Venous Access and Medical Administration

1. The unit of measurement most commonly used in the medical community is the:
   a- Apothecary system.  
   b- Statistical system.  
   c- Common household system.  
   d- Metric system.

2. A patient needs 35 mg of drug X. You have a 20-mL vial that contains 100 mg. How many milliliters will you give?
   a- 5 mL.  
   b- 10 mL.  
   c- 7 mL.  
   d- 20 mL.

3. One liter equals:
   a- 10 mL.  
   b- 1,000 mL.  
   c- 100 mL.  
   d- 1,000,000 mL.

4. To convert a temperature from Fahrenheit to Celsius:
   a- Subtract 32 and multiply by \(\frac{5}{9}\).  
   b- Subtract 32 and multiply by \(\frac{9}{5}\).  
   c- Add 32 and multiply by \(\frac{5}{9}\).  
   d- Add 32 and multiply by \(\frac{9}{5}\).

5. Which of the following drugs can be given sublingual?
   a- Nitroglycerin.  
   b- Adrenaline.  
   c- Glucose gel preparations.  
   d- Ventolin.

6. What is the minimum length of time you should monitor a patient after administering a medication?
   a- 1 minute.  
   b- 15 minutes.  
   c- 5 minutes.  
   d- 1 hour.

7. The use of equipment and fields that are free of all forms and types of life is called:
   a- Medical asepsis.  
   b- Body substance isolation.  
   c- Sterile technique.  
   d- Universal precautions.

8. The single most important measure that can be taken to reduce the risk of transmitting organisms from one person to another is:
   a- Sterile asepsis.  
   b- Using disinfectants.  
   c- Hand washing.  
   d- Using barrier devices.

9. The most commonly used route of medication administration is:
   a- Intramuscular.  
   b- Oral.  
   c- Intravenous.  
   d- Subcutaneous.

10. The usual route for administration of fluids is:
    a- Intramuscular.  
    b- Subcutaneous.  
    c- Intravenous.  
    d- Intradermal.
11. Medication administration by the intramuscular and the intravenous route is called:
   a- Parenteral administration.  b- Integumentary administration.
   c- Enteral administration.  d- Periosteal administration.

12. Which one represents an insulin syringe?
   a- 1-mL syringe.  b- 5-mL syringe.
   c- 3-mL syringe.  d- 10-mL syringe.

13. After administering a medication through an orogastric or nasogastric tube, the paramedic must:
   a- Flush the tube with 30 mL of water.
   b- Have the patient swallow repeatedly.
   c- Encourage the patient to stand for 15 to 20 minutes.
   d- Confirm tube placement.

14. When cleaning the skin before IM injection, you should:
   a- Wipe once with an alcohol.
   b- Wipe once with a disinfectant.
   c- Clean the skin with water only.
   d- Clean with concentric circles, moving outward from the site.

15. The usual site for intramuscular injection in the buttocks is the:
   a- Upper outer quadrant.  b- Upper inner quadrant.
   c- Lower outer quadrant.  d- Lower inner quadrant.

16. The site most commonly used in the prehospital setting to start a peripheral IV line is the:
   a- Lower extremity.  b- Subclavian vein.
   c- Upper extremity.  d- Internal jugular vein.

17. Pneumothorax is a common complication of cannulating the:
   a- Brachial vein.  b- External jugular vein.
   c- Femoral vein.  d- Subclavian vein.

18. The most common reason for a paramedic to obtain a blood sample in the field is for:
   a- Allergy testing.  b- Glucose testing.
   c- HIV testing.  d- Alcohol testing.

19. Before infusing intravenous fluid, the fluid container must be inspected for:
   a- It is not necessary to inspect the IV fluid container.
   b- Appearance and expiry date.
   c- Color and concentration.
   d- Weight and volume.

