PART 1

1. In managing a patient’s pulseless rhythm, which drug is interchangeable with epinephrine (Adrenalin) in advance cardiac life support (ACLS) resuscitation protocols?
   A. Vasopressin (Pitressin)
   B. Lidocaine hydrochloride (Xylocaine)
   C. Adenosine (Adenocard)
   D. Bretylium (Bretylol)

2. All of the following statements related to pericarditis are true EXCEPT:
   A. the most common physical finding is a pericardial friction rub.
   B. pericarditis occurs more frequently in adults than in children.
   C. pericarditis-associated chest pain is aggravated by lying flat on the left side, coughing, and deep inspiration.
   D. chest pain is relieved by rest and nitroglycerin (Tridil).

3. Which of the following emergencies should be suspected in a patient with a history of hypertension who presents with a severe, diffuse headache; blurry vision; blood pressure 230/140 mmHg; and papilledema?
   A. Chronic hypertension
   B. Migraine headache
   C. Hypertensive crisis
   D. Cluster headache

4. Bradycardia in a pediatric patient is most often caused by:
   A. congenital cardiac defects.
   B. hypoxia.
   C. fever.
   D. electrolyte imbalance.
5. A pathologic Q wave is defined as:
   A. a positive deflection following the P wave that is greater than 1/3 the QRS height or
      shorter than 0.04 seconds.
   B. a negative deflection following the P wave that is deeper than 1/3 the QRS height or
      shorter than 0.04 seconds.
   C. a positive deflection following the P wave that is greater than 1/3 the QRS height or lon-
      ger than 0.04 seconds.
   D. a negative deflection following the P wave that is deeper than 1/3 the QRS height or lon-
      ger than 0.04 seconds.

6. The primary objective of percutaneous coronary intervention (PCI) is to:
   A. reestablish blood flow in an occluded coronary artery.
   B. change the electrical conduction system.
   C. reestablish an action potential of the cardiac cells.
   D. establish an upright QRS complex in Lead II.

7. What is the recommended treatment for lowering blood pressure in a patient with chronic
   hypertension and altered autoregulation?
   A. Decrease the blood pressure to <140 mmHg systolic as quickly as possible.
   B. Decrease the blood pressure by 20% to 30% over 2 to 3 hours.
   C. Decrease the blood pressure gradually over 24 to 48 hours.
   D. Decrease the diastolic blood pressure aggressively within 1 to 2 hours.

8. Which of the following places elderly patients at risk for digitalis toxicity?
   A. Increased likelihood of digoxin (Lanoxin) overmedication
   B. Higher dietary potassium intake
   C. Impaired renal functioning
   D. Declining cardiac output

9. What patient groups are most likely to experience a nontraumatic aortic dissection?
   A. Females, young patients, and patients with congenital heart defects
   B. Females, diabetics, and patients with chronic renal failure
   C. Males, hypertensive patients, and patients with Marfan’s syndrome
   D. Males, chronic lung disease patients, and patients on antihypertensive medications

10. A patient walks into the emergency department complaining of palpitations. The assess-
    ment reveals that the patient is alert with pale, warm, and dry skin. The electrocardiogram
    reveals a regular, wide-complex rhythm and the blood pressure is 110/70 mmHg. Which one
    of the following interventions should the nurse anticipate?
    A. Amiodarone (Cordarone) 150 mg IV bolus over 10 minutes, followed by a continuous
       infusion
    B. Immediate unsynchronized defibrillation at 120 joules (biphasic)
    C. Adenosine (Adenocard) 6 mg IV rapid bolus, followed by an additional 12 mg IV if first
       dose is unsuccessful
    D. Emergent synchronized cardioversion at 50 joules (biphasic)
11. An electrocardiogram with broad notched P waves $\geq 0.11$ seconds and biphasic P waves in V1 with broad terminal negative deflections indicates:
   A. right atrial hypertrophy.
   B. left atrial hypertrophy.
   C. hyperkalemia.
   D. hypokalemia.

12. Chest pain that occurs at rest is known as:
   A. unstable angina.
   B. Ludwig’s angina.
   C. stable angina.
   D. Prinzmetal’s angina.

13. A young male patient is complaining of pleuritic chest pain following a recent viral infection. Vital signs are stable. The 12-lead electrocardiogram reveals ST-segment elevation in all leads. The nurse should anticipate:
   A. administration of eptifibatide (Integrilin) to decrease platelet activation.
   B. immediate transportation to the cardiac catheterization lab for primary percutaneous coronary intervention (PCI).
   C. immediate pericardiocentesis to remove fluid from the pericardial sac.
   D. administration of anti-inflammatory agents for treatment of pericarditis.

14. What diagnostic study would help identify the presence of an aortic aneurysm?
   A. Pericardiocentesis
   B. Chest radiograph
   C. Doppler studies of the aorta
   D. Electrocardiogram

15. A patient with a rapid, narrow-complex tachycardia is unconscious and has the following vital signs: BP 70/40 mmHg, HR 188 beats/minute, and RR 22 breaths/minute. What is the priority intervention at this time?
   A. 12-lead electrocardiogram
   B. Synchronized cardioversion
   C. Unsynchronized defibrillation
   D. Adenosine (Adenocard)

16. Which of the following types of patients are most at risk for having a silent myocardial infarction (MI) or an atypical cardiac presentation?
   A. Patients taking angiotensin-converting enzyme (ACE) inhibitors
   B. Patients with a history of MI
   C. Diabetics
   D. Patients who are less than 85-years-old
17. An elderly man arrives complaining of indigestion and a burning epigastric pain. What is the first action that should be performed?
A. Obtain a 12-lead electrocardiogram.
B. Get a full set of vital signs.
C. Obtain abdominal radiograph series.
D. Perform phlebotomy for blood testing.

18. An elderly patient presents to the emergency department complaining of shortness of breath and nausea. The 12-lead electrocardiogram shows ST-segment elevation in leads II, III, and AVF. What clinical condition is this patient likely experiencing?
A. Hypocalcemia
B. Inferior wall myocardial infarction
C. Pulmonary embolus
D. Anterior wall myocardial infarction

19. A history of which of the following would predispose a patient to infective endocarditis?
A. Systemic lupus erythematosus (SLE)
B. Exposure to environmental toxins
C. Family history of cardiac disease
D. Intravenous drug abuse

20. The most important intervention for cardiac arrest is:
A. delivery of a vasopressor.
B. defibrillation at 200 joules.
C. performance of adequate cardiopulmonary resuscitation (CPR).
D. administration of dysrhythmics.

21. An acute onset of excruciating leg pain with distal coldness, numbness, pallor, or cyanosis and absent pulses is associated with which of the following conditions?
A. Peripheral vascular disease (PVD)
B. Deep venous thrombosis (DVT)
C. Raynaud’s disease
D. Acute arterial occlusion (AO)

22. When caring for a patient who has been diagnosed with a gastrointestinal (GI) bleed, a priority intervention would be to:
A. perform gastric lavage.
B. infuse normal saline IV.
C. insert a nasogastric tube.
D. administer ranitidine (Zantac).

23. A history of which of the following findings is consistent with a diagnosis of pancreatitis?
A. Tarry stools
B. Foul-smelling fatty stools
C. Bloody diarrheal stools
D. Large, frequent stools
24. An 18-year-old female arrives in the emergency department complaining of right lower quadrant pain with movement, nausea, vomiting, and constipation all morning. This is associated with a low-grade fever and the patient feels more comfortable when the hips and knees are flexed. The nurse anticipates a workup for:
   A. appendicitis.
   B. ruptured ovarian cyst.
   C. small bowel obstruction.
   D. cholecystitis.

25. The most accurate way to confirm correct nasal or oral gastric tube placement is:
   A. auscultation over the epigastrium while instilling air.
   B. aspiration of gastric contents.
   C. a chest radiograph.
   D. measurement of pH of gastric contents.

26. The most sensitive indicator to include in serial exams for the nonoperative management of blunt hepatic and splenic injuries focuses on:
   A. measurement of serum liver function tests.
   B. pain assessment.
   C. measurement of serum electrolytes.
   D. abdominal assessment.

27. Which of the following diagnostic results would indicate pancreatitis?
   A. Decreased bilirubin
   B. Elevated amylase
   C. Decreased glucose
   D. Elevated calcium

28. Assessment of a trauma patient with a splenic injury may reveal:
   A. pain in the left shoulder while lying supine or in Trendelenberg.
   B. subcutaneous emphysema.
   C. tenderness in the upper right quadrant.
   D. gross blood in gastric aspiration.

29. A patient diagnosed with cholecystitis is kept nothing by mouth (NPO) and has a nasogastric tube inserted which is placed on low intermittent suction. Which of the following findings indicates therapy has been effective?
   A. The patient states their colicky pain has decreased.
   B. There is a decrease in fatty foul-smelling stools.
   C. There is a decrease of blood in gastric contents.
   D. The patient states they are hungry.

30. An elderly patient with a history of atrial fibrillation, controlled by digoxin (Lanoxin), presents with nausea and vomiting. History reveals the patient ate a bag of black licorice over the last week. Laboratory results are normal except for an elevated digoxin level. Which statement indicates appropriate understanding of discharge instructions?
   A. “I need to stop my digoxin (Lanoxin) for a few days if I have nausea and vomiting.”
   B. “I should take psyllium (Metamucil) so I won’t get constipated.”
   C. “I will no longer eat black licorice.”
   D. “I can take an antacid with my digoxin (Lanoxin).”
31. The best indicator of renal trauma is:
   A. pain in the flank area.
   B. the presence of hematuria.
   C. bruising of the flank.
   D. patient history.

32. A patient who is eight weeks pregnant presents with bright red vaginal bleeding and abdominal cramping. While in the emergency department, she passes blood clots and tissue, followed by a decrease in the abdominal pain and vaginal bleeding. Which of the following tests should be done prior to discharge from the emergency department?
   A. Urinalysis
   B. Complete blood count (CBC)
   C. Quantitative serum human chorionic gonadotropin (HCG)
   D. Blood type and screen

33. A common cause of pre-renal failure is:
   A. hypovolemic shock.
   B. urethral obstruction.
   C. rhabdomyolysis.
   D. glomerulonephritis.

34. When a victim of intimate partner violence presents to the emergency department, the nurse should:
   A. ensure two nurses are in the room to verify evidence collection.
   B. ensure the significant other stays with the patient to provide support.
   C. refrain from treating any injuries until law enforcement has been contacted.
   D. provide a safe environment away from the significant other during the interview process.

35. Which of the following would be most helpful when assessing for a potential ectopic pregnancy in a patient with left lower quadrant pain (7 out of 10) for the past six hours?
   A. Inquire about the menstrual history.
   B. Complete a focused pain assessment.
   C. Assess for a positive pregnancy test.
   D. Obtain fetal heart tones (FHT).

36. The nurse has administered intravenous dextrose and insulin to a patient in renal failure. Which finding would NOT indicate effective treatment?
   A. Shortening of PR interval
   B. Decrease in T-wave height on the cardiac monitor
   C. Decreasing heart rate
   D. Shortening of the QRS
37. A patient has been diagnosed with pregnancy-induced hypertension (PIH) and is receiving intravenous magnesium. Which of the following occurs with magnesium toxicity?
   A. Decreased deep tendon reflexes, respiratory rate more than 24 breaths/minute, urinary output more than 200 mL/hr
   B. Increased deep tendon reflexes, respiratory rate less than 12 breaths/minute, urinary output less than 30 mL/hr
   C. Decreased deep tendon reflexes, respiratory rate less than 12 breaths/minute, and urinary output less than 30 mL/hr
   D. Increased deep tendon reflexes, respiratory rate more than 24 breaths/minute, urinary output more than 200 mL/hr

38. Rh immune globulin (RhoGAM or Rhophylac) has been ordered for a patient who just experienced a spontaneous abortion. The nurse knows that this medication is given in order to prevent:
   A. the Rh-negative mother from forming antibodies to Rh-positive fetal blood.
   B. an infection from fetal blood contamination.
   C. an allergic reaction to Rh-positive fetal blood.
   D. passing hepatitis B infection in future pregnancies.

39. After dilatation and evacuation of retained products of conception, the patient has received adequate discharge instruction if she can relate all of the following EXCEPT:
   A. avoid intercourse until bleeding and cramping stop.
   B. use sanitary pads only; avoid tampon use.
   C. if foul vaginal discharge develops, douche with dilute vinegar solution.
   D. take temperature four times a day.

40. The most common consequence of trauma in the pregnant patient is:
   A. premature labor contractions.
   B. uterine rupture.
   C. placental abruption.
   D. spontaneous rupture of membranes.

41. A patient complains of flashes of light and floaters in their peripheral vision and that it feels as if they are looking through cobwebs 2 days after a car crash. The priority intervention is to:
   A. administer intravenous antibiotics.
   B. measure visual acuity.
   C. obtain an ophthalmology consultation.
   D. shield eyes.

42. An elderly patient presents with a sudden onset of vertigo associated with unilateral hearing loss and nausea and vomiting. Which of the following statements made by the patient supports a diagnosis of Ménière’s disease?
   A. “My symptoms have been constant since they started 3 days ago.”
   B. “My symptoms come and go.”
   C. “My symptoms started this morning after I rolled over in bed.”
   D. “My symptoms have gotten worse over the last week or so.”
43. In a patient with a battery acid injury to the eyes, normal saline irrigation would result in which of the following positive outcomes?
   A. Improvement in visual acuity
   B. Decrease in pain
   C. Ocular pH of 7.0 to 7.4
   D. Less uptake of fluorescein stain than previously noted

44. The emergency nurse administers acetazolamide (Diamox) to a patient with acute angle closure glaucoma. The most important laboratory study for the nurse to monitor after administration of this drug is:
   A. magnesium.
   B. potassium.
   C. chloride.
   D. calcium.

45. All of the following are pH-balanced solutions appropriate for use as a transport medium for an avulsed tooth **EXCEPT**:
   A. saliva.
   B. Hanks’ solution (Save-a-Tooth®).
   C. milk.
   D. water.

46. An elderly patient complains of a recurring right ear infection despite topical antibiotic treatment. Given the patient’s history and presenting symptoms, what serious complication should the emergency nurse suspect?
   A. Malignant otitis externa
   B. Cholesteatoma
   C. Lateral sinus thrombosis
   D. Mastoiditis

47. Which of the following patient statements would lead the nurse to determine that a patient with mononucleosis understands the discharge instructions?
   A. “I can never donate blood.”
   B. “I need to see the doctor if my fever returns.”
   C. “I need to avoid heavy lifting for the next 4 weeks.”
   D. “I should expect worsening abdominal pain.”

48. A middle-aged woman presents to the emergency department with complaints of elevated temperature of 104°F (40°C), rapid irregular heart rate of 188 beats/minute, and periorbital edema with exophthalmos. The nurse would anticipate interventions to treat:
   A. myxedema coma.
   B. thyroid storm.
   C. syndrome of inappropriate antidiuretic hormone (SIADH).
   D. hyperosmolar, hyperglycemic nonketotic coma (HHNC).
49. An elderly man arrives in the emergency department via ambulance with redness, swelling, and severe pain in his left lower leg. He denies any recent injury except “I scratched my leg when I was working outside yesterday.” Vital signs are BP 96 mmHg by palpation, HR 110 beats/minute, RR 24 breaths/minute, and T 101.3°F (38.5°C). The emergency nurse recognizes the treatment priority for this soft tissue injury is:
   A. tetanus immunization.
   B. oral antibiotic therapy.
   C. surgery.
   D. pain medication.

50. During the assessment, the nurse notes a febrile patient to have pain in the hamstring muscle after flexion and extension of the leg. Which condition most commonly results in this finding?
   A. Lumbar disk compression
   B. Guillan-Barré syndrome
   C. Myasthenia gravis
   D. Meningitis

51. A patient complained of tingling, burning, itching, and hyperesthesia for 3 to 5 days before a rash developed on the right thigh. The nurse suspects:
   A. herpes zoster.
   B. scabies.
   C. myiasis.
   D. chickenpox (varicella).

52. When a patient receives multiple units of banked packed red blood cells (PRBC), the nurse should monitor the patient for:
   A. hypocalcemia.
   B. hypokalemia.
   C. alkalosis.
   D. decreased clotting time.

53. A patient who was diagnosed with pertussis (whooping cough) returns to the emergency department to determine if they can return to work. Which of the following represents effective treatment for pertussis?
   A. Completion of antibiotic therapy
   B. Resolution of fever and explosive coughing
   C. Negative chest radiograph
   D. Negative nasopharyngeal swab for *Bordetella pertussis*

54. Which of the following would indicate that treatment for disseminated intravascular coagulation (DIC) was effective?
   A. A venipuncture site does not bleed after 5 minutes.
   B. Coagulation times are prolonged.
   C. Hematuria was noted 30 minutes after treatment.
   D. Sequential platelet counts decrease.
55. An unresponsive patient has bradycardia and a prolonged QT segment on the cardiac monitor. Lab values show an elevated thyroid-stimulating hormone (TSH) and low thyroxin level (T4). These findings are associated with which of the following conditions?
A. Myxedema coma  
B. Thyroid storm  
C. Adrenal crisis  
D. Hyperosmolar hyperglycemic nonketotic coma (HHNC)

56. The primary complication associated with hypoglycemia is:
A. thiamine deficiency.  
B. hyperthermia.  
C. acidosis.  
D. brain dysfunction.

57. Which parenteral solution should initially be used to correct intracellular fluid deficit in the hyperosmolar hyperglycemic nonketotic coma (HHNC) patient?
A. 0.9% saline with 20 mEq of potassium chloride  
B. D5W with 0.9% saline  
C. 0.9% saline  
D. D5W with 0.45% saline

58. A patient diagnosed with syndrome of inappropriate antidiuretic hormone (SIADH) is most at risk for which of the following complications?
A. Tetany  
B. Hypernatremia  
C. Dehydration  
D. Seizure activity

59. Which of the following statements by the patient would demonstrate an understanding of the diagnosis of fibromyalgia?
A. “The more I exercise and use my muscles, the less pain I should experience.”  
B. “I really hate to be dependent upon narcotics for the rest of my life.”  
C. “I am glad the physician was able to determine the source of my pain.”  
D. “I need to take a warm bath at night before bed.”

60. A pediatric patient diagnosed with a febrile seizure is ready for discharge. The nurse validates that the parents understand discharge teaching if they state which of the following?
A. “I will administer the antipyretic as prescribed.”  
B. “This type of seizure won’t happen again.”  
C. “Reevaluation is not needed if a seizure occurs again.”  
D. “I will administer the anticonvulsant as prescribed.”

61. A patient with diabetes insipidus should be monitored for which of the following serum electrolyte imbalances?
A. Hypoglycemia  
B. Hyponatremia  
C. Hypernatremia  
D. Hyperglycemia
62. Which of the following components are included in the Cincinnati Prehospital Stroke Scale?
   A. Pupillary changes, arm drift, and abnormal speech
   B. Facial droop, arm drift, and abnormal speech
   C. Facial droop, decreased unilateral grip strength, and abnormal speech
   D. Facial droop, arm drift, and receptive aphasia

63. Which of the following interventions is no longer recommended as initial management for patients with suspected increased intracranial pressure (ICP)?
   A. Increase blood pressure
   B. Drain cerebrospinal fluid (CSF)
   C. Hyperventilation
   D. Administer mannitol (Osmitrol)

64. Which standardized objective measurement of neurologic function is \textbf{NOT} considered when using the Glasgow Coma Scale score?
   A. Best verbal response
   B. Best motor response
   C. Best sensory response
   D. Eye opening

65. If an operating room is not immediately available, burr holes may be performed in the emergency department for:
   A. a gunshot wound to the left temporal lobe.
   B. an epidural hematoma accompanied by signs and symptoms of impending herniation.
   C. diffuse axonal injury (DAI) causing unresponsiveness.
   D. a subarachnoid hemorrhage with bloody cerebral spinal fluid.

66. Meningeal irritation is indicated by which of the following findings?
   A. Abnormal flexion
   B. Positive “Babinski” reflex
   C. Peripheral paresthesias
   D. Nuchal rigidity

67. A patient with a history of schizophrenia presents with a headache and stiff neck for the past 24 hours and now demonstrates an altered level of consciousness, restlessness, combativeness, and confusion. The patient is compliant with the prescribed medications. Vital signs are T 100.2°F (37.9°C), HR 108 beats/minute, RR 20 breaths/minute, and BP 89/56 mmHg. Which of the following conditions is the most likely cause of altered level of consciousness and confusion in this patient?
   A. Exacerbation of schizophrenia
   B. Central nervous system (CNS) infection
   C. Drug overdose
   D. Alcohol intoxication
68. A patient is experiencing which type of spinal cord injury if they are exhibiting loss of motor function, proprioception and vibration below the injury on the same side, and loss of pain and temperature on the opposite side?
   A. Brown-Séquard syndrome
   B. Posterior cord injury
   C. Anterior cord syndrome
   D. Complete spinal cord injury

69. Which of the following tests would best evaluate the presence of spinal cord injury without radiographic abnormality (SCIWORA) in a pediatric patient?
   A. Lumbar puncture
   B. Computed tomography (CT)
   C. Swimmer’s view of the cervical spine
   D. Magnetic resonance imaging (MRI)

70. A potential complication of methylprednisolone (Solu-Medrol) therapy for spinal cord injury would include all of the following EXCEPT:
   A. hyperglycemia.
   B. return of sensation.
   C. impaired wound healing.
   D. gastrointestinal bleeding.

71. The prevention of further cerebral cellular destruction for a stroke patient is centered around the preservation and reperfusion of the:
   A. infarction.
   B. penumbra.
   C. transient ischemic attack (TIA).
   D. completed stroke.

72. A patient with a head injury who has a headache, altered level of consciousness, mastoid ecchymosis, and a small amount of cerebrospinal fluid leaking from the nose has likely sustained a:
   A. basilar skull fracture.
   B. linear skull fracture.
   C. depressed skull fracture.
   D. LeFort I fracture.

73. The following statement is TRUE regarding the epidemiology of neurological trauma in the United States:
   A. Motor vehicle crashes are the major cause of traumatic brain injury for all age groups.
   B. A large percentage of patients with severe brain injury have concomitant fracture of the cervical spine.
   C. Approximately one-half of all trauma-related deaths are the result of head trauma.
   D. Traumatic brain injury deaths from firearms are most often the result of accidental injury.

74. The most common form of impairment seen in dementia is:
   A. seizures.
   B. lack of coordination.
   C. impaired level of consciousness.
   D. memory loss.
75. Autonomic dysreflexia in spinal cord injury (SCI) is a syndrome that sometimes occurs after the acute phase of SCI with lesions at or above which of the following levels?
A. S2
B. L4
C. T6
D. C7

76. A child with epilepsy has a brief lapse of awareness without losing consciousness and appears to be staring into space. The nurse also observes rhythmic blinking and nystagmus. This would be classified as which type of seizure?
A. Tonic-clonic seizure
B. Generalized seizure
C. Myoclonic seizure
D. Atonic seizure

77. A patient with a fracture of the humerus is unable to extend the associated thumb. Which peripheral nerve is responsible for thumb extension?
A. Radial
B. Ulnar
C. Median
D. Peroneal

78. The most common cause of a femoral shaft fracture in children 6 to 9 years-of-age is:
A. trauma associated with abuse.
B. motor vehicle crash.
C. fall from bicycle or playground.
D. pedestrian vs. car.

