure.

C. Respiratory depression is a late sign of increased intracranial pressure.

D. Dilated pupils are a late sign of increased intracranial pressure.

**Content Category:** Neurological Tasks

**Reference**


67. The Cincinnati Prehospital Stroke Scale (CPSS) identifies stroke based on which of the following physical findings?

A. ST-segment elevation, arm drift, and arm strength
B. Jugular venous distension (JVD), extremity weakness, and tachycardia
C. **Facial droop, arm drift, and abnormal speech**
D. Carotid bruit, leg weakness, and hypotension
**Rationale**

A. Although arm drift is a component of the CPSS, ST-segment elevation and arm strength are not.
B. Although extremity weakness can be a sign of stroke, JVD and tachycardia are not. These three signs are not components of the CPSS.
C. **Facial droop, arm drift, and abnormal speech are the three main components of the CPSS.** The presence of these symptoms is suggestive of stroke.
D. Although leg weakness can be a sign of stroke, a carotid bruit and hypotension are not. These three signs are not components of the CPSS.

**Content Category:** Neurological Tasks

**Reference**


68. Which of the following is correct regarding the intravenous administration of phenytoin (Dilantin)?

A. **It can cause hypotension and bradycardia.**
B. When giving phenytoin (Dilantin) intravenously to a patient, it is recommended to give phenytoin (Dilantin) at a rate of 50 mg/minute.
C. Phenytoin (Dilantin) can cause renal calculi due to hypercalcemia.
D. Phenytoin (Dilantin) can be diluted in D$_5$W when used with a filter.

**Rationale**

A. **Side effects of phenytoin (Dilantin) administration include hypotension and bradycardia, especially with rapid IV use.**
B. The elderly may display a higher incidence of adverse cardiovascular effects when using the IV-loading regimen; therefore, it is recommended to decrease loading IV dose to 25 mg/minute. The maximum adult administration range is 50 mg/minute.
C. Hypocalcemia has been reported in patients taking prolonged high-dose anticonvulsant therapy. Some clinicians have given an additional 4,000 units/week of vitamin D (especially to those with poor nutrition who get no sun exposure) to prevent hypocalcemia.
D. Normal saline or lactated ringers are recommended diluents for phenytoin (Dilantin); phenytoin is incompatible in D$_5$NS, D$_5$W, and fat emulsion 10%. Dilutions of 1 to 10 mg/mL have been used and should be administered as soon as possible after preparation; some recommend discarding if not used within 4 hours. Do not refrigerate.

**Content Category:** Neurological Tasks

**Reference**


69. Which of the following is considered the most reliable indicator of neurological function?

A. **Glasgow Coma Scale (GCS)**
B. Pupillary reaction
C. **Level of consciousness**
D. Motor changes
Rationale
A. Although the Glasgow Coma Scale is assessed as a component of the neurological examination, it is not as reliable an indicator of neurological function as level of consciousness.
B. Although the pupillary examination is a component of the neurological examination, it is not as reliable an indicator of neurological function as level of consciousness.
C. **Level of consciousness is considered the most reliable indicator of neurological function.**
D. Although motor changes are assessed as a component of the neurological examination, they are not as reliable an indicator of neurological function as level of consciousness.

**Content Category:** Neurological Tasks

**Reference**

70. A patient fell, striking his head. Following a brief period of unconsciousness, he complains of a severe headache. Upon arrival to the emergency department, he is unconscious. The nurse suspects that this patient may have a(n):
A. subdural hematoma.
B. **epidural hematoma.**
C. concussion.
D. stroke.

**Rationale**
A. Patients who suffer a subdural hematoma usually remain unconscious and do not have a period of consciousness followed by a return to unconsciousness.
B. **A period of unconsciousness, followed by a brief period of wakefulness, with return to unconsciousness is the hallmark pattern of an epidural hematoma.**
C. Patients with a concussion may initially have a period of unconsciousness; upon awakening, they will complain of headache, amnesia, nausea, and vomiting. This period of unconsciousness is not likely to be followed by a return to unconsciousness.
D. It is possible that the patient may have had a stroke that caused him to fall, but the pattern of unconsciousness does not support this.

**Content Category:** Neurological Tasks

**Reference**

71. A patient has clear fluid draining from her right nostril after a motor vehicle crash. The nurse is aware that the presence of this drainage may indicate a(n):
A. orbital blowout fracture.
B. sinus infection.
C. concussion.
D. **basilar skull fracture.**
Rationale
A. Orbital blowout fractures are not likely to cause cerebrospinal fluid rhinorrhea.
B. This patient was involved in a motor vehicle crash. This is most likely a cerebrospinal fluid leak from a basilar skull fracture. Drainage from a sinus infection would more likely be purulent than clear.
C. Concussion is a generalized head injury, unlikely to cause cerebrospinal fluid rhinorrhea.
D. The bones of the basilar skull are thin and fragile and may tear the dura when they are fractured, causing cerebrospinal fluid rhinorrhea or otorrhea.

Content Category: Neurological Tasks

Reference

72. Which of the following protocols is appropriate for administration of high-dose methylprednisolone (Solu-Medrol) in a patient with a spinal cord injury at C7-T1 level?
A. 1 mg mixed in 250 mL D_{5}W or normal saline to infuse at 2–10 mcg/minute
B. 400 mg mixed in 250 mL of D_{5}W or normal saline to infuse at 2–20 mcg/kg/minute
C. 30 mg/kg over 15 minutes, wait 45 minutes, then 5.4 mg/kg/hr over the next 23 hours
D. 8 mg in 250 mL of D_{5}W to infuse at 0.5–12 mcg/minute

Rationale
A. This is the concentration and infusion rate for epinephrine (Adrenalin).
B. This is the concentration and infusion rate for dopamine (Intropin). Note that this medication can be double concentrated.
C. This is the recommended regimen for administering high-dose methylprednisolone (Solu-Medrol). For maximum effect, the infusion must be started within 8 hours of the initial injury.
D. This is the concentration and infusion rate for norepinephrine (Levophed).

Content Category: Neurological Tasks

References

73. After a fall, a patient is noted to have loss of function in the upper extremities, but the lower extremity function remains intact. There was no loss of bowel or bladder control. These symptoms are associated with which of the following incomplete spinal cord injuries?
A. Central cord syndrome
B. Anterior cord syndrome
C. Brown-Séquard syndrome
D. Axial-loading event
**Rationale**

A. **Central cord syndrome** is caused by hyperextension and is seen most often in elderly patients following a fall. This syndrome results in loss of function of upper extremities while the lower extremities remain functional. Bowel and bladder function is maintained. It is sometimes described as the "patient can dance but can't play the piano."

B. **Anterior cord syndrome** is characterized by hyperesthesia, hypoalgesia, and incomplete or complete paralysis of the lower extremities.

C. **Brown-Séquard syndrome** results from hemisection of the cord usually following penetrating trauma.

D. **An axial-loading event** is the result of a blow to the head or a fall or jump onto the feet. It results in a transmission of energy through the vertebral column.

**Content Category:** Neurological Tasks

**Reference**


74. A patient who suffered quadriplegia 6 months ago arrives by ambulance with anxiety, severe headache, BP 210/106 mmHg, sweating, facial flushing, and cool lower extremities. Which intervention is most emergent in the care of this patient?

A. Administration of a sympathomimetic agent  

B. **Insertion of a urinary catheter**  

C. Administration of a vasoactive (vasopressor) medication  

D. Endotracheal intubation

**Rationale**

A. These are classic signs of autonomic dysreflexia, in which the sympathetic nervous system of a spinal cord injured patient overreacts in response to a stimulus below the level of the lesion. The patient has an abundance of endogenous sympathetic catecholamines. The patient should receive a ganglionic blocker such as hydralazine hydrochloride (Apresoline).

B. **These are classic signs of autonomic dysreflexia, in which the sympathetic nervous system of the spinal cord injured patient overreacts in response to a stimulus below the level of the lesion. Common causes of autonomic dysreflexia include full bladder, full rectum, or decubitus ulcer.**

C. Administration of a vasopressor would be appropriate for neurogenic shock, but this patient is hypertensive not hypotensive.

D. There are no findings to indicate intubation at this stage of treatment.

**Content Category:** Neurological Tasks

**Reference**

75. Nursing intervention to minimize increases in intracranial pressure (ICP) include:
   A. supine or a flat position.
   B. position changes with other patient care activities.
   C. bright lights.
   D. **providing a quiet environment.**

**Rationale**
A. Horizontal position will increase ICP and cerebral perfusion pressure (CPP).
B. Positioning activities should be separate from other patient care activities. Allow at least
15 minutes between each activity to avoid a cumulative effect of intracranial pressure
increases.
C. Bright lights and loud noises are noxious stimuli that may increase intracranial pressure.
D. **Providing a calm, quiet environment will minimize noxious stimuli that could elevate the
intracranial pressure.**

**Content Category:** Neurological Tasks

**Reference**

76. Which patient would meet **EXCLUSION** criteria for the administration of intravenous alte-
plase (t-PA) following an embolic stroke?
   A. A patient with a history of hypertension, currently controlled at 150/80 mmHg
   B. A 45-year-old with a time of onset well established to be 120 minutes before treatment
      would begin
   C. A patient who is 30 years old without a family history of stroke
   D. **A 58-year-old with evidence of an intracranial hemorrhage on noncontrast computed
tomography (CT) scan of the head**

**Rationale**
A. Patients with uncontrolled hypertension, remaining greater than 180 mmHg systolic or a di-
astolic pressure remaining greater than 110 mmHg despite repeated measurements at the time
of treatment, should be excluded.
B. Intravenous alteplase (t-PA) should not be used in a patient outside of the 180-minute win-
dow; however intra-arterial alteplase (t-PA) has been shown to have benefit in centers with
that capability.
C. A patient must be at least 18 years of age to receive IV fibrinolytics for an embolic stroke.
   Advanced age is no longer a contraindication.
D. **Intracranial hemorrhage demonstrated on a pretreatment noncontrast CT of the head is
a definite exclusion criteria. Intracranial hemorrhage is managed without alteplase (t-PA)
and usually will include surgical intervention.**

**Content Category:** Neurological Tasks

**Reference**
77. Sutures of an upper or lower extremity, not involving a joint surface, should be removed in:
   A. 3 to 5 days.
   B. **7 to 10 days.**
   C. 5 to 8 days.
   D. 12 to 14 days.

