

CRITICAL CARE PRACTICE EXAM



CRITICAL CARE EXAM

1. emergency nurse is caring for a patient with preeclampsia and magnesium sulfate has been ordered as a prophylaxis to prevent seizures. One hour after the magnesium is given, the patients respiratory rate, and blood pressure decrease and magnesium toxicity is suspected. Which of the following treatments should the nurse anticipate at this time:
 - a. 10 mL of 10% calcium gluconate given IV push over 3 minutes
 - b. 3 mL of calcium gluconate given as two IM injections, one in each hip
 - c. 100 mL of calcium gluconate mixed in 100 mL of normal saline administered IV drip over one hour
 - d. Addition of one ampule of 10% calcium gluconate to the IV bag containing the magnesium sulfate administered at the same rate that the magnesium sulfate is being given

2. Which of the following presenting complaints would the emergency nurse anticipate as most likely to receive a dilatation and curettage:
 - a. Endometriosis
 - b. Missed abortion
 - c. Threatened abortion
 - d. Tubal ectopic pregnancy

- 3 Which of the following interventions would be considered a priority in a patient with a urethral tear:
 - a. Insertion of a urinary catheter
 - b. Assessment of pulse oximetry
 - c. Collection of a urine specimen
 - d. Initiation of an intravenous line

4. A woman who is 38-weeks pregnant presents to the ED with a prolapsed cord. What position is best for this patient while she awaits definitive treatment for her condition:
 - a. Knee-chest position
 - b. Left lateral decubitus position
 - c. Reverse Trendelenberg position
 - d. Standing position with the legs spread apart

5. A patient is suspected of having Gonorrhoea. The emergency nurse knows that which of the following conditions often co-exists with this condition?
 - a. Syphilis
 - b. Chlamydia
 - c. Endometriosis
 - d. Candida albicans

6. Which of the following categories is **NOT** part of measurement of the Apgar score?
 - a. Color
 - b. Muscle tone
 - c. Respiratory rate
 - d. Reflex irritability

7. Which of the following statements regarding hepatitis is most accurate:
 - a. All patients who have hepatitis D also have hepatitis B
 - b. A vaccine exists to protect against all forms of hepatitis
 - c. Patients who contract one form of hepatitis will develop immunity to the disease and cannot get another form of hepatitis in the future
 - d. Because of their similarities, patients who contract either hepatitis A or hepatitis E will be immune to both and cannot contract the other

8. Which of the following lab values is likely to be decreased in a patient with cirrhosis of the liver?
 - a. Serum bilirubin
 - b. Serum ammonia
 - c. Blood urea nitrogen
 - d. Partial thromboplastin time

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9. Which of the following presentations is most consistent with a patient who has pancreatitis?
- Epigastric pain that radiates to the umbilical region
 - Epigastric pain that radiates midline through to the back
 - Left upper quadrant pain that radiates to the left shoulder
 - Right upper quadrant pain that radiates to the right shoulder
10. Which of the following conditions will likely go directly to the operating room from the emergency department?
- Pancreatitis
 - Cholecystitis
 - Ulcerative colitis
 - Boerhaave's syndrome
11. The emergency nurse knows a patient with end stage cirrhosis of the liver has understood their discharge instructions if they state that they will minimize their intake of:
- Starch
 - Protein
 - Carbohydrates
 - Fresh fruits and vegetables
12. A nurse suspects that treatment for pericarditis has been effective if which of the following parameters are noted:
- The patient's sedimentation rate goes up
 - ST segments return to the baseline on the EKG
 - The patient denies chest discomfort in the upright position
 - The patient's mean arterial pressure decreases from 94 mm Hg to 84 mm Hg
13. Which of the following clinical manifestations is **NOT** considered part of Beck's Triad (classic indications of pericardial tamponade):
- Muffled heart tones
 - Marked hypotension
 - Distended jugular veins
 - Widening pulse pressure
14. Which of the following statements regarding administration of aspirin to a patient with a myocardial infarction is most accurate:
- Chewable aspirin is preferred over non-chewable aspirin if a myocardial infarction is suspected
 - Aspirin should be withheld if the patient has had an aspirin containing product within 24 hours of arrival to the ED
 - A dose of aspirin should be repeated if a patient does not have resolution of symptoms within 5 minutes of administration
 - The maximum dose of aspirin should not exceed 160 mg if the patient has had an aspirin containing product within 24 hours of arrival to the ED
15. A patient with ST depression in chest leads V₁, V₂, V₃, and V₄ should raise the index of suspicion for which of the following:
- Variant angina
 - Myocardial ischemia
 - Acute anterior infarction
 - Subendocardial posterior infarction

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16. Which of the following EKG findings are most indicative of acute pericarditis:

- a. Appearance of U waves in all 12 leads
- b. ST elevations and PR depressions in all leads except aVR
- c. Blunting of the P waves and QRS complexes in all 12 leads
- d. ST elevations in the anterior leads with ST depressions in the reciprocal leads

17. A patient presents to the ED with left sided chest pain radiating to his left jaw. Electrocardiogram and cardiac enzymes confirm an anterior myocardial infarction. Vital signs on arrival are:

- a. BP – 128/90 mm Hg
- b. R – 18 breaths per minute deep and easy
- c. P – 104 beats per minute strong and regular

18. As part of the ED course of treatment, a nitroglycerin drip is initiated. Which of the following indicates that the drip should be decreased or even stopped:

- a. A pulse rate of 70 beats per minute or less
- b. Diastolic blood pressure of 80 mm Hg or less
- c. Systolic blood pressure of 110 mm Hg or less
- d. Deepening of Q-waves in the anterior leads

19. A patient with pericarditis is to be nursed in the most comfortable position as part of his treatment plan. Which of the following positions would the nurse anticipate as the most comfortable position for a patient with this diagnosis:

- a. Trendelenberg
- b. Supine with legs elevated 30°
- c. Seated upright with elbows on a bedside table
- d. Head of bed elevated 30 - 45° with hips slightly flexed

20. Which of the following conditions is most likely to be responsive to administration of sublingual or intravenous nitroglycerin:

- a. Stable angina
- b. Unstable angina
- c. Myocardial infarction
- d. Pre-infarction angina

21. Which of the following EKG findings should be the most concerning to the emergency nurse:

- a. T wave inversions in aVR
- b. A Q wave which is 0.06 mm wide in leads II, III and aVF
- c. R waves which increase in size with each successive chest lead
- d. A Q wave which is less than 10% as deep as its corresponding R wave is high in any of the chest leads

22. A patient is found to have ST segment elevation and significant Q waves in RV4, RV5 and RV6. Which of the following drugs should the emergency nurse be prepared to administer to this patient:

- a. Morphine
- b. Nitroglycerin
- c. Lasix (Furosemide)
- d. TNKase (Tenecteplase)

23. Which of the following patients is most likely to experience variant angina:

- a. An 82-year-old patient with a long standing history of coronary artery disease and COPD
- b. A 31-year-old patient who arrives to the ED via ambulance at 1 AM with complaints of severe crushing left sided chest pain
- c. A 49-year old patient who cannot find relief from left sided chest discomfort despite taking three of his prescribed nitroglycerin tablets
- d. A 60-year-old patient who has complained of pain to the second molar for the past 48 hours but is unable to get an appointment with his dentist

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24. The emergency nurse may administer morphine to a patient in acute heart failure mainly because of which of its following properties:

- a. Analgesia
- b. Vasodilation
- c. Negative inotropic effect
- d. Positive dromotropic effect

25. Which of the following presentations is most consistent with pericarditis:

- a. Retrosternal chest pain that is exacerbated by sitting up or moving around
- b. Epigastric pain that radiates through to the back and is relieved in the fetal position
- c. Left sided chest pain that radiates to the left jaw and shoulder exacerbated by inspiration
- d. Generalized chest discomfort which does not radiate and is accompanied by petechial spots on the soles of the feet and palms of the hands

26. A patient presents to triage with chest pain that is consistent with pericarditis and is placed in a treatment area. Which of the following interventions is the most appropriate primary intervention for this patient:

- a. Apply pacer pads
- b. Set up for a pericardiocentesis
- c. Administer oxygen via nasal cannula
- d. Initiate a peripheral intravenous line

27. Which of the following assessment findings is most consistent with an aortic dissection:

- a. Weakness and paralysis to the lower extremities
- b. Femoral pulses that are stronger than the radial pulses
- c. Petechial lesions to the chest, axilla and conjunctiva
- d. A blood pressure that is higher in the lower extremities than the upper extremities

28. What is the cardiac output of a patient whose heart rate is 72 beats per minute with a stroke volume of 90 mL/contraction:

- a. 18 mL
- b. 78 mL
- c. 234 mL
- d. 6480 mL

29. A doughnut shaped magnet is applied to an implanted pacemaker. The emergency nurse expects the pacemaker will:

- a. Stop firing
- b. Decrease its electrical output by 25%
- c. Stop sensing and revert to its intrinsic rate
- d. Experience an increase in output by 10 beats per minute