20. The best site for IM injection in children is:
   a- Vastus lateralis muscle.  b- Deltoid muscle.
   c- Dorsogluteal.  d- Rectus femoris muscle.
Dynamic of Pediatric Emergency Care + Paramedic Protocol

21. The preferred technique for neonatal CPR is:
   a- The use of two thumbs, with the hands encircling the chest
   b- Two-finger chest compression
   c- Alternate positive-negative pressure compression
   d- Compression supplied by an automatic pumping device

22. When amniotic fluid is stained with meconium and the infant is not vigorous, you should:
   a- Apply cricoid pressure to prevent aspiration
   b- Initiate CPR
   c- Perform Endotracheal intubation and endotracheal suctioning immediately after birth
   d- Place the infant on the side and provide suction with a bulb syringe

23. When using a bulb syringe to suction an infant just delivered, which of the following you should suction first?
   a- Trachea
   b- Nose
   c- Pharynx
   d- Mouth

24. The assessment score commonly used to evaluate newborns is the:
   a- APGAR
   b- AVPU
   c- GCS
   d- RTS

25. In comparison to an adult airway structure, a child has:
   a- A proportionally smaller tongue
   b- The narrowest point of the airway is the cricoid ring
   c- A lower larynx, located at C5 to C6
   d- A posterior larynx

26. Components of the Pediatric Assessment Triangle include the work of breathing, circulation, and:
   a- Appearance
   b- Distractability
   c- GCS
   d- Interaction with caretakers

27. A premature infant refers to a baby who is born at:
   a- 40 weeks
   b- 19 weeks
   c- 36 weeks
   d- 39 weeks

28. The leading cause of injury in children is:
   a- Falls
   b- Motor vehicle crashes
   c- Burns
   d- Drowning

29. A blood glucose level in an infant of 35 mg/dL indicates:
   a- Normal blood glucose
   b- Elevated blood glucose
   c- Low blood glucose
   d- Dangerously high blood glucose

30. After assisting with delivery, you dry, suction, and stimulate the newborn. He is still not breathing. You should:
   a- Administer epinephrine and atropine
   b- Administer chest compressions
   c- Begin positive-pressure ventilation
   d- Give blow-by oxygen
31. Atrvent (1 ml) mixed with (3 ml) of N/S is given to patients complaining from:
   a- Tachycardia           b- Seizure
   c- Congestive heart failure   d- Bronchial asthma

32. You can use needle cricothyroidotomy for:
   a- Treatment of tension Pneumothorax
   b- Upper airway obstruction
   c- Lower airway obstruction
   d- I.V access

33. Activated charcoal acts by:
   a- Neutralizing the ingested toxin to render it ineffective.
   b- Filtering the toxin from the blood before reaching the liver.
   c- Binding with the ingested toxin to prevent its absorption.
   d- Working with ipecac to induce emesis.

34. The most common arrhythmia in sudden cardiac arrest is:
   a- Ventricular tachycardia
   b- Ventricular fibrillation
   c- Asystole
   d- PEA

35. In burn patient 18 years old and the burn injury is greater than 20% BSA and the transport time is less than 1 hour the IV fluid rates must be:
   a- 250-500 mL/hour
   b- 125-250 mL/hour
   c- 100 mL/hour
   d- 500-1000 mL/hour

36. For which of the following is morphine sulfate indicated?
   a- Symptomatic bradycardia from acute myocardial infarction.
   b- Headache from significant head injury.
   c- Chest pain due to acute myocardial infarction.
   d- To lower blood pressure in hypertensive crisis.