   **Rationale**
   A. Suture removal guidelines for the face are 3 to 5 days.
   B. **Suture removal guidelines for a nonjoint surface of the upper or lower extremity should be 7 to 10 days.**
   C. Suture removal guidelines of the scalp are 5 to 8 days.
   D. Suture removal guidelines for the knee or other joint surfaces are 12 to 14 days.

   **Content Category:** Orthopedic/Wound Tasks

   **Reference**

78. A patient with an open fracture to the forearm that was placed in a cast 2 weeks prior now presents with pain, fever, and a foul odor coming from the cast. Fingers are edematous and cold. Which of the following is suspected when cast removal reveals tissue sloughing and a foul-smelling wound?
   A. *Clostridium gangrene*
   B. Cast syndrome
   C. Nerve damage
   D. Volkmann’s contracture

   **Rationale**
   A. Fever with foul-smelling tissue would lead one to assume the presence of a wound infection.
   B. Cast syndrome is obstruction of the third part of the duodenum by an artery following the use of a plaster body cast.
   C. Nerve damage is not associated with fever and foul odor from a wound.
   D. Volkmann’s contracture is not associated with fever and foul odor from a wound.

   **Content Category:** Orthopedic/Wound Tasks

   **References**
79. Which of the following statements regarding treatment applies to a patient who sustained a large laceration to the lower leg after slipping on rocks in a riverbed?

A. The laceration needs to be treated aggressively because bacteria are associated with fresh water and streams.
B. Antimicrobials are not required with fresh water exposure.
C. Infections of this type of wound occur 7 to 10 days after injury.
D. Meticulous irrigation is not required because the wound was cleaned in the stream when the laceration was sustained.

**Rationale**
A. Wounds that occur in streams and fresh water become infected within 12 to 48 hours, so they must be treated aggressively. Meticulous irrigation is required even though this occurred in a stream.
B. Antimicrobials are required.
C. Wounds that occur in streams and fresh water become infected within 12 to 48 hours so they must be treated aggressively.
D. Wounds that occur in streams and fresh water become infected within 12 to 48 hours so they must be treated aggressively. Meticulous irrigation is required even though this occurred in a stream.

**Content Category:** Orthopedic/Wound Tasks

**References**

80. A splint has been placed on a fractured upper extremity. The patient continues to have 10/10 pain despite administration of intravenous narcotics. Which of the following conditions is the most likely cause of this patient’s unrelieved pain?

A. Torn ligaments
B. A history of substance abuse
C. **Compartment syndrome**
D. Excessive blood loss

**Rationale**
A. Torn ligaments generally do not cause consistent unrelieved pain if the extremity has been appropriately immobilized.
B. The patient may have an issue with substance abuse; however, the patient does have a fracture and an organic cause should be evaluated before this diagnosis is made.
C. **Unrelieved pain is a cardinal sign of compartment syndrome.**
D. Blood loss would not necessarily cause an increase in pain.

**Content Category:** Orthopedic/Wound Tasks
Reference

81. When assessing a patient in whom a fat emboli is suspected, petechiae are typically observed on which area of the body?
A. Face
B. Back
C. Thigh
D. Chest

Rationale
A. Petechiae are usually seen over the anterior chest and neck in a patient with a fat emboli.
B. Petechiae are usually seen over the anterior chest and neck in a patient with a fat emboli.
C. Petechiae are usually seen over the anterior chest and neck in a patient with a fat emboli.
D. Petechiae are usually seen over the anterior chest and neck in a patient with a fat emboli.

Content Category: Orthopedic/Wound Tasks

References

82. Which type of splint is indicated for a patient with a 5th metacarpal fracture?
A. Radial gutter splint
B. Ulnar gutter splint
C. Thumb spica splint
D. Volar forearm splint

Rationale
A. Radial gutter splint is indicated for fractures or soft tissue injuries of the 1st or 2nd metacarpal.
B. Ulnar gutter splint is indicated for a patient with a fracture or soft tissue injury to the 4th or 5th metacarpal.
C. Thumb spica splint is indicated for soft tissue injuries or metacarpal fractures of the navicular or scaphoid bone.
D. Volar forearm splint is indicated for fractures or soft tissue injuries of the carpal bones of the wrist.

Content Category: Orthopedic/Wound Tasks

Reference
83. The recommended muscle for administration of the human diploid cell vaccine (HDCV) is the:
   A. gluteus maximus.
   B. **deltoid muscle**.
   C. vastus lateralis.
   D. gluteus medius.

**Rationale**
A. The vaccine should always be administered in the deltoid area.
B. **The human diploid cell vaccine (HDCV) should always be given in the deltoid area for adults and older children. The vaccine should never be administered in the gluteal area.**
C. The vaccine should always be administered in the deltoid area.
D. The vaccine should always be administered in the deltoid area.

**Content Category:** Orthopedic/Wound Tasks

**Reference**

84. Which is the correct method of cane instruction for a patient with an injured right knee?
   A. **The cane should be used on the left side with the elbow at a 30-degree angle of flexion.**
   B. The cane should be used on the right side with the elbow at a 90-degree angle of flexion.
   C. The cane should be alternated on different days to avoid overuse of either side.
   D. The cane should be used on the left side with the elbow at a 60-degree angle of flexion.

**Rationale**
A. The cane should be used on the uninjured side to give support during ambulation. It should be fitted so that when it is held next to the heel, the elbow is at a 30-degree angle of flexion.
B. The cane should be used on the uninjured side to give support during ambulation. It should be fitted so that when it is held next to the heel, the elbow is at a 30-degree angle of flexion.
C. The cane should be used on the uninjured side to give support during ambulation. It should be fitted so that when it is held next to the heel, the elbow is at a 30-degree angle of flexion.
D. The elbow should have a 30-degree angle of flexion.

**Content Category:** Orthopedic/Wound Tasks

**Reference**

85. People at risk for osteoporosis include postmenopausal females, chronic alcohol abusers, and those with long-term use of:
   A. benzodiazepines.
   B. **steroids**.
   C. prostaglandin inhibitors.
   D. anticonvulsants.
A. The use of benzodiazepines has no known association with osteoporosis.

B. **Persons who take steroids are at risk for osteoporosis.**

C. The use of prostaglandin inhibitors has no known association with osteoporosis.

D. The use of anticonvulsants has no known association with osteoporosis.

**Content Category:** Orthopedic/Wound Tasks

**Reference**


86. To confirm radial nerve function, children with elbow fractures are typically asked to perform the following:

A. peace sign.

B. **thumbs-up sign.**

C. tight fist.

D. OK sign.

**Rationale**

A. The peace sign tests for active finger flexion and extension.

B. **Radial nerve injuries cause an inability to extend the thumb in a thumbs-up sign.**

C. Making a tight fist tests for active finger flexion and extension.

D. Giving the OK sign tests thumb movement, not the radial nerve.

**Content Category:** Orthopedic/Wound Tasks—Pediatric

**Reference**


87. A patient with a cast on the forearm complains of pain that is unrelieved with narcotic pain medication. The fingers are pale and the patient complains of tingling. The nurse should anticipate:

A. replacing the cast with a splint.

B. applying ice to the extremity.

C. elevating the extremity above the heart.

D. **bi-valving the cast.**
**Rationale**

A. There should be no form of external compression on the extremity that could potentially obstruct circulation.
B. Applying ice to the extremity will promote further vasoconstriction and resulting tissue ischemia.
C. The extremity should be at heart level because elevating the extremity could reduce arterial blood flow.
D. **Compression on the muscle compartment of the affected extremity is the cause of the interrupted microvascular circulation and resulting tissue ischemia.**

**Content Category:** Orthopedic/Wound Tasks

**Reference**

88. The diagnostic test used to confirm a shoulder dislocation would be a(n):
A. computed tomography (CT) scan of the shoulder.
B. magnetic resonance imaging (MRI).
C. **anterior/posterior (AP)/lateral films of the joint.**
D. arthrogram of the affected joint.

**Rationale**
A. CT is not needed emergently. Plain films will determine if the shoulder is dislocated.
B. MRI can be done once the joint is put back in place to assess for ligament stability and tears. It is usually not done on an emergent basis.
C. **Plain films are usually all that is indicated prior to relocating a joint, unless neurovascular compromise has occurred.**
D. An arthrogram can be done if neurovascular injury is suspected, but it is not routine for diagnosis.

**Content Category:** Orthopedic/Wound Tasks

**References**

89. Which of the following mechanisms will most likely result in wounds infected with *Clostridium tetani*?
A. **Stepping on a garden hoe**
B. Cutting a bagel with a steel knife
C. Cleaning a deli slicer
D. Opening a plastic container
**Rationale**

A. *Clostridium tetani* is found in soil and in human and animal intestines.

B. A steel knife does not pose a high risk of tetanus transmission.

C. A deli slicer does not pose a high risk of tetanus transmission.

D. A plastic container does not pose a high risk of tetanus transmission.

**Content Category:** Orthopedic/Wound Tasks

**Reference**


90. When titrating nitroglycerin (Tridil) for the patient with an acute inferior wall myocardial infarction, the nurse recognizes the need to decrease the drip rate when the patient experiences:

A. a heart rate of 56 beats/minute and severe headache 10/10.

B. a decrease in ST elevation and a blood pressure of 157/95 mmHg.

C. a decrease in chest pain level and a blood pressure of 86/56 mmHg.

D. an irregular heart rate at 110 beats/minute and frequent premature ventricular contractions (PVCs).

**Rationale**

A. A common side effect of nitroglycerin is headache, which should be treated with analgesic agents such as morphine (Morphine Sulfate) or acetaminophen (Tylenol), not by decreasing the nitroglycerin infusion. Bradycardia is not a common side effect of nitroglycerin (Tridil), but it may be a result of the myocardial injury or other pharmacological treatments such as a beta-blocker, which is recommended for patients experiencing myocardial ischemia. The target resting heart rate in beta-blocker therapy is 50 to 60 beats/minute.