30. A patient comes to the ED stating that they have an implanted pacemaker but that they don't feel good. After placing the patient on a monitor, the following strip is noted:

The emergency nurse knows that one possible cause of this problem to assess for is:

- a. Pericarditis
- b. Hypovolemia
- c. Hyperkalemia
- d. Pulmonary embolism

31. When assessing the effectiveness of a transvenous pacemaker, what would cause the emergency nurse to consider the possibility that the sensitivity is too high:

- a. There are two pacing spikes for every QRS complex
- b. Pacing spikes occasionally appear near the termination of the T wave
- c. The patient complains of sharp chest and jaw pain each time the pacemaker fires
- d. The pacemaker does not fire when the patient is repositioning themselves in bed

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32. Mean arterial pressure is an indirect measurement of:
- Preload
 - Afterload
 - Cardiac output
 - Stroke volume
33. Which of the following statements regarding precordial thumps is most accurate? Precordial thumps:
- Are no longer recommended
 - Should only be attempted on patients less than 60 years of age
 - May be attempted on a patient with asystole but only if the patient is monitored
 - Are recommended on patients who have a witnessed arrest secondary to a wide complex tachycardia
34. The emergency nurse would question initiation of intravenous Procainamide (pronestyl) if which of the following electrocardiogram changes were present:
- A biphasic P wave
 - A blunted QRS complex
 - A prolonged QT interval
 - A wide complex tachycardia
35. The emergency nurse knows that electrocautery in the presence of an implanted pacemaker may cause it to:
- Heat up leading to thermal burns
 - Oversense and fail to fire adequately
 - Inhibit sensing and fire at its intrinsic rate
 - Shut down until restarted by application of a magnet
36. Atropine may not have its intended effect on which of the following patients:
- A patient over the age of 80 years.
 - A patient with significant hypomagnesemia.
 - A patient who had a cardiac transplant three years ago
 - A patient with bradycardia secondary to sick sinus syndrome.
37. What is considered a normal central venous pressure in a healthy adult:
- 2 – 6 mm Hg
 - 40 – 60 mm Hg
 - 80 – 120 mm Hg
 - 1200 – 1800 mm Hg
38. Which of the following patients carries the highest risk of contracting endocarditis?
- An 81-year old patient being treated for acute hypertension
 - A 39-year-old patient who had a large tattoo engraved two weeks previously
 - A 22-year old patient who has had two cases of conjunctivitis in the past three weeks
 - A 51-year old patient who had an inferior wall myocardial infarction four weeks previously
39. Which of the following assessment findings is more consistent with a peripheral vascular venous occlusion?
- A burning discomfort in an extremity
 - A fever associated with a pale, cool extremity
 - Excruciating pain which is relieved with activity
 - An aching pain localized to one area of an extremity

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40. A pediatric patient weighing 12 kg is to be cardioverted. What is the appropriate initial energy level?
- 3 Joules
 - 12 Joules
 - 36 Joules
 - 50 Joules
41. A patient presents to the ED with a blood pressure of 234/144 mm Hg. If pharmacological treatment is undertaken for this disorder, which of the following blood pressure readings would be optimal within 30 minutes of treatment initiation?
- 120/80 mm Hg
 - 140/90 mm Hg
 - 164/100 mm Hg
 - 200/100 mm Hg
42. A patient with Bell's palsy is known to have a disorder of which cranial nerve:
- Facial (VII)
 - Trigeminal (V)
 - Abducens (VI)
 - Glossopharyngeal (IX)
43. Pharmacological intervention for Trigeminal Neuralgia is initiated. Which of the following manifestations indicates that treatment has been effective:
- Respiratory effort increases
 - Movement returns to the affected area
 - The patient states that pain has diminished
 - The patient is able to form words and sentences without difficulty
44. A complication of Bell's palsy that the emergency nurse should assess for would most likely include which of the following:
- Loss of hearing
 - Rhabdomyolysis
 - Loss of coordination
 - Ulceration of the cornea
45. Which of the following is the most likely complication that should be anticipated in a patient who has Ludwig's angina:
- Circulatory collapse
 - Neurological deficits
 - Compromised airway
 - Breathing insufficiency
46. An inebriated 22-year-old stumbles into the ED after being involved in an altercation at a local bar. He has multiple bruises and wounds on his face from being punched. He hands the nurse three of his teeth which have been knocked out during the incident. Which of the following interventions should be carried out with the teeth:
- The patient should be asked to place them between his gums and cheek to preserve them until the emergency physician can replant them
 - They should be placed in a container of Hank's solution for preservation until a dentist arrives to determine the appropriateness of replantation
 - They should be cleansed with normal saline, then wrapped in normal saline moistened gauze and placed in an ice bath until they are examined by a dentist or otorhinolaryngologist
 - They should be placed in a container of milk and sealed, clearly labeled with the patient's identification so the patient can take them to his dentist within 24 hours for replantation
47. After a posterior packing has been inserted into the nasopharynx of a patient, which of the following factors should be most closely monitored by the emergency nurse:
- Loss of airway
 - Onset of infection
 - Increase in urinary output
 - Initiation of abdominal breathing

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48. A 74-year-old woman is brought to the ED via ambulance from her home, where she was found by a friend with a decreased level of consciousness, and weakness. Her only medication is Diabinese (chlorpropamide), for control of Type II Diabetes. Her skin is dry, her skin turgor poor and her buccal membranes are parched. Her venous blood sugar is 942 mg/dL, her blood urea nitrogen (BUN) level is 52 mg/dL and her arterial blood pH is 7.34, with a PaCO₂ of 34 mm hg, and a bicarbonate level of 22 mEq/L. Which of the following diagnosis is most likely based on this presentation:

- a. Adrenal Crisis
- b. Diabetic Ketoacidosis
- c. Nephrotoxic acute tubular necrosis
- d. Hyperosmolar nonketotic syndrome

49. Which of the following symptoms more likely indicates a diagnosis of thyroid storm:

- a. Bradycardia and hypotension
- b. Hyperthermia and manic behaviors
- c. Tachycardia and ascending paralysis
- d. Constipation and hyperdynamic precordium

50. An 84-year-old woman is diagnosed with myxedema coma. Appropriate treatments are initiated. Which of the following assessment parameters indicate that treatment is effective:

- a. A falling temperature
- b. Falling urinary outputs
- c. An increasing pulse rate
- d. A decreasing respiratory effort

51. Which of the following statements, made by a patient with a diagnosis of active tuberculosis, indicates further discharge teaching is warranted:

- a. "I must sleep in a bedroom by myself; I cannot share while I am sick".
- b. "I will continue to take my medications until I no longer have a cough."
- c. "I will make an appointment to see my doctor immediately if I develop a fever that does not go down with Aspirin or Tylenol."
- d. "I will dispose of any Kleenex I use in a separate garbage bag from other household garbage, and then make sure it is sealed before disposing of it."

52. Which of the following assessment parameters is most closely associated with Hyperosmolar Nonketotic Coma:

- a. pH: 7.35, PaCO₂: 35 mm Hg, HCO₃⁻: 22 mmol/L, Blood Urea Nitrogen: 74 mg/dL, Serum Blood Sugar: 926 mg/dL
- b. pH: 7.49, PaCO₂: 32 mm Hg, HCO₃⁻: 20 mmol/L, Blood Urea Nitrogen: 68 mg/dL, Serum Blood Sugar: 820 mg/dL
- c. pH: 7.38, PaCO₂: 36, HCO₃⁻: 24 mmol/L, Blood Urea Nitrogen: 18 mg/dL, Serum Blood Sugar: 1245 mg/dL
- d. pH: 7.26, PaCO₂: 30, HCO₃⁻: 27 mmol/L, Blood Urea Nitrogen: 20 mg/dL, Serum Blood Sugar: 660 mg/dL

53. A child is brought to the ED with pertussis. Based on knowledge of this infection, which of the following pieces of equipment should be available at the bedside for this patient:

- a. Glucometer
- b. Cardiac monitor
- c. Suction machine
- d. Cricothyrotomy tray

54. A 21-year-old patient was recently diagnosed by a family physician with mononucleosis. He arrives in the emergency approximately one week later. Which of the following findings should give the ED nurse the greatest reason for concern based on the recent diagnosis of mononucleosis:

- a. Diarrhea
- b. Left shoulder pain
- c. A generalized fine red macular rash
- d. A cough productive for thick yellow sputum

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55. The emergency nurse knows that the laboratory studies of a patient with diabetic ketoacidosis (DKA) and hyperosmolar nonketotic syndrome(HNS) differ in which of the following ways:

- a. The serum pH tends to be lower in a patient with HNS than a patient with DKA
- b. Serum osmolality tends to be higher in a patient with HNS than a patient with DKA
- c. Urine ketones tend to be higher in a patient with HNS as compared to a patient with DKA
- d. Blood urea nitrogen levels tend to be higher in a patient with DKA than a patient with HNS

56. Which of the following lab values would help validate a diagnosis of adrenal crisis:

- a. Hyperkalemia
- b. Hyperglycemia
- c. Elevated cortisol levels
- d. Decreased serum Osmolality

57. Which of the following interventions is contra-indicated in a patient with Hemophilia:

- a. Trendelenberg position
- b. Antecubital venipuncture
- c. Administration of an intramuscular injection
- d. Application of a tourniquet prior to intravenous initiation

58. Which of the following clinical manifestations is associated with a patient having a sickle cell crisis:

- a. Priapism
- b. Hematuria
- c. Hematemesis
- d. Fluid retention

59. Nuchal rigidity is best assessed by:

- a. Asking a patient to shrug their shoulders
- b. Asking a patient to tip their head forward
- c. Asking a patient to tip their head backwards
- d. Asking a patient to move their head from side to side

60. A patient is involved in a motor vehicle collision in which he is rear-ended. On arrival to the ED, he states he can't feel his legs, although he is moving them spontaneously. He is able to feel painful stimuli, such as needle points to his lower legs, but cannot sense the vibration of a tuning fork against his lower leg. He should be suspected of having which of the following spinal cord injuries:

- a. Central Cord Syndrome
- b. Anterior Cord Syndrome
- c. Posterior Cord Syndrome
- d. Brown-Séquard Syndrome

61. After being diagnosed, which of the following conditions would most likely go to the operating room from the emergency department:

- a. Ischemic stroke
- b. Cerebral contusion
- c. Subdural hematoma
- d. Complete spinal cord injury

62. When assessing a patient with a known head injury, which of the following findings indicates the best prognosis:

- a. Decorticate posturing
- b. Decerebrate posturing
- c. Positive Babinski reflex
- d. Withdrawal from noxious stimuli

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63. The nurse may expect to perform which of the following interventions on a patient with increasing intracranial pressure:

- a. Administer intravenous or endotracheal xylocaine (lidocaine) prior to suctioning
- b. Avoid the use of narcotic medications, which can mask clinical signs of neurological deterioration
- c. Administer 5% dextrose in water (D₅W) at a rate that maintains the patient's mean arterial pressure between 90 and 100 mm Hg
- d. Rotate the patient's position between supine and prone every 4 – 8 hours to prevent Acute Respiratory Distress Syndrome

64. Where does blood from a subarachnoid bleed accumulate:

- a. Between the dura mater and the skull
- b. Between the arachnoid mater and the skull
- c. Between the arachnoid mater and the pia mater
- d. Between the dura mater and the arachnoid mater

65. Which of the following statements regarding an intracranial pressure reading of 28 mm Hg is most accurate:

- a. This is a normal finding
- b. This is an abnormally low finding
- c. This is an abnormally high finding
- d. This reading is not compatible with life

66. A 16-year-old patient is brought to the ED after being tackled violently during a football game. Pre-hospital personnel report he has been unconscious since the incident. His skin is hot and diaphoretic, he demonstrates decorticate posturing, and does not respond to external stimuli. His vital signs are as follows:

- a. BP – 198/112 mm Hg
- b. P – 58 beats per minute
- c. R – assisted with bag mask device
- d. T – 100.0°F (37.8°C)

67. A computerized tomography (CT) of the head demonstrates no obvious abnormalities. Which of the following diagnosis does the emergency nurse suspect with this patient:

- a. Status epilepticus
- b. Subarachnoid bleed
- c. Diffuse axonal injury
- d. Post-concussion syndrome

68. A patient describes the following to the emergency nurse – “I felt this pressure in my chest that rose up to my throat and then I noted a smell, like something was burning, then the sensation went away”. The emergency nurse should suspect which of the following:

- a. Absence seizure
- b. Generalized seizure
- c. Simple partial seizure
- d. Complex partial seizure

69. Which of the following treatments would be the highest priority in a patient with a basilar skull fracture:

- a. Insertion of a urinary catheter
- b. Initiation of oxygen via nasal cannula
- c. Administration of intravenous antibiotics
- d. Insertion of cotton balls in the ears to stem cerebral spinal fluid loss

70. Which of the following statements describes a normal caloric (oculovestibular reflex) test:

- a. The patient's eyes remain midline as the head is moved side to side
- b. The patient's eyes deviate away from the direction the head is moved side to side
- c. The patient's eyes do not move in the direction in which water is instilled in the ear canal
- d. Both of the patient's eyes move in the direction in which water is instilled in the ear canal

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71. A small roll of padding is placed underneath the shoulders of a child who has been immobilized on a backboard. Which of the following descriptions indicates that the roll of padding is performing its intended role:

- a. The chin forms a 90 degree angle with the neck
- b. The top of the shoulders is at least 2 inches off the backboard
- c. The auditory meatus of the child lines up with the child's shoulders
- d. The forehead of the child is at a 30 degree angle with the backboard

72. Pregnancy is known to exacerbate which of the following conditions:

- a. Multiple sclerosis
- b. Parkinson's disease
- c. Trigeminal neuralgia
- d. Amyotrophic lateral sclerosis

73. The emergency nurse knows that when utilizing the Glasgow Coma Score to assess a patient, profound brain injury is classified as a score between three and:

- a. Nine
- b. Eight
- c. Seven
- d. Six

74. Which of the following is considered a pathological reflex:

- a. Gag reflex
- b. Grasp reflex
- c. Corneal reflex
- d. Swallowing reflex

75. A patient has a history of falling and striking their forehead firmly on the cement. The patient complains of having a sweet taste in their throat and clear fluid drains from the left nari. What other symptoms would be likely to develop in this patient:

- a. Paralysis of the tongue
- b. Progressive hypotension
- c. Bruising around the eyes
- d. Numbness to the occipital area of the skull

76. At what age is a patient most likely to experience a subarachnoid bleed caused by the rupture of an aneurysm:

- a. 15 years old
- b. 35 years old
- c. 55 years old
- d. 75 years old

77. An emergency nurse documents that a patient has hemiparesis of the right hand and foot. Which of the following statements regarding this documentation is accurate:

- a. The patient's weakness that is likely due to an injury or lesion on the left side of the brain.
- b. The patient has paralysis that is likely due to an injury or lesion on the left side of the brain.
- c. The patient has paralysis that is likely due to an injury or lesion on the right side of the brain.
- d. The patient has weakness that is likely due to an injury or lesion on the right side of the brain.

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78. The emergency nurse knows that which of the following interventions may help reduce intracranial pressure in a patient with a head injury:

- a. Administer analgesia
- b. Elevate the patient's knees on pillows
- c. Reposition the patient every 30 minutes
- d. Maintain a patient's blood pressure using crystalloid fluid boluses

79. What is the most therapeutic position in which to care for a patient with over-drainage of an intracerebral shunt:

- a. Supine
- b. Head of bed elevated 45 degrees
- c. Leaning forward over a bedside table
- d. Seated upright ninety degrees with the knees flexed

80. Which of the following factors would contribute to a suspicion of meningitis:

- a. The patient's mother had meningitis as a child
- b. The patient is on oral antibiotics for periorbital cellulitis
- c. The patient was out camping in the woods the weekend preceding this ED visit
- d. The patient had open heart surgery to repair a congenital heart defect at the age of five

81. Which of the following blood pressure changes is associated with increased intracranial pressure:

- a. Widening pulse pressure
- b. Decrease in systolic pressure
- c. Increase in diastolic pressure
- d. Declining mean arterial pressure

82. A patient receiving intravenous phenytoin (Dilantin) experiences an intravenous extravasation. The emergency nurse should initiate which of the following interventions after discontinuing the infusion:

- a. Apply dry heat to the area around the extravasation
- b. Manually massage the area around the extravasation
- c. Inject calcium chloride into the area around the extravasation
- d. Encourage patient movement of the area around the extravasation

83. A patient presents to the ED with complaints of weakness to bilateral lower legs. Assessment reveals the upper arm reflexes are diminished. A brief history indicates the patient suffered a viral illness approximately three weeks ago. The patient is diagnosed with Guillain-Barre syndrome. Which of the following statements, made by the patient, indicates an understanding of teaching given to this patient:

- a. "I understand that my condition is palliative"
- b. "I know that my condition will not affect my cognitive function."
- c. "I can expect to be on antiviral medication for at least four weeks".
- d. "I will return to the hospital or follow up with my physician if the weakness affects my hands."