79. Lidocaine (Xylocaine) with epinephrine (Adrenalin) can be safely used for anesthesia in which of the following locations?
A. Scalp
B. Ears
C. Digits
D. Penis

80. A professional painter presents with complaints of swelling of the elbow over the olecranon. Exam reveals no redness and slight tenderness. Which of the following conditions is suspected?
A. Elbow fracture
B. Bursitis
C. Tennis elbow
D. Golfer’s elbow

81. A patient presents with right shoulder pain and is unable to raise the right arm above the head. Which of the following is suspected?
A. Scapular fracture
B. Shoulder dislocation
C. Humeral head fracture
D. Clavicle fracture
82. Though uncommon, limping in a pediatric patient is highly suggestive of a(n):
   A. ankle sprain.
   B. knee injury.
   C. hip disorder.
   D. foot fracture.

83. Which of the following signs associated with compartment syndrome presents first?
   A. Paresthesia
   B. Pain
   C. Pulslessness
   D. Pallor

84. A major contributing factor to Colles’ fractures in older women is:
   A. poor physical conditioning.
   B. osteoporosis.
   C. changes in articular cartilage.
   D. atrophy of supporting muscles.

85. Patients with costochondritis often have:
   A. reproducible pain.
   B. shortness of breath.
   C. abnormal chest radiograph.
   D. an acutely elevated temperature.

86. Which of the following instructions is correct for teaching a patient with crutches the three-point gait?
   A. Stand with crutches with weight on uninjured leg; move crutches together and both legs moving forward.
   B. Stand with crutches with weight on injured leg; move crutches and injured leg forward bearing weight on the palms of hands.
   C. Stand with crutches with weight on uninjured leg; move crutches and uninjured leg forward simultaneously, bearing weight on axilla.
   D. Stand with crutches with weight on uninjured leg; move crutches and injured leg forward simultaneously, bearing weight on the palms of the hands.

87. Which wound has the highest risk for possible infection?
   A. Puncture wound from screwdriver to thigh
   B. Plantar puncture wound from a needle to bare foot
   C. Plantar puncture wound from a nail through shoe
   D. Puncture wound from nail gun to hand

88. Which of the following statements is correct regarding a cat bite to the hand?
   A. The major infecting organism seen with cat bites is *Staphylococcus aureus*.
   B. Cat bites to the hand should be closed.
   C. The wound appears as a laceration approximately 0.5 to 1 cm in length.
   D. Amoxicillin/clavulanate (Augmentin) is the prophylactic drug of choice for cat bites.
89. Foreign bodies that may cause a highly reactive tissue reaction and require removal as soon as possible include:
   A. glass shards.
   B. pieces of metal.
   C. thorns.
   D. bullets.

90. In a mass casualty event, the concept of “altered standards of care” can be described as:
   A. continue to provide each patient with complete privacy and confidentiality.
   B. providing care that is equivalent to the standard of care in an altered situation (disaster).
   C. providing care and allocating scarce equipment, supplies, and personnel in a way that saves the largest number of lives.
   D. conditions in which mass casualty victims remain within the surge facility until discharge.

91. To alleviate increased intracranial pressure associated with rapid sequence intubation of the head-injured patient, the nurse should prepare to:
   A. administer a sedation agent such as a benzodiazepine.
   B. premedicate with a nondepolarizing neuromuscular blocking agent.
   C. prepare to administer an induction agent such as etomidate (Amidate).
   D. apply pressure over the cricoid cartilage.

92. A patient with chronic back pain asks about the safety of acupuncture to treat his pain. The most appropriate response is:
   A. “It may be helpful. Any physician should be able to provide acupuncture treatment.”
   B. “The World Health Organization does not recommend acupuncture for chronic back pain.”
   C. “Acupuncture is safe and effective for this condition.”
   D. “Acupuncture is potentially dangerous due to the risk of infection from the needles.”

93. Which of the following is the most appropriate initial intervention for a patient with a terminal condition who arrives in the emergency department in extremis?
   A. Ascertain the existence and content of any advanced directives.
   B. Prepare for immediate patient resuscitation.
   C. Recommend to the patient and family that they consider having a “Do Not Resuscitate” (DNR) order entered into patient’s chart.
   D. Prepare to administer palliative care to the patient.

94. Which of the following therapies is expected first in a patient with a serum potassium of 7 mEq/L?
   A. Dialysis
   B. An intravenous diuretic
   C. An oral resin (Kayexalate)
   D. Intravenous glucose followed by regular insulin
95. All of the following statements regarding emergency department patient discharge instructions are true EXCEPT:
   A. claims of inadequate discharge instructions are frequent issues in emergency department lawsuits.
   B. a copy of the discharge instructions need not be a permanent part of the patient’s medical record.
   C. discharge instructions should be available in the predominant languages of the area population.
   D. there must be documented evidence that written instructions were discussed with the patient and that the patient indicated understanding of the instructions.

96. Which of the following is NOT part of the primary assessment of a trauma patient?
   A. Visualization of chest wall
   B. Assessment of skin color, temperature, and diaphoresis
   C. A complete set of vital signs
   D. Determination of patient’s ability to vocalize

97. An arterial line has been inserted in a patient in cardiogenic shock who is being resuscitated in the emergency department. Which of the following is the most serious complication that may occur?
   A. Disconnection of the tubing from the arterial catheter
   B. Damping of the waveform
   C. Infection at the insertion site
   D. Formation of a hematoma at the insertion site

98. A pediatric patient has been involved in a motor vehicle crash. According to the American College of Surgeons, all of the following have been identified as indications for transport of this patient to a tertiary center EXCEPT:
   A. altered mental status.
   B. status epilepticus.
   C. near drowning.
   D. blunt abdominal trauma.

99. An appropriate course for the emergency nurse to attend that would aid in the development of competency in caring for pediatric patients is:
   A. pediatric classes at the following year’s ENA Annual Conference.
   B. emergency nursing pediatric course (ENPC).
   C. a specialized master’s degree program in pediatrics.
   D. pediatric advanced life support (PALS).

100. Signs and symptoms of post-traumatic stress may include all of the following EXCEPT:
    A. difficulty with problem solving.
    B. denial and shock.
    C. decreased respiratory rate.
    D. tachycardia.
101. All of the following statements reflect appropriate assessment documentation EXCEPT:
   A. “Patient is awake, alert, and oriented.”
   B. “Alcohol intoxication is present based on the patient’s behavior.”
   C. “Blood pressure 120/40 mmHg, pulse 80 beats/minute and regular.”
   D. “Palpation over the lower sacral area produces pain to the patient.”

102. Prior to a patient giving consent for an invasive procedure, an explanation must be given to the patient or legal caregiver that includes:
   A. a complete explanation of the procedure and patient assessment findings.
   B. pertinent information related to the procedure and advanced directives.
   C. a delineation of the procedure’s known risks and benefits.
   D. administrative consequences of refusing to consent to the procedure.

103. When a patient signs consent for treatment during the registration process, this is considered:
   A. implied consent.
   B. expressed consent.
   C. involuntary consent.
   D. informed consent.

104. Following an inhalation treatment for an acute bronchoconstrictive exacerbation, appropriate patient documentation indicating improvement would be:
   A. “Patient is speaking in full sentences.”
   B. “Patient seems to be more comfortable.”
   C. “Patient’s respiratory rate remains 30 breaths/minute.”
   D. “Patient continues to demonstrate tracheal tugging.”

105. An adult patient has been placed in physical restraint to protect him from self-harm. The following standards apply:
   A. the patient must have 2 hours of face-to-face observation at the initiation of restraints.
   B. restraints can be applied in 8-hour intervals.
   C. the patient must have 1 hour of face-to-face observation when the restraint is initiated.
   D. the restraint order has the option of being renewed once for an additional 4 hours.

106. Which diagnostic laboratory finding is LEAST likely to present in a patient diagnosed with anorexia nervosa?
   A. Hypokalemia
   B. Hypoglycemia
   C. Hyponatremia
   D. Hyperkalemia

107. Haloperidol (Haldol) is often used in the emergency department to treat:
   A. obsessive-compulsive disorder (OCD).
   B. patients with generalized anxiety disorders.
   C. acute symptoms of major depression.
   D. violent or homicidal patients.
108. Which mental health diagnosis is most likely for a patient who presents in a psychotic state?
A. Acute anxiety attack
B. Paranoia
C. Obsessive-compulsive disorder
D. Depression

109. The emergency nurse notes the presence of involuntary, repetitive tongue thrusting and lip smacking in a patient. The nurse recognizes that these movements can be side effects of what group of medications?
A. Anticholinergics
B. Benzodiazepines
C. Tricyclic antidepressants
D. Antipsychotics

110. Being “emotionally present” with family members during the grieving process means:
A. staying with family members while allowing them to grieve in their own individual way.
B. providing telephone follow-up with the family after the death experience so questions can be answered.
C. being able to explain exactly how their loved one died and the associated factors with their death.
D. providing the family with written information on what they need to do next after the death of a family member.

111. The most important factor to consider when assessing a patient with delusions, hallucinations, and disorganized speech is whether:
A. this patient is suffering from schizophrenia.
B. the etiology of the symptoms is organic in nature.
C. restraints are indicated for this patient.
D. this patient will require antipsychotic medication.

112. A patient presents to the emergency department with signs of respiratory distress and noted mediastinal shift following a motor vehicle collision. The patient has bilateral breath sounds on auscultation only in the upper lobes. The nurse would suspect a:
A. tracheobronchial tear.
B. flail chest.
C. ruptured diaphragm.
D. tension pneumothorax.

113. A young adult male arrives in the emergency department with sudden onset of shortness of breath and chest pain. The patient denies any past medical history, rigorous exercise, or trauma. The nurse notes significant dyspnea and accessory muscle use. Which of the following conditions is most likely the cause of this patient’s presenting symptoms?
A. Pericarditis
B. Myocardial infarction
C. Pulmonary embolism
D. Spontaneous pneumothorax
114. An understanding of BiPAP therapy is evidenced by a patient stating:
   A. “This machine will feel like breathing in a vacuum.”
   B. “I may have increased secretions in my mouth.”
   C. “I cannot take the mask off.”
   D. “This machine will breathe for me.”

115. A patient presents with difficulty breathing and reports no relief from wheezing after use of cromolyn (Intal) inhaler. Patient education is effective when the patient is able to verbalize that cromolyn (Intal):
   A. does not treat acute attacks of bronchospasm.
   B. increases the respiratory rate.
   C. will have a decreased effect with caffeine use.
   D. can cause tremors and palpitations.

116. An elderly patient on a backboard with a cervical collar in place after a motor vehicle crash (MVC) may require prompt evaluation and removal of the backboard based on which of the following age-related physiologic changes?
   A. Increased diaphragmatic excursion
   B. Decreased vital capacity
   C. Decreased residual volume
   D. Increased elastic lung recoil

117. A patient has a confirmed diagnosis of pneumomediastinum, most likely sustained during scuba diving. In addition to providing high-flow oxygen, the nurse anticipates the need for:
   A. needle decompression of the chest.
   B. thoracostomy for mediastinal drain placement.
   C. transfer to a hyperbaric chamber.
   D. initiation of mechanical ventilation.

118. An 18-month-old presents to the emergency department with symptoms of a lower airway infection. Vital signs: T 99.1°F (37.3°C) rectally, HR 102 beats/minute, RR 36 breaths/minute, and SpO2 97%. The nurse would anticipate which of the following laboratory studies?
   A. Complete blood count with differential
   B. Arterial blood gas (ABG)
   C. Blood cultures from two sites
   D. Respiratory syncytial virus (RSV) nasal washing

119. Which of the following is a complication of cricothyrotomy?
   A. Bronchial rupture
   B. Pharyngeal hematoma
   C. Subcutaneous emphysema
   D. Pneumothorax

120. The best adjunct to assess the severity of an asthma attack is:
   A. complete blood count (CBC).
   B. arterial blood gas (ABG).
   C. chest radiograph (CXR).
   D. peak expiratory flow rate (PEFR).
121. Following a motor vehicle crash, an unrestrained elderly front-seat passenger presents with right-sided chest pain, shortness of breath, and oxygen saturation of 92%. Which of the following injuries is most likely?
A. Myocardial contusion  
B. Rib fractures  
C. Pulmonary embolus  
D. Diaphragmatic hernia

122. A patient presents to the emergency department following a motor vehicle crash complaining of extreme shortness of breath. Assessment reveals absent breath sounds on the right side, distended neck veins, but no tracheal shift. Oxygen saturation is 80%. The priority intervention for this patient would be:
A. needle thoracentesis.  
B. intubation.  
C. initiation of two large-caliber intravenous lines.  
D. autotransfusion.

123. Which of the following statements indicates the need for further discharge teaching related to a peak expiratory flow meter?
A. “I should do it three times and take the highest of the three readings.”  
B. “I will return to the emergency department when the peak flow reads 45% of my personal best.”  
C. “I will return to the emergency department when the peak flow reads 60% of my personal best.”  
D. “My personal best is the maximum amount of air I can blow out when my asthma is under control.”

124. Acute epiglottitis is a condition characterized by:
A. rapid onset of high fever and severe sore throat.  
B. low-grade fever and barking cough.  
C. wheezing and chest tightness.  
D. gradual respiratory difficulty and cough.

125. The definitive diagnostic test for a pulmonary embolus (PE) is a(n):
A. D-dimer assay.  
B. ventilation/perfusion (V/Q) scan.  
C. computed tomography (CT) angiography.  
D. arterial blood gas analysis.

126. Which condition is present with the following blood gas results: pH 7.30, PaCO₂ 61 mmHg, PaO₂ 82 mmHg, HCO₃⁻ 28 mmol/L?
A. Respiratory acidosis  
B. Metabolic alkalosis  
C. Respiratory alkalosis  
D. Metabolic acidosis
127. After administering diazepam (Valium) and glucagon hydrochloride (Glucagon) to a patient with a foreign body aspiration, which of the following would be a positive expected outcome?
   A. The patient begins to cough.
   B. The patient can drink a cup of water.
   C. Scattered wheezing is heard on auscultation.
   D. The patient displays a calm affect.

128. Parents of a 3-year-old describe the child as having a nonproductive cough triggered by eating and drinking that seems to get worse at night. The nurse should ask the parent if the child has been:
   A. exposed to Epstein-Barr virus.
   B. fully immunized.
   C. exposed to respiratory syncytial virus (RSV).
   D. recently diagnosed with pneumonia.

129. An end-tidal capnography waveform described as “shark fin” in shape reflects what patient condition?
   A. Drug overdose
   B. Hyperventilation
   C. Cardiac arrest
   D. Asthma

130. A teenager who fell from a horse sustains a severe pelvic fracture and requires volume resuscitation. Which of the following would indicate adequate resuscitation?
   A. Temperature of 91°F (33°C)
   B. International normalized ratio (INR) greater than 5
   C. Decreased peripheral pulses
   D. Urinary output greater than 50 mL per hour

131. Which volume of blood is recommended as a bolus in the pediatric patient with hemorrhagic shock?
   A. 15 mL/kg
   B. 10 mL/kg
   C. 20 mL/kg
   D. 25 mL/kg

132. Which of the following conditions is the most likely cause of blood under the dura mater as visualized on computerized tomography scan?
   A. Subdural hematoma
   B. Epidural hematoma
   C. Intracerebral hematoma
   D. Subarachnoid hemorrhage

133. Administration of which of the following is the appropriate therapy for hemorrhagic shock?
   A. Corticosteroids
   B. Vasopressors
   C. Packed red blood cells
   D. Vasodilators
134. A child involved in a head-on motor vehicle crash and restrained only by a lap belt sustains abrasions across the lower abdomen. This scenario is usually associated with which type of injury?
   A. Pelvic fracture
   B. Renal injury
   C. Lumbar fracture
   D. Liver injury

135. Which of the following presentations would be expected in a 70-kg (154-lb) patient with a femur fracture who had bled approximately 1000 mL into the thigh?
   A. Pulse 118 beats/minute, blood pressure decreased, confused
   B. Pulse 112 beats/minute, blood pressure normal, mildly anxious
   C. Pulse 128 beats/minute, blood pressure normal, mildly anxious
   D. Pulse 136 beats/minute, blood pressure decreased, confused

136. Which medication aimed at decreasing preload might be administered to a patient in cardiogenic shock?
   A. Nitroglycerin (Tridil)
   B. Dopamine (Intropin)
   C. Milrinone (Primacor)
   D. Norepinephrine bitartrate (Levophed)

137. Which of the following findings are associated with cardiogenic shock?
   A. Widened pulse pressure, bradycardia, and hippus
   B. Vasodilation, tachycardia, and hypothermia
   C. Confusion, bibasilar crackles, and fever
   D. Tachypnea, distended neck veins, and hypotension

138. A patient presents to the emergency department after 3 days of vomiting and flu-like symptoms. The patient is anxious and restless and complains of dizziness. Urine output has been scant, dark, and strong smelling. The patient also appears pale and has capillary refill time of 5 seconds. Vital signs: blood pressure 78/44 mmHg, HR 140 beats/minute, RR 26 breaths/minute, and pulse oximetry 94% on room air. Which intervention should take priority?
   A. Perform rapid sequence intubation.
   B. Establish vascular access.
   C. Insert a gastric tube.
   D. Administer vasopressors.

139. Which of the following physiological responses is triggered when a patient loses 30% of their circulating blood volume?
   A. Vasodilatation
   B. Decreased peripheral vascular resistance
   C. Increased preload
   D. Decreased cardiac output

140. The components of the revised trauma score include systolic blood pressure and:
   A. pulse rate and capillary refill rate.
   B. Glasgow Coma Scale score and capillary refill rate.
   C. respiratory rate and pulse rate.
   D. respiratory rate and Glasgow Coma Scale score.
141. A 12-year-old boy presents to the emergency department with nonspecific flu-like symptoms, headache, fatigue, and joint and muscle aches. He is noted to have a 5 cm (2 inches) bull’s-eye rash (an expanding circular area of redness) on his right thigh. The emergency nurse would suspect:
A. Lyme’s disease.
B. meningitis.
C. migraine headache.
D. influenza.

142. After ingestion of prenatal vitamins containing ferrous sulfate (iron), a child would likely receive all of the following EXCEPT:
A. abdominal flat plate.
B. administration of activated charcoal.
C. iron level 3 to 4 hours postingestion.
D. whole bowel irrigation (WBI).

143. An overdose of prescription medication results in symptoms of dry mouth, central nervous system (CNS) and respiratory depression, hypotension, tachycardia with a widening QRS complex, and seizures. The most likely medication is:
A. amitryptyline (Elavil).
B. fluoxetine (Prozac).
C. diazepam (Valium).
D. oxycodone (Oxycontin).

144. A specific antidote used for acetaminophen (Tylenol) overdose is:
A. N-acetylcysteine (Mucomyst).
B. fomepizole (Antizol).
C. calcium chloride (Calcitrate).
D. pralidoxime (Protopam).

145. After initial antivenin treatment for a rattlesnake or other pit viper snakebite, which of the following parameters is NOT used to evaluate the need for additional Crofab antivenin administration?
A. Platelet count and fibrinogen
B. Increase in swelling
C. Presence of symptoms of infection
D. Paresthesias and fasciculations

146. Which of the following would be an appropriate conclusion for the triage nurse who realizes in the summer months that by 10:00 a.m., three patients with severe respiratory symptoms have been triaged?
A. An outbreak of community-acquired pneumonia
B. Symptom clustering
C. Lack of influenza vaccination in the community
D. Outbreak of tuberculosis
147. Which of the following diagnostic urinary findings may be considered positive for ethylene glycol toxicity?
   A. Blue urine
   B. Vin rose coloration
   C. Hematuria
   D. Calcium oxalate crystals

148. After irrigating an eye exposed to liquid alkali with 1000 mL normal saline, the pH is 7.2. What is the emergency nurse’s next action?
   A. Stop irrigating and inform the provider.
   B. Irrigate with normal saline for an additional 15 minutes then recheck the pH.
   C. Irrigate with normal saline for an additional 1 hour then recheck the pH.
   D. Neutralize the normal saline with 1 amp of sodium bicarbonate/1L normal saline, and irrigate with an additional liter.

149. The treatment for cocaine overdose which manifests as acute coronary syndrome is:
   A. esmolol (Brevibloc).
   B. labetalol (Trandate).
   C. nitroprusside (Nipride).
   D. nitroglycerin (Nitrostat).

150. Which of the following are symptoms of heat stroke?
   A. Dilated, fixed pupils; tachypnea; delirium; hot, dry, and reddened skin
   B. Dizziness, headache, hypotension, oliguria, and muscle cramping
   C. Moist, cool skin; muscle twitching; abdominal cramping; and mild agitation
   D. Nausea; vomiting; pale, moist skin; and weakness
1. In managing a patient’s pulseless rhythm, which drug is interchangeable with epinephrine (Adrenalin) in advance cardiac life support (ACLS) resuscitation protocols?
   A. **Vasopressin (Pitressin)**
   B. Lidocaine hydrochloride (Xylocaine)
   C. Adenosine (Adenocard)
   D. Bretylium (Bretylol)

   **Rationale**
   A. **Vasopressin is an adrenergic pharmacological agent and is considered to be equivocal and, therefore, interchangeable with epinephrine in ACLS protocols for pulseless rhythms.**
   B. Lidocaine may be used for cardiac rhythms associated with pulseless arrest (e.g., ventricular tachycardia). However, it is not interchangeable in the ACLS protocols for epinephrine.
   C. Adenosine is a pharmacological agent used for rapid, narrow-complex tachycardias and would not be used for a pulseless arrest.
   D. Bretylium is used for ventricular dysrhythmias; however, it is no longer a drug recommended in ACLS protocols.

   **Content Category:** Cardiovascular Tasks

   **Reference**

2. All of the following statements related to pericarditis are true EXCEPT:
   A. the most common physical finding is a pericardial friction rub.
   B. pericarditis occurs more frequently in adults than in children.
   C. pericarditis-associated chest pain is aggravated by lying flat on the left side, coughing, and deep inspiration.
   D. **chest pain is relieved by rest and nitroglycerin (Tridil).**
**Rationale**

A. A pericardial friction rub is often heard over the sternal border. The inflammation of the pericardium causes a grating, scraping, or a leather-rubbing (together) sound.

B. Pericarditis **DOES** occur more frequently in adults compared to children.

C. Chest pain associated with pericarditis is aggravated by all of these activities and positions. Pericarditis is an inflammatory process, and these positions and/or activities cause more rubbing of the pericardium and, therefore, more pain.

D. The pain in pericarditis **is not caused by ischemia, but rather by inflammation. Interventions to relieve ischemic pain are not utilized in patients with pericarditis.**

**Content Category:** Cardiovascular Tasks

**Reference**


3. Which of the following emergencies should be suspected in a patient with a history of hypertension who presents with a severe, diffuse headache; blurry vision; blood pressure 230/140 mmHg; and papilledema?