B. A goal of nitroglycerin therapy is vasodilation, resulting in reduced preload, which decreases myocardial oxygen demand, thus decreasing myocardial ischemia. Decrease in ST elevation is an indicator of decreased myocardial ischemia. The nurse may consider increasing the nitroglycerin infusion to decrease blood pressure. The decrease in blood pressure is another result of the nitroglycerin infusion, which decreases myocardial oxygen demand.

C. A common side effect of nitroglycerin is hypotension. Hypotension (defined as a systolic blood pressure below 90 mmHg) could decrease perfusion to the myocardium and should be avoided. Treatment includes decreasing the rate of the nitroglycerin (Tridil) drip and consideration of a fluid bolus. Significant improvement in the patient’s pain is an indicator that the desired effect of decreased myocardial ischemia is being achieved; therefore, titration will include close observation for continued relief of pain while maintaining a systolic blood pressure ≥ 90 mmHg. Administration of nitroglycerin is a class I indication in patients experiencing an acute coronary syndrome.

D. Irregular heart rate and frequent PVCs are not contraindications for nitroglycerin (Tridil) therapy and are most likely a result of myocardial irritation secondary to the myocardial infarction. The nurse should continue titrating the nitroglycerin to the patient’s pain and systolic blood pressure and prepare to administer beta-blockers, ACE inhibitors, or antidysrhythmic therapy as indicated.

**Content Category:** Patient Care Management Tasks
An elderly patient with altered mental status, fever, and decreased urinary output is diagnosed with urosepsis. Which of the following interventions is MOST likely to be recommended?

A. Fluid replacement
B. Delivery of oxygen
C. Treatment with antibiotics
D. Administration of ibuprofen (Advil) 800 mg

Rationale
A. Decreased urinary output is an indication of decreased perfusion, a sign of septic shock. The cornerstone of therapy for septic shock is volume expansion with the administration of the appropriate fluid. In the elderly, it is most appropriate to give bolus fluid replacement doses so as not to cause fluid overload.
B. Oxygen delivery must be optimized. Supplemental oxygen and mechanical ventilation may be necessary to support the delivery of oxygen to maintain an arterial oxygen saturation of 90% or greater (PaO₂ > 60 mmHg) to avoid hypoxemia.
C. Prompt administration of antibiotics may reduce morbidity and mortality. Urosepsis is a life-threatening condition requiring emergency treatment including antibiotic administration.

D. Elderly patients have decreased liver metabolism and renal clearance of medications. Ibuprofen 800 mg is too large a dose for a geriatric patient. A more appropriate dosage of ibuprofen in the elderly is 200 to 400 mg. Acetaminophen (Tylenol), either orally or per rectal suppository, is also an option for treating fever. Additionally, it is questionable whether oral medications would be given to a patient with altered mental status.

Content Category: Patient Care Management Tasks—Geriatric

Reference

92. Which of the following would NOT be an indication for a designated trauma center to consider transfer of a patient with multiple injuries?

A. A patient with an open pelvic fracture
B. A pregnant patient with multiple internal injuries
C. A patient who does not have health insurance
D. An injured patient suffering multiple organ failure

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Rationale
A. A patient with an open pelvic fracture is considered an appropriate indication for transfer.
B. A pregnant trauma patient may require resources, such as a neonatal intensive care unit, that are not available at all designated trauma centers.
C. If a facility can appropriately manage an injured patient at a designated trauma center, lack of insurance is not an indication to transfer the patient. This would be an Emergency Medical Treatment and Active Labor Act (EMTALA) violation.
D. Treatment of sepsis or multiple organ failure may require specialized care not available at all trauma centers.

Content Category: Patient Care Management Tasks

Reference

93. Following a lumbar puncture, laboratory analysis detects blood in the cerebrospinal fluid (CSF). Which of the following laboratory studies would differentiate between a traumatic lumbar puncture tap and a subarachnoid hemorrhage (SAH)?
A. Hemoglobin and hematocrit
B. Cell count comparison between first and last tube of cerebrospinal fluid (CSF)
C. International normalized ratio (INR)
D. Total protein comparison between first and last tube of cerebrospinal fluid (CSF)

Rationale
A. Hemoglobin and hematocrit may indicate a potential blood loss, but they do not differentiate between a traumatic tap and an SAH.
B. To differentiate between a traumatic lumbar puncture and an SAH, compare the cell count of the first tube with that of the last tube. If there is a decrease in the number of red blood cells, it is likely a traumatic tap rather than an SAH.
C. INR shows the coagulation ability but does not differentiate between a traumatic tap and an SAH.
D. Total protein does not differentiate between a traumatic tap and an SAH.

Content Category: Patient Care Management Tasks

Reference

94. A patient with a history of breast cancer asks about taking echinacea for an upper respiratory infection. The nurse is aware that this herb is:
A. safe and effective and should be used in this patient population.
B. contraindicated for cancer patients and those with autoimmune diseases.
C. safe unless the patient has an allergy to the Chrysanthemum family.
D. contraindicated due to its carcinogenic properties.
Rationale
A. Because of the potential for echinacea to stimulate the immune system, it is not recommended for patients with cancer or autoimmune diseases. Cancer patients should always check with their provider before taking any herbal remedy or supplement.
B. Because of the potential for echinacea to stimulate the immune system, it is not recommended for patients with cancer or autoimmune diseases. Cancer patients should always check with their provider before taking any herbal remedy or supplement.
C. Because of the potential for echinacea to stimulate the immune system, it is not recommended for patients with cancer or autoimmune diseases. Cancer patients should always check with their provider before taking any herbal remedy or supplement.
D. Because of the potential for echinacea to stimulate the immune system, it is not recommended for patients with cancer or autoimmune diseases. Cancer patients should always check with their provider before taking any herbal remedy or supplement.

Content Category: Patient Care Management Tasks

References

95. The nurse caring for a patient in the emergency department is suspicious that the patient’s injuries (facial bruising, lacerations, and upper extremity pain) are the result of intimate partner violence. The patient is tearful, admits to drinking alcohol, and is reluctant to admit the injuries were not accidental. The nurse should:
A. immediately notify law enforcement of a possible domestic violence incident.
B. provide a safe environment while respecting the patient’s wishes not to identify the individual who caused the injuries.
C. convince the patient to file charges against the partner.
D. routinely initiate a call to the national domestic violence hotline for the patient.
Rationale
A. If the patient has not implicated her (his) partner in a crime, it is the nurse’s responsibility to provide a safe environment and proper resources. A patient’s wishes should be respected. Patients who screen positive for intimate partner violence should be given assistance with safety planning and encouraged to seek help through referrals to community resources. The only exception would be when mandatory reporting laws exist.

B. Because problems related to intimate partner violence often lead to serious and potentially life-threatening illness and injury, health care professionals are ethically bound to engage in screening, assessment, and referral to help prevent subsequent harm to victims. It is important that a patient’s wishes be respected if she (he) does not want to identify the individual who caused the injuries.

C. Because victims of intimate partner violence often do not seek help on their own, the emergency department may be the only opportunity for providers to assess and provide assistance to victims of intimate partner violence. It is important that nurses provide a safe, quiet area. If a patient is not ready to implicate her (his) partner, then the nurse must respect the patient’s wishes and provide information about available resources when the patient is ready to seek help.

D. The nurse is responsible for providing information for the patient on how to access resources such as the national domestic violence hotline. The nurse should allow the patient to determine when she (he) is ready to access those resources. The nurse should recognize that the patient may not be ready to access resources while in the emergency department for treatment of injuries.

Content Category: Patient Care Management Tasks

References

96. When discharging a geriatric patient with a humerus fracture, the nurse recognizes more pain management teaching is needed when the patient states:
A. “I should use the ibuprofen (Advil) for a short time only because I could get bleeding in my stomach from it.”
B. “I should place ice on my elbow area off and on throughout the day to reduce pain and swelling.”
C. “I won’t take the pain medication unless I have to because it causes constipation.”
D. “I should keep my arm in the sling and lay with it elevated above my heart as much as possible.”
Rationale
A. In the geriatric population, prolonged use of nonsteroidal anti-inflammatory drugs (NSAIDs) increases the risk of gastrointestinal bleeding; therefore, they should be used with caution or avoided entirely. Some practitioners discourage the use of NSAIDs with acute fractures because research has shown there may be delayed bone healing with NSAID use.
B. Intermittent use of ice at the site of the injury will reduce swelling, which should help control pain associated with swelling. Intermittent application of ice is preferred to continuous application because the area could be prone to injury from decreased perfusion to the tissues secondary to continuous application of ice.
C. Although narcotics increase the risk of constipation, especially in the geriatric population, patients with fractures should be encouraged to take their pain medications to control pain. Patients should be encouraged to use preventive measures to decrease the risk of constipation, such as increasing movement, fluids, and fiber in the diet.
D. Humerus fractures are immobilized in a sling, which should be worn at all times until otherwise ordered by the orthopedist. All fractures should be elevated above the heart as much as possible for 48 hours after injury to reduce swelling to the area.

Content Category: Patient Care Management Tasks—Geriatric

References

97. A toddler presents to the emergency department with a laceration to the left arm. While preparing the child for suturing, the nurse should consider the following:
A. placing the patient in the appropriate position for the application of an age-appropriate restraint, and then explaining the procedure to the parent.
B. explaining the procedure in detail to the child so that he or she does not imagine the worst.
C. setting time limits so the patient will understand how much time it will take to complete the procedure.
D. allowing a parent to remain with the child during the procedure.

Rationale
A. The use of a restraint may be necessary but should not be the first consideration of the emergency nurse.
B. Explaining the procedure in detail would be more developmentally appropriate for a preschool child.
C. Toddlers have little concept of time, so setting time limits would not be very helpful.
D. Developmentally, a toddler would fear separation from parents; therefore, a parent should be allowed to remain with the child during the procedure.

Content Category: Patient Care Management Tasks—Pediatric

Reference
98. All of the following pieces of information are required documentation for organ donation to take place when a patient dies EXCEPT:

A. **family education.**
B. notification of an organ procurement organization.
C. family notification.
D. determination and declaration of death.