84. Which of the following findings is most likely to occur when suctioning a 5-year-old child:

- a. Bradypnea
- b. Bradycardia
- c. Hypertension
- d. Hyperthermia

85. The emergency nurse knows that an oxygen flow rate of 4 Liters per minute through a nasal cannula will deliver approximately what percentage of oxygen to the patient:

- a. 28
- b. 32
- c. 36
- d. 40

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86. Which of the following injuries is specific to a flail chest segment:

- a. Dyspnea
- b. Hemoptysis
- c. Crackles on auscultation
- d. Paradoxical chest wall movement

87. Two vehicles are involved in a head-on motor vehicle collision. An 82-year-old patient is the lone occupant of one of the vehicles. In the other vehicle is a 32-year old driver, as well as a 2-year old child in a front facing car seat and an 8-year-old in a booster seat, both in the back seat. All four patients are transported to the emergency department. Statistically, which of the four patients is most likely to sustain rib fractures:

- a. The 2-year-old
- b. The 8-year-old
- c. The 32-year old
- d. The 82-year-old

88. Which of the following symptoms is most closely associated with a pulmonary embolism which completely occludes the left pulmonary artery:

- a. Jugular venous distension
- b. Sudden onset hypertension
- c. Appearance of splinter hemorrhages
- d. Decreased respiratory excursion on the left side of the chest

89. At what point during pregnancy is an amniotic fluid pulmonary embolism most likely:

- a. During the first trimester
- b. During the second trimester
- c. During the third trimester
- d. Immediately after birth

90. A patient with a pulmonary contusion is repositioned so that the uninjured side is against the bed. Which of the following manifestations should the emergency nurse assess for after this has been accomplished:

- a. Onset of acidosis
- b. Increasing dyspnea
- c. Decreased hemoptysis
- d. Improving oxygen saturations

91. Severe anemia may contribute to which form of pulmonary edema:

- a. Neurogenic pulmonary edema
- b. Cardiogenic pulmonary edema
- c. High altitude pulmonary edema
- d. Acute respiratory distress syndrome

92. Infections of the lower terminal airways is also known as:

- a. Croup
- b. Pneumonia
- c. Bronchiolitis
- d. Acute bronchitis

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93. Which of the following discharge instructions is most appropriate for a patient with chronic obstructive pulmonary disease:
- “Eat small frequent meals and limit fluid intake.”
 - “Eat small frequent meals and increase fluid intake.”
 - “Limit yourself to three large meals a day and limit fluid intake.”
 - “ Limit yourself to three large meals a day and increase fluid intake.”
94. When comparing chronic bronchitis to emphysema, which of the following statements is most accurate:
- The initial symptoms of chronic bronchitis tend to appear at a younger age than emphysema
 - Chronic bronchitis patients tend to have lower serum carbon dioxide levels than patients with emphysema
 - Patients with chronic bronchitis are usually less hypoxic than patients with emphysema
 - Patients with chronic bronchitis tend to be thinner and patients with emphysema tend to have a stocky build
95. A patient should be instructed to inhale fully before doing which of the following activities:
- Using a spacer
 - Assessing for fremitus
 - Using a metered dose inhaler
 - Measuring peak expiratory flow rate
96. When measuring peak expiratory flow rate, how many times should the measurement be performed:
- Once
 - Twice
 - Three times
 - Four times
97. Which of the following serum pH levels indicates that treatment for mixed metabolic and respiratory acidosis is having its intended effect:
- 7.20
 - 7.30
 - 7.40
 - 7.50
98. Egophony is best assessed by:
- Palpation
 - Inspection
 - Percussion
 - Auscultation
99. The nurse notes egophony when auscultating the right lower lobe of a patient complaining of shortness of breath. The nurse would suspect which of the following conditions as the most likely cause:
- Hepatomegaly
 - Pneumothorax
 - Pleural effusion
 - Diaphragmatic tear

CRITICAL CARE EXAM

100. A nurse suspects a 24-year old patient with sudden onset of shortness of breath and left shoulder pain may have a spontaneous pneumothorax. Which of the following assessment findings would be consistent with this suspicion:

- a. Decreased fremitus in the left upper lobes
- b. Hyporesonance to the left upper lobe on percussion
- c. ST segment depression in the left lateral leads (V₅ and V₆)
- d. Subcutaneous emphysema in the upper chest wall and neck

101. Which of the following assessment findings should lead the emergency nurse to suspect a ruptured diaphragm:

- a. Complaints of sharp left-sided shoulder pain and dysphagia
- b. Bowel sounds auscultated in the right lower chest and bradycardia
- c. Heart sounds shifted to the far left chest on auscultation and hypertension
- d. Hyperresonance on percussion of the left chest and complaints of dysphagia and dyspnea

102. A parent brings a 1-year-old stating the patient fell off the change table. The child has bruising to the left anterior chest wall and multiple fractured ribs are noted beneath the bruising. Which of the following actions is most appropriate in this scenario:

- a. Assess for probable concomitant liver injury.
- b. Assess closely for indications of potential child abuse.
- c. Prepare the child for transfer to a pediatric inpatient facility.
- d. Draw a complete blood count to look for possible blood dyscrasia.

103. A patient who hyperventilates secondary to severe anxiety is most likely to demonstrate which of the following blood gas abnormalities:

- a. Metabolic acidosis
- b. Metabolic alkalosis
- c. Respiratory acidosis
- d. Respiratory alkalosis

104. Which of the following respiratory patterns is most likely to cause a respiratory alkalosis:

- a. Bradypnea
- b. Hyperventilation
- c. Ataxic respirations
- d. Apneustic breathing

105. Which of the following conditions may be diagnosed using a nasopharyngeal culture:

- a. Bronchiolitis
- b. Acute bronchitis
- c. Viral pneumonia
- d. Bacterial pneumonia

106. Which of the following interventions carries the highest priority in a patient with rapid respirations secondary to a ruptured diaphragm:

- a. Needle thoracostomy
- b. Administration of oxygen
- c. Insertion of a gastric tube
- d. Positive-pressure ventilation

107. Morphine sulfate is given for the treatment of pulmonary edema. Which of the following parameters indicates that this treatment is having its intended effect:

- a. Decline in heart rate
- b. Increase in respiratory effort
- c. Elevation in diastolic pressure
- d. Decrease in level of consciousness

108. Which of the following diagnosis would most likely contribute to cardiogenic shock:

- a. Aortic stenosis
- b. Pericardial tamponade
- c. Tension pneumothorax
- d. Rupture of an intraventricular papillary muscle

CRITICAL CARE EXAM

109. Which of the following clinical manifestations are the earliest indicators of sepsis:

- a. Tachypnea and anuria
- b. Hypotension and tachycardia
- c. Metabolic and respiratory acidosis
- d. Cool, clammy skin and depressed central nervous system

110. Which of the following clinical pictures is most likely secondary to neurogenic shock:

- a. Hypotension, tachycardia, cool and clammy skin
- b. Hypertension, bradycardia, warm and flushed skin
- c. Hypotension, bradycardia, warm and flushed skin
- d. Hypertension, tachycardia, cool and clammy skin

111. Which of the following clinical manifestations indicates that treatment for hypovolemic shock is having its intended effect:

- a. A narrowing pulse pressure
- b. A falling serum lactate level
- c. A decreasing urinary output
- d. A declining oral temperature

112. The victim of a motor vehicle collision is brought to the emergency department with suspected intra-abdominal bleeding from a splenic rupture and probable hepatic laceration. The emergency nurse would anticipate which of the following fluid resuscitation protocols to be utilized in the initial management of this patient:

- a. 25% albumin administered no faster than 2-4 mL/minute
- b. 3 units of Packed Red Blood Cells for every Liter of estimated blood loss
- c. 1 – 2 Liters of Normal Saline solution hourly if the patient remains hypotensive
- d. Lactated Ringers solution at a ratio of 3 Liters of solution for every 1 Liter of suspected blood loss

113. A blood gas finding of respiratory alkalosis in a patient with suspected septic shock is more likely to indicate which of the following:

- a. Irreversible septic shock
- b. “Cold phase” of septic shock
- c. Hypodynamic phase of septic shock
- d. Hyperdynamic phase of septic shock

114. What type of resuscitation fluid is Hetastarch considered:

- a. Colloid solution
- b. Isotonic solution
- c. Hypotonic solution
- d. Crystalloid solution

115. Which of the following blood products contains the most clotting factors:

- a. Albumin
- b. Whole blood
- c. Fresh frozen plasma
- d. Packed red blood cells

116. A patient is found to have a blood type of B positive. If B positive blood is not available, which of the following blood types can safely be administered to this patient:

- a. B negative blood
- b. A positive blood
- c. AB positive blood
- d. AB negative blood

117. Antibiotic therapy is initiated for a patient in the hyperdynamic phase of sepsis. Which of the following parameters indicates this treatment is having its intended effects:

- a. A decreasing serum pH
- b. An increasing heart rate
- c. A decreasing urinary output
- d. An increasing respiratory rate