A. Chronic hypertension

B. Migraine headache

C. **Hypertensive crisis**

D. Cluster headache

**Rationale**

A. A history of hypertension predisposes a patient to hypertensive crisis. A patient with chronic hypertension may have high blood pressure readings and be asymptomatic. However, this patient’s acute symptoms, along with a diastolic pressure >130 mmHg, suggest hypertensive crisis with end-organ damage.

B. Migraines are typically associated with unilateral pain that can become bilateral, photophobia, nausea, and vomiting and are often preceded by an aura. Severe hypertension and papilledema are not associated with migraines.

C. **Hypertensive crisis is characterized by an uncontrolled rise in blood pressure along with target organ deterioration that requires rapid management and lowering of blood pressure to prevent organ hypoperfusion and death. The diastolic pressure is often >130 mmHg. Neurologic symptoms and visual changes are common. Chest discomfort, pulmonary edema, and electrocardiogram changes can also occur. A funduscopic exam often reveals papilledema, which has many causes. However, in the setting of severe hypertension, malignant hypertension is the likely etiology and requires rapid management.**

D. A cluster headache is usually associated with unilateral pain and frequent headaches over a period of weeks. Severe hypertension with a diastolic reading >130 mmHg and visual changes are not typical with cluster headaches.

**Content Category:** Cardiovascular Tasks

**Reference**

4. Bradycardia in a pediatric patient is most often caused by:
   A. congenital cardiac defects.
   B. hypoxia.
   C. fever.
   D. electrolyte imbalance.

   **Rationale**
   A. A child with congenital cardiac problems may experience a variety of rhythm disturbances. However, pediatric bradycardia is usually related to a respiratory cause.
   B. **In general, children have strong cardiovascular systems. Although pediatric patients may have rhythm disturbances related to congenital abnormalities, most often pediatric bradycardia and arrest are due to a respiratory cause.**
   C. Pediatric bradycardia is usually related to a respiratory cause. Fever would usually result in sinus tachycardia.
   D. A child with electrolyte imbalances may experience a variety of rhythm disturbances. However, pediatric bradycardia is usually related to a respiratory cause.

   **Content Category:** Cardiovascular Tasks—Pediatric

   **References**


5. A pathologic Q wave is defined as:
   A. a positive deflection following the P wave that is greater than 1/3 the QRS height or shorter than 0.04 seconds.
   B. a negative deflection following the P wave that is deeper than 1/3 the QRS height or shorter than 0.04 seconds.
   C. a positive deflection following the P wave that is greater than 1/3 the QRS height or longer than 0.04 seconds.
   D. **a negative deflection following the P wave that is deeper than 1/3 the QRS height or longer than 0.04 seconds.**

   **Rationale**
   A. A Q wave is not a positive deflection on the rhythm strip or electrocardiogram.
   B. A pathologic Q wave is deeper than 1/3 the QRS or longer than 0.04 seconds.
   C. A Q wave is not a positive deflection on the rhythm strip or electrocardiogram.
   D. **A pathologic Q wave, if present on the rhythm strip or electrocardiogram, is a negative deflection following the P wave that is deeper than 1/3 the QRS height or longer than 0.04 seconds.**

   **Content Category:** Cardiovascular Tasks

   **Reference**

6. The primary objective of percutaneous coronary intervention (PCI) is to:
   A. **reestablish blood flow in an occluded coronary artery.**
   B. change the electrical conduction system.
   C. reestablish an action potential of the cardiac cells.
   D. establish an upright QRS complex in Lead II.

**Rationale**
A. **Reestablishing blood flow will replenish oxygen to myocardial tissue to decrease tissue death.**
B. The electrical conduction system may be affected by ischemia, the consequence of an occluded coronary artery. This is not the primary objective of PCI.
C. Action potential is the depolarization and repolarization that takes place in the cell membrane. It is affected by ischemia, but reestablishing the action potential is not the primary objective of PCI.
D. Lead direction can be affected by ischemia, but correcting this is not the primary objective of PCI.

**Content Category:** Cardiovascular Tasks

**References**

7. What is the recommended treatment for lowering the blood pressure in a patient with chronic hypertension and altered autoregulation?
   A. Decrease the blood pressure to <140 mmHg systolic as quickly as possible.
   B. **Decrease the blood pressure by 20% to 30% over 2 to 3 hours.**
   C. Decrease the blood pressure gradually over 24 to 48 hours.
   D. Decrease the diastolic blood pressure aggressively within 1 to 2 hours.

**Rationale**
A. Reduction of blood pressure depends on the acuity of the condition in terms of end-organ function. There are no set guidelines based solely on systolic blood pressure value.
B. **For patients with chronic hypertension, it is recommended to decrease the blood pressure cautiously in order to avoid hypoperfusion resulting in end-organ ischemia.**
C. Hypertensive urgencies in which altered autoregulation may not be present can be treated more slowly.
D. This treatment is reserved for the true hypertensive crisis which is life threatening with immediate risk to morbidity and mortality.

**Content Category:** Cardiovascular Tasks

**Reference**
8. Which of the following places elderly patients at risk for digitalis toxicity?
   A. Increased likelihood of digoxin (Lanoxin) overmedication
   B. Higher dietary potassium intake
   C. Impaired renal functioning
   D. Declining cardiac output

   **Rationale**
   A. Older adults are not more likely to overmedicate on digoxin (Lanoxin).
   B. Although hyperkalemia can be associated with digitalis toxicity, older adults do not necessarily have a higher dietary intake of potassium.
   C. **Age-related impaired renal functioning occurs with the aging process. Renal impairment contributes to higher serum levels of digoxin. This may be further potentiated by hyperkalemia, also induced by impaired renal functioning.**
   D. Lower cardiac output is not necessarily associated with aging.

   **Content Category:** Cardiovascular Tasks

   **Reference**

9. What patient groups are most likely to experience a nontraumatic aortic dissection?
   A. Females, young patients, and patients with congenital heart defects
   B. Females, diabetics, and patients with chronic renal failure
   C. **Males, hypertensive patients, and patients with Marfan’s syndrome**
   D. Males, chronic lung disease patients, and patients on antihypertensive medications

   **Rationale**
   A. Males are more likely to have aortic dissection than females. Nontraumatic aortic dissections occur more frequently in older patients, not younger patients. Having a congenital heart defect does not increase the probability of experiencing an aortic dissection.
   B. Males are more likely to have aortic dissection than females. Diabetic and renal patients are at higher risk for other morbidities but are not at higher risk for aortic dissection.
   C. **Males are more than twice as likely as females to have an aortic dissection. Hypertension puts continued stress on the aorta, making it more likely to develop a weakness or dissection. Marfan’s syndrome is associated with connective tissue weakness and resultant aortic dissections.**
   D. Having chronic lung disease does not increase the incidence of aortic dissection. Hypertension is associated with aortic dissection (about 90% incidence), but patients on antihypertensive medications should have their blood pressure under control.

   **Content Category:** Cardiovascular Tasks

   **Reference**
10. A patient walks into the emergency department complaining of palpitations. The assessment reveals that the patient is alert with pale, warm, and dry skin. The electrocardiogram reveals a regular, wide-complex rhythm and the blood pressure is 110/70 mmHg. Which one of the following interventions should the nurse anticipate?

A. Amiodarone (Cordarone) 150 mg IV bolus over 10 minutes, followed by a continuous infusion
B. Immediate unsynchronized defibrillation at 120 joules (biphasic)
C. Adenosine (Adenocard) 6 mg IV rapid bolus, followed by an additional 12 mg IV if first dose is unsuccessful
D. Emergent synchronized cardioversion at 50 joules (biphasic)

**Rationale**

A. Amiodarone is an antidysrhythmic used to treat wide-complex tachycardia. This is the preferred initial treatment and correct dose for a patient with a perfusing rhythm.
B. Unsynchronized defibrillation is contraindicated when a patient has a pulse due to the risk of the shock being delivered during the refractory period, which could precipitate ventricular fibrillation. If electrical therapy is required, synchronized cardioversion should be performed. This patient is currently symptomatic but stable, so medication should be attempted first.
C. Adenosine is an antidysrhythmic that slows conduction through the AV node and is indicated for a patient with supraventricular tachycardia (SVT), which is a narrow-complex rhythm.
D. Emergent cardioversion is indicated if the patient becomes unstable (poor skin signs, hypotension, and/or altered mental status). The initial recommended energy setting is 50 to 75 joules (biphasic) or 100 joules (monophasic). This patient is currently stable.

**Content Category:** Cardiovascular Tasks

**References**


11. An electrocardiogram with broad notched P waves ≥ 0.11 seconds and biphasic P waves in V1 with broad terminal negative deflections indicates:
A. right atrial hypertrophy.
B. left atrial hypertrophy.
C. hyperkalemia.
D. hypokalemia.

**Rationale**

A. Right atrial hypertrophy is exhibited in leads II and III by tall peaked P waves more than 2.5 mm in height.
B. Broad notched P waves ≥ 0.11 seconds and biphasic P waves in V1 with broad terminal negative deflections are present when the patient has left atrial hypertrophy.
C. Hyperkalemia is evidenced by peaked T waves in leads V1–V5.
D. Hypokalemia is evidenced by flat T waves in leads V1–V5.

**Content Category:** Cardiovascular Tasks
Reference

12. Chest pain that occurs at rest is known as:
A. unstable angina.
B. Ludwig's angina.
C. stable angina.
D. **Prinzmetal's angina**.

**Rationale**
A. Unstable angina occurs with activity and occurrences become more frequent, worsening with each episode. Half of the patients with typical unstable angina have total or near-total occlusion of a coronary artery.
B. Ludwig's angina is an expansion of an existing, untreated dental infection or cellulitis into the submandibular, sublingual, and submental mandibular spaces.
C. Stable angina is a predictable event after activities such as exercise.
D. **Prinzmetal's angina**, also known as variant angina, occurs when the patient is at rest, usually at the same time each day. Prognosis is usually poor with 50% mortality during the first year.

**Content Category:** Cardiovascular Tasks

Reference

13. A young male patient is complaining of pleuritic chest pain following a recent viral infection. Vital signs are stable. The 12-lead electrocardiogram reveals ST-segment elevation in all leads. The nurse should anticipate:
A. administration of eptifibatide (Integrilin) to decrease platelet activation.
B. immediate transportation to the cardiac catheterization lab for primary percutaneous coronary intervention (PCI).
C. immediate pericardiocentesis to remove fluid from the pericardial sac.
D. **administration of anti-inflammatory agents for treatment of pericarditis**.

**Rationale**
A. Eptifibatide (Integrilin) is given for acute coronary syndrome (ACS). Pericarditis is not included in the definition of acute coronary syndrome. ACS includes unstable angina, non-ST-segment elevation myocardial infarction (NSTEMI), and ST-elevation myocardial infarction (STEMI).
B. Primary PCI is generally indicated for the patient with acute STEMI. This patient's history and electrocardiogram are not suspicious for STEMI.
C. The patient is stable. Pericardiocentesis is indicated for patients who are hemodynamically unstable.
D. **Pericarditis is an inflammatory condition that can result in ST-segment elevation in all leads of the electrocardiogram.** In stable patients, treatment is medical and includes anti-inflammatory agents such as aspirin, ibuprofen, indomethacin or corticosteroids.

**Content Category:** Cardiovascular Tasks
14. What diagnostic study would help identify the presence of an aortic aneurysm?
   A. Pericardiocentesis
   B. Chest radiograph
   C. Doppler studies of the aorta
   D. Electrocardiogram

   **Rationale**
   A. Pericardiocentesis is not indicated or needed to establish the presence of an aortic aneurysm.
   B. A chest radiograph aids in the identification of a widened mediastinum, which is the characteristic sign of an aortic aneurysm.
   C. Doppler studies of the aorta are not indicated or needed to establish the presence of an aortic aneurysm.
   D. An electrocardiogram may be done, but it is not the primary diagnostic study to establish the presence of an aortic aneurysm.

   **Content Category:** Cardiovascular Tasks

   **Reference**

15. A patient with a rapid, narrow-complex tachycardia is unconscious and has the following vital signs: BP 70/40 mmHg, HR 188 beats/minute, and RR 22 breaths/minute. What is the priority intervention at this time?
   A. 12-lead electrocardiogram
   B. Synchronized cardioversion
   C. Unsynchronized defibrillation
   D. Adenosine (Adenocard)

   **Rationale**
   A. This patient is considered unstable because of vital signs and level of consciousness. A 12-lead electrocardiogram could be considered for a stable patient to aid in diagnosis.
   B. The 2005 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care identify this patient as unstable because of vital signs and level of consciousness. Immediate synchronized cardioversion is the appropriate primary intervention for the unstable patient with a tachydysrhythmia.
   C. Defibrillation is an appropriate response only for ventricular fibrillation (V-fib) or pulseless ventricular tachycardia (V-tach).
   D. This is considered an unstable patient and adenosine (Adenocard) is reserved for use with stable patients.

   **Content Category:** Cardiovascular Tasks

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**References**


Reference

16. Which of the following types of patients are most at risk for having a silent myocardial infarction (MI) or an atypical cardiac presentation?
A. Patients taking angiotensin-converting enzyme (ACE) inhibitors
B. Patients with a history of MI
C. Diabetics
D. Patients who are less than 85-years-old

**Rationale**
A. Individuals taking ACE inhibitors are not more likely to experience a silent MI or atypical cardiac symptoms.
B. Patients with a history of MI, because of their prior experiences, may often recognize potential ischemic cardiac symptoms.
C. Many patients with chronic diseases such as diabetes mellitus may present with vague symptoms. Diabetics are more prone to neuropathies and may not feel the typical pain from acute myocardial infarction.
D. In terms of age, generally it is the population who is greater than 85-years-old which is more likely to have atypical symptoms, often dyspnea.

**Content Category:** Cardiovascular Tasks

**References**

17. An elderly man arrives complaining of indigestion and a burning epigastric pain. What is the first action that should be performed?
A. Obtain a 12-lead electrocardiogram.
B. Get a full set of vital signs.
C. Obtain abdominal radiograph series.
D. Perform phlebotomy for blood testing.
Rationale
A. Elderly patients with acute coronary syndrome often present with atypical symptoms; this can include gastrointestinal complaints. It is imperative that an electrocardiogram is done first to determine if the patient is experiencing an acute coronary event.
B. A complete set of vital signs will be necessary and may be obtained simultaneously with the electrocardiogram, but an electrocardiogram is needed as soon as the patient presents. This will assist in establishing what diagnostics must be obtained for this patient based on whether an acute coronary event is taking place.
C. This may be required, but not before an electrocardiogram is done to rule out an acute coronary event.
D. This will be an important part of the diagnostic workup and should take place after a 12-lead electrocardiogram has been obtained.

Content Category: Cardiovascular Tasks—Geriatric

Reference

18. An elderly patient presents to the emergency department complaining of shortness of breath and nausea. The 12-lead electrocardiogram shows ST-segment elevation in leads II, III, and AVF. What clinical condition is this patient likely experiencing?
A. Hypocalcemia
B. Inferior wall myocardial infarction
C. Pulmonary embolus
D. Anterior wall myocardial infarction

Rationale
A. Hypocalcemia is evidenced by peaked T waves on the electrocardiogram (ECG); however, in this case, the patient is experiencing shortness of breath along with ECG changes consistent with inferior wall myocardial infarction.
B. ST-segment elevation in leads II, III, and AVF without Q waves is usually associated with right coronary artery occlusion, leading to an inferior wall myocardial infarction (MI). In elderly patients, the primary symptom of myocardial infarction may not be chest pain.
C. Although the patient is experiencing shortness of breath, the ECG changes are consistent with inferior wall MI. Elderly patients typically have atypical symptoms when presenting with a myocardial infarction.
D. Patients experiencing an anterior wall myocardial infarction will exhibit ST-segment elevation in leads V1, V2, V3, and V4.

Content Category: Cardiovascular Tasks—Geriatric

References
19. A history of which of the following would predispose a patient to infective endocarditis?
   A. Systemic lupus erythematosus (SLE)
   B. Exposure to environmental toxins
   C. Family history of cardiac disease
   D. Intravenous drug abuse

**Rationale**
A. Patients with SLE are at risk for developing pericarditis, not endocarditis.
B. Environmental toxin exposure is a risk factor for the development of myocarditis.
C. Family history is not relevant to the development of infective endocarditis.
D. Intravenous drug abuse is known to be a risk factor for the development of infective endocarditis.

**Content Category:** Cardiovascular Tasks

**Reference**

20. The most important intervention for cardiac arrest is:
   A. delivery of a vasopressor.
   B. defibrillation at 200 joules.
   C. performance of adequate cardiopulmonary resuscitation (CPR).
   D. administration of dysrhythmics.

**Rationale**
A. Vasopressors are used for the alpha-adrenergic effects such as vasoconstriction, which increases cerebral and coronary blood flow during CPR. Vasopressors are not the primary treatment for cardiac arrest and are not as important as initiating good CPR.
B. Defibrillation is used to treat ventricular fibrillation or pulseless ventricular tachycardia. It is an important intervention in the management of cardiac arrest, but it should be utilized after good cardiopulmonary resuscitation has been initiated.
C. **Good CPR increases the intrathoracic pressure that aids organ perfusion and circulation. It is the most effective intervention to restore circulation and should be started as soon as possible after the onset of cardiac arrest to be most effective.**
D. Dysrhythmics decrease the automaticity of the heart and suppress ventricular ectopy, while depressing conduction through reentry pathways and elevating VF threshold.

**Content Category:** Cardiovascular Tasks

**Reference**

21. An acute onset of excruciating leg pain with distal coldness, numbness, pallor, or cyanosis and absent pulses is associated with which of the following conditions?
   A. Peripheral vascular disease (PVD)
   B. Deep venous thrombosis (DVT)
   C. Raynaud’s disease
   D. Acute arterial occlusion (AO)
Rationale
A. Peripheral vascular disease is a chronic condition usually related to progressive atherosclerosis. Other forms include Raynaud’s disease and Buerger’s disease. Sudden onset of severe pain and loss of a distal pulse is not associated with chronic peripheral vascular disease alone. However, patients with PVD are at increased risk for acute arterial occlusion.
B. Swelling and mild to moderate leg pain are associated with deep venous thrombosis, and the patient will still have distal pulses.
C. Raynaud’s disease is a form of chronic peripheral vascular disease that involves episodic vasospasm of the blood vessels to the skin, frequently affecting the hands. Pain, pallor, and decreased motor function occur and resolve when the vasospasm resolves. Episodes may be precipitated by cold or stress. There is no loss of pulses.
D. Acute arterial occlusion is caused by sudden occlusion of arterial blood flow, most often caused by an embolus. Tissue ischemia develops, producing severe pain at rest that cannot be relieved and clinical signs of lack of perfusion to the extremity. If untreated, necrosis occurs and can lead to loss of the extremity. Patients with a history of vascular disease are at increased risk for acute arterial occlusion.

Content Category: Cardiovascular Tasks

Reference

22. When caring for a patient who has been diagnosed with a gastrointestinal (GI) bleed, a priority intervention would be to:
A. perform gastric lavage.
B. infuse normal saline IV.
C. insert a nasogastric tube.
D. administer ranitidine (Zantac).

Rationale
A. IV access and administration of fluids for hemodynamic stability must occur first. Gastric lavage is rarely done because its therapeutic value has not been proven. Access to endoscopy would be important to identify the source of bleeding and control it. Lavage may be done as an emergent measure to control acute GI hemorrhage only if access to endoscopy is not an option.
B. As in all illnesses, airway, breathing, and circulation are first and foremost. Therefore, the initial treatment for a patient with a GI bleed includes providing oxygen, monitoring vital signs and hemodynamic readings, ensuring IV access and administering fluids and blood, inserting a nasogastric (NG) tube, considering possible gastric lavage, and preparing for endoscopy to identify the bleeding source.
C. A primary concern should be IV access and administration of fluids for hemodynamic stability. A nasogastric tube and preparation for an endoscopy would be done once access is achieved. The nasogastric tube would ensure gastric decompression and remove the irritating gastric secretions.
D. A primary concern should be IV access and administration of fluids for hemodynamic stability. Administration of a proton-pump inhibitor would be done later to help reduce gastric acid.
23. A history of which of the following findings is consistent with a diagnosis of pancreatitis?

A. Tarry stools
B. Foul-smelling fatty stools
C. Bloody diarrheal stools
D. Large, frequent stools

Rationale
A. Tarry stools are indicative of peptic ulcers not pancreatitis.
B. Foul-smelling fatty stools are indicative of pancreatitis.
C. Bloody diarrheal stools are indicative of ulcerative colitis not pancreatitis.
D. More than 20 stools per day is indicative of irritable bowel syndrome.

24. An 18-year-old female arrives in the emergency department complaining of right lower quadrant pain with movement, nausea, vomiting, and constipation all morning. This is associated with a low-grade fever and the patient feels more comfortable when the hips and knees are flexed. The nurse anticipates a workup for:

A. appendicitis.
B. ruptured ovarian cyst.
C. small bowel obstruction.
D. cholecystitis.

Rationale
A. In the early stages of appendicitis, pain may be poorly localized or periumbilical and later localizes to the right lower quadrant. It increases with movement and lessens when the hips and knees are flexed.
B. Ovarian cyst pain is sharp with no fever and no nausea or vomiting and may begin acutely during intercourse.
C. Small bowel obstruction pain is severe, crampy, bloated, intermittent, and wavelike in nature and accompanied by nausea and vomiting.
D. Cholecystitis pain is characterized by right upper quadrant tenderness and the inability to take a deep breath during right costal margin palpitation.
References

25. The most accurate way to confirm correct nasal or oral gastric tube placement is:
A. auscultation over the epigastrium while instilling air.
B. aspiration of gastric contents.
C. a chest radiograph.
D. measurement of pH of gastric contents.

Rationale
A. Auscultation over the epigastrium while instilling air may be inaccurate. Literature review reveals little scientific evidence to support this method and many instances in which it proved ineffective.
B. Aspiration of gastric contents is not the most accurate method to evaluate placement because the patient may have aspirated secondary to gagging, and aspirate may be obtained from the lungs not the stomach.
C. According to research, the most accurate way to confirm nasal or oral gastric tube placement is by chest radiograph.
D. Measuring the pH of gastric contents can be accurate, but it may also be inaccurate due to the possibility of a low pH reading of aspirant from the lungs.

Content Category: Gastrointestinal Tasks

Reference

26. The most sensitive indicator to include in serial exams for the nonoperative management of blunt hepatic and splenic injuries focuses on:
A. measurement of serum liver function tests.
B. pain assessment.
C. measurement of serum electrolytes.
D. abdominal assessment.

