

## Handtevy Pre-Hospital Pediatric Course

### Pre-Course Quiz – Answer Key

1. You are called to the scene of a 5-year-old in severe respiratory distress. The family reports that he ate a peanut and had sudden onset of distress and lip swelling. You hear wheezing upon assessment. What is this child's diagnosis?
  - b. Acute asthma exacerbation
  - c. Angioedema
  - d. Tachyphylaxis
  - e. Anaphylaxis**

*Answer: d – 5-year-old has clear signs of anaphylaxis, a serious allergic response that often involves swelling, hives, hypotension and in severe cases, shock.*

2. What is the ideal body weight of a 5-year-old?
  - a. 12 kg
  - b. 15 kg
  - c. 17 kg
  - d. 20 kg**

*Answer: d – 5-year-old ideal body weight = 20 kg*

3. What medication is considered first-line for a child in anaphylaxis?
  - a. Albuterol
  - b. Benadryl®
  - c. Epinephrine**
  - d. Solu-Medrol (Methylprednisolone)

*Answer: c – Epinephrine 1:1,000 IM should be stressed as FIRST line for anaphylaxis*

4. What concentration of Epinephrine (IM route) is appropriate for a child in anaphylaxis?
  - a. 1:100
  - b. 1:1,000**
  - c. 1:10,000
  - d. 1:100,000

*Answer: b – Epinephrine 1:1,000 is used in anaphylaxis*

5. What volume of Epinephrine 1:1,000 is appropriate for a 5-year-old child in anaphylaxis?
- 1 mL
  - 2 mL
  - 0.1 mL
  - 0.2 mL**

*Answer: d – The volume of Epinephrine 1:1,000 IM will always be 0.3 mL or less in all ages. Since a 5-year-old weighs 20 kg, simply move the decimal point over twice to get the volume dose. Dose = 0.2 ml*

6. How should Epinephrine 1:1,000 be administered for first line anaphylaxis?
- Intravenous (IV)
  - Intramuscular (IM)**
  - Subcutaneous (SQ)
  - Intraosseous (IO)

*Answer: b – Epinephrine 1:1,000 should be administered IM only per nationally recognized guidelines (American Association of Asthma Allergy and Immunology). The suggested location is the lateral thigh.*

7. A nine-year-old has been struck by lightning at a local football field. He is unconscious and the monitor displays ventricular fibrillation when you arrive. What is the average weight of a 9-year-old child?
- 15 kg
  - 20 kg
  - 25 kg
  - 30 kg**

*Answer: d – A 9-year-old weighs 30 kg*

8. For a 9-year-old in v-fib arrest due to a lightning strike, what is the appropriate initial treatment?
- 3 mL Epinephrine
  - Intubate with a 6.0 cuffed endotracheal tube
  - Defibrillation @ 2 Joules/kg**
  - Defibrillation @ 0.5 Joules/kg

*Answer: c – The starting dose for defibrillation is 2 J/kg yet, PALS also allows 4 J/kg*

9. What is the recommended second-line therapy for a 9-year-old child in V-fib arrest secondary to a lightning strike?
- Epinephrine**
  - Atropine
  - Defibrillation
  - Synchronized cardioversion

*Answer: a – After defibrillation, Epinephrine 1:10,000 IV is indicated.*

10. What volume of Epinephrine 1:10,000 is required for a 9-year-old in v-fib arrest?
- a. 2 mL
  - b. 3 mL**
  - c. 0.2 mL
  - d. 0.3 mL

*Answer: b – The dose of Epinephrine 1:10,000 IV is 3 mL for a 9-year-old, 30 kg child*

12. What volume of Amiodarone is appropriate for a 9-year-old in v-fib arrest?
- a. 2 mL
  - b. 3 mL**
  - c. 0.3 mL
  - d. 6 mL

*Answer: b – The volume of Amiodarone is the same as the cardiac arrest Epinephrine dose. Simply move the decimal one place to the left of the weight. 9-year-old = 30 kg and so the volume is 3 mL.*

13. A one-year-old child has had vomiting and diarrhea for 3 days without any oral intake. You arrive and find an unconscious child with a rhythm on the monitor of normal sinus at a rate of 80 beats per minute yet you cannot palpate a brachial or femoral pulse. An airway is established and IV is in place and fluids are being administered. What is this child's PALS algorithm designation?
- a. Asystole
  - b. Bradycardia
  - c. Pulseless V-Tach (VT)
  - d. Pulseless Electrical Activity (PEA)**

*Answer: d – A child that has electrical activity on the monitor but without a pulse = PEA*