37. Vagal maneuvers for (Supraventricular tachycardia) include:
   a- The semi-Fowler’s position
   b- Jugular vein massage
   c- The Trendelenburg position
   d- Facial immersion in ice water

38. You can give Diphenhydramine 1 mg/kg IM or IV push slowly for pediatric patients complaining from:
   a- Abdominal pain.
   b- Anaphylaxis with severe distress
   c- Diabetic patients.
   d- Altered mental state

39. The maximum dose of IV Atropine for symptomatic bradycardia is:
   a- 0.04 g/Kg
   b- 0.04 g
   c- 0.04 mg/Kg
   d- 0.04 mg

40. Which opioid antagonist is administered for morphine overdose?
   a- Heparin
   b- Dextrose
   c- Naloxone
   d- Thiamine

Medical aspects of Hazardous Materials

41. The potential for injury from exposure to Hazmat is related to all of the following except:
   a- Toxicity.
   b- Activity of a particular substance.
   c- Flammability.
   d- Country of production.
42. Which level of protective clothing is used during the transport of contaminated patients:
   a- Level A.  
   b- Level B.  
   c- Level C.  
   d- Level D.

43. Which is an excellent barrier to hazardous materials:
   a- Simple face masks.  
   b- Self contained breathing apparatus.  
   c- Surgical face masks.  
   d- Air purification devices.

44. One of the following statements is not correct about the hot zone:
   a- Contamination is actually present.  
   b- Personnel must wear appropriate protective gear.  
   c- Number of rescuers limited to those absolutely necessary.  
   d- Bystanders are allowed.

45. Patient’s care activities in the hot zone include all of the following except:
   a- Treatment of infections.  
   b- Control of hemorrhage.  
   c- Spinal immobilization.  
   d- Gross airway management.

46. Which one of the following can damage to the liver?
   a- Hepatotoxins.  
   b- Cardiotoxins.  
   c- Asphyxiates.  
   d- Nephrotoxins.

47. Which one of the following is an asphyxiate that interferes with tissue oxygenation:
   a- Hydrogen cyanide  
   b- Hydrochloric acid.  
   c- Mercury.  
   d- Carbon disulfide.

48. Internal damage to the rescuers may involve all of these except:
   a- Respiratory tract.  
   b- Central nervous system.  
   c- Skin burns.  
   d- Kidneys.

49. According to U.N classification of hazardous materials, class 1 means:
   a- Explosive.  
   b- Gases.  
   c- Flammable liquid.  
   d- Corrosive.

50. According to National Fire Protection Association, the blue color indicates:
   a- Flammability.  
   b- Health hazard.  
   c- Instability.  
   d- Special hazards.

51. The most important and most effective decontamination after any chemical or biological exposure is that decontamination done:
   a- Within 1-2 minutes after exposure.  
   b- Within 60 minutes after exposure.  
   c- After transfer to cold zone.  
   d- After transfer to hospital.

52. The decontamination process should begin from the:
   a- Red zone.  
   b- Supported zone.  
   c- Corridors.  
   d- Warm zone to hot zone.

53. Which of the following can be used as a weapon of bioterrorism:
   a- Measles.  
   b- Cholera.  
   c- Anthrax.  
   d- Hemophilus influenza.
54. Paramedics assisting in a fire with compromised chemical containers should approach the scene:
   a- Upwind and downhill.  
   b- Upwind and uphill.  
   c- Downwind and uphill.  
   d- Downwind and downhill. 

55. An ambulance equipment and supply checklist should be completed:
   a- After each call is completed.  
   b- Daily, at the beginning of the shift.  
   c- On completion of the weekly vehicle safety check.  
   d- As required by state statute. 

56. Botulism is treated by:
   a- Antibiotics.  
   b- Antitoxin.  
   c- Antidote.  
   d- Antibodies. 

57. Exposure to a hazardous substance that is harmful only to the person exposed is called:
   a- Decontamination.  
   b- Primary contamination.  
   c- Secondary contamination.  
   d- Sterilization. 

58. Scope of hazardous materials include all of the following except:
   a- Mishaps in the storage of materials.  
   b- Illicit drug manufacturing.  
   c- Household chemicals.  
   d- Manufacturing of antitoxin drugs. 

59. The first step of decontamination is:
   a- Remove the patient from danger.  
   b- Remove patient’s clothing.  
   c- Lavaging patient with copious amounts of water.  
   d- Giving oxygen to patient. 