Rationale
A. Liver function tests have not been shown to be a sensitive early indicator of blunt abdominal injury.
B. Pain assessment may be influenced by many factors and is important, but it has not been shown to be as sensitive an indicator as abdominal assessments.
C. Electrolytes have not been shown to be a sensitive indicator to evaluate early or worsening abdominal injury.
D. Nonoperative management focuses on serial vital signs, abdominal physical exams for increasing peritoneal signs, and hemoglobin and hematocrit trends because of their sensitivity to early subtle changes.
27. Which of the following diagnostic results would indicate pancreatitis?
   A. Decreased bilirubin
   B. Elevated amylase
   C. Decreased glucose
   D. Elevated calcium

   **Rationale**
   A. In acute pancreatitis, the bilirubin would be normal or elevated.
   B. Amylase is secreted from the pancreatic acinar cells and is elevated in cases of acute pancreatitis.
   C. In acute pancreatitis, the glucose would be elevated.
   D. In acute pancreatitis, the calcium level would be decreased.

28. Assessment of a trauma patient with a splenic injury may reveal:
   A. pain in the left shoulder while lying supine or in Trendelenberg.
   B. subcutaneous emphysema.
   C. tenderness in the upper right quadrant.
   D. gross blood in gastric aspiration.

   **Rationale**
   A. Signs and symptoms of splenic injuries can be associated with penetrating trauma, but they can also be associated with blunt injuries. Pain in the left shoulder (Kehr’s sign) is referred pain associated with splenic rupture. Blood collects under the diaphragm causing irritation of the phrenic nerve, which innervates the diaphragm.
   B. Subcutaneous emphysema is usually associated with esophageal injuries in which air from a pneumothorax or pneumomediastinum has tracked into the neck.
   C. The liver is the major organ in the right upper quadrant.
   D. Gross blood in gastric aspiration is a nonspecific sign of injury of the esophagus, stomach, or large and small bowel.
29. A patient diagnosed with cholecystitis is kept nothing by mouth (NPO) and has a nasogastric tube inserted which is placed on low intermittent suction. Which of the following findings indicates therapy has been effective?

A. The patient states their colicky pain has decreased.
B. There is a decrease in fatty foul-smelling stools.
C. There is a decrease of blood in gastric contents.
D. The patient states they are hungry.

Rationale

A. Patients with cholecystitis routinely complain of colicky pain that can be partially to completely resolved by gastric decompression and keeping the patient NPO.
B. Fatty, foul-smelling stools are a hallmark indicator of pancreatitis, not cholecystitis.
C. Blood in gastric contents is a classic indicator of upper gastrointestinal bleed and not found in a patient with cholecystitis.
D. This is not an objective sign of effective therapy and the patient must continue to be kept NPO with the gastric tube in place.

Content Category: Gastrointestinal Tasks

References


30. An elderly patient with a history of atrial fibrillation, controlled by digoxin (Lanoxin), presents with nausea and vomiting. History reveals the patient ate a bag of black licorice over the last week. Laboratory results are normal except for an elevated digoxin level. Which statement indicates appropriate understanding of discharge instructions?

A. “I need to stop my digoxin (Lanoxin) for a few days if I have nausea and vomiting.”
B. “I should take psyllium (Metamucil) so I won’t get constipated.”
C. “I will no longer eat black licorice.”
D. “I can take an antacid with my digoxin (Lanoxin).”

Rationale

A. Digoxin (Lanoxin) should never be abruptly stopped.
B. Psyllium (Metamucil) decreases digoxin absorption.
C. Licorice increases digoxin activity.
D. Antacids should never be taken with digoxin because they would decrease digoxin (Lanoxin) absorption.

Content Category: Gastrointestinal Tasks

References

31. The best indicator of renal trauma is:
   A. pain in the flank area.
   B. the presence of hematuria.
   C. bruising of the flank.
   D. patient history.

   **Rationale**
   A. Pain is an individual patient perception and is not necessarily indicative of renal trauma.
   B. **Microscopic or gross hematuria is the best indicator of renal trauma.**
   C. Bruising should be assessed and documented, but it is not a definitive finding suggestive of renal trauma.
   D. Obtaining an accurate history surrounding the incident is an important tool that will assist the emergency nurse with the plan of care but is not necessarily an indicator of actual renal trauma.

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

**Reference**

32. A patient who is eight weeks pregnant presents with bright red vaginal bleeding and abdominal cramping. While in the emergency department, she passes blood clots and tissue, followed by a decrease in the abdominal pain and vaginal bleeding. Which of the following tests should be done prior to discharge from the emergency department?
   A. Urinalysis
   B. Complete blood count (CBC)
   C. Quantitative serum human chorionic gonadotropin (HCG)
   D. Blood type and screen

   **Rationale**
   A. A urinalysis is not a priority for a patient with a spontaneous abortion.
   B. Although it may be helpful to know what the patient's hemoglobin and hematocrit are, it is not always necessary.
   C. A urine pregnancy is all that is usually requested for a patient that has a complete spontaneous abortion.
   D. **It is necessary to know what this patient’s Rh factor is. If she is Rh negative, she will need an injection of Rh immunoglobulin (RhoGAM or Rhophylac).**

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

**Reference**

33. A common cause of prerenal failure is:
   A. hypovolemic shock.
   B. urethral obstruction.
   C. rhabdomyolysis.
   D. glomerulonephritis.
Rationale
A. Prerenal failure is caused by decreased blood flow to the kidney; it occurs before the kidney.
B. Urethral obstruction can cause postrenal failure; it occurs after the kidney.
C. Rhabdomyolysis cause intrarenal failure; it occurs in the kidney.
D. Glomerulonephritis cause intrarenal failure; it occurs in the kidney

Content Category: Genitourinary/Gynecology/Obstetrical Tasks

Reference

34. When a victim of intimate partner violence presents to the emergency department, the nurse should:
A. ensure two nurses are in the room to verify evidence collection.
B. ensure the significant other stays with the patient to provide support.
C. refrain from treating any injuries until law enforcement has been contacted.
D. provide a safe environment away from the significant other during the interview process.

Rationale
A. Two nurses are not required for evidence collection.
B. The significant other should be removed to encourage the victim to tell his or her story honestly.
C. Life-threatening injuries take precedence. Emergency department staff members must be cognizant of forensic concerns, but they should not delay treatment for life-threatening situations.
D. The patient needs to feel secure and comfortable in a non-threatening environment.

Content Category: Genitourinary/Gynecology/Obstetrical Tasks

Reference

35. Which of the following would be most helpful when assessing for a potential ectopic pregnancy in a patient with left lower quadrant pain (7 out of 10) for the past six hours?
A. Inquire about the menstrual history.
B. Complete a focused pain assessment.
C. Assess for a positive pregnancy test.
D. Obtain fetal heart tones (FHT).
Rationale
A. Although it is important to assess for the last menses, amenorrhea, and abnormal menses, the patient may experience changes in her menstrual cycle for a variety of reasons.

B. The nature and quality of the pain are helpful in the differential diagnosis of an ectopic pregnancy. The pain may be sharp, dull, focused over the affected tube (if a tubal pregnancy), or it may cause pain to the shoulder (with a ruptured fallopian tube).
C. A positive pregnancy test is not indicative of an ectopic pregnancy.
D. A patient with an ectopic pregnancy would not have fetal heart tones because the FHTs are not generally heard until the second trimester of the pregnancy.

Content Category: Genitourinary/Gynecology/Obstetrical Tasks

Reference

36. The nurse has administered intravenous dextrose and insulin to a patient in renal failure. Which finding would NOT indicate effective treatment?
A. Shortening of PR interval
B. Decrease in T-wave height on the cardiac monitor
C. Decreasing heart rate
D. Shortening of the QRS

Rationale
A. Dextrose and insulin are used to treat hyperkalemia. Hyperkalemia leads to an increase in the PR interval and, eventually, loss of the P wave entirely.
B. Dextrose and insulin are used to treat hyperkalemia. Tall, peaked T waves may indicate hyperkalemia. As the dextrose and insulin drive potassium into the cells, the T wave should lose height.
C. Dextrose and insulin are used to treat hyperkalemia. Hyperkalemia leads to bradycardia. Effective treatment would increase the heart rate.
D. Dextrose and insulin are used to treat hyperkalemia. Hyperkalemia leads to widening of the QRS and, eventually, a sine wave, then asystole.

Content Category: Genitourinary/Gynecology/Obstetrical Tasks

Reference
37. A patient has been diagnosed with pregnancy-induced hypertension (PIH) and is receiving intravenous magnesium. Which of the following occurs with magnesium toxicity?
A. Decreased deep tendon reflexes, respiratory rate more than 24 breaths/minute, urinary output more than 200 mL/hr
B. Increased deep tendon reflexes, respiratory rate less than 12 breaths/minute, urinary output less than 30 mL/hr
C. Decreased deep tendon reflexes, respiratory rate less than 12 breaths/minute, and urinary output less than 30 mL/hr
D. Increased deep tendon reflexes, respiratory rate more than 24 breaths/minute, urinary output more than 200 mL/hr

Rationale
A. Magnesium depresses nervous transmission, resulting in depression of respiratory rate, deep tendon reflexes, and urinary output.
B. Magnesium depresses nervous transmission, resulting in depression of respiratory rate, deep tendon reflexes, and urinary output.
C. Magnesium depresses nervous transmission, resulting in depression of respiratory rate, deep tendon reflexes, and urinary output.
D. Magnesium depresses nervous transmission, resulting in depression of respiratory rate, deep tendon reflexes, and urinary output.

Content Category: Genitourinary/Gynecology/Obstetrical Tasks

Reference

38. Rh immune globulin (RhoGAM or Rhophylac) has been ordered for a patient who just experienced a spontaneous abortion. The nurse knows that this medication is given in order to prevent:
A. the Rh-negative mother from forming antibodies to Rh-positive fetal blood.
B. an infection from fetal blood contamination.
C. an allergic reaction to Rh-positive fetal blood.
D. passing hepatitis B infection in future pregnancies.

Rationale
A. During abortion, the Rh-negative mother may be exposed to blood from her Rh-positive fetus. She may then form antibodies that would attack any future Rh-positive pregnancies, resulting in fetal demise.
B. During abortion, the Rh-negative mother may be exposed to blood from her Rh-positive fetus. She may then form antibodies that would attack any future Rh-positive pregnancies, resulting in fetal demise. Rh immune globulin prevents the formation of these antibodies.
C. During abortion, the Rh-negative mother may be exposed to blood from her Rh-positive fetus. She may then form antibodies that would attack any future Rh-positive pregnancies, resulting in fetal demise. Rh immune globulin prevents the formation of these antibodies.
D. During abortion, the Rh-negative mother may be exposed to blood from her Rh-positive fetus. She may then form antibodies that would attack any future Rh-positive pregnancies, resulting in fetal demise. Rh immune globulin prevents the formation of these antibodies.

Content Category: Genitourinary/Gynecology/Obstetrical Tasks
39. After dilatation and evacuation of retained products of conception, the patient has received adequate discharge instruction if she can relate all of the following EXCEPT:

A. avoid intercourse until bleeding and cramping stop.
B. use sanitary pads only; avoid tampon use.
C. if foul vaginal discharge develops, douche with dilute vinegar solution.
D. take temperature four times a day.

**Rationale**

A. Vaginal intercourse may introduce infection into the open cervix.
B. Retaining blood against the open cervix may introduce infection.
C. **Douching with any solution may introduce infection through the open cervix.**
D. Fever may indicate uterine infection.

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

**Reference**


40. The most common consequence of trauma in the pregnant patient is:

A. premature labor contractions.
B. uterine rupture.
C. placental abruption.
D. spontaneous rupture of membranes.

**Rationale**

A. **Damage to myometrial and decidual cells releases prostaglandins, which stimulate the uterus.** Continuation of contractions is influenced by the extent of uterine damage, release of prostaglandins, and fetal age. Tocolysis, pharmacologic suppression of contractions, may be effective in halting preterm labor of the injured patient but usually post-traumatic contractions are self-limiting and tocolysis is not indicated. Pharmacology is determined by physician discretion. Adequate fluid volume replacement and positioning the mother in the lateral tilt position can minimize uterine irritability. Contractions are usually self-limiting and stop on their own.

B. Uterine rupture is rare, occurring in less than 1% of pregnant patients who have sustained major trauma.
C. Abruption is a consequence of trauma but is not the most common in this list of answers. Abruptio placentae is premature separation of the normally implanted placenta from the uterine wall and may result from blunt force to the abdomen.
D. Trauma may result in premature labor and rupture of membranes, but this is not as common as premature contractions.
**Content Category:** Genitourinary/Gynecology/Obstetrical Tasks

**References**


41. A patient complains of flashes of light and floaters in their peripheral vision and that it feels as if they are looking through cobwebs 2 days after a car crash. The priority intervention is to:

A. administer intravenous antibiotics.
B. measure visual acuity.
C. obtain an ophthalmology consultation.
D. shield eyes.

**Rationale**

A. Detached retina does not require pharmacological therapy.
B. Specific ocular assessments, such as visual acuity and intraocular pressure measurement, are a priority after the eyes are protected and at rest.
C. Prompt ophthalmology consultation is appropriate after initial vision-saving interventions are completed.
D. The mechanism and symptoms suggest a detached retina. Visual changes can cause patient agitation and movement of the eyes, which can exacerbate the detachment.

**Content Category:** Maxillofacial/Ocular Tasks

**References**


42. An elderly patient presents with a sudden onset of vertigo associated with unilateral hearing loss and nausea and vomiting. Which of the following statements made by the patient supports a diagnosis of Ménière’s disease?

A. “My symptoms have been constant since they started 3 days ago.”
B. “My symptoms come and go.”
C. “My symptoms started this morning after I rolled over in bed.”
D. “My symptoms have gotten worse over the past week or so.”
**Rationale**

A. Persistent symptoms are typical of vestibular neuronitis. In addition, vestibular neuronitis does not recur.

B. Ménière’s disease is episodic in nature with the frequency of attacks ranging from several times a week to several times a month. The duration of symptoms varies from 20 minutes to 12 hours but typically last from 2 to 8 hours.

C. Symptoms precipitated by a head position change are consistent with benign paroxysmal positional vertigo (BPPV). Additionally, patients with BPPV do not experience hearing loss.

D. A gradual onset of vertigo and hearing loss are common findings with 8th-nerve lesions, such as meningiomas.

**Content Category:** Maxillofacial/Ocular Tasks—Geriatric

**Reference**


43. In a patient with a battery acid injury to the eyes, normal saline irrigation would result in which of the following positive outcomes?

A. Improvement in visual acuity

B. Decrease in pain

C. Ocular pH of 7.0 to 7.4

D. Less uptake of fluorescein stain than previously noted

**Rationale**

A. Initial visual acuity will likely be diminished and the patient may be unable to cooperate due to pain. Attempts to obtain this measurement will delay the initiation of priority irrigation.

B. As the pH returns to normal when the chemical is removed, the patient will begin to feel less pain; but this may be complicated by coexisting eye injuries.

C. Measurement of ocular pH is essential in the evaluation of the success of irrigation. The normal pH of the eye is between 7.0 and 7.4. Irrigation should continue until the normal pH is maintained for 30 minutes.

D. A slit lamp exam with fluorescein stain is not done initially because irrigation and removal of the acid is a priority to prevent injury.

**Content Category:** Maxillofacial/Ocular Tasks

**References**


44. The emergency nurse administers acetazolamide (Diamox) to a patient with acute angle closure glaucoma. The most important laboratory study for the nurse to monitor after administration of this drug is:
   A. magnesium.
   B. potassium.
   C. chloride.
   D. calcium.

   **Rationale**
   A. Acetazolamide does not affect magnesium levels.
   B. Acetazolamide (Diamox) inhibits hydrogen ion excretion in the renal tubules, increasing potassium excretion. Hypokalemia may result in cardiac conduction disturbances and dysrhythmias.
   C. Acetazolamide may increase chloride levels resulting in increased thirst, anorexia, nausea, and vomiting.
   D. Acetazolamide does not affect calcium levels.

   **Content Category:** Maxillofacial/Ocular Tasks

   **References**

45. All of the following are pH-balanced solutions appropriate for use as a transport medium for an avulsed tooth EXCEPT:
   A. saliva.
   B. Hanks’ solution (Save-a-Tooth®).
   C. milk.
   D. water.

   **Rationale**
   A. Saliva is acceptable as a last choice because of the presence of intraoral bacteria and a less than ideal pH level.
   B. Hanks’ solution is a salt solution that can be used in combination with natural body substances such as blood serum or tissue extracts.
   C. Milk is a relatively sterile solution and is safe to use for transport. It is compatible with dental cells and can help maintain viability of the tooth for up to 3 hours.
   D. Water causes hypotonic rapid cell lysis and may result in a nonviable tooth.

   **Content Category:** Maxillofacial/Ocular Tasks

   **References**
46. An elderly patient complains of a recurring right ear infection despite topical antibiotic treatment. Given the patient’s history and presenting symptoms, what serious complication should the emergency nurse suspect?

A. **Malignant otitis externa**
B. Cholesteatoma
C. Lateral sinus thrombosis
D. Mastoiditis

**Rationale**

A. Several factors, such as an impaired immune response, cerumen pH, and small blood vessel disease, predispose this patient population to developing malignant otitis externa (MOE). MOE can be a life-threatening condition if the infection spreads to deeper structures, including the skull base, cranial nerves, and carotid artery.

B. Cholesteatoma is a serious complication of otitis media that results in erosion of bone within the middle ear.

C. Lateral sinus thrombosis is associated with otitis media, not otitis externa. Patients do not exhibit outer and/or external ear canal signs and symptoms. Headache is the most common presenting symptom.

D. Mastoiditis causes postauricular redness, swelling, and tenderness. Otorrhea is usually absent unless there is a ruptured tympanic membrane.

**Content Category:** Maxillofacial/Ocular Tasks—Geriatric

**References**


47. Which of the following patient statements would lead the nurse to determine that a patient with mononucleosis understands the discharge instructions?

A. “I can never donate blood.”
B. “I need to see the doctor if my fever returns.”
C. “I need to avoid heavy lifting for the next 4 weeks.”
D. “I should expect worsening abdominal pain.”

**Rationale**

A. Blood donation should not occur for the next 6 months.

B. Patients may develop a fever of 100.4°F to 104°F (28°C to 40°C) lasting 10 to 14 days, as well as a sore throat, diarrhea, and earache.

C. **Mononucleosis can cause splenomegaly. Heavy lifting and contact sports can cause splenic bleeding.**

D. Increasing abdominal pain, signs of dehydration, difficulty breathing, cough, chest pain, and high fevers are potential complications and indicate a serious mononucleosis illness, which needs reevaluation.

**Content Category:** Medical Emergency Tasks
512  Chapter 10

Reference

48. A middle-aged woman presents to the emergency department with complaints of elevated temperature of 104°F (40°C), rapid irregular heart rate of 188 beats/minute, and periorbital edema with exophthalmos. The nurse would anticipate interventions to treat:
A. myxedema coma.
B. thyroid storm.
C. syndrome of inappropriate antidiuretic hormone (SIADH).
D. hyperosmolar, hyperglycemic nonketotic coma (HHNC).

Rationale
A. Myxedema coma occurs in elderly women with long-standing hypothyroidism, which is sometimes undiagnosed. Clinical manifestations include bradycardia (not tachycardia) and hypothermia (not hyperthermia) and presents with a pale, waxy edematous face and periorbital edema.

B. Women between the ages of 30 and 40 years can exhibit signs of hyperthyroidism that include rapid elevation of thyroid hormone levels. Clinical manifestations include tachycardia, often with rates of 200 or greater, and periorbital edema with eyes that are protruberant (exophthalmos). The patient appears toxic with elevated temperatures as high as 105.8°F (41°C). This is a life-threatening emergency requiring early, aggressive treatment.

C. SIADH is a rare but serious endocrine disorder, causing alterations of fluid and electrolyte balance. It is most often caused by malignancy. The classic presentation of SIADH includes weakness, nausea, sudden weight gain without edema, and abdominal and muscle cramps.

D. HHNC often presents in patients with type II diabetes. Clinical signs and symptoms include elevated glucose levels, often higher than 800 mg/dL, and severe dehydration with an elevated serum osmolarity level often greater than 350 mOsm/L.

Content Category: Medical Emergency Tasks

References


49. An elderly man arrives in the emergency department via ambulance with redness, swelling, and severe pain in his left lower leg. He denies any recent injury except “I scratched my leg when I was working outside yesterday.” Vital signs are BP 96 mmHg by palpation, HR 110 beats/minute, RR 24 breaths/minute, and T 101.3°F (38.5°C). The emergency nurse recognizes the treatment priority for this soft tissue injury is:
A. tetanus immunization.
B. oral antibiotic therapy.
C. surgery.
D. pain medication.
Rationale
A. Tetanus immunization is important but not the priority of care for necrotizing fasciitis.
B. Intravenous, not oral, antibiotic therapy is the most effective route of administration for necrotizing fasciitis.
C. The elderly are at risk for necrotizing fasciitis and the priority treatment is surgery. Immediate surgery is required to open, drain, and debride the dead tissue. Skin grafts may be needed later. Amputation of the limb may be considered as well.
D. Pain management is important but not the priority of care for necrotizing fasciitis.

Content Category: Medical Emergency Tasks—Geriatric

Reference

50. During the assessment, the nurse notes a febrile patient to have pain in the hamstring muscle after flexion and extension of the leg. Which condition most commonly results in this finding?
A. Lumbar disk compression
B. Guillan-Barré syndrome
C. Myasthenia gravis
D. Meningitis

Rationale
A. Lumbar disk compression includes pain and tenderness to the low back that may radiate to the buttocks. Range of motion movements are limited in forward flexion, in lateral flexion, and sometimes in extension. Straight-leg raising would be limited by pain that would increase with foot dorsiflexion. Fever is not associated with lumbar disk compression.
B. Guillan-Barré syndrome is an acute paralytic disease caused by decreased myelin at the nerve roots and in the peripheral nerves. Symptoms usually follow an acute febrile illness. This patient may exhibit a tingling sensation in the extremities lasting for hours to weeks, severely decreased deep tendon reflexes, and a symmetric paralysis that begins in the lower extremities and ascends. There would be no pain of the hamstring muscle after flexion and extension of the leg.
C. Patients with myasthenia gravis experience increasing fatigue; delayed muscle strength recovery; weak eye, facial, and jaw muscles; weak pharyngeal muscles; diplopia; dysphagia; and inability to swallow. Fever and pain of the hamstring muscle after flexion and extension of the leg are not associated with myasthenia gravis.
D. Patients with meningitis may have meningeal irritation, which can cause pain after flexion and extension of the leg. Fever may also be an associated finding.

Content Category: Medical Emergency Tasks
51. A patient complained of tingling, burning, itching, and hyperesthesia for 3 to 5 days before a rash developed on the right thigh. The nurse suspects:
A. herpes zoster.
B. scabies.
C. myiasis.
D. chickenpox (varicella).

Rationale
A. The dormant varicella zoster virus (developed during an episode of chickenpox) replicates and moves down the sensory nerve, causing dermatomal pain and skin lesions that may last up to 3 weeks.
B. Scabies is a highly contagious infestation of skin caused by the itch mite that lays eggs in burrows at the base of the stratum corneum layer of the epidermis. It produces a rash and pruritis.
C. Myiasis is an invasion of living, necrotic, or dead tissue by fly larvae (maggots) that can cause boil-like lesions or “creeping eruption” of open wounds. Infestation is usually through a wound or ulceration, rarely through intact skin.
D. Chickenpox is a highly contagious disease caused by varicella zoster virus characterized by fever, cough, malsise, headache, and itchy rash originating on the trunk of the body.