CRITICAL CARE EXAM

118. Xigris (drotrecogin alfa) has been ordered for a patient with sepsis. How should the emergency nurse anticipate administering this medication:
- As an intravenous bolus
 - As a continuous intravenous infusion
 - 10% will be administered as an intravenous bolus and the remaining 90% will be given as an intravenous infusion over one hour
 - As two intramuscular injections, with 50% of the drug administered into each ventral gluteal muscle
119. Assuming no pre-existing disease processes, which of the following blood pressures is most consistent with someone having a severe anaphylactic shock:
- 86/38 mm Hg
 - 108/98 mm Hg
 - 126/86 mm Hg
 - 166/98 mm Hg
120. A male patient with a cervical spinal cord injury presents with a priapism. Which of the following treatments is likely to reverse this clinical manifestation:
- Administration on Neo-Syneprine (phenylephrine hydrochloride)
 - Administration of large volumes of crystalloid solution
 - Administration of high dose Solu-Medrol (methylprednisolone)
 - Release of pressure on the spinal column through application of a halo device or cranial tongs
121. Which of the following parameters indicates that treatment with Xigris (drotrecogin alfa) is having its intended effect:
- Decreasing serum pH
 - Decreasing urinary output
 - Elevating systolic blood pressure
 - Elevating partial thromboplastin time
122. Which of the following interventions is considered a priority when treating a patient that presents in septic shock:
- Initiation of an intravenous line
 - Obtaining wound and blood cultures
 - Removing or controlling potentially infected sources
 - Drawing blood for hematology and chemistry studies
123. The emergency nurse knows that fresh frozen plasma should be infused within what time frame after being thawed:
- 30 minutes
 - 60 minutes
 - 6 hours
 - 24 hours
124. Which of the following is considered an early sign of a hemolytic reaction due to administration of incompatible blood:
- Cyanosis
 - Chest pain
 - Hemoglobinuria
 - Generalized petechial rash
125. Full bounding pulses are most closely associated with which form of shock:
- Late (hypodynamic) septic shock
 - Early (hyperdynamic) septic shock
 - Early (compensated) hypovolemic shock
 - Late (decompensated) hypovolemic shock
126. Packed red blood cells are administered to a pediatric trauma patient who weighs 15 kilograms. What volume of packed red blood cells should be given initially:
- 100 mL
 - 150 mL
 - 250 mL
 - 300 mL

CRITICAL CARE EXAM

127. Which of the following parameters tends to increase with effective treatment of hypovolemic shock:
- Pulse
 - Urinary output
 - Serum lactate levels
 - Blood glucose levels
128. Treatment is initiated for a patient who presents to the ED with an acute cocaine overdose. Which of the following manifestations indicates that the treatment is having its intended effect:
- Falling blood urea nitrogen level
 - Increasing level of consciousness
 - Increasing systolic blood pressure
 - A decreasing core body temperature
130. Which of the following classification of drugs is most likely to lead to an increased core body temperature as part of its toxidrome:
- Opioids
 - Cholinergics
 - Sedative-hypnotics
 - Sympathomimetics
131. Physostigmine (eserine) is ordered for the treatment of an anti-cholinergic drug overdose. Which of the following administration techniques should be followed when administering this drug:
- The drug is given as a very slow intravenous push
 - The drug is given as an aerosol medication over 3 – 5 minutes
 - The drug is given intramuscularly. No more than 1 mg should be given in any single site
 - The drug is given intravenously as an infusion but should never be mixed with a dextrose containing solution
132. Which of the following parameters must be most closely monitored for a patient with a known pesticide exposure:
- Pain level
 - Lung sounds
 - Clotting studies
 - Level of consciousness
133. Which of the following hallucinogens, in moderate to high doses, results in significant respiratory depression:
- Phencyclidine (PCP)
 - Marijuana (cannabis)
 - Gamma-hydroxybutyrate (GHB)
 - Lysergic Acid Diethylamide (LSD)
134. Loss of vision is associated with an overdose of which form of alcohol:
- Ethanol
 - Methanol
 - Isopropanol
 - Ethylene Glycol
135. Which of the following symptoms indicates that treatment with deferoxamine is having its intended effect on a patient with an iron overdose:
- The urine turns an orange color
 - The pupils increase in diameter
 - Petechial hemorrhages on the trunk diminish in size
 - Deep tendon reflexes become more responsive

CRITICAL CARE EXAM

136. A child who ingests the leaves of a Lilly of the Valley plant is most likely to manifest which of the following clinical manifestations:
- Hyperactivity
 - Hypertension
 - Urinary retention
 - Second degree heart block
137. The emergency nurse knows that ringworm is what type of infection:
- Viral
 - Fungal
 - Bacterial
 - Parasitical
138. An early manifestation after a scorpion sting is:
- Hypotension
 - Muscle spasms
 - Nausea and vomiting
 - Hyperesthesia near the sting site
139. The emergency nurse knows that the goal of cooling measures have been effective for a patient in heat stroke when:
- The patient quits sweating
 - The patient begins to shiver
 - The patient's Glasgow Coma Score increases above 8
 - The patient's core body temperature reaches 102°F (38.9°C)
140. A glass etcher presents with a hydrofluoric acid burn to the cornea. The emergency nurse would anticipate which of the following interventions:
- Immediate application of pressure eye patch and emergent ophthalmology consult
 - Installation of pilocarpine eye drops every ten minutes until the pH of the eye reaches 7.0
 - Flushing the eye with one liter of normal saline followed by an eye irrigation with calcium gluconate solution
 - Immediate flushing the eye with isotonic crystalloid solution simultaneous with intravenous administration of magnesium
141. A patient presents to triage via private vehicle after a probable exposure to radiation. No treatment has been initiated prior to arrival. What is the most appropriate disposition of this patient:
- The "hot" zone of the ED decontamination area
 - The "cold" zone of the ED decontamination area
 - A private room with resuscitative equipment in the ED
 - Immediate transfer via ambulance to a local burn center directly from the triage area
142. Which of the following indicates severe carbon monoxide poisoning:
- Metabolic acidosis
 - A carboxyhemoglobin level of 13%
 - An oxygen saturation level of less than 85%
 - Cherry red discoloration of the skin with cyanosis of the nail beds
143. The hands of a patient with second degree frostbite have been thawed. What type of dressing should the emergency nurse apply at this point:
- Apply a loose fitting dry gauze wrap dressing
 - Protect the area with dry gauze then splint in anatomical position
 - Apply dressings soaked in saline covered with dry absorbent dressings
 - Apply antibiotic impregnated gauze to the area covered with an elastic wrap bandage

CRITICAL CARE EXAM

144. The emergency nurse knows that which of the following parasitological infections may occur as a result of ingesting undercooked meat:

- a. Scabies
- b. Pinworm
- c. Ringworm
- d. Tapeworm

145. The emergency nurse would suspect that a patient with *Giardia* would describe passing which kind of stool:

- a. Dark and tarry
- b. Green and loose
- c. Bloody and mucousy
- d. Yellow and foul smelling

146. How does a radiation burn differ from a thermal burn in appearance:

- a. Thermal burns often develop blisters, radiation burns do not.
- b. Thermal burns appear reddish in color, radiation burns blanch.
- c. Thermal burns erode the surface of the skin; radiation burns thicken the surface of the skin.
- d. Thermal burns may affect all layers of the dermis and epidermis, radiation burns do not extend below the epidermis.

147. A patient presents to the triage desk after being exposed to an unknown chemical on his jobsite. His clothing and exposed skin is covered in a dry white powder. He complains of severe pain and the areas covered with powder are reddened. Initial interventions would include which of the following:

- a. Immediate flushing with copious amounts of water to remove all of the powder
- b. Asking the patient to leave the triage area and report to a hospital-specified decontamination area prior to commencement of any treatment
- c. Determination of the particular substance involved prior to decontamination so that appropriate neutralizing agents can be considered
- d. Immediate flushing with copious amounts of water for 10 to 15 minutes, followed by removal and appropriate disposal of contaminated clothing, then continued flushing with water until the patient states that all burning has stopped

148. A patient sustains a high voltage electrical burn and develops dark brown urine. Which of the following interventions should the emergency nurse anticipate based on this finding:

- a. Administration of intravenous sodium bicarbonate
- b. Initiation of intravenous dobutamine (Dobutrex) drip
- c. Intravenous fluid restrictions equal to hourly urine output
- d. Transfer of the patient to radiology for an intravenous pyelogram

149. The emergency nurse would anticipate giving which of the following drugs to a patient who has been exposed to a large amount of insecticide:

- a. Atropine
- b. Pilocarpine (Salagen)
- c. Flumazenil (Romazicon)
- d. Physostigmine (Antilirium)

CRITICAL CARE EXAM

148. A chronic alcoholic presents to the ED after ingesting a large quantity of windshield wiper fluid 14 hours prior to arrival. Your assessment findings most likely include:

- a. Ataxia, vomiting, diarrhea, visual impairment
- b. Paranoia, agitation, hyperthermia, nystagmus
- c. Hyperhidrosis, excessive salivation, vomiting, diarrhea
- d. CNS depression, miosis, hypotension, respiratory acidosis

150. A 2-year old child ingests ten prenatal vitamins approximately 90 minutes prior to ED arrival. Initial signs and symptoms the child is likely to exhibit include:

- a. Diarrhea, vomiting, abdominal pain
- b. Shock, metabolic acidosis, coagulopathies
- c. Tremor, slurred speech, right-sided weakness
- d. Small bowel obstruction, hepatic defects, pyloric stenosis

151. Which of the following patients is at risk of cyanide poisoning:

- a. A glass etcher who does not don protective gear
- b. An individual involved in a fire at a plastics factory
- c. A child who eats improperly preserved canned fruit
- d. A patient receiving outpatient radiation therapy for cancer treatment

152. A 14-year-old previously healthy patient collapses while dancing at a “rave” party. Paramedics report the patient was in ventricular tachycardia when they arrived and required defibrillation for return to spontaneous circulation. Based on this history, use of which of the following substances is most likely:

- a. Phencyclidine (PCP)
- b. oxycodone (OxyContin)
- c. Gamma-hydroxybutyrate (GHB)
- d. Inhalation of fumes from crushed felt tip markers

153. Which of the following is a potential complication of a cocaine overdose:

- a. Respiratory acidosis
- b. Elevated troponin level
- c. Red blood cells in the urine
- d. Decreased blood glucose level

154. Hypoglycemia is associated with overdoses of which of the following substances:

- a. Iron
- b. Beta-blockers
- c. Anti-cholinergics
- d. Sympathomemetics

155. A patient is stung while swimming in the ocean. The area of the sting is soaked in warm water for 60 minutes and the patient finds relief from the pain. The patient was most likely stung by a:

- a. Jellyfish
- b. Stingray
- c. Sea Wasp
- d. Portuguese man-of-war

156. A patient is being treated for heat stroke. Which of the following parameters should be most closely monitored that may indicate the onset of an unwanted sequelae of this condition:

- a. Priapism
- b. Abdominal girth
- c. Color of the urine
- d. Discharge from the ears

157. You may forego gastric emptying in patients who ingest:

- A. Large doses of drugs that would overwhelm activated charcoal.
- B. Shortly before presentation with severe illness.
- C. Large doses many hours earlier but are asymptomatic.
- D. Agents not absorbed to activated charcoal.

158. Adrenergic manifestations of cocaine uses include hypertension, tachycardia and hyperthermia. The symptoms are best treated with:

- A. Nitroprusside (Nipride).
- B. Lorazepam (Ativan).
- C. Chlorpromazine (Thorazine).
- D. Beta-adrenergic antagonists.

159. A patient is being transported for a cardiac catheterization based on ischemic changes on EKG, positive cardiac enzymes and admitted cocaine usage. The first priorities in treating cocaine overdose after the ABCs are:

- A. Cooling and sedation.
- B. Blood pressure and heart rate control.
- C. Fluid boluses and urine alkalization.
- D. Anti-arrhythmic and vasodilator drugs.

160. Prior to transporting a crush syndrome patient, the referring nurse reports that the urine pH is 6.0. The best method to ensure adequate alkalization of urine is to:

- A. Administer NSS at a rate of 200 cc/hr.
- B. Mannitol 1 Gm/kg IV bolus.
- C. Add 50 mEq of sodium bicarbonate to every litre of normal saline solution.
- D. Check arterial blood gases for metabolic alkalosis.

161. During the transport of an adult patient with suspected cardiac tamponade, the earliest clinical sign is:

- A. Hypotension.
- B. Anxiety.
- C. Jugular venous distention.
- D. Tachycardia.

162. Which finding is **NOT** a component of Beck's triad?

- A. Tachycardia
- B. Hypotension
- C. Muffled heart tones
- D. Severe jugular venous distention

CRITICAL CARE EXAM

Questions 162 and 163 refer to the information below.
A hydrocephalic infant with a shunt dysfunction is being transported to a tertiary care center.

163. Which of the following interventions should the nurse anticipate while transporting this infant?

- A. Ventilatory assistance to keep $CO_2 > 45$
- B. Manual pumping of the shunt
- C. Elevation of head of bed 15 degrees
- D. Administration of anticonvulsants

164. The infant develops fixed and dilated pupils. Which medication is most appropriate?

- A. Dexamethasone
- B. Diamox
- C. Mannitol
- D. Phenobarbital

165. After a motor vehicle crash, a patient is unconscious for several minutes. On arrival in the emergency department, the patient answers questions appropriately. Assessment data reveal neck and leg pain, vomiting, lacerations of the parietal scalp, a blood pressure of 90/40 mm Hg, a heart rate of 110 beats/min, and respirations of 28/min. In order of priority, the proper nursing actions for this patient's care are to:

- A. Apply a soft collar, obtain an x-ray film of the lateral cervical spine, and establish a large-bore IV line.
- B. Obtain an x-ray film of the lateral cervical spine, insert an indwelling urinary catheter, and prepare to intubate the patient.
- C. Stabilize the neck, establish a large-bore IV line, and perform a rapid secondary survey.
- D. Stabilize the neck, perform a complete secondary survey, and splint possible fractures.

166. During the assessment of a patient in diabetic ketoacidosis, the emergency nurse would expect to find all of the following EXCEPT:

- A. cool, clammy skin.
- B. rapid, deep respirations.
- C. orthostatic hypotension.
- D. fruity odor on the breath.

CRITICAL CARE EXAM

Questions 167-168 refer to the information below.

An adolescent is found lying in an open field after a night in which the temperature dropped to -7 degrees C (20 degrees F) and the wind-chill factor reached -26.1 degrees C (-15 degrees F). The emergency nurse who removes the patient's wet clothing discovers that his feet are white and solid to the touch.

167. The patient's frostbite injury is considered:

- A. first degree.
- B. superficial second degree.
- C. deep second degree.
- D. third degree.

168. After re-warming the patient's feet, the emergency nurse would NOT expect the feet to:

- A. turn purplish-blue.
- B. blister.
- C. bleed.
- D. be painful.

169. Signs and symptoms of cocaine intoxication include:

- A. Bradycardia, hypertention, and agitation.
- B. Tachycardia, hypertension, and fever.
- C. Tachypnea, lethargy, and mydriasis.
- D. Hypotension, nausea, and vomiting.

170. Which of the following drugs should be given to a patient suspected of taking a heroin overdose?

- A. Atropine.
- B. Naloxone (Narcan).
- C. Methylphenidate (Ritalin).
- D. Physostigmine (Antilirium).

171. Which of the following is NOT associated with dehydration?

- A. A decreased hematocrit.
- B. Dry mucous membranes.
- C. Postural hypotension.
- D. Thirst.

172. Dopamine is infusing in a 210 pound patient at 12 mcg/kg/min. How many mg/hr will this patient receive?

- A. 1140.
- B. 678.
- C. 324.
- D. 68.

173. A patient has acute abdominal pain. Which of the following should the nurse do next?

- A. Elicit a history.
- B. Initiate IV therapy.
- C. Initiate x-ray studies.
- D. Obtain results of blood chemistry.

CRITICAL CARE EXAM

174. The primary reason for initiating a magnesium sulfate infusion prior to transporting a patient who has preeclampsia is to

- A. treat hypertension.
- B. reduce seizure potential.
- C. increase placental perfusion.
- D. prevent preterm labor.

175. A patient with a forearm cast is being transported. Which of the following would be an early sign of compartment syndrome?

- A. nailbed cyanosis
- B. slight finger swelling
- C. pain with finger extension
- D. capillary refill of 2 seconds

176. The nurse prepares to transport a patient who collapsed. The patient is awake and confused, with hot, dry, flushed skin, low blood pressure, and a rapid thready pulse. The patient is receiving oxygen by nonrebreather mask and IV fluids. Which of the following would be an indication that further intervention is necessary?

- A. Glasgow Coma Score of 7
- B. urine output of 30 mL/h
- C. oxygen saturation of 94%
- D. profuse diaphoresis

177. The team is transporting an unresponsive patient who fell 15 feet from a deer stand. Pupils are unequal and sluggish. The systolic blood pressure is 80 mmHg and heart rate is 50/min. The patient's skin is warm and dry, and there are no obvious signs of trauma. After airway management and infusion of 2 L of crystalloids, vital signs remain unchanged. Which of the following would be the most appropriate intervention?

- A. Infuse colloids (albumin).
- B. Administer packed red blood cells.
- C. Initiate a dopamine (Intropin) infusion.
- D. Continue a crystalloid bolus to maintain blood pressure.

178. During the transport of a patient with a drug overdose of unknown etiology, the transport nurse suspects amphetamine abuse. Which of the following would support this assessment?

