

Paediatric Life Support & Paediatric Emergencies

Pre-course MCQ paper – True / False answers

You may use as a guide to read the manual

1. True or false regarding normal findings

- a) Weight (in Kg) for 1-5 years is equal to $(2 \times \text{age in years}) + 8$
- b) Tidal volume in a child is 5-7 ml/Kg
- c) A respiratory rate of 32/min is normal for a 6 month old baby
- d) A heart rate of 120/minute is abnormal in a one year old
- e) Under one year the systolic blood pressure is 40-60mmHg

2. Causes leading to cardiac arrest in children include

- a) respiratory obstruction
- b) respiratory depression
- c) fluid loss
- d) fluid mal-distribution
- e) myocardial infarction

3. The differences of the anatomy of the upper air way in a child, compared to an adult are, in a child

- a) The larynx is posteriorly placed.
- b) cricoid ring is the narrowest part.
- c) carinal angles are symmetrical.
- d) epiglottis is horseshoe shaped
- e) epiglottis projects anteriorly

4. TRUE OR FALSE regarding chest compressions in a child of 8 years,

- a) Site is the lower third of the sternum.
- b) The position is one finger breadth above the angle where the lowest ribs join in the middle
- c) Two finger methods is more useful than hand encircling method in infants.
- d) Desired chest compression is $\frac{1}{3}$ rd of the depth of the chest
- e) Fingertip should be used rather than the heel of the hand when compressing.

5. In foreign body inhalation

- a) blind sweep of the mouth is advised to remove a foreign body
- b) spontaneous cough is the most effective way of relieving the obstruction
- c) immediate intervention is needed if there is a decrease in the level of consciousness
- d) back blows and chest thrusts are indicated in an infant
- e) in children abdominal thrusts are useful

- 6. TRUE OR FALSE regarding the drugs used in resuscitation**
- a) Sodium bicarbonate inactivates adrenaline.
 - b) Sodium bicarbonate can be given with Calcium Gluconate in the same line.
 - c) Calcium gluconate is strongly indicated in asystole.
 - d) Atropine is indicated in asystole.
 - e) Dopamine and sodium bicarbonate can be given in the same line
- 7. In the management of Asystole**
- a) The first step is intravenous adrenaline
 - b) Fluid boluses are indicated
 - c) The dose of adrenaline is 0.1ml/kg 1:10,000 intravenously
 - d) Endotracheal route of giving adrenaline is the most effective treatment
 - e) Adrenaline should be repeated every 10 minutes
- 8. In giving DC shock**
- a) Only indicated in ventricular fibrillation
 - b) for a child of 20Kg adult paddles are used
 - c) one electrode is placed over the apex in the midaxillary line and other just below the clavicle just to the right of the sternum.
 - d) If only adult paddles are available one may place on the infants back and one over the left lower part of the chest at the front
 - e) After giving asynchronous shock, reassess the child before commencing CPR
- 9. Signs of potential respiratory failure include**
- a) tachypnoea
 - b) grunting
 - c) intercostal/subcostal recession
 - d) peripheral cyanosis
 - e) stridor
- 10. In airway and breathing assessment**
- a) patency is assessed by looking for chest/abdominal movements
 - b) efficacy of breathing is assessed by checking chest expansion
 - c) effort of breathing is assessed by checking respiratory rate
 - d) reduced breath sounds, if bilateral, is not significant
 - e) $>92\%$ SaO₂ while on O₂ is a good indicator of effective respiration
- 11. The following are useful in the treatment of anaphylaxis**
- a) Adrenaline 10 mcg/kg IM
 - b) Nebulized Adrenaline 5 ml of 1:1000
 - c) IV Chlopheniramine has an immediate effect
 - d) Adrenalin is repeated every 5 minutes.
 - e) Nebulization with Budesonide

12. TRUE OR FALSE regarding vascular access in children

- a) When inserting a cannula to external jugular vein head should be kept at 45° up position
- b) Anatomical site of insertion of intra-osseous needle is 2-3cm below the tibial tubercle.
- c) When getting umbilical venous access in an emergency, advancing 5 cm is adequate
- d) Intra-osseous access is contraindicated if the bone is fractured.
- e) Intra-osseous needle should be inserted into the tibia at 45° angle

13. Features of life threatening asthma include

- a) Altered level of consciousness
- b) SaO₂ < 92% in air
- c) silent chest
- d) Peak flow < 50% best predicted
- e) Exhaustion

14. Supra-ventricular tachycardia in children :

- a) never has identifiable P waves
- b) may be undetected for long period in younger infants
- c) has a rate of between 120 and 220 beats per minute
- d) should always be treated initially by vagal manoeuvres
- e) is treated by using adenosine 50 micrograms/kg

15. True or False regarding cerebral blood flow

- a) Normal cerebral blood flow is >50 ml/100g brain tissue
- b) If cerebral blood flow falls to 40 ml/100g brain will suffer from ischaemia
- c) Cerebral perfusion is independent of mean arterial pressure
- d) Increased intracranial pressure will decrease cerebral perfusion pressure
- e) Coning of the brain can result in neck stiffness

16. Status epileptics in children :

- a) Fosphenytoin is preferred over phenytoin because it has less cardiac side effects.
- b) occurs in up to 5% of children with febrile seizures
- c) prevents meaningful use of the AVPU score
- d) is initially treated with intramuscular diazepam
- e) may require paralysis, ventilation and a thiopentone infusion

17. Immediate attention is needed in the primary assessment of a child with trauma, in

- a) tension pneumothorax
- b) cardiac tamponade
- c) decompensating head injury
- d) open pneumothorax
- e) flail chest

18. WOF are true regarding a child with severe burn

- a) All children with burns should be given high flow O₂
- b) Hypovolaemic shock commonly occur within 30 min
- c) Decreased consciousness level usually due to hypoxia
- d) Breathing can be compromised in a circumferential burn
- e) Intraosseous route cannot be used in resuscitation

19. In the management of drowning

- a) defibrillation is contraindicated if core temp $<30^{\circ}\text{C}$
- b) shock is a complication of acute re-warming
- c) core re-warming can be done with gastric or bladder lavage with normal saline at 42°C
- d) after an initial good recovery with normal CXR the parent can be reassured of the good prognosis
- e) pseudomonas is a common cause of infection following drowning

20. Regarding child abuse

- a) Posterior rib fractures in adjacent ribs is suggestive of non-accidental injury
- b) Frozen watchfulness results from chronic physical and emotional abuse
- c) Glove and stocking appearance for scalds indicate physical abuse
- d) Clotting profile is a relevant investigation
- e) If an adult is subjected to domestic violence child abuse should be anticipated