Content Category: Medical Emergency Tasks

Reference

52. When a patient receives multiple units of banked packed red blood cells (PRBC), the nurse should monitor the patient for:
A. hypocalcemia.
B. hypokalemia.
C. alkalosis.
D. decreased clotting time.
**Rationale**

A. **Packed red blood cells (PRBC) will cause hypocalcemia because citrate binds with free calcium.** Patients receiving more than 5 units should have serum calcium levels checked. These patients may require IV calcium chloride or calcium gluconate.

B. **Packed red blood cells (PRBC) will elevate the potassium (hyperkalemia) because lysis of red blood cells releases potassium.** Patients need to be monitored for potential cardiac dysrhythmias.

C. **The pH of banked blood is 7.1. With large amounts of banked blood being transfused, acidosis can occur.** Patients need to be monitored for potential cardiac dysrhythmias.

D. **Clotting factors are lost in most banked blood.** Coagulation times may be prolonged and clotting problems can occur with massive blood transfusions. **Fresh frozen plasma should be given after 10 units of banked blood are transfused.**

**Content Category:** Medical Emergency Tasks

**References**


53. A patient who was diagnosed with pertussis (whooping cough) returns to the emergency department to determine if they can return to work. Which of the following represents effective treatment for pertussis?

A. Completion of antibiotic therapy

B. Resolution of fever and explosive coughing

C. Negative chest radiograph

D. **Negative nasopharyngeal swab for *Bordetella pertussis***

**Rationale**

A. Patients should complete antibiotic therapy for pertussis, often up to 2 to 3 weeks of therapy. The patient should still be assessed for resolution of symptoms and negative culture results.

B. Resolution of the fever and cough does not indicate that the pertussis is gone. The patient may still be contagious. The patient should remain isolated until cultures are negative.

C. Patients with active pertussis often have a negative chest radiograph. Pertussis can lead to pneumonia and should be assessed; a negative chest radiograph does not confirm the patient is negative for pertussis. The patient should have repeat nasopharyngeal cultures.

D. **Patients should complete a full course of antibiotic therapy, which sometimes lasts up to 3 weeks.** Negative nasopharyngeal cultures, and a resolved cough and fever indicate effective therapy.

**Content Category:** Medical Emergency Tasks
54. Which of the following would indicate that treatment for disseminated intravascular coagulation (DIC) was effective?

A. A venipuncture site does not bleed after 5 minutes.
B. Coagulation times are prolonged.
C. Hematuria was noted 30 minutes after treatment.
D. Sequential platelet counts decrease.

Rationale

A. Disseminated intravascular coagulation (DIC) is a complex, thrombohemorrhagic disorder involving inappropriate and accelerated activation of the coagulation cascade that results in thrombosis and subsequent hemorrhage. The overall management goal is to locate and treat the underlying cause. Return of a reasonable clotting time would be an indication of appropriate and effective treatment.

B. A prolonged prothrombin time (PT) and partial thromboplastin time (PTT) are symptoms of DIC, not of effective treatment.

C. A patient with DIC frequently exhibits hematuria, hematemesis, hemocult positive stool, and oozing from invasive sites, along with intra-abdominal bleeding with distension.

D. A decreased platelet count is commonly seen in a patient with DIC. Effective treatment would demonstrate an increased platelet count following the administration of blood products. Treatments including heparin and blood products are commonly used with DIC.

Content Category: Medical Emergency Tasks

References


55. An unresponsive patient has bradycardia and a prolonged QT segment on the cardiac monitor. Lab values show an elevated thyroid-stimulating hormone (TSH) and low thyroxin level (T4). These findings are associated with which of the following conditions?

A. Myxedema coma
B. Thyroid storm
C. Adrenal crisis
D. Hyperosmolar hyperglycemic nonketotic coma (HHNC)
**Rationale**

A. Myxedema coma occurs in patients with undiagnosed and untreated hypothyroidism. Precipitating factors include serious infection, sedative or tranquilizer use, or exposure to the cold. These patients will exhibit profound fatigue, decreased activity tolerance, and episodes of shortness of breath. The cardiac monitor will show bradycardia with prolonged QT intervals and ST-segment and T-wave changes.

B. A low TSH and an elevated thyroxin level (T₄) are present in thyroid storm, which occurs in patients with undiagnosed and untreated hyperthyroidism.

C. A prolonged QT segment may be present in an adrenal crisis; however, the TSH and thyroxin level are unaffected.

D. A patient with HHNC may be unresponsive; however, the TSH and thyroxin levels are unaffected.

**Content Category:** Medical Emergency Tasks

**References**


56. The primary complication associated with hypoglycemia is:

A. thiamine deficiency.

B. hyperthermia.

C. acidosis.

D. brain dysfunction.

**Rationale**

A. Thiamine deficiency may be present if the hypoglycemic patient is malnourished, but thiamine deficiency is not a primary complication of hypoglycemia.

B. Hyperthermia and hypothermia may occur with hypoglycemia; however, they are not primary complications.

C. Acidosis is not a primary complication of hypoglycemia.

D. Hypoglycemia is the most common endocrine emergency. The decreased serum glucose levels do not allow time for activation of ketogenesis to provide an alternate energy substrate. At low serum glucose levels, the brain is unable to extract adequate amounts of oxygen resulting in hypoxia, coma, and potentially permanent brain dysfunction.

**Content Category:** Medical Emergency Tasks

**Reference**


57. Which parenteral solution should initially be used to correct intracellular fluid deficit in the hyperosmolar hyperglycemic nonketotic coma (HHNC) patient?

A. 0.9% saline with 20 mEq of potassium chloride

B. D₅W with 0.9% saline

C. 0.9% saline

D. D₅W with 0.45% saline
Rationale
A. In HHNC patients, potassium is normal or already elevated. Initial hydration with fluids that have potassium is contraindicated.
B. The patient’s sugar is already elevated. Initial treatment with IV solution would not be D₅W with normal saline. After the serum glucose decreases to around 200 or 300 mg/dL, IV fluids are then converted to D₅W with normal saline or D₅W with half-normal saline to provide energy until oral intake improves.
C. The patient should receive 0.9% normal saline or half-normal saline for rehydration.
D. The serum glucose should be lowered gradually because reductions greater than 100 mg/hr may predispose the patient to cerebral edema from associated fluid shifts. After serum osmolality begins to normalize or the serum glucose decreases to around 200 or 300 mg/dL, IV fluids are then converted to D₅W with normal saline or D₅W with half-normal saline to provide energy until oral intake improves.

Content Category: Medical Emergency Tasks

References

58. A patient diagnosed with syndrome of inappropriate antidiuretic hormone (SIADH) is most at risk for which of the following complications?
A. Tetany
B. Hypernatremia
C. Dehydration
D. Seizure activity

Rationale
A. Tetany is a result of hypocalcemia, not hyponatremia.
B. SIADH causes a dilutional hyponatremia, not hypernatremia.
C. Patients with SIADH have increased circulating volume, not dehydration.
D. SIADH occurs when the pituitary gland releases excessive amounts of antidiuretic hormone (ADH), resulting in excessive water retention with subsequent water intoxication and hyponatremia. This severe hyponatremia leads to fluid shifts causing cerebral edema and places the patient at a high risk for seizures.

Content Category: Medical Emergency Tasks

Reference

59. Which of the following statements by the patient would demonstrate an understanding of the diagnosis of fibromyalgia?
A. “The more I exercise and use my muscles, the less pain I should experience.”
B. “I really hate to be dependent upon narcotics for the rest of my life.”
C. “I am glad the physician was able to determine the source of my pain.”
D. “I need to take a warm bath at night before bed.”
Rationale
A. Exercise should be completed as directed, although patients should pace activities and know limits. Symptoms may be triggered by stressors and fatigue.
B. Patients with fibromyalgia are generally treated with nonsteroidal anti-inflammatory medications (NSAIDS). Antidepressants such as amitriptyline (Elavil), anticonvulsants such as gabapentin (Neurontin), dextromethorphan hydrobromide (Dextromethorphan), and skeletal muscle relaxants are pharmacologic therapy for this chronic problem. Narcotics would be used only for an acute exacerbation.
C. Fibromyalgia is characterized by chronic widespread pain and fatigue. The cause remains unknown although many suppositions have been put forth, with little evidence to support them. Biochemical changes seen in the central nervous system lead to hypersensitivity to pain and abnormal processing of painful stimuli.
D. A warm bath at night before bed and physical therapies including massage, use of heat, and exercise should be encouraged for patients with fibromyalgia. Poor sleep has been associated with worsening symptoms of the disease.

Content Category: Medical Emergency Tasks

Reference

60. A pediatric patient diagnosed with a febrile seizure is ready for discharge. The nurse validates that the parents understand discharge teaching if they state which of the following?
A. “I will administer the antipyretic as prescribed.”
B. “This type of seizure won’t happen again.”
C. “Reevaluation is not needed if a seizure occurs again.”
D. “I will administer the anticonvulsant as prescribed.”

Rationale
A. Administration of weight-based antipyretics may help control fevers and prevent a febrile seizure from recurring. Febrile seizures result from the rapid temperature rise, not the actual temperature level.
B. One cannot predict the likelihood of a febrile seizure occurring again. Febrile seizures generally occur between the ages of 5 months to 5 years due to an immature nervous system. Reoccurrence of febrile seizure has been reported to occur in 30% of the patients.
C. Although the patient has been diagnosed with a febrile seizure, any reoccurrence of seizures should be reevaluated by medical personnel.
D. Patients who have febrile seizures are not routinely placed on anticonvulsant therapy.

Content Category: Medical Emergency Tasks—Pediatric

References
61. A patient with diabetes insipidus should be monitored for which of the following serum electrolyte imbalances?
A. Hypoglycemia
B. Hyponatremia
C. **Hypernatremia**
D. Hyperglycemia

**Rationale**
A. Diabetes insipidus does not result in hypoglycemia.
B. Diabetes insipidus results in hypernatremia not hyponatremia.
C. **Diabetes insipidus is caused by a defect in the secretion of antidiuretic hormone (ADH) or the kidney’s inability to concentrate urine. The patient exhibits polyuria and polydipsia. This water disturbance results in dehydration and hypernatremia.**
D. Diabetes insipidus does not result in hyperglycemia.

**Content Category:** Medical Emergency Tasks

**Reference**

62. Which of the following components are included in the Cincinnati Prehospital Stroke Scale?
A. Pupillary changes, arm drift, and abnormal speech
B. **Facial droop, arm drift, and abnormal speech**
C. Facial droop, decreased unilateral grip strength, and abnormal speech
D. Facial droop, arm drift, and receptive aphasia

**Rationale**
A. Pupillary changes are not part of the Cincinnati Prehospital Stroke Scale.
B. **The three components to the Cincinnati Prehospital Stroke Scale are facial droop, arm drop, and changes in speech. The presence of one finding indicates a 72% chance of stroke and the presence of all three findings indicates an 85% chance of stroke.**
C. Grip strength is not part of the Cincinnati Prehospital Stroke Scale.
D. Receptive aphasia is not part of the Cincinnati Prehospital Stroke Scale.

**Content Category:** Neurological Tasks

**Reference**

63. Which of the following interventions is no longer recommended as initial management for patients with suspected increased intracranial pressure (ICP)?
A. Increase blood pressure
B. Drain cerebrospinal fluid (CSF)
C. **Hyperventilation**
D. Administer mannitol (Osmitrol)
Rationale
A. Cerebral perfusion pressure (CPP) equals the mean arterial pressure minus the ICP. Increasing blood pressure, especially in hypotensive patients, will improve CPP.
B. Draining CSF from a ventriculostomy tube has been shown to improve outcomes.
C. Recent studies have shown that hyperventilation causes a decrease in cerebral blood flow without consistently decreasing ICP. If used at all, hyperventilation is considered a “last ditch” effort.
D. Mannitol, an osmotic diuretic, reduces ICP by changing the osmotic gradient causing fluid to leave cerebral extracellular tissues, reducing ICP.

Content Category: Neurological Tasks

Reference

64. Which standardized objective measurement of neurologic function is NOT considered when using the Glasgow Coma Scale score?
A. Best verbal response
B. Best motor response
C. Best sensory response
D. Eye opening

Rationale
A. Vocalizations and orientation are rated on a 1 to 5 scale using the Glasgow Coma Scale.
B. The ability to follow commands or move in response to pain is assessed and given a rating from 1 to 6.
C. The Glasgow Coma Scale score is composed of the patient’s best motor, best verbal, and eye-opening responses. A patient’s best sensory response is not part of the objective measurements of the Glasgow Coma Scale.
D. On a scale from 1 to 4, patients are rated in their ability to open their eyes.

Content Category: Neurological Tasks

Reference

65. If an operating room is not immediately available, burr holes may be performed in the emergency department for:
A. a gunshot wound to the left temporal lobe.
B. an epidural hematoma accompanied by signs and symptoms of impending herniation.
C. diffuse axonal injury (DAI) causing unresponsiveness.
D. a subarachnoid hemorrhage with bloody cerebral spinal fluid.
**Rationale**

A. Burr holes are not performed in the emergency department to retrieve forensic evidence.

B. Burr holes are created to place an intracranial monitoring device or to remove an epidural or subdural hematoma in a patient exhibiting rapid deterioration.

C. Patients with DAI will not be helped by burr holes because there is no hematoma to evacuate.

D. In a subarachnoid hemorrhage, the blood is spread diffusely throughout the cerebrospinal fluid (CSF), with no localized collection of blood to evacuate.

**Content Category:** Neurological Tasks

**Reference**


66. Meningeal irritation is indicated by which of the following findings?

A. Abnormal flexion

B. Positive “Babinski” reflex

C. Peripheral paresthesias

D. Nuchal rigidity

**Rationale**

A. Abnormal flexion indicates a lesion above the brain stem and is not a sign of meningeal irritation.

B. The Babinski reflex is used to diagnose damage to the corticospinal tracts. However, it may also be seen in hepatic encephalopathy and neurological tuberculosis and following seizure activity.

C. Peripheral loss of sensation is commonly associated with spinal cord injury or peripheral nerve injury or damage.

D. **Nuchal rigidity, fever, and altered level of consciousness represent the classic triad of findings in meningeal irritation.**

**Content Category:** Neurological Tasks

**References**


67. A patient with a history of schizophrenia presents with a headache and stiff neck for the past 24 hours and now demonstrates an altered level of consciousness, restlessness, combativeness, and confusion. The patient is compliant with the prescribed medications. Vital signs are T 100.2°F (37.9°C), HR 108 beats/minute, RR 20 breaths/minute, and BP 89/56 mmHg. Which of the following conditions is the most likely cause of altered level of consciousness and confusion in this patient?

A. Exacerbation of schizophrenia

B. **Central nervous system (CNS) infection**

C. Drug overdose

D. Alcohol intoxication
**Rationale**

A. Exacerbation of schizophrenia is a possibility. However, infection and organic brain syndrome must be ruled out to make this diagnosis. This patient’s abnormal vital signs indicate a possible CNS infection.

B. **Infection is most likely present due to the elevated temperature, tachycardia, tachypnea, and hypotension. General medical conditions such as infection must be ruled out before making a diagnosis of a mental disorder.**

C. Drug overdose is possible, but not likely due to the long history of compliance with management of her mental disorder and normal behavior prior to headache.

D. At this time, there is no evidence or suspicion of alcohol intoxication with this scenario. The abnormal vital signs should be evidence for the nurse to think of a medical condition.

**Content Category:** Neurological Tasks

**References**


68. A patient is experiencing which type of spinal cord injury if they are exhibiting loss of motor function, proprioception and vibration below the injury on the same side, and loss of pain and temperature on the opposite side?

A. Brown-Séquard syndrome  
B. Posterior cord injury  
C. Anterior cord syndrome  
D. Complete spinal cord injury

**Rationale**

A. **Brown Séquard is an uncommon injury. It is usually due to a penetrating injury and characterized by transverse hemisection of the spinal cord.**

B. Patients with posterior cord injury exhibit intact motor function, pain, temperature, and crude touch with loss of proprioception, vibration, fine touch, and fine pressure below the injury. It is rare and usually caused by cord compression or hyperextension.

C. Patients with anterior cord injury exhibit loss of motor function, pain, and temperature below the injury, whereas crude touch, pressure, proprioception, and vibration remain intact. It may be caused by cord compression or disruption of the anterior spinal artery.

D. Patients with complete spinal cord injury exhibit loss of all motor function and sensation below the level of the injury. Of these syndromes, complete cord transection is the most common. It may be caused by hyperextension injuries, interrupted blood supply, or cord compression due to swelling.

**Content Category:** Neurological Tasks

**Reference**

69. Which of the following tests would best evaluate the presence of spinal cord injury without radiographic abnormality (SCIWORA) in a pediatric patient?

A. Lumbar puncture
B. Computed tomography (CT)
C. Swimmer’s view of the cervical spine
D. Magnetic resonance imaging (MRI)

**Rationale**

A. A lumbar puncture is performed to evaluate the chemical composition of the spinal fluid and adds no information when evaluating SCIWORA.
B. CT is a definitive study when looking at the bony spinal column, but it does not image the cord very well.
C. Diagnostic imaging, including a swimmer’s view of C7, is useful to look at the bony column, but not the cord itself.
D. MRI looks at soft tissue and is particularly useful to examine abnormalities of the spinal cord.

**Content Category:** Neurological Tasks—Pediatrics

**Reference**


70. A potential complication of methylprednisolone (Solu-Medrol) therapy for spinal cord injury would include all of the following EXCEPT:

A. hyperglycemia.
B. return of sensation.
C. impaired wound healing.
D. gastrointestinal bleeding.

**Rationale**

A. Complications of methylprednisolone (Solu-Medrol) therapy include impaired wound healing, gastrointestinal bleeding, infection, hyperglycemia, hypertension, hypokalemia, and thrombocytopenia.
B. Return of sensation is an expected outcome of methylprednisolone (Solu-Medrol) therapy in spinal cord injury.
C. Complications of methylprednisolone (Solu-Medrol) therapy include impaired wound healing, gastrointestinal bleeding, infection, hyperglycemia, hypertension, hypokalemia, and thrombocytopenia.
D. Complications of methylprednisolone (Solu-Medrol) therapy include impaired wound healing, gastrointestinal bleeding, infection, hyperglycemia, hypertension, hypokalemia, and thrombocytopenia.

**Content Category:** Neurological Tasks

**Reference**

71. The prevention of further cerebral cellular destruction for a stroke patient is centered around the preservation and reperfusion of the:
   A. infarction.
   B. penumbra.
   C. transient ischemic attack (TIA).
   D. completed stroke.

   **Rationale**
   A. An infarction, as in a stroke, is the pathological process consisting of a sudden insufficient blood supply to an area that results in necrosis of that area.
   B. The penumbra is the ischemic area surrounding the area of infarction. Preservation and reperfusion of the penumbra will help define the neurologic outcome in strokes.
   C. A TIA is a temporary disturbance of blood supply causing transient neurologic deficit. No permanent neurologic deficits persist and no definitive treatment is required.
   D. In a completed stroke, the neurologic deficits are permanent and unchanging.

   **Content Category:** Neurological Tasks

   **Reference**

72. A patient with a head injury who has a headache, altered level of consciousness, mastoid ecchymosis, and a small amount of cerebrospinal fluid leaking from the nose has likely sustained a:
   A. basilar skull fracture.
   B. linear skull fracture.
   C. depressed skull fracture.
   D. LeFort I fracture.

   **Rationale**
   A. Signs and symptoms of a basilar skull fracture include headache, altered level of consciousness, periorbital ecchymosis (raccoon eyes), mastoid ecchymosis (Battle’s sign), facial nerve palsy (cranial nerve VII), and/or cerebrospinal fluid leakage from the ears (otorrhea) or nose (rhinorrhea).
   B. Signs and symptoms of a linear skull fracture include headache, possible decreased level of consciousness, and fracture visible on radiograph without any palpable displacement of bone edges.
   C. Signs and symptoms of a depressed skull fracture include headache, possible decreased level of consciousness, possible open fracture, and a palpable depression of skull over the fracture site.
   D. A LeFort I fracture is a transverse fracture of the mandible that occurs above the level of the teeth. Signs and symptoms include slight swelling of the maxillary area, independent movement of the maxillary bone, possible fractured teeth, and possible malocclusion (the teeth no longer line up).

   **Content Category:** Neurological Tasks
References


73. The following statement is **TRUE** regarding the epidemiology of neurological trauma in the United States:

A. Motor vehicle crashes are the major cause of traumatic brain injury for all age groups.
B. A large percentage of patients with severe brain injury have concomitant fracture of the cervical spine.
C. **Approximately one-half of all trauma-related deaths are the result of head trauma.**
D. Traumatic brain injury deaths from firearms are most often the result of accidental injury.

**Rationale**

A. This is not true. Although motor vehicle crashes are the most common cause of traumatic brain injury for people from 5 to 64 years of age, falls are the most common cause of traumatic brain injury for those over 65 years.
B. This is not true. Although cervical spine fractures may occur with traumatic brain injury, the percentage of concomitant injury is small.
C. **This is true. There is no other singular body system associated with such a high percentage of death related to trauma.**
D. This is not true. Approximately two-thirds of all traumatic brain injury deaths from firearms are classified as suicide.

**Content Category:** Neurological Tasks

**Reference**


74. The most common form of impairment seen in dementia is:

A. seizures.
B. lack of coordination.
C. impaired level of consciousness.
D. **memory loss.**

**Rationale**

A. Seizures are not commonly seen with dementia.
B. Although there are multiple causes of coordination problems, it is not commonly seen in patients with dementia.
C. Although dementia patients may be disoriented, they are fully awake.
D. **The most common cognitive ability lost with dementia is memory loss.**

**Content Category:** Neurological Tasks—Geriatric

**Reference**

75. Autonomic dysreflexia in spinal cord injury (SCI) is a syndrome that sometimes occurs after the acute phase of SCI with lesions at or above which of the following levels?
A. S2
B. L4
C. T6
D. C7

**Rationale**
A. Lesions at or above T6 are associated with autonomic dysreflexia.
B. Lesions at or above T6 are associated with autonomic dysreflexia.
C. Lesions at or above T6 are associated with autonomic dysreflexia.
D. Lesions at or above T6 are associated with autonomic dysreflexia.