- A. hypertension, increased temperature, and dilated pupils
- B. lethargy, hyperreflexia, and decreased temperature
- C. tremors, aggression, and constricted pupils
- D. euphoria, tremors, and hypotension

THE RESCUE COMPANY 1

179. Adrenergic manifestations of cocaine uses include hypertension, tachycardia and hyperthermia. The symptoms are best treated with:

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181. Which finding is **NOT** a component of Beck's triad?

- A. Tachycardia
- B. Hypotension
- C. Muffled heart tones
- D. Severe jugular venous distention

182. Your patient presents with following parameters: CVP 0, CI 1.4, PA S/D 10/4, wedge 3 and SVR 1800. What is the most likely cause?

- A. Hypovolemic shock
- B. Cardiogenic shock
- C. RVMI
- D. Neurogenic shock

183. The formula to calculate MAP is:

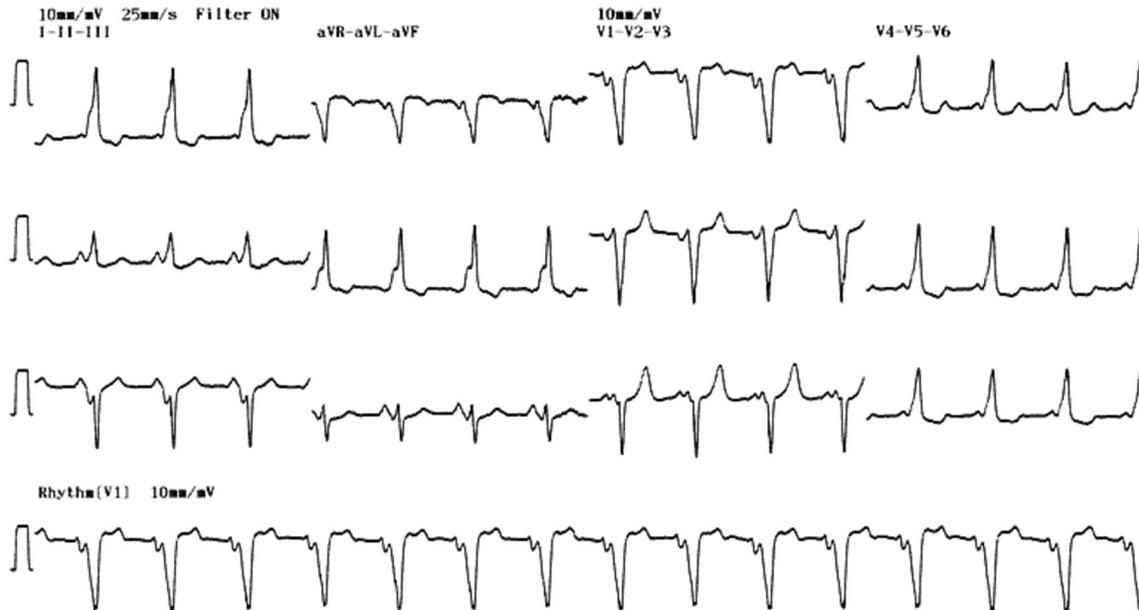
- a. $\frac{2}{3} \text{ DBP} \times \text{SBP}$
- b. $2 \times \text{DBP} + \text{SBP}$ divided by 3
- c. $2 \times \text{SBP} + \text{DBP}$
- d. $2 + \text{DBP} \times \text{SBP}$ divided by 3

184. Normal coronary perfusion pressure (CPP) is:

- a. 50 – 60 mmHg
- b. 70 – 90 mmHg
- c. 80 – 100 mmHg
- d. < 50 mmHg

CRITICAL CARE EXAM

185. The following ECG reveals?



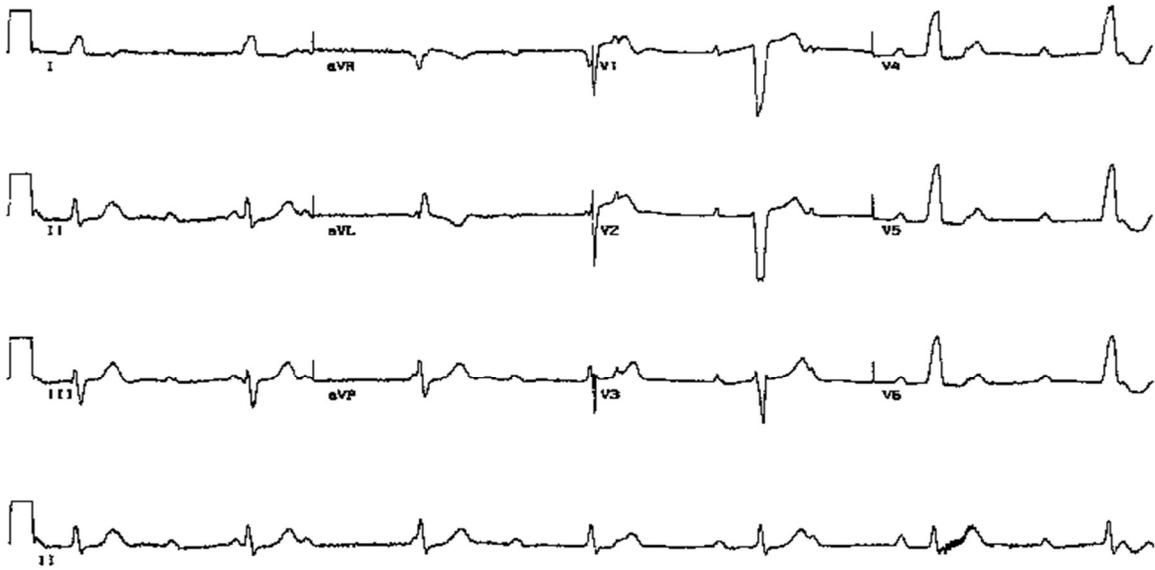
- a. Sinus tachycardia
- b. Poor R wave progression
- c. WPW
- d. Paced rhythm

186. The patient presents with the following parameters: CVP 1, CI 1.7, PA S/D 12/6, wedge 6 and SVR 300. The most likely cause is?

- a. RVMI
- b. Neurogenic shock
- c. Septic shock
- d. Hypovolemic shock

CRITICAL CARE EXAM

187. The following ECG reveals?



- a. First degree AV block
- b. Second degree AV block
- c. Sinus bradycardia
- d. Complete heart block

188. Severe hypothermic patients are at highest risk for which of the following rhythm ?

- a. Atrial fibrillation
- b. Asystole
- c. Ventricular fibrillation
- d. Sinus bradycardia

189. The drug of choice for a patient presenting with malignant hyperthermia is?

- a. Anectine
- b. Sodium Bicarbonate
- c. Dantrolene
- d. Glucagon

CRITICAL CARE EXAM

190. A TCA overdose may present with all of the following, EXCEPT:

- a. Early sinus bradycardia
- b. Widening QRS
- c. Prolonged QT interval
- d. Early tachycardia

191. Rhabdomyolysis can be treated with all of the following, EXCEPT?

- a. Alkalinizing the urine with NaHCO₃
- b. Thorazine
- c. H₂ blockers
- d. Calcium channel blockers

192. Your patient presents with ABG's of pH 7.39, pCO₂ 68 HCO₃ 32, pO₂ 82. He has history of COPD and weighs 65 kg. He presents with H/O SOB x 3 days with a RR 20 and is on 4 L/min of oxygen by NC. He speaks in 4 – 5 word sentences. What acid-base imbalance is occurring?

- a. Metabolic acidosis
- b. Respiratory acidosis
- c. Metabolic alkalosis
- d. Respiratory alkalosis

193. What is the formula used when calculating CPP?

- a. $2 \times \text{DBP} + \text{SBP}$ divided by 3
- b. $\text{MAP} - \text{ICP}$
- c. $\text{ICP} - \text{DBP}$
- d. $2 + \text{DBP} \times \text{SBP}$ divided by 3

194. You are managing a patient who has been diagnosed with hepatic encephalopathy. His ammonia levels are elevated. Your management in preparing this patient for transport is to inhibit elevated protein level by:

- a. Administering whole blood
- b. Stop GI bleeding and evacuate bowel of blood
- c. Aggressive fluid resuscitation
- d. Aggressive pain control

CRITICAL CARE EXAM

195. Grey-Turner's sign may indicate?

- a. Meningitis
- b. Splenic injury
- c. Pancreatitis
- d. Gallbladder

196. Side impact or 'lay it down' motorcycle crashes can present with all of the following injury patterns, EXCEPT:

- a. Open fracture of the femur
- b. Pelvic fractures
- c. Trapped arm breaks ribs
- d. C2 fracture of the neck

197. A predictable injuries that can occur with rear-end collisions are all of the following, EXCEPT?

- a. Pelvic fracture
- b. C2 fracture of the neck
- c. T12 – L1 back injuries
- d. Ankle fracture