**Rationale**
A. Family education is important and is carried out; however, its documentation is not mandatory.
B. Notification of the organ procurement organization of each patient death is mandatory, as is documentation of the notification.
C. Family consent is no longer required in many states for organ donation to take place. The patient’s family should be notified of the patient’s death and the potential for organ donation, whether or not the family’s permission is required.
D. Documentation regarding determination and declaration of death is mandatory and must be in the patient’s medical record.

**Content Category:** Patient Care Management Tasks

**Reference**

99. The Emergency Medical Treatment and Active Labor Act (EMTALA) indicates that hospital property includes:

A. **the hospital’s main building, including any area within 250 yards of the building.**
B. the physician’s office down the street from the emergency department.
C. the facility parking garage, which is 500 yards from the building.
D. a store across from the hospital.

**Rationale**
A. Individuals in the parking structures, public streets, and any other zone within 250 yards surrounding the main hospital building would be covered by the EMTALA regulations.
B. The EMTALA regulations apply beyond the physician office building, even if the physician office building uses the same Medicare provider number. Individuals in the parking structures, public streets and any other zone within 250 yards surrounding the main hospital building would be covered by the EMTALA regulation.
C. The EMTALA regulations apply beyond the emergency department. Individuals in the parking structures, public streets, and any other zone within 250 yards surrounding the main hospital building would be covered by the EMTALA regulations.
D. The EMTALA regulations apply beyond the emergency department. Individuals in the parking structures, public streets, and any other zone within 250 yards surrounding the main hospital building would be covered by the EMTALA regulations.

**Content Category:** Professional Issue Tasks
References

100. When collecting forensic evidence, the emergency nurse should do all of the following EXCEPT:
A. inform appropriate personnel if evidence contamination occurred during collection.
B. wear protective gown, mask, and hair covering when handling evidence.
C. package each clothing item separately in an airtight container.
D. do not give any of the patient’s personal items to friends or family.

Rationale
A. It is important to avoid loss, damage, or contamination of physical evidence. Collecting and maintaining uncontaminated forensic evidence are of paramount importance, and the reporting of any contamination is imperative.
B. Wearing protective gear prevents cross contamination of evidence by emergency care providers.
C. Clothing should not be packaged in airtight or plastic containers; items should always be packaged individually in paper containers or bags.
D. It is important to avoid loss, damage, or contamination of physical evidence. Collecting and maintaining uncontaminated forensic evidence are of paramount importance.

Content Category: Professional Issue Tasks

Reference

101. Which of the following best exemplifies understanding and reflection on the value of evidence-based research?
A. Maintaining the same nursing perspective in future clinical situations
B. Recognizing the construction of a well-developed clinical question
C. Minimizing the nurse’s personal experience and expertise related to study topics
D. Changing current clinical practice based on data from a single study

Rationale
A. Nurses need to be able to develop a new perspective, rather than maintaining a traditional viewpoint, when reflecting on evidence-based research.
B. Evidence-based practice research begins with asking a well-thought-out and compelling question. This question drives the learning.
C. A nurse’s personal experience and knowledge base are important in critiquing an evidence-based research study. It involves a conscious exploration of the question and helps build on the nurse’s expertise.
D. Clinical practice should not be changed based on the data from a single study.

Content Category: Professional Issue Tasks
References

102. Advanced directives regarding a patient’s treatment choices are applicable when the patient:
A. has an emergency nurse witness his or her signature on the advanced directive form.
B. is awake and oriented and facing a terminal or irreversible illness.
C. is recovering from a minor surgical procedure and is expected to make a full recovery.
D. **has a terminal or irreversible illness and the patient is no longer able to communicate his or her wishes.**

**Rationale**
A. Most states do not allow medical professionals at the facility where the individual is receiving care to be a witness to the advanced directive document.
B. The patient must be unable to communicate his or her wishes in order for advanced directives to be invoked.
C. The patient must be experiencing a terminal or irreversible illness and unable to communicate his or her wishes in order for the advanced directive to be invoked.
D. The **Patient Self-Determination Act of 1991 outlines the content of advanced directives and when they may be invoked.**

**Content Category:** Professional Issue Tasks

**Reference**

103. Which of the following is an **INAPPROPRIATE** entry to place in a patient’s record?
A. “Patient stated pain level changed from a 4 to a 1 after receiving pain-relieving medication.”
B. “Patient’s past medical records were ordered but were unavailable.”
C. “Patient received and acknowledged understanding of discharge instructions.”
D. **“Patient fell out of bed and an unusual occurrence report was completed.”**

**Rationale**
A. Changes in a patient’s condition, especially after receiving medication, need to be documented. This provides for a chronicle of the patient’s progress, promotes communication between caregivers, and aids in the medicolegal aspects of documentation.
B. Documentation should reflect that past medical records were ordered, the time they were ordered, and whether or not they were received.
C. Discharge documentation needs to state that not only did a patient receive discharge instructions, but also that the patient was able to understand the instructions.
D. **Although it is important to document patient falls or other events that may result in harm to the patient, it is not appropriate to document that an unusual occurrence report was completed.**
104. Delegation of a nursing task by the emergency nurse (RN) to a less-skilled professional may be appropriate based on the:
A. RN’s acceptance of accountability for the decision.
B. less-skilled person’s knowledge of the nursing process.
C. RN’s prediction of the outcome.
D. less-skilled person’s understanding of problem-solving concepts.

Rationale
A. The professional registered nurse is accountable not only for the decision to delegate a task, but also the process and ongoing monitoring of the nursing care outcomes related to the task delegation.
B. The nursing process may not be delegated to a less-skilled person; only appropriate elements of care may be assigned.
C. Outcomes are frequently unpredictable; therefore, this should not be the rationale for delegating a task to another person.
D. Nursing care involving problem solving is part of the nursing process. Therefore, this cannot be delegated to a person with lesser skills.

105. A patient presents to the emergency department with complaints of a sudden onset of unilateral extremity weakness, difficulty speaking, and headache. The clinical educator would recognize that a nurse required more education if the nurse:
A. began an intravenous infusion of 0.9% normal saline solution.
B. administered 0.3 mg/kg of alteplase (t-PA) to this patient.
C. maintained the patient’s temperature at 96.3°F (35.7°C).
D. began administering physician-ordered medications within 3 hours of symptom onset.

Rationale
A. This is an appropriate intervention for a patient exhibiting signs/symptoms of an acute stroke.
B. This patient has the signs and symptoms of an acute stroke. The correct dosage for alteplase (t-PA) is 0.9 mg/kg up to 90 mg.
C. Inducing mild hypothermia through passive or active cooling measures for 24 hours is an appropriate intervention for the patient experiencing acute stroke symptoms.
D. Treatment has the best chance of reversing or minimizing the effects of stroke if medications are administered within 3 hours of symptom onset.
Content Category: Professional Issue Tasks

Reference

106. The local police escort a patient who was found in the parking lot of the local store without clothes on and running in circles around cars. The priority for this patient is which of the following?
A. Determine risk for injury.
B. Identify if anyone was with the patient and witnessed the event.
C. Determine the patient’s knowledge level.
D. Identify medical history.

Rationale
A. The main priority for this patient is maintaining safety. The patient is at high risk for injury due to the increased motor activity, increased energy, extreme hyperactivity, agitation, disorganized activity, and poor impulse control.
B. Although it is important to determine factors that may have lead to the incident, this is not a priority.
C. Although it may be important to ensure education is provided at an appropriate level of understanding, it is not a priority at this time.
D. Although the patient’s bizarre behavior supports determining a history of mental or biological illness, safety is the most important initial priority.

Content Category: Psychological/Social Tasks

References

107. An elderly patient complains of emotional lability, lack of motivation, difficulty sleeping, and loss of appetite. Which of the following medications might be causing these symptoms?
A. Rabeprazole (Aciphex)
B. Omeprazole (Prilosec)
C. Albuterol inhaler (Proventil)
D. Fluticasone and salmeterol inhalation powder (Advair inhaler)
Rationale
A. Aciphex is classified as a proton-pump inhibitor, which can produce untoward effects such as dizziness, headache, constipation, nausea, and diarrhea.
B. Prilosec is a proton-pump inhibitor with the most common side effects being CNS depression, abdominal pain, constipation, diarrhea, and rash.
C. Albuterol inhaler is a bronchodilator used in asthma. The most common side effects include nervousness, tremor, headache, palpitations, and chest pain.
D. Advair is an asthma medication that contains corticosteroids, which are known to contribute significantly to depressive symptoms, especially in the geriatric population.

Content Category: Psychological/Social Tasks—Geriatric

References

108. According to the Mental Health Triage Scale, which of the following patient presentations would be categorized as emergent?
A. A patient with suicidal ideation, accompanied by a friend
B. A patient with signs and symptoms of paranoia
C. A patient exhibiting extreme agitation
D. A chronic psychiatric patient requesting emergent medication refill

Rationale
A. Semi-urgent is an appropriate category for the patient with suicidal ideation who is accompanied by a friend.
B. The patient presenting with paranoia is a possible danger to self or others and may have moderate behavioral disturbance. This patient is categorized as urgent.
C. Patients exhibiting extreme agitation can be actively suicidal or homicidal and also may be experiencing severe behavioral disturbances.
D. The chronic psychiatric patient requesting a medication refill represents a nonurgent patient who is in no acute distress.

Content Category: Psychological/Social Tasks

Reference

109. An adolescent patient complains of dizziness. The examination reveals that the patient is orthostatic, hypotensive, and tachycardic; has poor skin turgor; complains of being tired; and is experiencing amenorrhea. The emergency nurse suspects the patient has:
A. bulimia nervosa.
B. anorexia nervosa.
C. Cushing’s syndrome.
D. hypothyroidism.
Rationale
A. Patients with bulimia nervosa are typically of normal weight and experience regular menses.
B. Classic signs and symptoms of anorexia nervosa include amenorrhea, low body weight, hypotension, and tachycardia with possible cardiac dysrhythmias, dehydration, and intolerance to cold due to poor fat storage.
C. Cushing’s syndrome is characterized by hypertension, bradycardia, and abnormal respirations.
D. Symptoms of hypothyroidism include confusion, hypotension, and bradycardia and skin that is cool and pale.