**Content Category:** Neurological Tasks

**Reference**

76. A child with epilepsy has a brief lapse of awareness without losing consciousness and appears to be staring into space. The nurse also observes rhythmic blinking and nystagmus. This would be classified as which type of seizure?
A. Tonic-clonic seizure
B. Generalized seizure
C. Myoclonic seizure
D. Atonic seizure

**Rationale**
A. Tonic-clonic seizures are characterized by a loss of consciousness and sustained muscle rigidity of extremities and trunk (tonic) alternating with rhythmic jerking and flexor spasm of the muscle (clonic). These children may experience an aura and incontinence of urine or stool, and the postictal period can last hours.
B. Generalized seizures are characterized by a brief lapse of awareness without loss of consciousness. The child may appear to be staring into space. Minor motor movements, such as blinking or nystagmus, and changes in muscle tone may also be present.
C. Myoclonic seizures are characterized by a sudden muscle contraction that may be generalized or limited to individual muscle groups. These contractions may be subtle and look like tremors. They may occur at the start of a generalized or tonic-clonic seizure, and there is usually not a loss of consciousness unless the seizure progresses.
D. Atonic seizures are characterized as a sudden loss in muscle tone and may be associated with myoclonic jerks. The patient with impaired consciousness will fall to the ground if standing.

**Content Category:** Neurological Tasks—Pediatric

**Reference**
77. A patient with a fracture of the humerus is unable to extend the associated thumb. Which peripheral nerve is responsible for thumb extension?

A. Radial  
B. Ulnar  
C. Median  
D. Peroneal  

**Rationale**

A. Radial nerve function is assessed by the extension of the thumb in the “hitcher’s sign.” If the patient is unable to extend the thumb, the radial nerve has been injured. 
B. Ulnar nerve function is assessed by loss of pain perception in the tip of the little finger. 
C. Loss of pain perception in the tip of the index finger results from median nerve injury. 
D. Inability to extend the great toe or foot may be associated with peroneal or sciatic nerve injury.  

**Content Category:** Orthopedic/Wound Tasks  

**Reference**


78. The most common cause of a femoral shaft fracture in children 6 to 9 years-of-age is:

A. trauma associated with abuse.  
B. motor vehicle crash.  
C. fall from bicycle or playground.  
D. pedestrian vs. car.  

**Rationale**

A. Abuse usually results in injuries in multiple stages of healing, not an isolated injury. 
B. Lap belt injuries are common in this age group; however, lap belts do not cause femur fractures. 
C. Falls from bicycles or on the playground usually result in fractures of the upper body or head injury. 
D. The vehicle’s front bumper and hood may cause injuries to the chest and femur of the older preschool and school-aged child.  

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

**References**


79. Lidocaine (Xylocaine) with epinephrine (Adrenalin) can be safely used for anesthesia in which of the following locations?

A. **Scalp**  
B. Ears  
C. Digits  
D. Penis

**Rationale**

A. Epinephrine solutions are useful for vasoconstriction in highly vascular areas such as the head.
B. Epinephrine solutions should never be used in areas with terminal vasculature such as the ears or nose.
C. Epinephrine solutions should never be used in areas of terminal vasculature such as fingers or toes.
D. Epinephrine solutions should never be used in areas of terminal vasculature such as the penis.

**Content Category:** Orthopedic/Wound Tasks

**Reference**


80. A professional painter presents with complaints of swelling of the elbow over the olecranon. Exam reveals no redness and slight tenderness. Which of the following conditions is suspected?

A. Elbow fracture  
B. **Bursitis**  
C. Tennis elbow  
D. Golfer’s elbow

**Rationale**

A. No trauma has occurred that would cause an elbow fracture.
B. Inflammation of the bursa, a saclike structure that covers the bony prominence of the elbow, is the result of trauma, direct blow, or prolonged repetitive use.
C. Tennis elbow is inflammation of the tendons and muscle attachments of the elbow over the lateral epicondyle.
D. Golfer’s elbow is inflammation of the tendons and muscle attachments of the elbow over the medial epicondyle.

**Content Category:** Orthopedic/Wound Tasks

**Reference**

81. A patient presents with right shoulder pain and is unable to raise the right arm above the head. Which of the following is suspected?
   A. Scapular fracture
   B. Shoulder dislocation
   C. Humeral head fracture
   **D. Clavicle fracture**

   **Rationale**
   A. A scapular fracture causes pain with shoulder movement.
   B. With a shoulder dislocation, the patient will not only have limited range of motion, but should also have a deformity to the shoulder.
   C. A humeral head fracture results in the inability to move the arm.
   **D. The patient is unable to raise the arm above the head with a clavicle fracture.**

   **Content Category:** Orthopedic/Wound Tasks

   **References**

82. Though uncommon, limping in a pediatric patient is highly suggestive of a(n):
   A. ankle sprain.
   B. knee injury.
   **C. hip disorder.**
   D. foot fracture.

   **Rationale**
   A. Although limping can occur with an ankle sprain, it is more suggestive of a hip disorder.
   B. Although limping can occur with a knee injury, it is more suggestive of a hip disorder.
   **C. Limping in children is uncommon. A hip disorder should be suspected if limping is found.**
   D. Although limping can occur with a foot fracture, it is more suggestive of a hip disorder.

   **Content Category:** Orthopedic/Wound Tasks

   **Reference**

83. Which of the following signs associated with compartment syndrome presents first?
   A. Paresthesia
   B. **Pain**
   C. Pulslessness
   D. Pallor
Practice Examination 5 531

**Rationale**

A. Pain is the most important indicator of compartment syndrome, followed by paresthesia, paralysis, pallor, and pulselessness.

B. **Compartment syndrome occurs when the compartment pressures increase from an internal or external force.** External forces include a cast, splint, and air splint. Pain that is out of proportion to the injury or progressive, intense, increased with passive flexion motion of affected compartment muscle occurs first. Paresthesia is caused along the nerve that traverses the affected compartment. Paralysis or weakness results from continued nerve compression.

C. Pain is the most important indicator of compartment syndrome, followed by paresthesia, paralysis, pallor, and pulselessness.

D. Pain is the most important indicator of compartment syndrome, followed by paresthesia, paralysis, pallor, and pulselessness.

**Content Category:** Orthopedic/Wound Tasks

**Reference**


84. A major contributing factor to Colles’ fractures in older women is:

A. poor physical conditioning.

B. **osteoporosis.**

C. changes in articular cartilage.

D. atrophy of supporting muscles.

**Rationale**

A. Sprains or strains may be caused by poor physical conditioning.

B. **Osteoporosis is a predisposing factor or condition that alters the composition and strength of the bone, so it may be fractured with very little trauma.**

C. Colles’ fractures do not involve the joint. It involves the distal forearm.

D. Loss or atrophy of muscle is not a major contributor to the development of fractures in older women.

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

**References**


85. Patients with costochondritis often have:

A. **reproducible pain.**

B. shortness of breath.

C. abnormal chest radiograph.

D. an acutely elevated temperature.
**Rationale**

A. Patients with costochondritis often have reproducible pain with point tenderness to palpation of the chest wall.

B. Patients with costochondritis do not usually have shortness of breath.

C. Patients with costochondritis do not usually have an abnormal chest radiograph.

D. Patients with costochondritis do not usually have a fever.

**Content Category:** Orthopedic/Wound Tasks

**Reference**


86. Which of the following instructions is correct for teaching a patient with crutches the three-point gait?

A. Stand with crutches with weight on uninjured leg; move crutches together and both legs moving forward.

B. Stand with crutches with weight on injured leg; move crutches and injured leg forward bearing weight on the palms of hands.

C. Stand with crutches with weight on uninjured leg; move crutches and uninjured leg forward simultaneously, bearing weight on axilla.

D. **Stand with crutches with weight on uninjured leg; move crutches and injured leg forward simultaneously, bearing weight on the palms of the hands.**

**Rationale**

A. The correct method for a three-point gait is to stand with crutches with weight on uninjured leg; move crutches and injured leg forward simultaneously, bearing weight on the palms of the hands.

B. The correct method for a three-point gait is to stand with crutches with weight on uninjured leg; move crutches and injured leg forward simultaneously, bearing weight on the palms of the hands.

C. The correct method for a three-point gait is to stand with crutches with weight on uninjured leg; move crutches and injured leg forward simultaneously, bearing weight on the palms of the hands.

D. **This is the correct method to teach a patient to utilize crutches with the three-point gait.**

**Content Category:** Orthopedic/Wound Tasks

**Reference**


87. Which wound has the highest risk for possible infection?

A. Puncture wound from screwdriver to thigh

B. Plantar puncture wound from a needle to bare foot

C. **Plantar puncture wound from a nail through shoe**

D. Puncture wound from nail gun to hand
**Rationale**

A. A puncture wound from a screwdriver may be deep and require exploration, but the risk of the infection is less than that from a nail through the shoe.

B. Although the needle may have to be localized and removed by fluoroscopy, a needle into a bare foot does not usually result in infection development.

C. **Plantar puncture wound from a nail through shoe is at increased risk of transmitting *Pseudomonas* into the tissue, resulting in development of infection and osteomyelitis.**

D. Puncture wounds from nail guns may be considered a missile injury and a high-risk mechanism, but the primary complication is not infection.

**Content Category:** Orthopedic/Wound Tasks

**Reference**


88. Which of the following statements is correct regarding a cat bite to the hand?

A. The major infecting organism seen with cat bites is *Staphylococcus aureus*.

B. Cat bites to the hand should be closed.

C. The wound appears as a laceration approximately 0.5 to 1 cm in length.

D. **Amoxicillin/clavulanate (Augmentin) is the prophylactic drug of choice for cat bites.**

**Rationale**

A. The major infecting organism for cat bites is *Pasteurella multocida*.

B. Hand wounds should remain open and all puncture wounds should be closed by secondary intention. Cat bite wounds are left open, unless they are to the face.

C. Cat bites are usually puncture wounds resulting from the cat’s long, slender fangs.

D. **The antibiotic class of choice for these wounds is penicillin, with prophylactic amoxicillin/clavulanate (Augmentin) being preferred.**

**Content Category:** Orthopedic/Wound Tasks

**References**


89. Foreign bodies that may cause a highly reactive tissue reaction and require removal as soon as possible include:

A. glass shards.

B. pieces of metal.

C. **thorns.**

D. bullets.
**Rationale**

A. Glass shards are not likely to cause a tissue reaction and may be left in place.
B. Pieces of metal may be left in place and are not likely to cause a tissue reaction.
C. *Vegetative foreign bodies* (e.g., thorns, wood) are highly reactive, lead to infection, and should be removed as soon as possible.
D. Bullets may be left in place and are not likely to cause a tissue reaction.

**Content Category:** Orthopedic/Wound Tasks

**Reference**


90. In a mass casualty event, the concept of “altered standards of care” can be described as:

A. continue to provide each patient with complete privacy and confidentiality.
B. providing care that is equivalent to the standard of care in an altered situation (disaster).
C. providing care and allocating scarce equipment, supplies, and personnel in a way that saves the largest number of lives.
D. conditions in which mass casualty victims remain within the surge facility until discharge.

**Rationale**

A. During a mass casualty event, a facility may have insufficient capability to provide for the complete privacy and confidentiality of patients.
B. The standard of care differs from altered standards of care. The standard of care is established in nonemergency conditions.
C. Under normal conditions, current standards of care might be interpreted as calling for the allocation of all appropriate health and medical resources to improve the health status and/or save the life of each individual patient. However, should a mass casualty event occur, the demand for care provided in accordance with current standards would exceed system resources.
D. In a mass casualty incident, patients receive medical care and are then transferred to a facility that can provide the optimum level of care needed, if necessary.

**Content Category:** Patient Care Management Tasks

**Reference**


91. To alleviate increased intracranial pressure associated with rapid sequence intubation of the head-injured patient, the nurse should prepare to:

A. administer a sedation agent such as a benzodiazepine.
B. **premedicate with a nondepolarizing neuromuscular blocking agent.**
C. prepare to administer an induction agent such as etomidate (Amidate).
D. apply pressure over the cricoid cartilage.
Practice Examination 5 535

Rationale
A. Sedation should be administered any time neuromuscular blocking agents are given because these agents do not affect level of consciousness; however, they are not considered part of the premedication needed to prevent increased intracranial pressure that can accompany rapid sequence intubation.

B. Premedication with lidocaine (Xylocaine) and a defasciculating dose of a nondepolarizing neuromuscular blocking agent such as vecuronium (Norcuron) are methods of preventing the increased intracranial pressure that can accompany rapid sequence intubation.

C. Induction agents are administered so that the patient can lose consciousness, which facilitates intubation but will not prevent increased intracranial pressure.

D. Applying pressure over the cricoid cartilage, also known as the Selleck maneuver, is used to facilitate visualization of the vocal cords, and it minimizes the likelihood of vomiting and aspiration during positioning for intubation.

Content Category: Patient Care Management Tasks

Reference

92. A patient with chronic back pain asks about the safety of acupuncture to treat his pain. The most appropriate response is:
A. “It may be helpful. Any physician should be able to provide acupuncture treatment.”
B. “The World Health Organization does not recommend acupuncture for chronic back pain.”
C. “Acupuncture is safe and effective for this condition.”
D. “Acupuncture is potentially dangerous due to the risk of infection from the needles.”

Rationale
A. In the United States, acupuncturists must be licensed to perform the procedure. Physicians may perform acupuncture only with appropriate training and licensure.

B. The World Health Organization does recommend acupuncture for the treatment of back pain. When performed by a licensed practitioner, acupuncture is safe and effective.

C. The World Health Organization does recommend acupuncture for the treatment of back pain. When performed by a licensed practitioner, acupuncture is safe and effective.

D. When performed by a licensed acupuncturist using disposable needles, the risk of infection is low. Minor bruising might occur in rare cases.

Content Category: Patient Care Management Tasks

Reference
93. Which of the following is the most appropriate initial intervention for a patient with a terminal condition who arrives in the emergency department in extremis?

A. **Ascertain the existence and content of any advanced directives.**
B. Prepare for immediate patient resuscitation.
C. Recommend to the patient and family that they consider having a “Do Not Resuscitate” (DNR) order entered into patient’s chart.
D. Prepare to administer palliative care to the patient.

**Rationale**

A. The most appropriate initial response for a patient with a terminal condition arriving in the emergency department in distress is to determine which resuscitative measures the patient desires to have performed. The existence of an advanced directive and knowledge of its contents (patient wishes) should then direct patient care. Family members may have become frightened by the patient’s distress and the possibility of the patient dying at home, resulting in the patient being transported to the hospital.

B. Resuscitation may in fact occur; however, it must FIRST be determined that it is the most appropriate intervention. It must be determined that the patient does indeed desire resuscitative measures.

C. It is appropriate to first determine whether the patient and family have considered withholding resuscitative measures in light of the patient’s diagnosis and prognosis. However, prior to recommending withholding resuscitative measures, the patient’s wishes must be ascertained.

D. Palliative care may be the preferred treatment for this patient, but the patient wishes must first be determined. In addition, it must be determined whether the patient presented to the emergency department with an acute, temporary, and reversible condition, which can be managed by providing prompt, appropriate treatment.

**Content Category:** Patient Care Management Tasks

**Reference**


94. Which of the following therapies is expected first in a patient with a serum potassium of 7 mEq/L?

A. Dialysis
B. An intravenous diuretic
C. An oral resin (Kayexalate)
D. **Intravenous glucose followed by regular insulin**

**Rationale**

A. Dialysis would be a treatment used after attempts have been made to shift the potassium intracellularly and promote potassium excretion.

B. Diuretics are indicated for mild elevations of the serum potassium. A serum potassium of 7 mEq/L is not a mild elevation.

C. Resins are indicated for mild elevations of the serum potassium. Oral administration would take too long to obtain the expected results.

D. *Intravenous glucose and insulin are used for moderate elevations of potassium and work by shifting potassium to the intracellular space from the serum.*
95. All of the following statements regarding emergency department patient discharge instructions are true EXCEPT:

A. claims of inadequate discharge instructions are frequent issues in emergency department lawsuits.
B. **a copy of the discharge instructions need not be a permanent part of the patient’s medical record.**
C. discharge instructions should be available in the predominant languages of the area population.
D. there must be documented evidence that written instructions were discussed with the patient and that the patient indicated understanding of the instructions.

**Rationale**

A. Inadequate discharge instructions are frequent issues in emergency department lawsuits.
B. **The discharge instructions **MUST BE** a permanent part of the patient’s medical record.**
C. Instructions should be available in the predominant languages of the area population.
D. Documentation regarding the provision of written discharge instructions and that the patient expressed understanding MUST be included in the patient medical record.

96. Which of the following is NOT part of the primary assessment of a trauma patient?

A. Visualization of chest wall
B. Assessment of skin color, temperature, and diaphoresis
C. **A complete set of vital signs**
D. Determination of patient’s ability to vocalize

**Rationale**

A. Assessment of chest wall is in the primary assessment of the trauma mnemonic, ABCDEFGHI. The “B” component represents Breathing. It is necessary to assess the work of breathing, chest rise and fall, pattern of breathing, integrity of soft tissue, and bilateral breath sounds.
B. Assessment (inspection and palpation) of skin color, temperature, and diaphoresis is in the primary assessment of the trauma mnemonic, ABCDEFGHI. The “C” component represents Circulation.
C. **A full set of vital signs is in the secondary assessment of the trauma mnemonic, ABCDEFGHI. The “F” component represents “full set of vitals/five interventions/facilitate family presence.”**
D. Assessment of the patient’s ability to vocalize is in the primary assessment of the trauma mnemonic, ABCDEFGHI. The “A” component represents Airway.
97. An arterial line has been inserted in a patient in cardiogenic shock who is being resuscitated in the emergency department. Which of the following is the most serious complication that may occur?

A. **Disconnection of the tubing from the arterial catheter**
B. Damping of the waveform
C. Infection at the insertion site
D. Formation of a hematoma at the insertion site

**Rationale**

A. **Unrecognized disconnection could result in severe blood loss and exsanguination of the patient.**
B. Damping of the waveform can occur when the catheter lodges against the arterial vessel wall.
C. When an aseptic technique is not used, infection can occur at the insertion site. However, unrecognized disconnection could result in severe blood loss and exsanguination of the patient, which is more serious.
D. A hematoma may occur at the insertion site that could compress the nerve if not quickly recognized and corrected. However, unrecognized disconnection could result in severe blood loss and exsanguination of the patient, which is more serious.

98. A pediatric patient has been involved in a motor vehicle crash. According to the American College of Surgeons, all of the following have been identified as indications for transport of this patient to a tertiary center **EXCEPT:**

A. altered mental status.
B. status epilepticus.
C. near drowning.
D. **blunt abdominal trauma.**
Rationale
A. The American College of Surgeons and the National Association of Emergency Medical Services (American Academy of Pediatrics, 1999) consensus statement lists altered mental status as an indication for transport to a tertiary center after transport.
B. The American College of Surgeons and the National Association of Emergency Medical Services (American Academy of Pediatrics, 1999) consensus statement lists status epilepticus as an indication for transport to a tertiary center after trauma.
C. The American College of Surgeons and the National Association of Emergency Medical Services (American Academy of Pediatrics, 1999) consensus statement lists near drowning as an indication for transport to a tertiary center after trauma.
D. Not all blunt abdominal trauma is an indication for transfer. Only those patients with blunt abdominal trauma and who are hemodynamically unstable are candidates for transport to a tertiary center after trauma.

Content Category: Patient Care Management Tasks—Pediatric

Reference

99. An appropriate course for the emergency nurse to attend that would aid in the development of competency in caring for pediatric patients is:
A. pediatric classes at the following year’s ENA Annual Conference.
B. emergency nursing pediatric course (ENPC).
C. a specialized master's degree program in pediatrics.
D. pediatric advanced life support (PALS).

Rationale
A. Although the ENA Scientific Assembly is another option for obtaining information about the pediatric patient, it may not address issues specific to the new nurse in the emergency department.
B. This 16-hour course was developed specifically to aid the emergency nurse in the care of pediatric patients. The course incorporates the management of both critical and noncritical pediatric patients.
C. Although at some time an emergency nurse may decide to obtain a higher educational degree dealing with pediatric patients, this would not be an appropriate course of action for the new emergency nurse.
D. This pediatric course was developed to aid nurses in caring for the critical pediatric patient. It does not address the noncritical pediatric patient.

Content Category: Professional Issue Tasks—Pediatric

Reference
100. Signs and symptoms of post-traumatic stress may include all of the following EXCEPT:

A. difficulty with problem solving.
B. denial and shock.
C. decreased respiratory rate.
D. tachycardia.

Rationale
A. The individual may feel so overwhelmed that they are cognitively immobilized, unable to think or act.
B. Symptoms of post-traumatic stress are characterized by a sense of everything happening in slow motion. This reaction typically begins during exposure to trauma and may continue for hours and even days after the event.
C. Increased respiratory rate, not decreased, is expected. This is a result of the autonomic response to the event.
D. Tachycardia is an autonomic physiological response to post-traumatic stress.

Content Category: Professional Issue Tasks

Reference

101. All of the following statements reflect appropriate assessment documentation EXCEPT:

A. “Patient is awake, alert, and oriented.”
B. “Alcohol intoxication is present based on the patient’s behavior.”
C. “Blood pressure 120/40 mmHg, pulse 80 beats/minute and regular.”
D. “Palpation over the lower sacral area produces pain to the patient.”

Rationale
A. This entry describes the assessment findings of a person with no alteration in their level of consciousness.
B. Documentation in the medical record needs to reflect the patient’s medical and psychological findings. Judgments as to why a patient’s behavior is occurring are inappropriate. A description of the patient’s behavior, or the result of a laboratory blood test, is more appropriate.
C. The recording of physical data such as the patient’s vital signs is appropriate.
D. Describing the physical findings of patient assessment needs to be accurately documented.

Content Category: Professional Issue Tasks

Reference
102. Prior to a patient giving consent for an invasive procedure, an explanation must be given to the patient or legal caregiver that includes:
   A. a complete explanation of the procedure and patient assessment findings.
   B. pertinent information related to the procedure and advanced directives.  
   C. **a delineation of the procedure's known risks and benefits.**
   D. administrative consequences of refusing to consent to the procedure.

   **Rationale**
   A. A complete explanation of the patient assessment findings to either the patient or legal caregiver is not required for informed consent.
   B. Advanced directives are legal documents that relate to withholding or withdrawal of life support while the patient is in the hospital.
   C. The essential components of an informed consent include a description of the procedure, alternatives to the procedure, risks and benefits of the procedure, and an acknowledgment that the patient or legal caregiver understands all of these components.
   D. Patients and/or legal caregivers have the right to refuse a procedure without being fearful of administrative consequences. They do, however, need to be informed of the medical consequences of not having the specific procedure.

   **Content Category:** Professional Issue Tasks

   **Reference**

103. When a patient signs consent for treatment during the registration process, this is considered:
   A. implied consent.
   B. **expressed consent.**
   C. involuntary consent.
   D. informed consent.

   **Rationale**
   A. Implied consent allows for any appropriate treatment in an emergency when the patient is unable to give consent. This is based on the assumption that if the patient were able, she or he would provide consent for the life-saving treatment.
   B. **Expressed consent is a written or oral agreement for treatment. This agreement includes consent for evaluation, medications, radiology exams, and laboratory studies.**
   C. Involuntary consent occurs when an individual refuses to consent to needed medical treatment and a physician or a police officer can ensure that the individual receives treatment.
   D. Informed consent is given when the patient has a full understanding of the risks and benefits of the proposed treatment, is not under the influence of a mind-altering substance, and has the legal capacity to consent.