198. Most of which of the following burns should not be neutralized?

- a. Thermal
- b. Electrical
- c. Chemical
- d. Contact

199. Hamman's sign may indicate?

- a. Tension pneumothorax
- b. Tracheobronchial injury
- c. Aortic rupture
- d. Cardiac tamponade

200. You are transporting a 25 YOF, G1 PO who is 28 weeks gestation. Her vital signs reveal: BP 200/120, HR 100, RR 28, SpO2 98 %. Your initial intervention would be:

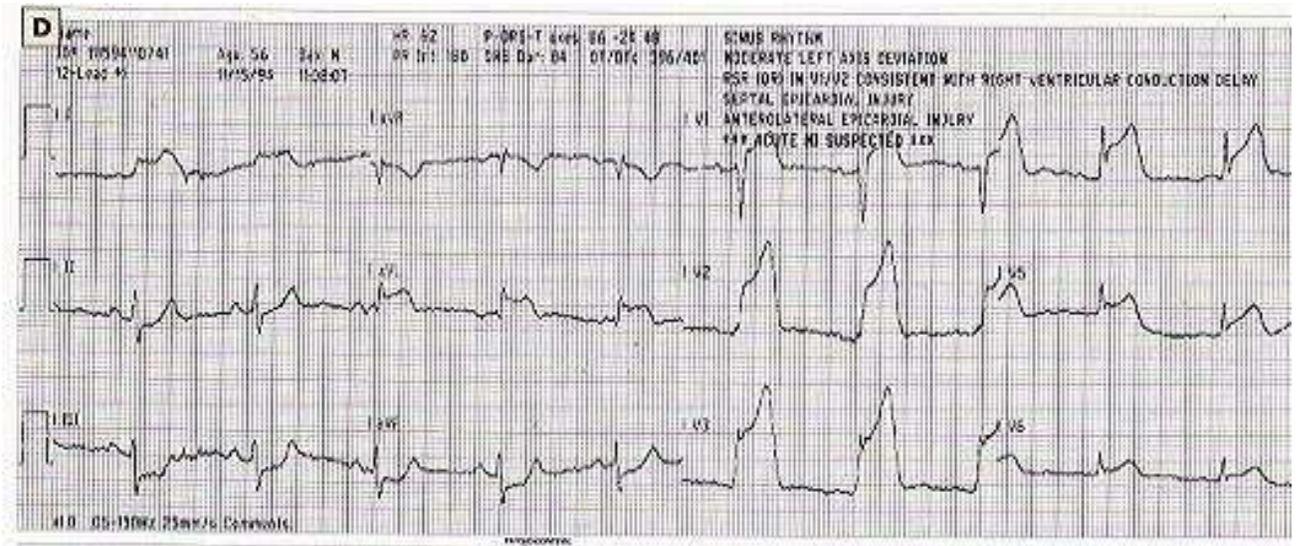
- a. Administer Labetalol 20 – 40 mg IV push
- b. Administer Hydralazine 5 – 15 mg slow IVP repeat every 5 minutes
- c. Administer MgSO4 4 – 6 gms IV bolus over 15 – 30 minutes
- d. Administer Terbutaline 0.25 mg SQ

CRITICAL CARE EXAM

201. You will be transporting a stable 27 YOM with non-traumatic pneumocephalus secondary to gas producing necrotizing bacteria from rural hospital at 8,500 elevation to a local hospital at 1200 sea level. What might be the best transport option? What gas law will most affect this patient negatively?

- a. Ground; Boyle's law
- b. Fixed wing transport pressurized to 9,000 AGL; Charles' law
- c. Rotor transport; Boyle's law
- d. Rotor transport; Charles' law

202. The following ECG reveals:



- a. Anteroseptal-Lateral MI
- b. Inferior MI
- c. Posterior MI
- d. Pericarditis

203. When performing a pericardiocentesis, the insertion site is?

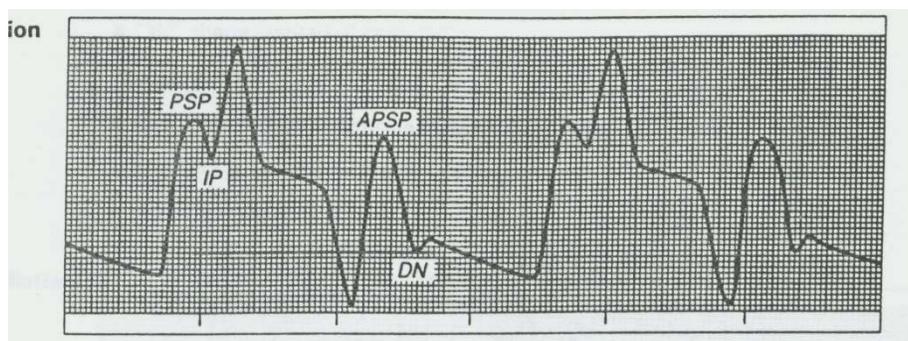
- a. Below the subxyphoid process
- b. Just right of the subxyphoid process
- c. Just left of the subxyphoid process
- d. Above the subxyphoid process

CRITICAL CARE EXAM

204. ABG reveals pH 7.41, pCO₂ 38, HCO₃ 22, pO₂ 56. 70 kg patient on a ventilator with the following settings: Vt 700, F 14, FIO₂ 0.5, I:E 1:2, PIP 46, Pplat 40 and Peep 5. How will you manage this patient?

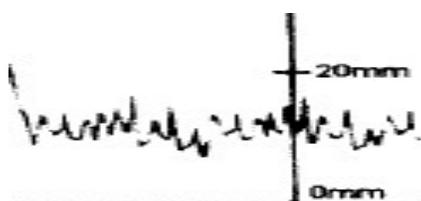
- a. Increase Peep
- b. Increase FiO₂
- c. Decrease Vt
- d. All of the above

205. Interpret the following IABP timing strip?



- a. Early inflation
- b. Late inflation
- c. Early deflation
- d. Late deflation

206. You are transporting a 45 YOM with chest pain with hemodynamic monitoring. You note the following waveform?



- a. RA
- b. PA
- c. Wedge
- d. RV

207. The following waveform represents:



- a. A-line
- b. PA
- c. CVP
- d. RV

208. Identify the following waveform?



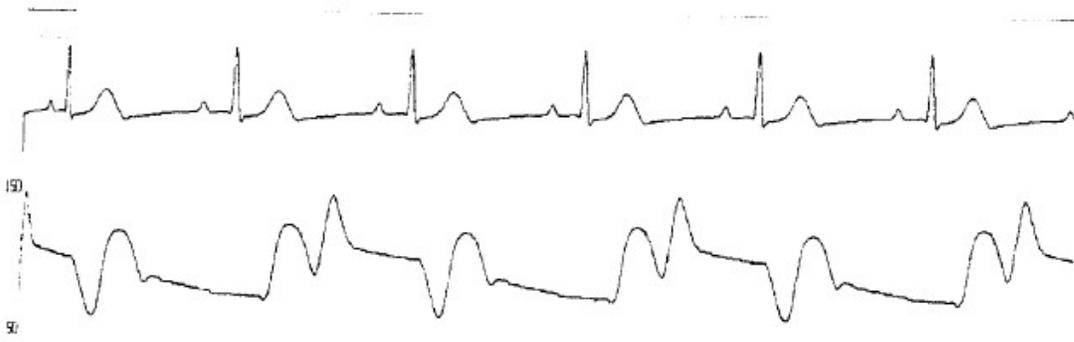
- a. A-line
- b. RV
- c. PA
- d. RA

209. The following balloon pump strip represents?



- a. Early inflation
- b. Early deflation
- c. Late inflation
- d. Late deflation

210. Identify the following IABP timing strip?



- a. Early inflation
- b. Normal timing
- c. Late inflation
- d. Late deflation

211. The most likely cause of metabolic alkalosis are all of the following, EXCEPT?

- a. Vomiting
- b. NG suctioning
- c. Diarrhea
- d. Diuretics

212. Identify the following hemodynamic rhythm?



- a. RA
- b. RV
- c. PA
- d. A-Line

213. The following waveform represents:

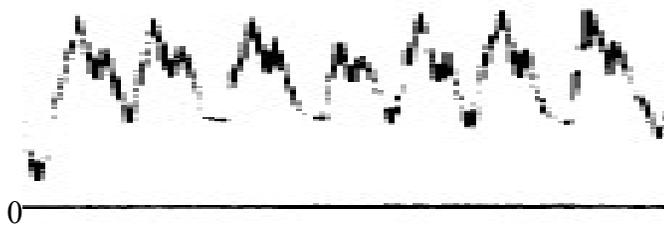
20 _____



- A. RA
- B. PA
- C. RV
- D. PCWP

214. The following waveform represents:

40 _____



- A. RV
- B. RA
- C. PAWP
- D. PA