Content Category: Psychological/Social Tasks

Reference

110. Which of the following medications is the most appropriate to treat a patient with bipolar disorder who presents in a manic state?
A. Chlordiazepoxide (Librium) 10 mg PO
B. Amitriptyline (Elavil) 75 mg PO
C. Sertraline (Zoloft) 50 mg PO
D. Lithium (Eskalith) 600 mg PO

Rationale
A. Chlordiazepoxide (Librium) is used for short-term management of anxiety, acute alcohol withdrawal, and preoperatively for relaxation. It is not used for management of bipolar disorder.
B. Amitriptyline (Elavil) is classified as a tricyclic antidepressant (TCA) usually prescribed to treat depression.
C. Sertraline (Zoloft) is classified as a selective serotonin reuptake inhibitor (SSRI). It is used for major depressive disorder, obsessive-compulsive disorder (OCD), post-traumatic stress disorder (PTSD), panic disorder, social anxiety disorder, and premenstrual dysphoric disorder (PMDD).
D. Lithium carbonate (Eskalith) is the drug of choice for acute manic episodes and for maintenance therapy to prevent or diminish the intensity of subsequent manic episodes.

Content Category: Psychological/Social Tasks

Reference
111. A patient presents with a heart rate of 100 beats/minute, hyperventilation, and pale and dry skin and exhibits difficulty concentrating and logically answering questions. The patient states that the symptoms all started while shopping in a crowded department store. The nurse recognizes the symptoms of:
A. mild anxiety.
B. severe anxiety.
C. a state of moderate anxiety.
D. a panic anxiety state.

Rationale
A. Someone with mild anxiety is still insightful and demonstrates logical thinking with possible slightly elevated vital signs.
B. Severe anxiety is characterized by agitation, restlessness, problems sleeping, increased rate of speech, the demonstration of a startle reflex, and difficulty maintaining meaningful conversation.
C. Symptoms associated with moderate anxiety include voicing concern about immediate problems or exhibiting lip trembling or facial twitching, but the person is able to follow directions.
D. Hyperventilating, rapid pulse, pale skin and mucosa, along with cognitive impairment are all signs and symptoms of a panic anxiety state.

Content Category: Psychological/Social Tasks

Reference

112. Increasing respiratory difficulties in the elderly patient are usually due to:
A. increased cough reflex.
B. increased vital capacity.
C. decreased muscle strength.
D. decreased residual volume.

Rationale
A. With aging, there is a reduced cough reflex.
B. Vital capacity can be defined as the amount of air that can be expelled from the lungs after a full inspiration. In the geriatric population, this is decreased rather than increased.
C. The normal elderly patient loses both muscle mass and strength with age. Weakening of the diaphragmatic muscle results in increased difficulty in maintaining normal respirations.
D. Due to muscle weakening and decreased elasticity of the lungs, the residual volume (amount of air left in the lungs after exhalation) will increase, not decrease, with age.

Content Category: Respiratory Tasks—Geriatric
References

113. An asthmatic patient has responded to treatment and is ready for discharge. The provider prescribes a bronchodilating agent to be delivered via metered-dose inhaler (MDI). The nurse determines that the patient is able to use this medication delivery system effectively when the patient reports the:
A. previous use of an MDI.
B. device must be activated at the beginning of the inhalation phase.
C. inhaler dose may be administered every minute until the desired result is achieved.
D. device must be activated upon exhalation.

Rationale
A. Past use of an MDI does not assure that the patient is able to perform the procedure properly.
B. The medication must be inhaled in order to achieve maximal effect at the site of inflammation in the lower airways.
C. Deep breathing after medication inhalation with periods of holding the breath for 5 seconds will assist in disbursement of the agent. Repeating the dose every minute will not allow for adequate distribution and maximal effect to occur.
D. Medication delivered by MDI must occur at the beginning of inhalation in order to be effective.

Content Category: Respiratory Tasks

Reference

114. Crackles in the lungs are caused by:
A. inflammation of the pleural lining.
B. fluid or secretions in the large airways.
C. fluid or secretions in the small airways or alveoli.
D. air passing through constricted airways.

Rationale
A. A pleural friction rub is caused by inflammation of the pleural lining. It is a grating-like sound with inspiration and expiration.
B. Rhonchi are adventitious breath sounds associated with accumulation of secretions in larger airways and more commonly present during expiration. They are coarse sounds.
C. Crackles are small popping sounds produced by the passage of air through fluid or secretions in the small airways or alveoli, most commonly during inspiration.
D. Wheezing is a musical sound caused by air passing through constricted airways.
115. A patient involved in a near-strangulation event presents with respiratory distress, swelling of the neck, and subcutaneous emphysema. Which of the following is the most likely cause of the subcutaneous emphysema?
A. Acute hypoxia  
B. Tension pneumothorax  
C. Tracheal transection  
D. Laryngeal spasm

**Rationale**
A. Acute hypoxia can result from a strangulation injury but is unlikely to cause subcutaneous emphysema.
B. Tension pneumothorax can cause tracheal deviation and jugular venous distention (JVD), but not swelling and subcutaneous emphysema.
C. **Mechanism of injury suggests tracheal transection. Esophageal, pleural, tracheal, or bronchial injuries can present with subcutaneous emphysema.**
D. Laryngeal spasm does not cause subcutaneous emphysema.

116. An elderly patient presents with increasing shortness of breath over the past several years, which has gotten worse over the past month. The patient reports an inability to walk to the mailbox without resting due to increasing shortness of breath. History reveals hypertension and 40+ years of smoking. Based on these findings, the nurse suspects:
A. **emphysema.**  
B. Environmentally triggered asthma.  
C. Gastroesophageal reflux.  
D. Pulmonary tuberculosis (TB).

**Rationale**
A. **The structural changes of emphysema (breakdown of alveoli, loss of elasticity, and increased diameter of the chest wall) contribute to a decrease in the vital capacity of the respiratory system. Due to the decrease, the patient will experience exertional dyspnea.**
B. Environmentally triggered asthma should not cause exertional dyspnea except during exacerbations. The symptoms of environmentally triggered asthma are worse during high periods of pollen, such as spring and fall.
C. Gastroesophageal reflux is a consideration when evaluating asthma patients, especially when exacerbation occurs at night. It is not related to emphysema.
D. A history of tuberculosis does not necessarily suggest that the patient has active TB and does not pose an increased risk for the development of exertional dyspnea.
Content Category: Respiratory Tasks

References


117. A priority intervention when caring for a patient with a flail chest would be:

A. placement of sandbags.
B. pain management.
C. prophylactic chest tube placement.
D. positioning patient on uninjured side.

Rationale

A. Placement of sandbags is considered an outmoded treatment and has not been shown to promote positive outcomes in patients with flail chest. In fact, this may further restrict chest expansion, which would contribute to hypoventilation.

B. Pain management is a priority to promote effective ventilation. A flail chest is the result of significant blunt force trauma. It is defined as two or more adjacent ribs fractured in two or more locations or a free-floating sternum. This condition is extremely painful and may contribute to hypoventilation, which puts the patient at risk for pneumonia, atelectasis, and acute respiratory distress syndrome. In addition to systemic narcotic analgesic, nerve blocks, epidural analgesia and rapid sequence intubation, sedation, and paralysis may be used to maximize ventilation.

C. Chest tubes are placed for a pneumothorax greater than 20%, any patient with pneumothorax and respiratory distress, and for those with hemothorax. Flail chest without pneumo- or hemothorax is not an indication for chest tube placement.

D. The patient should be placed on the injured side, in semi-Fowler’s position or in a position of comfort to facilitate ventilation. Placing the patient in a dependent position relative to the injury would facilitate chest expansion.

Content Category: Respiratory Tasks

Reference


118. After sustaining blunt chest trauma during a rollover, a patient has sudden onset of anxiety, diminished breath sounds on one side, tracheal deviation, and hypotension. The nurse recognizes that these symptoms are associated with a rapid:

A. increase in intrathoracic pressure.
B. decrease in intrathoracic pressure.
C. decrease in pericardial fluid.
D. increase of pericardial fluid.
Chapter 7

**Rationale**

A. This patient most likely has a tension pneumothorax, which causes an increase in intrathoracic pressure, shifting of lung and cardiac tissue to the uninjured side, a decrease in ventricular filling, and decreased cardiac output. This injury impedes venous return, shifts the mediastinum, and depresses the diaphragm, causing distortion of the great vessels and results in a decreased cardiac output.

B. There is a rapid increase in intrathoracic pressure with a tension pneumothorax.

C. There is no change in the amount of fluid in the pericardial sac. A tension pneumothorax will, however, compress the heart toward the uninjured side.

D. There is no change in the amount of fluid in the pericardial sac. However, if there is an accompanying pericardial tamponade, seen more often in penetrating trauma, there would be a rapid increase of blood accumulating in the pericardial sac.

**Content Category:** Respiratory Tasks

**Reference**


119. A patient’s spouse reports that the patient has had a productive cough for 3 days and intermittent fever and has become progressively confused since awakening this morning. Nursing assessment reveals a well-nourished, mildly confused patient with warm flushed skin who does not appear to be in distress at this time. Which diagnostic test would be indicated as a priority for this patient?

A. Hematocrit level

B. **Oxygen saturation measurement**

C. Capillary blood glucose level

D. Arterial blood gas

**Rationale**

A. Hematocrit level would be a priority if the patient presented with symptoms indicative of excessive blood loss.

B. **This patient is at risk for hypoxemia due to the presenting symptoms, which are suggestive of pneumonia. Pulse oximetry is a quick and easy way to monitor oxygen saturation in hypoxemia.**

C. This patient does exhibit an alteration in mental status. Glucose measurement is helpful to rule out hypoglycemia as a cause of this alteration in cognitive function. However, in this case, pulse oximetry is the priority because this patient is at risk for hypoxemia due to the presenting symptoms, which are suggestive of pneumonia.

D. An arterial blood gas would assist in determining hypoxia as a cause for this patient’s confusion; however, it is not the priority. Pulse oximetry reveals quick results of the patient’s blood oxygen saturation and possible oxygenation needs.