   **Content Category:** Professional Issue Tasks

   **Reference**
104. Following an inhalation treatment for an acute bronchoconstrictive exacerbation, appropriate patient documentation indicating improvement would be:

A. “Patient is speaking in full sentences.”
B. “Patient seems to be more comfortable.”
C. “Patient’s respiratory rate remains 30 breaths/minute.”
D. “Patient continues to demonstrate tracheal tugging.”

**Rationale**

A. This statement presents a patient who is improved following an intervention and is no longer struggling to breathe.
B. Documentation needs to be concise and accurate. It should not use words such as “seems,” “appears,” “etc.”
C. This statement, although concise, indicates a consistently elevated respiratory rate that does not reflect improvement in the patient’s condition.
D. The presence of continued tracheal tugging would indicate no improvement in the patient’s condition.

**Content Category:** Professional Issue Tasks

**Reference**


105. An adult patient has been placed in physical restraint to protect him from self-harm. The following standards apply:

A. the patient must have 2 hours of face-to-face observation at the initiation of restraints.
B. restraints can be applied in 8-hour intervals.
C. the patient must have 1 hour of face-to-face observation when the restraint is initiated.
D. the restraint order has the option of being renewed once for an additional 4 hours.

**Rationale**

A. The CMS ruling requires 1 hour of face-to-face observation at the initiation of restraint.
B. The CMS ruling allows adults to be restrained for a maximum of 4 hours. At that time, the patient must be reassessed and a new physician order for restraint written.
C. Department of Health and Human Services, Centers for Medicare & Medicaid Services 42 CFR Part 482 Medicare and Medicaid Programs; Hospital Conditions of Participation: Patients’ Rights; Final Rule published in the Federal Register December 8, 2006, describes the conditions for the use of restraints.
D. The CMS ruling allows adults to be restrained for a maximum of 4 hours. At that time, the patient must be reassessed and a new physician order for restraint written.

**Content Category:** Professional Issue Tasks
References

106. Which diagnostic laboratory finding is LEAST likely to present in a patient diagnosed with anorexia nervosa?
A. Hypokalemia
B. Hypoglycemia
C. Hyponatremia
D. Hyperkalemia

Rationale
A. Potassium loss often accompanies dehydration and is more likely to occur in individuals who induce vomiting or misuse laxatives or diuretics than in those who do not engage in these behaviors.
B. Hypoglycemia may be present in anorexia nervosa, and thyroid function tests are sometimes abnormal secondary to undernutrition.
C. Some patients drink excessive volumes of water prior to weigh-ins in an attempt to create the impression that they have adhered to their prescribed nutrition programs when they really haven’t.
D. Due to the severe limitation of food intake, self-induced vomiting, laxative abuse, diuretic abuse, or excessive exercise that are commonly seen with this disorder, hypokalemia would be seen, not hyperkalemia.

Content Category: Psychological/Social Tasks

Reference

107. Haloperidol (Haldol) is often used in the emergency department to treat:
A. obsessive-compulsive disorder (OCD).
B. patients with generalized anxiety disorders.
C. acute symptoms of major depression.
D. violent or homicidal patients.

Rationale
A. Selective serotonin reuptake inhibitors (SSRIs) are the first-line drugs used to combat obsessive-compulsive disorder.
B. Haldol is typically not used for generalized anxiety disorders.
C. Haldol is not used as a pharmacological treatment for depression of any kind.
D. Haldol is an antipsychotic medication used to treat patients with severe behavioral issues.

Content Category: Psychological/Social Tasks
108. Which mental health diagnosis is most likely for a patient who presents in a psychotic state?
A. Acute anxiety attack  
B. Paranoia 
C. Obsessive-compulsive disorder  
D. Depression 

*Rationale*

A. An acute anxiety attack is a nonpsychotic situation and typically lasts from a few minutes to several hours. The individual does not lose contact with reality, but judgment and insight are impaired.

B. Paranoia is a psychotic situation and is a symptom of schizophrenia that demonstrates loss of reality through a delusional thought system, generally involving persecution or excessive religious sentiments.

C. Obsessive-compulsive disorder (OCD) is a nonpsychotic mental health disorder that develops in 1 out of 40 people in his or her lifetime. Persons with OCD are not delusional and are not having hallucinations, but they simply cannot control the compulsive responses to their anxiety.

D. Depression is a nonpsychotic condition that affects approximately 18.8 million adults in the United States; it has a high prevalence in the general population and results in significant morbidity and mortality.

**Content Category:** Psychological/Social Tasks

**Reference**


109. The emergency nurse notes the presence of involuntary, repetitive tongue thrusting and lip smacking in a patient. The nurse recognizes that these movements can be side effects of what group of medications?
A. Anticholinergics  
B. Benzodiazepines  
C. Tricyclic antidepressants  
D. Antipsychotics 

*Rationale*

A. Side effects of anticholinergics include dry mouth, dry eyes, blurred vision, and constipation.

B. Side effects of benzodiazepines include central nervous system (CNS) depression, headache, and dizziness.

C. Common side effects of tricyclic antidepressants are dry mouth, constipation, sedation, and orthostatic hypotension.

D. Tartive dyskinesia is a late-appearing side effect of antipsychotic medications characterized by abnormal involuntary movements of the mouth, tongue, and jaw.

**Reference**

Content Category: Psychological/Social Tasks

References

110. Being “emotionally present” with family members during the grieving process means:
   A. staying with family members while allowing them to grieve in their own individual way.
   B. providing telephone follow-up with the family after the death experience so questions can be answered.
   C. being able to explain exactly how their loved one died and the associated factors with their death.
   D. providing the family with written information on what they need to do next after the death of a family member.

Rationale
   A. People grieve in various ways, but it is important for the nurse to physically be with them even if they do not intervene during the process.
   B. Although providing telephone follow-up with the family so questions can be answered would be a good, empathetic aspect of nursing care, it does not constitute being “present.”
   C. Knowledge about the death is often important to family members but does not play a specific role in being “present” during or after the death process.
   D. Providing the family members with written information on what they need to do next after the death of a family member can be very helpful but does not help define what being “present” means.

Content Category: Psychological/Social Tasks

Reference

111. The most important factor to consider when assessing a patient with delusions, hallucinations, and disorganized speech is whether:
   A. this patient is suffering from schizophrenia.
   B. the etiology of the symptoms is organic in nature.
   C. restraints are indicated for this patient.
   D. this patient will require antipsychotic medication.
**Rationale**

A. Although the patient may be suffering from schizophrenia, the team also needs to consider other problems with this patient. The diagnosis of schizophrenia in the emergency department should be provisional at best. As a diagnosis-by-exclusion, schizophrenia must be distinguished from the numerous psychiatric and organic disorders that also lead to psychotic behaviors. Always consider other medical emergencies such as central nervous system infection, hallucinogen ingestion, and head injuries.

B. In the emergency department, the most common etiologies for severe mental status changes are organic, not psychiatric. These organic conditions include medications, drug intoxication, drug withdrawal syndromes, and general medical illnesses causing delirium.

C. A patient with psychosis may be wildly agitated, combative, withdrawn and conversely may appear rational, cooperative, and well controlled. Information should be elicited about the actual or potential likelihood for acts of violence. To prevent any danger, and to protect the patient, staff, and other patients in the emergency department, this person may require restraints during the course of treatment in the emergency department.

D. Antipsychotic medications have revolutionized the treatment and prognosis of psychiatric disorders such as schizophrenia. Treating with antipsychotic medication should take place once organic etiology is ruled out.

**Content Category:** Psychological/Social Tasks

**Reference**


112. A patient presents to the emergency department with signs of respiratory distress and noted mediastinal shift following a motor vehicle collision. The patient has bilateral breath sounds on auscultation only in the upper lobes. The nurse would suspect a:

A. tracheobronchial tear.
B. flail chest.
C. **ruptured diaphragm.**
D. tension pneumothorax.
**Rationale**

A. A tracheobronchial tear can result from either blunt force trauma or a penetrating injury. Symptoms of this injury are respiratory distress, sudden (with large tears) or progressive (with small tears) airway obstruction, hemoptysis, and subcutaneous emphysema. Unless a pneumothorax results from the tear, the trachea will remain midline.

B. A flail chest results from blunt trauma, causing a break in two or more adjacent ribs in two or more places or fractures that result in a free-floating sternum. The primary symptoms noted with a flail chest are severe pain, dyspnea, and paradoxical respirations.

C. **Considered a life-threatening condition, a ruptured diaphragm occurs from either blunt force trauma or a penetrating injury when the contents of the abdominal cavity herniate into the thorax. Presence of the stomach or small intestine creates pressure on the lungs, creating respiratory compromise, and forces a mediastinal shift of the thoracic structures, mimicking a tension pneumothorax.**

D. A tension pneumothorax occurs as air enters the pleural space during inspiration after a pneumothorax but cannot escape on expiration. As the pressure builds, thoracic contents are forced to the uninjured side causing a shift. The signs and symptoms would include an absence of breath sounds on the affected side, as well as a tracheal deviation to the unaffected side.

**Content Category:** Respiratory Tasks

**References**


113. A young adult male arrives in the emergency department with sudden onset of shortness of breath and chest pain. The patient denies any past medical history, rigorous exercise, or trauma. The nurse notes significant dyspnea and accessory muscle use. Which of the following conditions is most likely the cause of this patient’s presenting symptoms?

A. Pericarditis

B. Myocardial infarction

C. Pulmonary embolism

D. **Spontaneous pneumothorax**

**Rationale**

A. This patient does not have any risk factors for pericarditis, which include previous myocardial infarction, tuberculosis, immune or collagen disorders, neoplastic disease, or hemodialysis.

B. The patient’s history, age, and use of accessory muscles do not support a diagnosis of a myocardial infarction.

C. This patient does not have any risk factors for pulmonary embolism, which include immobility, prolonged seated position, obesity, pregnancy, and recent trauma.

D. **Spontaneous pneumothorax commonly occurs in younger males between the ages of 20 to 40. Symptoms include dyspnea (often disproportional to size of pneumothorax), chest pain on the side of the pneumothorax, and hypotension.**
Content Category: Respiratory Tasks

References

114. An understanding of BiPAP therapy is evidenced by a patient stating:
A. “This machine will feel like breathing in a vacuum.”
B. “I may have increased secretions in my mouth.”
C. “I cannot take the mask off.”
D. “This machine will breathe for me.”

Rationale
A. A vacuum creates negative pressure; because of the positive pressure exerted in both inspiratory and expiratory phases of BiPAP, the feeling would be likened to breathing with your head stuck out of a window of a moving car.
B. Drying of the mouth and nose will occur with BiPAP due to the increased airflow.
C. Although many people cannot tolerate the use of BiPAP or CPAP, it must be continuous in order to be effective. The only time it is removed would be if the patient cannot tolerate the mask or the patient deteriorates.
D. Although a backup rate can be set for BiPAP, the patient must be able to initiate respirations to induce the inspiratory phase of BiPAP. Among the contraindications for CPAP/BiPAP are any condition that can lead to vomiting, due to risk of aspiration, including decreased level of consciousness and respiratory arrest.

Content Category: Respiratory Tasks

References

115. A patient presents with difficulty breathing and reports no relief from wheezing after use of cromolyn (Intal) inhaler. Patient education is effective when the patient is able to verbalize that cromolyn (Intal):
A. does not treat acute attacks of bronchospasm.
B. increases the respiratory rate.
C. will have a decreased effect with caffeine use.
D. can cause tremors and palpations.
Rationale
A. Cromolyn (Intal) is a mast cell inhibitor and blocks the release of inflammatory mediators, which can prevent the late phase reaction of asthma. It is not to be used for acute attacks because it may take 30 minutes for peak reaction. It should be used as maintenance therapy.
B. Cromolyn (Intal) does not increase respiratory rate; side effects are minimal, mostly cough with dry powder form.
C. Caffeine has no effect on cromolyn (Intal). Caffeine can increase levels of aminophylline (Theophylline).
D. Tremors and palpations are a side effect of sympathomimetics such as epinephrine.

Content Category: Respiratory Tasks

Reference

116. An elderly patient on a backboard with a cervical collar in place after a motor vehicle crash (MVC) may require prompt evaluation and removal of the backboard based on which of the following age-related physiologic changes?
A. Increased diaphragmatic excursion
B. Decreased vital capacity
C. Decreased residual volume
D. Increased elastic lung recoil

Rationale
A. Increased diaphragmatic excursion may be achieved by changing the patient from supine position to Fowler’s position, but it is not a normal age-related physiologic variation.
B. The geriatric patient exhibits an increase in work of breathing, residual volume, and functional residual capacity. These factors put the patient at risk for impaired ventilation while in a supine position. Semi- to high-Fowler’s position would facilitate an effective respiratory pattern in this patient. Therefore, the nurse should advocate removing the backboard as soon as possible.
C. The geriatric patient has increased residual volume. Positioning is key to facilitating complete exhalation of the lungs, which minimizes air trapping. The optimal position for this would be semi- to high-Fowler’s.
D. The geriatric patient has decreased elastic lung recoil. Changing the patient from supine to semi- or high-Fowler’s position will facilitate elastic recoil and assist with exhalation.

Content Category: Respiratory Tasks—Geriatric

Reference
117. A patient has a confirmed diagnosis of pneumomediastinum, most likely sustained during scuba diving. In addition to providing high-flow oxygen, the nurse anticipates the need for:
A. needle decompression of the chest.
B. **thoracostomy for mediastinal drain placement.**
C. transfer to a hyperbaric chamber.
D. initiation of mechanical ventilation.

**Rationale**
A. Needle decompression is the first-line emergent treatment of choice for tension pneumothorax. Needle decompression is not routinely done for pneumomediastinum unless the patient is unstable secondary to an associated pneumothorax.
B. **Pneumomediastinum is air in the mediastinum (space between the lungs) and may occur in rapid ascent altitude changes, mechanical ventilation (resulting in overventilation), or trauma resulting in rupture of the airways. It may be accompanied by a pneumothorax.** Symptoms vary in intensity but may include chest pain beneath the sternum and progressive dyspnea. Primary treatments to remove mediastinal gas include mediastinoscopy (scope into the mediastinal space), thoracostomy, and percutaneous drainage.
C. A hyperbaric chamber decreases the size of gas bubbles so that they can be reabsorbed into the bloodstream. A hyperbaric chamber is the treatment of choice for air or gas embolism, decompression sickness, and carbon monoxide poisoning. With pneumomediastinum, air will be spontaneously reabsorbed into the extra-alveolar space with time or will be removed via mediastinal drain.
D. An indication for mechanical ventilation would be based on patient presentation and is not an automatic treatment for pneumomediastinum.

**Content Category:** Respiratory Tasks

**References**

118. An 18-month-old presents to the emergency department with symptoms of a lower airway infection. Vital signs: T 99.1°F (37.3°C) rectally, HR 102 beats/minute, RR 36 breaths/minute, and SpO2 97%. The nurse would anticipate which of the following laboratory studies?
A. Complete blood count with differential
B. **Arterial blood gas (ABG)**
C. Blood cultures from two sites
D. **Respiratory syncytial virus (RSV) nasal washing**
**Rationale**

A. CBC is not considered to be useful because bronchiolitis is viral in nature and would result in a normal count.

B. This child has an oxygen saturation of 97% on room air with only a mildly elevated respiratory rate for this age group. An ABG is not required at this time. If the child were showing signs of acute respiratory failure, an ABG would then be indicated.

C. Although blood cultures may be considered, the low-grade fever would indicate RSV nasal washing to be a priority at this time.

D. Bronchiolitis is the suspected cause of this child’s illness and is characterized by an inflammatory process that causes profuse respiratory secretions and the potential to obstruct the airway. Seen primarily in children less than two years of age, bronchiolitis occurs mostly in the winter months and 90% of the time is caused by respiratory syncytial virus (RSV). Other causes can be parainfluenza virus, influenza, adenovirus, rhinovirus, enterovirus, herpes simplex, and mycoplasma pneumonia. Nasal washing for RSV would confirm this suspicion.

**Content Category:** Respiratory Tasks—Pediatric

**Reference**


119. Which of the following is a complication of cricothyrotomy?

A. Bronchial rupture
B. Pharyngeal hematoma
C. Subcutaneous emphysema
D. Pneumothorax

**Rationale**

A. The cricothyroid membrane is incised and a cuffed endotracheal tube or tracheostomy tube is inserted into the cricothyroid membrane. The cricothyroid membrane is located in the upper airway. Bronchi are located in the lower airway.

B. The cricothyroid membrane is incised and a cuffed endotracheal tube or tracheostomy tube is inserted into the cricothyroid membrane, which is inferior to the pharynx.

C. **Subcutaneous emphysema occurs when there is leakage of air from an interrupted airway. Air collects under the dermal layers and forms pockets or blebs.**

D. Pneumothorax is most often the result of trauma, pulmonary infection, granuloma, rib fracture, or a cough-induced rupture of a pleural bleb. The cricothyroid membrane is located in the upper airway superior to the lungs.

**Content Category:** Respiratory Tasks

**References**


120. The best adjunct to assess the severity of an asthma attack is:
   A. complete blood count (CBC).
   B. arterial blood gas (ABG).
   C. chest radiograph (CXR).
   D. peak expiratory flow rate (PEFR).

   **Rationale**
   A. CBC abnormalities have no predictive factors related to an asthma attack nor does this test
      add anything to the therapeutic management of an asthmatic patient. Predictably, the white
      blood cells are elevated.
   B. Arterial blood gases in an asthmatic will be abnormal, but in a predictable manner. Trending
      serial peak expiratory flow rate (PEFR) and oxygen saturation levels provide more clinically
      useful data without undergoing this painful procedure.
   C. A CXR result has no predictive value in regard to the severity of an asthma attack. Therapeu-
      tically, nothing is gained by obtaining a CXR on an asthmatic patient. The test will predictably
      be abnormal secondary to air trapping. If there is a suspicion of concomitant pneumothorax
      or pneumonia, then the test is warranted.
   D. The **measurement of peak expiratory flow rate (PEFR) before and after treatments is the**
      **single best determinant of asthma severity and response to treatment.**

   **Content Category:** Respiratory Tasks

   **Reference**

121. Following a motor vehicle crash, an unrestrained elderly front-seat passenger presents with
   right-sided chest pain, shortness of breath, and oxygen saturation of 92%. Which of the fol-
   lowing injuries is most likely?
   A. Myocardial contusion
   B. Rib fractures
   C. Pulmonary embolus
   D. Diaphragmatic hernia

   **Rationale**
   A. Myocardial contusion would more likely result in left-sided chest pain.
   B. **Blunt trauma frequently results in rib fractures. Elderly patients are more prone to rib**
      **fractures due to the lack of mobility of the rib cage. Symptoms of respiratory compromise**
      **may occur earlier because the geriatric patient has less reserve to compensate for insult.**
   C. Pulmonary embolus is uncommon immediately post-trauma. A history of immobility or pro-
      longed seated position would be elicited from a patient with this condition.
   D. Diaphragmatic hernia is more likely to occur on the left side because the liver provides pro-
      tection on the right side of the chest.

   **Content Category:** Respiratory Tasks—Geriatric
122. A patient presents to the emergency department following a motor vehicle crash complaining of extreme shortness of breath. Assessment reveals absent breath sounds on the right side, distended neck veins, but no tracheal shift. Oxygen saturation is 80%. The priority intervention for this patient would be:

A. **needle thoracentesis.**
B. intubation.
C. initiation of two large-caliber intravenous lines.
D. autotransfusion.

**Rationale**
A. This patient has a tension pneumothorax and decompression by needle thoracotomy with a 12 to 14 gauge needle should be performed immediately in the second intracostal space (on top of the third rib), midclavicular line on the affected side. This would be a lifesaving intervention and has the highest priority.
B. The patient may need intubation to secure a patent airway; however, needle decompression must be performed immediately to reduce the increased pressure in the intrathoracic cavity.
C. For circulatory support, it may prove imperative to initiate two large-caliber IV lines; however, ineffective breathing and the inadequate ventilation must be addressed first.
D. This patient has a tension pneumothorax, not a hemothorax. Therefore, needle thoracentesis should be performed immediately to decompress the lung.

**Content Category:** Respiratory Tasks

**References**


123. Which of the following statements indicates the need for further discharge teaching related to a peak expiratory flow meter?
A. “I should do it three times and take the highest of the three readings.”
B. “I will return to the emergency department when the peak flow reads 45% of my personal best.”
C. “I will return to the emergency department when the peak flow reads 60% of my personal best.”
D. “My personal best is the maximum amount of air I can blow out when my asthma is under control.”
**Rationale**
A. The patient should perform the procedure three times and take the highest of the three readings.
B. Less than 50% of personal best on peak flow (red zone) indicates the need for urgent medical attention.
C. The patient’s personal best would be the highest value obtained by forceful exhalation when the patient is not in respiratory distress. A reading of 50% to 70% of personal best on peak flow (yellow zone) would indicate moderate exacerbation and the need for this patient to take their prescribed rescue inhaler and follow the treatment plan outlined by the physician. The patient does not need to return to the emergency department at this point.
D. This is the definition of personal best and should be used as the baseline peak flow.

**Content Category:** Respiratory Tasks

**Reference**

124. Acute epiglottitis is a condition characterized by:
A. **rapid onset of high fever and severe sore throat.**
B. low-grade fever and barking cough.
C. wheezing and chest tightness.
D. gradual respiratory difficulty and cough.

**Rationale**
A. Acute epiglottitis is a life-threatening emergency caused by edema above the level of the vocal cords. The patient complains of severe sore throat and fever. Presentation to the emergency department is characterized by mouth breathing, drooling, and a tripod or “sniffing” position.
B. Low-grade fever and barking cough are symptoms of croup, not epiglottitis.
C. Wheezing and chest tightness generally indicate lower respiratory tract edema and are common presentations in asthma or other restrictive airway diseases, not epiglottitis.
D. Epiglottitis presents with a rapid onset of symptoms requiring immediate intervention.

**Content Category:** Respiratory Tasks

**Reference**

125. The definitive diagnostic test for a pulmonary embolus (PE) is a(n):
A. D-dimer assay.
B. ventilation/perfusion (V/Q) scan.
C. **computed tomography (CT) angiography.**
D. arterial blood gas analysis.
Practice Examination 5  555

**Rationale**

A. The D-dimer test misses 10% of patients with PE, while only 30% of patients with positive D-dimer findings have a confirmatory diagnosis of PE. Therefore, the D-dimer test alone is not routinely recommended to diagnose patients suspected of having a PE.

B. V/Q scans should be interpreted primarily as a diagnostic or nondiagnostic pattern, indicating whether the patient has a high likelihood or does not have a high likelihood of having PE. The CT angiography has a greater sensitivity and specificity.

C. **High-resolution multidetector CT angiography is the most reliable test for diagnosing pulmonary embolism.**

D. Arterial blood gas measurements can be helpful. Characteristically they reveal hypoxemia, hypocapnia, and respiratory alkalosis; however, they are rarely diagnostic for pulmonary embolism.