60. The primary priority when dealing with hazardous materials is directed to:
   a- Building’s safety.  
   b- Safety of economical resources.  
   c- Personal safety.  
   d- Safety of the machines. 

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Emergency Medical Technical Basic

61. You arrived on scene to find a 55 year old man who is showing signs of decreased level of consciousness with right sided weakness. This patient should be transported:
   a- Trendelenburg  
   b- 15 degrees head down  
   c- On his left side  
   d- On his right side. 

62. The patient is lying flat on the back, on an incline, with feet elevated 12" above the head. This position is:
   a- Trendelenburg  
   b- Prone  
   c- Shock position  
   d- Fowlers. 

63. How many compressions per minute would you give an adult patient who has no pulse?
   a- 150 compressions per minute  
   b- At least 100 compressions per minute  
   c- 60-80 compressions per minute  
   d- 200 compressions per minute.
64. Defibrillation is used to:
   a- Terminate life threatening rhythm disturbances
   b- Shock the heart back into beating
   c- Stop the heart from beating
   d- Terminate disturbances in the atria

65. All patients must have a patent airway established during the:
   a- Scene size up
   b- Detailed physical examination
   c- Initial assessment
   d- Focused history

66. You arrived on scene and found an elderly man who has a history of hypertension. He takes medication daily to be regulated. He is feeling dizzy with chest discomfort, his pulse is 70 and his BP is 115/70. Which is the most likely cause of his symptoms?
   a- Shock
   b- Heart attack
   c- Hypotensive
   d- Hypertensive

67. Sublingual drug administration refers to medications that are:
   a- Injected into the tongue
   b- Placed between the tongue and the roof of the mouth
   c- Rubbed on the skin inferior to the mandible
   d- Placed under the tongue

68. Which of the following branches of the autonomic nervous system is responsible for slowing the heart rate?
   a- Sympathetic
   b- Parasympathetic
   c- Central
   d- Peripheral

69. If an endotracheal tube has been inserted and you are auscultating the epigastrium, what should you hear if it is placed correctly?
   a- Equal and bilateral sounds
   b- Vesicular breathing
   c- Bronchial breathing
   d- Nothing

70. After inserting an OPA(Oropharyngeal airway) your patient begins to gag and convulse. What should you do?
   a- Make sure no sharps are near the patient
   b- Insert a nasopharyngeal airway until convulsions stop
   c- Remove and insert a smaller OPA
   d- Remove the OPA and be prepared to suction

71. The single most important factor in determining survival from cardiac arrest is:
   a- Early CPR
   b- Early defibrillation
   c- Recognition of risk factors
   d- Recognition of warning signs

72. The preferred method of ventilating a non-breathing patient is:
   a- Mouth-to-mask
   b- Tow person bag-valve-mask
   c- One person bag-valve-mask
   d- Mouth-to-mouth

73. Air trapped between the visceral and parietal pleura is called?
   a- Pneumatic emphysema
   b- Pleural edema
   c- Pneumothorax
   d- Subcutaneous emphysema

74. Shock caused by injury to the spinal cord is called:
   a- Hypovolemic shock
   b- Hypernatrimic shock
   c- Spinalgenic shock
   d- Neurogenic shock
75. Battle's sign is seen with:
   a- Rib fractures  b- Pelvic fractures
   c- Skull fractures  d- Tibial fractures

76. Which breath sounds would you likely hear from a person whose alveoli contain fluid?
   a- Cheyne-Stokes  b- Bilateral vesicular sounds
   c- Crackles  d- Wheezes

77. Albuterol is classified as:
   a- Sympathomimetic  b- Sympatholytic
   c- Parasympathomimetic  d- Parasympatholytic

78. A rapid trauma assessment is performed to:
   a- Identify the presence of any fractures
   b- Determine the presence of all injuries
   c- Determine the presence of life-threatening injuries
   d- Identify the patient's name and past medical history