**Content Category:** Respiratory Tasks
References

120. The indication for using the Sellick maneuver (cricoid cartilage pressure) during rapid sequence intubation is to minimize the likelihood of:
A. vomiting and aspiration.
B. intubation of the right mainstem bronchus.
C. a tracheal tear.
D. esophageal intubation.

Rationale
A. The Sellick maneuver is performed by applying gentle pressure to the anterior neck at the level of the cricoid cartilage. The reason for performing the Sellick maneuver is to provide a means to prevent vomiting and aspiration of gastric contents by external obstruction of the esophagus.
B. Utilization of the Sellick maneuver may improve the visualization of the vocal cords, but it does not direct bronchus intubation. The right main stem bronchus is less angulated from the trachea than is the left main stem bronchus; therefore, it is more prone to intubation if an endotracheal tube (ETT) is inserted too far.
C. The potential for a tracheal tear during intubation is not increased or decreased by the application of the Sellick maneuver.
D. Although the Sellick maneuver compresses the esophagus, it does not decrease the potential for esophageal intubation.

Content Category: Respiratory Tasks

Reference

121. Following endotracheal tube placement, the first step to confirm placement is to:
A. auscultate the presence of equal bilateral breath sounds.
B. auscultate absent epigastric sounds with chest rise.
C. obtain a portable chest radiograph.
D. obtain an end-tidal carbon dioxide reading.
**Rationale**

A. Auscultation of bilateral breath sounds would be the second step for confirmation once absent epigastric sounds are confirmed with the first ventilation.

B. **With the first ventilation, the epigastric area should be auscultated while observing the chest rise.** If sounds are heard over the epigastrium in the absence of chest rise, this suggests esophageal placement. The tube should be removed and the patient reoxygenated prior to attempting intubation again.

C. Chest radiograph should be taken but it is not an initial confirmation of placement.

D. End-tidal CO₂ devices or continuous monitoring helps confirm placement. During cardiac arrest or low flow states such as pulmonary embolus or obesity, the readings may not be detectable. This should not be the initial step for confirmation of tube placement.

**Content Category:** Respiratory Tasks

**References**


122. Which of the following statements would indicate that a nonsmoking patient has a clear understanding of the follow-up instructions for acute bronchitis?

A. “I am going to have chronic lung disease because of the bronchitis.”

B. “Bronchitis often turns into pneumonia.”

C. **“Bronchitis is usually a viral infection.”**

D. “I am going to be on medication for the rest of my life because of the bronchitis.”

**Rationale**

A. Acute bronchitis is an episodic disorder that is associated with the common cold and flu. It rarely precedes the development of chronic lung diseases.

B. Bronchitis develops into pneumonia less than 5% of the time.

C. **Patient education should include information that acute bronchitis is most often caused by viruses rather than bacteria. Although not commonly prescribed, antibiotics may be ordered when a superimposed bacterial infection is suspected.**

D. The patient’s condition does not lead to chronic pulmonary disease.

**Content Category:** Respiratory Tasks

**Reference**


123. While teaching a patient with chronic obstructive pulmonary disease (COPD), the nurse decides to focus on preventing exacerbations. The nurse will emphasize the need to:

A. utilize a peak expiratory flow meter.

B. observe sputum for changes in color and consistency.

C. take antibiotics as ordered.

D. **stop smoking.**
**Rationale**

A. Peak expiratory flow meters are used to assist with measuring severity of disease but will not prevent an exacerbation.

B. Observing sputum for changes will help the patient differentiate between an exacerbation and an infection but will not prevent an exacerbation.

C. Antibiotics may be ordered if there is underlying infection but will not prevent an exacerbation.

D. **Smoking contributes to 80% to 90% of the risk for development of COPD and leads to disease progression.**

**Content Category:** Respiratory Tasks

**Reference**


124. A toddler is brought to the emergency department following a history of cold symptoms, hoarse cough, and low-grade fever for a couple days. After receiving cool, humidified oxygen and a nebulized racemic epinephrine (Adrenalin) treatment for croup, there is marked improvement and the patient is ready for discharge. Which of the following statements indicates that the mother understands the discharge instructions?

A. “Are you going to give me a prescription for antibiotics?”

B. “My child is contagious.”

C. “I have to use a humidifier in his room at night.”

D. “The breathing treatment is only temporary and the cough can return.”

**Rationale**

A. Laryngotraceobronchitis is usually (75% of the time) caused by parainfluenza viruses, but respiratory syncytial virus (RSV), measles, adenovirus, and influenza can all cause croup. Although an additional bacterial infection can accompany croup, it is normally seen only in severe cases. Antibiotics are not used to treat viral infections.

B. Children with laryngotraceobronchitis are most contagious during the first days of fever and illness. Infection spreads easily in a household. Other children in the family will often develop a sore throat or a cough, without necessarily developing the croupy cough and stridor seen in croup.

C. Laryngotraceobronchitis often responds to a steamy bathroom or cool moist night air resulting in a decrease of the symptoms.

D. **The diagnosis of laryngotraceobronchitis, a member of the croup syndrome, is made based on presenting symptoms (barking cough, mild stridor and low-grade fever). After applying cool, humidified oxygen, nebulized racemic epinephrine is ordered. This medication has alpha-adrenergic effects, reducing subglottal swelling. Effects are seen within 30 minutes, often as quick as 10 minutes, and last up to 2 hours. Symptoms may return, and repeat treatments can be implemented with close observation required due to the resultant tachycardia.**

**Content Category:** Respiratory Tasks—Pediatric
125. Adverse effects of albuterol sulfate (Proventil/Ventolin) administration include:
   A. hyperkalemia.
   B. preexisting heart block.
   C. **palpitations**.
   D. thrush.

**Rationale**
A. Hypokalemia is a potential side effect of albuterol administration. This occurs by activation of the sodium-potassium pump via a non-beta receptor mechanism.
B. Heart block is a contraindication in the use of albuterol sulfate (Proventil/Ventolin). Adverse effects include tachycardia, premature ventricular contractions, and palpitations, not heart block.
C. Albuterol sulfate (Proventil/Ventolin) is a selective beta-2 agonist, used to treat or prevent reversible bronchospasm. Adverse effects tend to be associated with inadvertent beta-1 stimulation leading to cardiovascular events, including tachycardia, premature ventricular contractions, and palpitations.
D. Thrush is a complication of patients receiving corticosteroid inhalation therapy.

Content Category: Respiratory Tasks

References

126. Peak flow measurements would be obtained on which of the following patients?
   A. 3-year-old with asthma
   B. **28-year-old with respiratory distress after running**
   C. Hypotensive patient with chronic obstructive pulmonary disease
   D. An elderly patient following cataract surgery

**Rationale**
A. A 3-year-old will not be able to understand the instructions and perform the test. This ability usually occurs around ages 5 to 6.
B. **Peak flow rate, used to evaluate peak expiratory flow rate, is assessed in patients with obstructive diseases such as asthma and evaluates response to bronchodilator therapy.**
C. Peak flow is not the priority assessment in a patient who is severely short of breath or hemodynamically unstable.
D. Peak flow should not be performed by a patient who has had recent eye surgery with discharge instructions that include a contraindication to straining.

Content Category: Respiratory Tasks
127. Analysis of the arterial blood gases of a pregnant patient would reveal that the:

A. **PaCO₂ will be decreased.**
B. bicarbonate level will be increased.
C. pH will be decreased.
D. **PaO₂ will be increased.**

**Rationale**

A. During pregnancy, the respiratory rate is increased as a result of progesterone levels and the **PaCO₂** will be decreased to 30 to 34 mmHg. The kidneys will increase excretion of bicarbonate in an effort to compensate for the drop in the carbon dioxide level. This will be evidenced by hyperventilation in the pregnant patient who will also have a decreased bicarbonate level.
B. During pregnancy, the bicarbonate will be decreased to 18 to 22 mEq/L to compensate for the increased respiratory rate.
C. During pregnancy, the patient will have a partially compensated respiratory alkalosis as a result of the increased respiratory rate. The pH will be increased.
D. During pregnancy, the **PaO₂** will be normal.

**Content Category:** Respiratory Tasks

**Reference**


128. An elderly patient suffered fractured ribs after a fall. An early assessment finding that may indicate pneumonia secondary to the rib fractures would be:

A. hyperresonance on percussion.
B. high fever.
C. **acute onset of confusion.**
D. increased heart rate.

**Rationale**

A. Hyperresonance is normal with percussion over the lung fields. Dullness would be consistent with pneumonia.
B. Older adults may not have fever with infection. They may even have low temperatures.
C. **Pneumonia is the leading infectious cause of death in the elderly who are more susceptible to infections. Early signs would be an acute onset of confusion, lethargy, and deterioration in general health.**
D. Increased heart rate could be a symptom consistent with pneumonia, but it could also be associated with pain response.

**Content Category:** Respiratory Tasks—Geriatric

**Reference**

129. Which of the following is a likely cause of airway obstruction specific to the geriatric population?
A. Goiter
B. Displaced dentures
C. Epiglottic inflammation
D. Tongue

Rationale
A. Although hypothyroidism is primarily a disease found in the elderly population, goiter is rarely seen unless it is iodine induced. If it is present, it is easily treated with thyroid hormone replacement and should not become large enough to cause obstruction.
B. Displaced dentures can cause airway obstruction. Dentures should be removed if they are loose and airway maneuvers are needed to open the airway.
C. Inflammation associated with epiglottitis is not common in the geriatric population.
D. The tongue is a more common cause of airway obstruction in the young or intoxicated population.

Content Category: Respiratory Tasks—Geriatric

Reference

130. Which uncrossmatched blood type should be administered for resuscitation of the patient in hemorrhagic shock?
A. B-Rh negative
B. A-Rh negative
C. O-Rh positive
D. O-Rh negative

Rationale
A. O-Rh negative is the universal donor.
B. O-Rh negative is considered the universal donor.
C. O-Rh positive can be administered in men and in women beyond childbearing years if O-Rh negative is not available.
D. Type specific blood is the preferred type of blood for resuscitation when the patient has significant blood loss. However, type O-Rh negative is considered the universal donor.

Content Category: Shock/Multi-System Tasks

Reference
131. Which of the following findings are associated with neurogenic shock?