**Content Category:** Respiratory Tasks

**Reference**


126. Which condition is present with the following blood gas results: pH 7.30, PaCO₂ 61 mmHg, PaO₂ 82 mmHg, HCO₃⁻ 28 mmol/L?

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

**Rationale**

A. The pH is low, indicating acidosis. The PaCO₂ is high, which indicates a respiratory cause. The HCO₃⁻ is slightly elevated to attempt to compensate for the high PaCO₂. The low PaO₂ indicates hypoxia as well.

B. If the patient had metabolic alkalosis, they would have a high pH, elevated HCO₃⁻, and a normal PaO₂.

C. To be respiratory alkalosis the pH would be high and the PaCO₂ low.

D. If the patient had metabolic acidosis, the pH and HCO₃⁻ would be low. The PaCO₂ would be normal to low.

**Content Category:** Respiratory Tasks

**Reference**


127. After administering diazepam (Valium) and glucagon hydrochloride (Glucagon) to a patient with a foreign body aspiration, which of the following would be a positive expected outcome?

A. The patient begins to cough.

**B. The patient can drink a cup of water.**

C. Scattered wheezing is heard on auscultation.

D. The patient displays a calm affect.
Rationale
A. As smooth muscles of the upper airway relax, the foreign body will be less of an irritant and coughing should be relieved, not exacerbated.
B. The goals of administering glucagon and a benzodiazepine such as diazepam (Valium) are to induce smooth muscle relaxation, which will facilitate passing/removal of the foreign body. The patient's ability to tolerate drinking a cup of water without gagging, coughing, or drooling indicates that the foreign body aspiration has been resolved.
C. Wheezing is an objective finding in foreign body aspiration. It is a sign of bronchospasm due to irritation of the airways. After drug administration, assessment should reveal an absence or decrease in wheezing.
D. A calm demeanor is an expected effect of benzodiazepine administration and is not necessarily an indicator of resolution of the foreign body. The patient should feel relaxed even if the aspiration is not resolved.

Content Category: Respiratory Tasks

Reference

128. Parents of a 3-year-old describe the child as having a nonproductive cough triggered by eating and drinking that seems to get worse at night. The nurse should ask the parent if the child has been:
A. exposed to Epstein-Barr virus.
B. fully immunized.
C. exposed to respiratory syncytial virus (RSV).
D. recently diagnosed with pneumonia.

Rationale
A. Epstein-Barr virus is the most common causative agent of mononucleosis. Mononucleosis has a broad range of symptoms, some of the most common being malaise, myalgia, fever, anorexia, sore throat, and inflamed lymph nodes.
B. Pertussis a highly contagious bacterial respiratory communicable disease. It is caused by the gram-negative coccobacillus, Bordetella pertussis. It occurs most frequently in children who have not been immunized. Peak incidence is in the spring and summer with an incubation period between 6 and 21 days. The classic presentation is a paroxysmal whoop-like cough triggered by eating and drinking that seems to get worse at night. Vomiting may follow the cough. Apnea may occur in small infants. In addition, symptoms include other signs of upper respiratory infection (URI). It is treated with erythromycin (E-mycin) or azithromycin (Zithromax).
C. Respiratory syncytial virus (RSV) is the most common cause of bronchiolitis, an inflammatory lower airway disease. Bronchiolitis has an insidious onset and is characterized by mild/moderate URI symptoms, low fever, increased work of breathing, and decreased sleeping and eating.
D. Pneumonia can be a complication of pertussis.

Content Category: Respiratory Tasks—Pediatric
An end-tidal capnography waveform described as “shark fin” in shape reflects what patient condition?
A. Drug overdose
B. Hyperventilation
C. Cardiac arrest
D. Asthma

Rationale
A. A waveform with a gradual rise indicates a decreased minute-ventilation and can be reflective of drug overdose, oversedation, or accumulation of secretions in the airway that are impairing ventilation.
B. A waveform that has normal shape but a lower than normal plateau reflects hyperventilation.
C. A waveform that drops abruptly may indicate cardiac arrest, ventilator malfunction, pulmonary embolus, or pulmonary hypoperfusion.
D. Bronchospasm will produce a characteristic “shark fin” waveform on capnography. The shape is caused by uneven alveolar emptying as the patient struggles to exhale.

Content Category: Respiratory Tasks

References

A teenager who fell from a horse sustains a severe pelvic fracture and requires volume resuscitation. Which of the following would indicate adequate resuscitation?
A. Temperature of 91°F (33°C)
B. International normalized ratio (INR) greater than 5
C. Decreased peripheral pulses
D. Urinary output greater than 50 mL per hour

Rationale
A. Hypothermia is an indication of inadequate resuscitation. There is not enough circulating volume so the body will divert blood from the periphery as well as initiate vasoconstriction to divert volume to the central circulation, placing the patient at risk of becoming hypothermic.
B. An INR greater than 5 is an indication of coagulopathy, which would indicate inadequate resuscitation.
C. Decreased or absent peripheral pulses are indicative of decreased stroke volume from hypovolemia.
D. Urinary output is reflective of renal perfusion, which is an indication of the patient’s overall perfusion status. An adult patient should produce about 1.0 mL/kg/per hour if resuscitation is adequate.
Content Category: Shock/Multi-System Tasks

Reference

131. Which volume of blood is recommended as a bolus in the pediatric patient with hemorrhagic shock?
A. 15 mL/kg
B. 10 mL/kg
C. 20 mL/kg
D. 25 mL/kg

Rationale
A. The standard rate of infusion of blood products in the pediatric patient is 10 mL/kg.
B. Isotonic crystalloid boluses of 20 mL/kg are infused in pediatric patients who are volume depleted. The standard rate of infusion of blood products in the pediatric patient is 10 mL/kg.
D. The standard rate of infusion of blood products in the pediatric patient is 10 mL/kg.

Content Category: Shock/Multi-System Tasks—Pediatric

Reference

132. Which of the following conditions is the most likely cause of blood under the dura mater as visualized on computerized tomography scan?
A. Subdural hematoma
B. Epidural hematoma
C. Intracerebral hematoma
D. Subarachnoid hemorrhage

Rationale
A. Blood under the dura mater, usually venous in origin, is a subdural hematoma.
B. Blood that collects between the skull and the dura mater, usually arterial in origin, is an epidural hematoma.
C. Bleeding within the brain results in intracerebral hematoma.
D. A subarachnoid hemorrhage usually results from the tearing of the bridging veins, and the blood accumulates in the subarachnoid space.

Content Category: Shock/Multi-System Tasks

Reference
133. Administration of which of the following is the appropriate therapy for hemorrhagic shock?
   A. Corticosteroids
   B. Vasopressors
   C. **Packed red blood cells**
   D. Vasodilators

**Rationale**
A. Corticosteroids are not indicated for use in hemorrhagic shock.
B. Vasopressors do not remedy the issue of volume loss and can worsen tissue perfusion and hypoxia.
C. **Packed red blood cells restore oxygen-carrying capacity and volume, both of which are needed in hemorrhagic shock.**
D. Vasodilators will worsen hemorrhagic shock by further increasing the size of the vasculature through which the blood must flow.

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

**Reference**

134. A child involved in a head-on motor vehicle crash and restrained only by a lap belt sustains abrasions across the lower abdomen. This scenario is usually associated with which type of injury?
   A. Pelvic fracture
   B. Renal injury
   C. **Lumbar fracture**
   D. Liver injury

**Rationale**
A. A pelvic fracture may occur, but it is less likely than a lumbar fracture.
B. Lumbar, duodenal, and pancreatic injuries are more common with lap belt usage than is renal injury.
C. **When children wear a lap belt, they tend to wear it around their abdomen instead of around the pelvis. This places the child at risk for a lumbar spine fracture, as well as duodenal and pancreatic injuries.**
D. Liver injuries are more often associated with a shoulder harness or lack of restraint.

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

**Reference**

135. Which of the following presentations would be expected in a 70-kg (154-lb) patient with a femur fracture who had bled approximately 1000 mL into the thigh?
   A. Pulse 118 beats/minute, blood pressure decreased, confused
   B. **Pulse 112 beats/minute, blood pressure normal, mildly anxious**
   C. Pulse 128 beats/minute, blood pressure normal, mildly anxious
   D. Pulse 136 beats/minute, blood pressure decreased, confused
**Rationale**

A. Based on a 70-kg (154-lb) patient, a 1000 mL blood loss falls into Class II Hemorrhage category of 15% to 30% blood loss (750 to 1500 mL). The patient would be expected to have a pulse of more than 100 beats/minute, but less than 120. Blood pressure would be normal (blood pressure is a late sign of hypotension). The patient would be mildly anxious, not confused.

B. Based on a 70-kg (154-lb) patient, a 1000 mL blood loss falls into Class II Hemorrhage category of 15% to 30% blood loss (750 to 1500 mL). The patient would be expected to have a pulse of more than 100 beats/minute, but less than 120. Blood pressure would be normal (blood pressure is a late sign of hypotension). The patient would be mildly anxious.

C. Based on a 70-kg (154-lb) patient, a 1000 mL blood loss falls into Class II Hemorrhage category of 15% to 30% blood loss (750 to 1500 mL). The patient would be expected to have a pulse of more than 100 beats/minute, but less than 120. Blood pressure would be normal (blood pressure is a late sign of hypotension). The patient would be mildly anxious.

D. Based on a 70-kg (154-lb) patient, a 1000 mL blood loss falls into Class II Hemorrhage category of 15% to 30% blood loss (750 to 1500 mL). The patient would be expected to have a pulse of more than 100 beats/minute, but less than 120. Blood pressure would be normal (blood pressure is a late sign of hypotension). The patient would be mildly anxious.

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

**Reference**


136. Which medication aimed at decreasing preload might be administered to a patient in cardiogenic shock?

A. Nitroglycerin (Tridil)

B. Dopamine (Intropin)

C. Milrinone (Primacor)

D. Norepinephrine bitartrate (Levophed)

**Rationale**

A. *Nitroglycerin (Tridil) decreases preload and is appropriate in this setting.*

B. Dopamine (Intropin) increases contractility.

C. Milrinone (Primacor) increases contractility and decreases afterload.

D. Norepinephrine bitartrate (Levophed) increases afterload.

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

**Reference**


137. Which of the following findings are associated with cardiogenic shock?

A. Widened pulse pressure, bradycardia, and hippus

B. Vasodilation, tachycardia, and hypothermia

C. Confusion, bibasilar crackles, and fever

D. Tachypnea, distended neck veins, and hypotension
**Rationale**

A. The presentation of bradycardia, widened pulse pressure, and hippus indicates increased intracranial pressure.

B. The clinical presentation does not describe cardiogenic shock, but rather septic shock in late stages.

C. Cardiogenic shock does not present with fever, although crackles can be heard from pulmonary congestion.

D. **Inadequacy of the heart to pump blood leads to backup into the venous system and the lungs, causing distended neck veins. The lungs become congested with fluid and tachypnea results. Hypotension and tissue hypoxia result from the lack of cardiac contractility.**

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

**References**


138. A patient presents to the emergency department after 3 days of vomiting and flu-like symptoms. The patient is anxious and restless and complains of dizziness. Urine output has been scant, dark, and strong smelling. The patient also appears pale and has capillary refill time of 5 seconds. Vital signs: blood pressure 78/44 mmHg, HR 140 beats/minute, RR 26 breaths/minute, and pulse oximetry 94% on room air. Which intervention should take priority?

A. Perform rapid sequence intubation.

B. **Establish vascular access.**

C. Insert a gastric tube.

D. Administer vasopressors.

**Rationale**

A. Performing rapid sequence intubation is indicated for patients who are obtunded or unable to control their airway. Although administration of oxygen is reasonable, intubation of this patient should be deferred at this time.

B. **The patient is in hypovolemic shock. Replacement with crystalloids will correct volume losses.**

C. Inserting a gastric tube is not indicated at this time.

D. Primary intervention for hypovolemia is restoration of volume, not administration of vasopressors.

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

**Reference**

139. Which of the following physiological responses is triggered when a patient loses 30% of their circulating blood volume?

A. Vasodilatation
B. Decreased peripheral vascular resistance
C. **Increased preload**
D. Decreased cardiac output

**Rationale**

A. Vasoconstriction results from the stimulation of the sympathetic nervous system in response to a decrease in blood volume.

B. Peripheral vascular resistance actually is increased to improve the return of blood volume to the heart to facilitate end-organ perfusion.

C. **When there is a loss of circulating blood, chemoreceptors located in the bifurcation of the common carotid arteries and the aortic bodies near the aorta are stimulated because of low levels of oxygen and increased levels of carbon dioxide. This triggers a vasmotor response that causes vasoconstriction, which increases total peripheral resistance to increase cardiac preload. The end result is an effective cardiac contraction to deliver blood to increase end-organ perfusion.**

D. Cardiac output is initially increased as a response to sympathetic nervous system stimulation.

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

**Reference**


140. The components of the revised trauma score include systolic blood pressure and:

A. pulse rate and capillary refill rate.
B. Glasgow Coma Scale score and capillary refill rate.
C. respiratory rate and pulse rate.
D. **respiratory rate and Glasgow Coma Scale score.**

**Rationale**

A. Pulse rates are too variable and can be affected by certain medications, so they are not considered reliable in the trauma score assessment.

B. Capillary refill is important when assessing pediatric patients, but less accurate in adults, and it is not included in the revised trauma score.

C. Pulse rates are too variable and can be affected by certain medications, so they are not considered reliable in the trauma score assessment. Systolic blood pressure and respiratory rates are part of the revised trauma score.

D. **The revised trauma score consists of a maximum of 4 points for systolic blood pressure, 4 points for respiratory rate, and 4 points for Glasgow Coma Scale score.**

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

**Reference**

141. A 12-year-old boy presents to the emergency department with nonspecific flu-like symptoms, headache, fatigue, and joint and muscle aches. He is noted to have a 5 cm (2 inches) bull’s-eye rash (an expanding circular area of redness) on his right thigh. The emergency nurse would suspect:

A. Lyme’s disease.
B. meningitis.
C. migraine headache.
D. influenza.

**Rationale**

A. Within days of a tick bite, symptoms develop, including erythema margins, an expanding circular area of redness or rash at least 5 cm in diameter and flu-like symptoms. Although the rash is not always recognized, it is a classic sign of Lyme’s disease.

B. The second stage of Lyme’s disease occurs days to weeks after the tick bite, after the rash has gone away. Patients may exhibit neurologic, cardiac, and musculoskeletal complications such as meningitis, hepatitis, cranial neuropathies, atrioventricular blocks, cardiomyopathies, and arthralgia.

C. Although the patient did have a headache, migraine headaches are not accompanied by rashes and flu-like symptoms.

D. Although the patient did have flu-like symptoms, flu is not accompanied by an expanding circular area of redness or rash at least 5 cm (2 inches) in diameter.

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

**References**


142. After ingestion of prenatal vitamins containing ferrous sulfate (iron), a child would likely receive all of the following **EXCEPT:**

A. abdominal flat plate.
B. administration of activated charcoal.
C. iron level 3 to 4 hours postingestion.
D. whole bowel irrigation (WBI).

**Rationale**

A. Iron tablets are frequently visualized on radiograph. If the child had ingested a chewable vitamin this variety usually is not seen on radiograph.

B. Activated charcoal will not absorb iron or other heavy metals.

C. Iron levels are usually obtained 3 to 4 hours postingestion.

D. Controversial in its use, WBI can enhance elimination of tablets but will not prevent adsorption of the drug.
Content Category: Substance Abuse/Toxicological/Environmental Tasks

References

143. An overdose of prescription medication results in symptoms of dry mouth, central nervous system (CNS) and respiratory depression, hypotension, tachycardia with a widening QRS complex, and seizures. The most likely medication is:
A. amitriptyline (Elavil).
B. fluoxetine (Prozac).
C. diazepam (Valium).
D. oxycodone (Oxycontin).

Rationale
A. Although their use has largely fallen out of favor, tricyclic antidepressants are still used in pain management and other disorders. Symptoms are cardiotoxic, neurotoxic and anticholinergic.
B. Although tachycardia and CNS depression are common symptoms of selective serotonin reuptake inhibitor (SSRI) overdose, QRS widening and anticholinergic symptoms are not.
C. CNS and respiratory depression are common findings with benzodiazepine toxicity, but seizures are not.
D. Typical symptoms of opiate toxicity are CNS and respiratory depression, but seizures are not.

Content Category: Substance Abuse/Toxicological/Environmental Tasks

References

144. A specific antidote used for acetaminophen (Tylenol) overdose is:
A. N-acetylcysteine (Mucomyst).
B. fomepizole (Antizol).
C. calcium chloride (Calcitrate).
D. pralidoxime (Protopam).
Rationale
A. N-acetylcysteine (Mucomyst) is the antidote for acetaminophen (Tylenol) overdose.
B. Fomepizole (Antizol) is the antidote for ethylene glycol and methanol overdose, not acetaminophen (Tylenol) overdose.
C. Calcium chloride is the antidote for calcium channel blocker overdose, not acetaminophen (Tylenol) overdose.
D. Pralidoxime (Protopam) in combination with Atropine is a treatment for nerve agent poisoning, not acetaminophen (Tylenol) overdose.

Content Category: Substance Abuse/Toxicological/Environmental Tasks

References

145. After initial antivenin treatment for a rattlesnake or other pit viper snakebite, which of the following parameters is NOT used to evaluate the need for additional Crofab antivenin administration?
A. Platelet count and fibrinogen
B. Increase in swelling
C. Presence of symptoms of infection
D. Paresthesias and fasciculations

Rationale
A. Coagulopathies may develop as a result of enzymes and proteins in venom.
B. Enzymes and proteins in snakebite may cause swelling.
C. Infection may be delayed in snakebite. Antivenin has no benefit in prevention or treatment of infection.
D. Neurological changes may be caused by the venom.

Content Category: Substance Abuse/Toxicological/Environmental Tasks

References

146. Which of the following would be an appropriate conclusion for the triage nurse who realizes in the summer months that by 10:00 a.m., three patients with severe respiratory symptoms have been triaged?
A. An outbreak of community-acquired pneumonia
B. Symptom clustering
C. Lack of influenza vaccination in the community
D. Outbreak of tuberculosis
Rationale
A. Although possible, it is unlikely to be an outbreak of community-acquired pneumonia. Unusual symptom clustering in atypical patient populations such as young healthy individuals in the summer suggests release of an infectious agent (bioterrorism).

B. **Unusual symptom clustering in atypical patient populations such as young healthy individuals in the summer suggests release of an infectious agent (bioterrorism).**

C. Although possible, it is unlikely to be a lack of influenza vaccination in the community. Unusual symptom clustering in atypical patient populations such as young healthy individuals in the summer suggests release of an infectious agent (bioterrorism).

D. Although possible, it is unlikely to be an outbreak of tuberculosis. Unusual symptom clustering in atypical patient populations such as young healthy individuals in the summer suggests release of an infectious agent (bioterrorism).

Content Category: Substance Abuse/Toxicological/Environmental Tasks

Reference

147. Which of the following diagnostic urinary findings may be considered positive for ethylene glycol toxicity?

A. Blue urine
B. Vin rose coloration
C. Hematuria
D. **Calcium oxalate crystals**

Rationale
A. There are no known causes of blue urine.
B. Vin rose coloration is a possible finding with use of deferoxamine (Desferal) as an antidote for iron toxicity. It is not associated with ethylene glycol toxicity.
C. Disease states such as hemophilia may produce hematuria.
D. **Metabolism by alcohol dehydrogenase produces oxalic and formic acids. Calcium oxalate crystals can be visualized by Wood’s lamp or ultraviolet light.**

Content Category: Substance Abuse/Toxicological/Environmental Tasks

Reference

148. After irrigating an eye exposed to liquid alkali with 1000 mL normal saline, the pH is 7.2. What is the emergency nurse’s next action?

A. **Stop irrigating and inform the provider.**
B. Irrigate with normal saline for an additional 15 minutes then recheck the pH.
C. Irrigate with normal saline for an additional 1 hour then recheck the pH.
D. Neutralize the normal saline with 1 amp of sodium bicarbonate/1L normal saline, and irrigate with an additional liter.
### Practice Examination 5  567

#### Rationale

**A.** Irrigation can stop once the pH stabilizes at 7.2 to 7.4.

**B.** Irrigation can stop once the pH stabilizes at 7.2 to 7.4. Additional irrigation is not needed.

**C.** Irrigation can stop once the pH stabilizes at 7.2 to 7.4. Additional irrigation is not needed.

**D.** Irrigation can stop once the pH stabilizes at 7.2 to 7.4. Sodium bicarbonate is alkali and would cause further ocular damage.

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

#### References


149. The treatment for cocaine overdose which manifests as acute coronary syndrome is:

**A.** esmolol (Brevibloc).

**B.** labetalol (Trandate).

**C.** nitroprusside (Nipride).

**D.** nitroglycerin (Nitrostat).

#### Rationale

**A.** Esmolol may induce hypotension.

**B.** Labetalol has been shown to have no significant effect on acute coronary syndrome caused from cocaine overdose.

**C.** Nitroglycerin, not nitroprusside, is recommended by the American Heart Association in the management of acute coronary syndromes in the presence of cocaine overdose.

**D.** Nitroglycerin has been shown to reverse the effects of vasoconstriction caused by cocaine overdose.

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

#### Reference


150. Which of the following are symptoms of heat stroke?

**A.** Dilated, fixed pupils; tachypnea; delirium; hot, dry, and reddened skin

**B.** Dizziness, headache, hypotension, oliguria, and muscle cramping

**C.** Moist, cool skin; muscle twitching; abdominal cramping; and mild agitation

**D.** Nausea; vomiting; pale, moist skin; and weakness
Rationale
A. Heatstroke occurs when the body’s temperature rises to greater than 106°F (41.4°C) and causes internal organs to become damaged. If not immediately corrected, heatstroke can result in permanent neurological damage or death.
B. Dizziness, headache, hypotension, oliguria, and muscle cramping are symptoms of heat exhaustion, which happens when the core body temperature reaches up to 104°F (40.3°C).
C. Moist, cool skin; muscle twitching; abdominal cramping; and mild agitation are symptoms of heat cramps, which occur when the body reaches up to 102°F (39.2°C).
D. Nausea; vomiting; pale, moist skin; and weakness are symptoms of heat cramps and heat exhaustion, not heat stroke.

Content Category: Substance Abuse/Toxicological/Environmental Tasks

References
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.

### Self-Diagnostic Content Area Worksheet

<table>
<thead>
<tr>
<th>Content Category</th>
<th>Number of Each Question Answered Incorrectly</th>
<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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<tbody>
<tr>
<td>Cardiovascular Tasks</td>
<td>21</td>
<td>7</td>
<td></td>
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<tr>
<td>Gastrointestinal Tasks</td>
<td>9</td>
<td>3</td>
<td></td>
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<td>10</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maxillofacial/Ocular Tasks</td>
<td>6</td>
<td>2</td>
<td></td>
<td></td>
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<td>Medical Emergency Tasks</td>
<td>15</td>
<td>5</td>
<td></td>
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<tr>
<td>Neurological Tasks</td>
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