79. After the baby has crowned during delivery you should?
   a- Wait for the mother to push the rest of the baby out
   b- Suction the mouth and nose then check for prolapsed cord
   c- Pull the baby out
   d- Put the mother on her left side

80. Paradoxical motion of the chest during expiration is often caused by?
   a- Pneumothorax  b- Hemopneumothorax
   c- Clavicle fracture  d- Flail chest

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Preparatory to Emergency Paramedicine

81. Who is likely to be very thirsty?
   a- A person with hypoglycemia
   b- A person with hyperglycemia
   c- A person with abdominal pain
   d- A person in insulin shock

82. A man of average size and weight has approximately how much blood per kilo of body weight?
   a- 50 ml  b- 60 ml
   c- 70 ml  d- 100 ml

83. Epinephrine can be administered by all of the following routes EXCEPT:
   a- Endotracheal tube
   b- Intragastric through NG tube
   c- Subcutaneous
   d- I.V in cardiac arrest

84. When administering medications via the endotracheal tube, the dosage route should be how much greater than the IV route?
   a- 1 to 1.5 times the amount  b- 5 times the amount
   c- 2.5 times  d- There is no change
85. Which of the following ions enters the cell during depolarization?
   a- Magnesium  
   c- Potassium  
   b- Sodium  
   d- Phosphate

86. Cardiac enzymes elevated in myocardial infarction include all of the following except:
   a- AST (SGOT)  
   c- Troponin  
   b- CPK-MB  
   d- KCl

87. Atropine may be given by all of the following routes except:
   a- IV push  
   c- Intraosseous  
   b- Endotracheal tube  
   d- Subcutaneous

88. An exaggerated response by cellular immunity of the immune system to a foreign substance is known as:
   a- Anaphylaxis  
   c- Antibody activation  
   b- Allergic reaction  
   d- Humoral immunity

89. What is the average glomerular filtration rate of the kidneys per day?
   a- 6 liters  
   c- 140 liters  
   b- 8 liters  
   d- 180 liters

90. Which of the following are some of the illnesses that children are typically immunized against?
   a- Hepatitis A, Hepatitis B, and Polio  
   b- Diphtheria, Tetanus, and HIV  
   c- Hantavirus, Rhinovirus, and MMR  
   d- Hepatitis E, Hepatitis C, and Varicella

91. Using a pharmacological substance for purposes other than medically defined reasons would be the definition of:
   a- Abuse  
   c- Overdose  
   b- Addiction  
   d- Alcoholism

92. Which of the following is a colloid solution?
   a- Noraml Saline  
   b- Ringers Lactate  
   c- G/W 5%  
   d- Dextran

93. Anaphylaxis following an insect sting is treated with:
   a- Morphine sulfate  
   c- Aminophylline  
   b- Epinephrine  
   d- Benadryl

94. Fluid that accumulates in the abdominal cavity is called?
   a- Mesentery permeability  
   c- Abdominal oncotic pressure  
   b- Pitting edema  
   d- Ascites

95. What is the main extracellular electrolyte?
   a- Sodium  
   c- Hydrogen  
   b- Potassium  
   d- Calcium
96. Total body water consists of:
   a- Plasma only
   b- 1/2 intracellular and 1/2 extracellular
   c- Interstitial fluid only
   d- 2/3 intracellular and 1/3 extracellular

97. Which of the following is true:
   a- The most numerous WBCs are lymphocytes
   b- Number of Neutrophils increases with bacterial infection
   c- Lymphocytes produce cortisol
   d- Basophils play important role in clotting of the blood

98. One of the following is not considered as lymphatic tissue:
   a- Tonsils
   b- Lymph nodes
   c- Monocytes
   d- Plasma cells

99. Plasma from which fibrinogen has been removed is called:
   a- Serum
   b- Lymph
   c- Heparin
   d- Fresh Frozen Plasma

100. Programmed cell death is called:
     a- Necrosis
     b- Lactosis
     c- Apoptosis
     d- Miosis