A. Bradycardia, poikilothermia, and hypotension
B. Vasoconstriction, tachycardia, and hypothermia
C. Fever, hypoxia, and shortness of breath
D. Flushing, pruritus, and bronchospasm

**Rationale**

A. Neurogenic shock involves loss of sympathetic vasomotor regulation. Bradycardia results from loss of sympathetic innervation. Poikilothermia is due to the inability to vasoconstrict or produce piloerection to generate heat. Hypotension occurs from massive vasodilation and the inability to vasoconstrict.

B. Neurogenic shock is the product of loss of sympathetic vasomotor regulation, leading to bradycardia, not tachycardia.

C. Fever is not produced in neurogenic shock due to tremendous loss of heat. The classic triad of neurogenic shock includes bradycardia, hypotension, and hypothermia (caused by poikilothermia).

D. The clinical presentation described with these three symptoms indicates a possible allergic reaction or anaphylaxis.

**Content Category:** Shock/Multi-System Tasks

**References**


132. A tourniquet has been applied to a severe arm laceration which is actively bleeding. Assistance is over an hour away. Which of the following interventions are recommended when using a tourniquet?

A. Cover the area where the tourniquet is applied to avoid infection.
B. Only tighten the tourniquet partway to avoid excessive pressure.
C. Use padding under the tourniquet to avoid injury.
D. Leave the tourniquet in place until the patient in an operating room.

**Rationale**

A. The tourniquet should be visible, especially in an unconscious patient, so that it does not remain on any longer than needed.

B. A tourniquet should be tightened with high-enough pressure to completely occlude arteries and arterioles to control bleeding.

C. A wide tourniquet and padding should be used when possible to prevent injury to the underlying tissue.

D. The tourniquet should be removed as soon as the bleeding has been controlled.

**Content Category:** Shock/Multi-System Tasks
Reference


133. Geriatric patients respond differently than younger persons to shock due to:
A. an increase in circulating blood volume.
B. the ability to tolerate greater changes in end-organ perfusion.
C. cardiac output increasing with age.
D. decreased physiologic reserves.

Rationale

A. Geriatric patients do not have an increase in circulating blood volume. Aging reduces the amount of water reserves. Medications may exacerbate this process.
B. Loss of reserve causes decreased ability to tolerate changes in organ perfusion.
C. Cardiac output decreases with age.
D. Cardiac and respiratory functioning are reduced with age.

Content Category: Shock/Multi-System Tasks—Geriatric

Reference


134. Which of the following interventions should be initiated first in the resuscitation of a patient in hypovolemic shock?
A. Intravenous administration of isotonic fluids
B. Prophylactic antibiotic administration
C. Dobutamine (Dobutrex) infusion
D. Norepinephrine (Levophed) infusion

Rationale

A. The initial resuscitation of a patient in hypovolemic shock is rapid fluid resuscitation with isotonic crystalloid solution. This is necessary to restore intravascular volume and maintain adequate end organ perfusion. The source of the volume loss must be quickly identified and appropriately managed.
B. Antibiotics may be indicated at some point during the resuscitation, especially if the loss of volume is from a penetrating injury, but it is not one of the initial medications.
C. Dobutamine (Dobutrex) is a beta-1 agonist used to stimulate cardiac contractility. However, there needs to be volume in the heart to pump.
D. Norepinephrine (Levophed) is less of an alpha agonist than is epinephrine. It is recommended for use in septic shock, but not until adequate fluid resuscitation has been achieved.

Content Category: Shock/Multi-System Tasks

Reference

135. An older adult enters the emergency department with progressive hemorrhagic shock. Initial vital signs are BP 84/54 mmHg, HR 80 beats/minute, SpO₂ 88% on room air, and RR 24 breaths/minute. After receiving 2 liters of warm isotonic crystalloid, the patient’s vital signs are BP 90/52 mmHg, HR 84 beats/minute, SpO₂ 90%, and RR 22 breaths/minute. What evaluation of this patient’s status would be considered correct?
A. There are underlying cardiac issues and these vital signs are normal.
B. The patient remains in progressive hemorrhagic shock.
C. The patient is in need of a transvenous pacemaker.
D. The patient is successfully volume resuscitated.

**Rationale**
A. Although cardiac problems are common in older adults, it must be remembered that older adults have a blunted ability to respond to shock and physiologic stress. The absence of tachycardia in the presence of hypovolemia does not indicate normalcy or successful resuscitation.
B. Older adults have a loss of reserve functioning, including a blunted response to catecholamines. In addition, the patient may have preexisting disease that also influences shock response. This patient remains volume depleted despite 2000 mL of fluid infusing as indicated by virtually unchanged vital signs.
C. Although cardiac problems are common in older adults, it must be remembered that older adults have a blunted ability to respond to shock and physiologic stress. The absence of tachycardia in the presence of hypovolemia does not indicate normalcy or necessarily a cardiac issue.
D. This is an incorrect evaluation. The vital signs remain essentially unchanged because older adults do not mount a tachycardic response to shock and are less sensitive to catecholamines.

**Content Category:** Shock/Multi-System Tasks—Geriatric

**References**

136. Which of the following is true regarding the pediatric response to shock?
A. A small amount of blood loss can be significant in a child.
B. Toddlers increase stroke volume in order to increase their cardiac output.
C. Hypotension is an early sign of shock in the pediatric patient.
D. Children tolerate hypoxic states better than adults.
Rationale
A. Lower circulating blood volume can cause shock with even small amounts of blood loss.
B. Toddlers can only marginally increase their heart rates, but they are unable to increase stroke volume.
C. Due to the ability to vasoconstrict, hypotension is a late sign of shock in the pediatric patient.
D. Children do not tolerate hypoxia as well as their adult counterparts due to loss of oxygen reserve.

Content Category: Shock/Multi-System Tasks—Pediatric

Reference

137. Which of the following assessments might best indicate pericardial tamponade?
A. Monitoring heart rate
B. Assessing neck veins
C. Listening to heart sounds
D. Checking capillary refill

Rationale
A. Alterations in heart rate are nonspecific symptoms of shock and hypoperfusion.
B. Jugular venous distention can occur with tension pneumothorax, pericardial tamponade, or volume overload.
C. Muffled heart sounds, jugular venous distention, and hypotension (also known as Beck’s triad) are considered the classic signs of pericardial tamponade. Muffled heart tones are indicative of fluid in the pericardial sac.
D. Prolonged capillary refill is indicative of hypoperfusion but is not specific to pericardial tamponade.

Content Category: Shock/Multi-System Tasks

References

138. An early sign of hypovolemic shock in adults is:
A. a gradual increase in the rate and depth of respirations.
B. low diastolic blood pressure.
C. ventricular dysrhythmias.
D. decreased level of consciousness.
Rationale
A. Inadequate circulating volume causes cellular hypoxia and anaerobic cellular metabolism. Tachypnea is an effort to decrease carbon dioxide and compensate for cellular acidosis.
B. In early shock, the diastolic blood pressure rises from the sympathetic effect on peripheral vascular resistance.
C. This is a late sign of shock caused by a depletion of epinephrine stores.
D. Early manifestations of shock are anxiety, restlessness, or confusion. A decreased level of consciousness may evolve as the shock progresses.

Content Category: Shock/Multi-System Tasks

Reference

139. The development of coagulopathies after autotransfusion is most likely attributable to which of the following actions?
A. Adding citrate phosphate dextrose to the collection bag
B. Waiting greater than six (6) hours to reinfuse blood
C. Transfusing 25% to 50% of total blood volume
D. Utilizing blood obtained from below the diaphragm

Rationale
A. Citrate phosphate dextrose is added to the collection bag to prevent clotting during the collection and to prevent plugging the filter. Not enough is added to cause coagulopathies in normal conditions.
B. Autotransfused blood should not be held more than 4 to 6 hours because of the increased risk of infection.
C. When the amount of blood autotransfused is 25% to 50% of total blood volume, there is dilution of clotting factors, which can result in coagulopathies.
D. Sepsis is possible if enteric contamination has occurred. However, this is not an immediate direct cause of coagulopathies.

Content Category: Shock/Multi-System Tasks

Reference

140. Which of the following is an absolute CONTRAINDICATION to the administration of recombinant human activated protein C (Xigris) in patients with multiple organ failure?
A. Presence of multi-system organ failure
B. Risk of bleeding
C. Fever greater than 102.2°F (39°C)
D. Concomitant antibiotic therapy
**Rationale**
A. Recombinant human activated protein C (Xigris) is indicated in the presence of multisystem organ failure.
B. **Recombinant human activated protein C (Xigris) is contraindicated in the presence of a bleeding risk.**
C. Recombinant human activated protein C (Xigris) is indicated for patients with sepsis. Fever may or may not be present.
D. Recombinant human activated protein C (Xigris) is indicated for patients with sepsis. Antibiotics are often administered concomitantly.

**Content Category:** Shock/Multi-System Tasks

**Reference**

141. Following a rattlesnake bite to the leg, a patient experiences severe pain over the bite area; edema 25 cm (9.8 inches) spreading toward the trunk; petechiae and ecchymosis in the edematous area; and nausea, vomiting, and hypotension. Which of the following is the next priority?
A. Apply a tourniquet to the leg.
B. Apply the Australian compression dressing to the leg.
C. Cut over the fang marks and use a suction device to remove the venom.
D. **Determine the severity of envenomation and dose of antivenin.**

**Rationale**
A. Tourniquets are not indicated for snakebites.
B. Some advocate the use of the Australian pressure-immobilization technique for field management of elapid snakebites. However, its use is contraindicated in a hospital.
C. Cutting and suctioning are not recommended. They may cause infection and do not remove significant venom.
D. **Antivenin is most therapeutic when given within 4 hours of the bite. There is limited value after 12 hours. The patient is exhibiting Grade 2–Moderate signs and symptoms of envenomation.**

**Content Category:** Substance Abuse/Toxicological/Environmental Tasks

**References**
142. A patient presents to the emergency department with hyperthermia, confusion, hallucinations, tachypnea, pulmonary edema and dehydration, along with evidence of renal failure. History reveals the patient has been taking over-the-counter medications for arthritis as well as bismuth subsalicylate (Pepto-Bismol) for an upset stomach. The patient’s symptoms are most likely caused by toxic levels of which medication?

A. Digoxin (Lanoxin)
B. Acetaminophen (Tylenol)
C. Aspirin (Acetylsalicylic Acid)
D. Ibuprofen (Advil)

**Rationale**

A. Digoxin (Lanoxin) toxicity may occur as a result of chronic renal failure, but confusion and tachypnea are not indicative of digoxin (Lanoxin) toxicity.

B. Acetaminophen (Tylenol) toxicity, whether acute or chronic, may result in renal or hepatic failure, but tachypnea or mental status changes are not indicative.

C. **Chronic use of salicylates in the elderly is frequently undiagnosed or confused with other disease states. Neurotoxicity is common.**

D. Ibuprofen (Advil) toxicity, like acetaminophen toxicity, may result in renal or hepatic or metabolic changes, but not neurotoxicity.

**Content Category:** Substance Abuse/Toxicological/Environmental Tasks—Geriatric

**References**


143. Which of the following assessment findings is expected in a patient with altered mental status and suspected opioid ingestion?

A. Pinpoint, fixed pupils
B. Dilated pupils which react to light
C. Equal pupils which constrict to light
D. Unilateral dilated pupils

**Rationale**

A. Pinpoint fixed pupils are an expected finding in the patient with suspected ingestion of opioids.

B. Dilated, reactive pupils are present in patients with ingestion of hallucinogens and central nervous system stimulants.

C. Equal pupils that constrict to light may be present in the patient with ingestion of cannabis and central nervous system stimulants.

D. Unilateral dilated pupils may be a sign of significant trauma and increasing intracranial pressure. All patients with change in mental status should be evaluated for traumatic injury.

**Content Category:** Substance Abuse/Toxicological/Environmental Tasks
144. Using the Rule of Nines, calculate the Total Body Surface Area (TBSA) for the following burn patient: superficial partial thickness burn to entire right leg, full thickness burn to anterior portion of left leg, and superficial burn to chest.

A. 35% TBSA  
B. 27% TBSA  
C. 45% TBSA  
D. 18% TBSA

**Rationale**

A. Using the Rule of Nines: the leg is 18%, anterior leg is 9%, totaling 27%. Superficial burns are not calculated into the TBSA of a burn injury.

B. Using the Rule of Nines: the leg is 18%, anterior leg is 9%, totaling 27%. Superficial burns are not calculated into the TBSA of a burn injury.

C. Using the Rule of Nines: the leg is 18%, anterior leg is 9%, totaling 27%. Superficial burns are not calculated into the TBSA of a burn injury.

D. Using the Rule of Nines: the leg is 18%, anterior leg is 9%, totaling 27%. Superficial burns are not calculated into the TBSA of a burn injury.

**Content Category:** Substance Abuse/Toxicological/Environmental Tasks

**References**


145. Which of the following treatments is indicated following hydrofluoric acid (HF) exposure to the skin?

A. Apply calcium gluconate.  
B. Apply silver sulfadiazine (Silvadene).  
C. Dilute with copious amounts of water.  
D. Apply neomycin and polymyxin (Neosporin) antibiotic ointment.

**Rationale**

A. Unlike acid and alkali burns, HF penetrates the skin and affects calcium in bone and tissue. Its treatment requires a specific antidote, calcium gluconate.

B. Silver sulfadiazine (Silvadene) is used commonly in acid and alkali burns. Treatment for HF exposure requires a specific antidote, calcium gluconate.

C. Water will actually exacerbate the burns associated with hydrofluoric acid exposure. Treatment for HF exposure requires a specific antidote, calcium gluconate.

D. Neosporin (neomycin and polymyxin) antibiotic ointment is more commonly used in acid and alkali burns. Treatment for HF exposure requires a specific antidote, calcium gluconate.
**Content Category:** Substance Abuse/Toxicological/Environmental Tasks

**References**


146. The American Burn Association (ABA) recommends all of the following injuries be referred to a burn center **EXCEPT:**

A. **partial-thickness burns covering more than 2% total body surface area (TBSA).**

B. chemical and inhalation burns.

C. burns that involve the face, hands, feet, genitalia, perineum, or major joints.

D. electrical burns, including lightning injuries.

**Rationale**

A. **Patients with partial-thickness burns covering more than 10% TBSA are recommended for transfer to a burn center.**

B. Patients with chemical or inhalation injuries are recommended for transfer to a burn center by the ABA.

C. Patients with burns that involve the face, hands, feet, genitalia, perineum, or major joints are recommended for transfer to a burn center by the ABA.

D. Patients with electrical burns, including lightning injuries, are recommended for transfer to a burn center by the ABA.

**Content Category:** Substance Abuse/Toxicological/Environmental Tasks

**References**


147. A patient became suddenly disoriented, drowsy and had decreased respirations minutes after ingesting a cocktail. Following respiratory arrest, the patient was quickly resuscitated but remained difficult to arouse. Within 4 hours, the patient was oriented and alert, with complaints of amnesia. Which of the following substances is most likely responsible?

A. Lysergic acid diethylamide (LSD)

B. 3,4-methylenedioxyn-N-methylamphetamine (MDMA, Ecstasy)

C. **Gamma-hydroxybutyric acid (GHB)**

D. Phencyclidine (PCP)
**Rationale**

A. LSD, like Ecstasy, is more likely to produce stimulant and hallucinogenic effects rather than central nervous system and respiratory depression.

B. Ecstasy symptoms include hallucinations and stimulant effects rather than central nervous system and respiratory depression.

C. GHB symptoms of confusion and respiratory depression occur rapidly and are usually of short duration. It is usually found in liquid form and added to ethanol in date-rape situations.

D. PCP has a longer onset of action and is more likely to produce agitation and hallucinations.

**Content Category:** Substance Abuse/Toxicological/Environmental Tasks

**References**


148. A patient presents to the emergency department with lacrimation, salivation, nausea, vomiting, and bradycardia after eating blackberries. The nurse should anticipate the administration of:

A. epinephrine (Adrenaline).

B. methylprednisolone (Solu-Medrol).

C. diphenhydramine (Benadryl).

D. atropine (Atropine Sulfate).
**Rationale**

A. The patient is exhibiting signs/symptoms of nerve agent poisoning from the pesticides (organophosphates) on the blackberries. Nerve agents function by inhibiting the enzyme acetylcholinesterase (AChE), allowing excess accumulation of acetylcholine at neuromuscular junctions causing overstimulation of the organs. The observation of the signs and symptoms is the primary means of diagnosing exposure to nerve agents.

B. Methylprednisolone is not indicated. The patient is exhibiting signs/symptoms of nerve agent poisoning from the pesticides (organophosphates) on the blackberries. Nerve agents function by inhibiting the enzyme acetylcholinesterase (AChE), allowing excess accumulation of acetylcholine at neuromuscular junctions causing overstimulation of the organs. The observation of the signs and symptoms is the primary means of diagnosing exposure to nerve agents.

C. Diphenhydramine is not indicated. The patient is exhibiting signs/symptoms of nerve agent poisoning from the pesticides (organophosphates) on the blackberries. Nerve agents function by inhibiting the enzyme acetylcholinesterase (AChE), allowing excess accumulation of acetylcholine at neuromuscular junctions causing overstimulation of the organs. The observation of the signs and symptoms is the primary means of diagnosing exposure to nerve agents.

D. The patient is exhibiting signs/symptoms of nerve agent poisoning from the pesticides (organophosphates) on the blackberries. Nerve agents function by inhibiting the enzyme acetylcholinesterase (AChE), allowing excess accumulation of acetylcholine at neuromuscular junctions causing overstimulation of the organs. The observation of the signs and symptoms is the primary means of diagnosing exposure to nerve agents.

**Content Category:** Substance Abuse/Toxicological/Environmental Tasks

**Reference**


149. After being stung on the foot by a stingray, a patient’s foot was immersed in hot water for 90 minutes. When should this treatment be discontinued?

A. With the cessation of bleeding

B. With relief of pain

C. When swelling begins to decrease

D. After 6 hours of treatment

**Rationale**

A. Bleeding is infrequent and not a parameter of consequence with soaking.

B. **Stingray venom is heat labile and will dissipate with soaking in warm to hot water.**

C. Relief of pain, not a decrease in swelling, is an indication that the venom is dissipating.

D. Treatment is not time limited.

**Content Category:** Substance Abuse/Toxicological/Environmental Tasks
References

150. The treatment for a cocaine overdose which manifests as acute coronary syndrome is:
A. propanolol (Inderal).
B. nitroprusside (Nipride).
C. nitroglycerin (Tridil).
D. esmolol (Brevibloc).

Rationale
A. Propanolol has been shown to worsen the effects of acute coronary syndromes in the presence of cocaine overdose.
B. Nitroprusside has been shown to have no significant effect on acute coronary syndrome caused from cocaine overdose.
C. Nitroglycerin has been shown to reverse the effects of vasoconstriction caused by cocaine overdose.
D. Esmolol may induce hypotension.

Content Category: Substance Abuse/Toxicological/Environmental Tasks

Reference
Examination 2
Self-diagnostic Profile

Instructions

STEP 1: Determine your total score

1. Indicate on your answer sheet whether each of your answers is correct or incorrect.

2. Count the total number of items that you answered correctly (or count the items answered incorrectly and subtract from 150).

3. Look on the Scoring Equivalent grid in Chapter 5 to compare the number answered correctly with the percentage. Your goal is to achieve a score of 70% or greater, for which you must answer 105 items correctly.
STEP 2: Determine content areas for further study

1. Go through the answer sheet and transfer the number of each incorrect answer into the column for the corresponding content area onto the Self-Diagnostic Content Area Worksheet.

2. Count the number of incorrect questions in each content category and total them in the appropriate column.

3. Refer to the last column of the Self-Diagnostic Content Area Worksheet for the number of incorrect answers that constitutes 30% of the total number of questions in that Content Area. If your incorrect answers are equal to or greater than that number (or the total number of all questions in the Blueprint is greater than 30%), additional review in that particular content area is indicated.

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<th>Total Number of Incorrect Questions in Category</th>
<th>Blueprint Total Number in Category</th>
<th>Number Incorrect to Indicate Further Study Necessary</th>
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