

1. Which is **false** about AEDs ?
 - a. Early defibrillation is the most important factor in surviving cardiac arrest
 - b. AEDs will immediately shock automatically if VT or VF is detected
 - c. AEDs are designed to advise shock only if tachycardias are of a rate >180 beats/min in VT, VF and SVT
 - d. AEDs do not have monitor screens to visualize rhythm

2. Which is **True** of traction leg splints?
 - a. Traction leg splints can be used if even if a pelvic fracture is suspected
 - b. Traction leg splints should not be used for tibial shaft fractures even if they are angulated or displaced
 - c. Fractures near the knee are contraindicated for traction splints as they may cause damage to popliteal neurovascular structures
 - d. Hip dislocations are not contraindicated for traction splints

3. Regarding helicopter air transportation of patients
 - a. All pneumothoraces need a chest tube prior to transport regardless of size of pneumothorax
 - b. Endotracheal tubes inflated with gas should target pressures of 30-40 cm water.
 - c. Patients who have had a traumatic cardiac arrest should be given highest priority for helicopter transport to a trauma centre.
 - d. To minimize aspiration risk gastric tubes should be inserted on an unconscious patient.

4. Regarding Neonatal and infant emergency long distance transportation
 - a. Aim glucose level >5 by infusing 10% dextrose at rate of 80ml/kg/day
 - b. Chest xrays are not necessary to confirm ETT placement prior to transport if reassuring signs of a successful intubation are present
 - c. Infants with right to left shunt and pulmonary hypertension can be diagnosed with pulse oximetry difference of >10% between readings on the left hand (preductal) vs the foot (postductal)
 - d. Hypoxic infants on Fi 0.5 with Pao₂ of < 100 mmHg should be given prostaglandin E1 infusion between 0.05 mcg/kg/min to 0.1 mcg/kg/min

5. Regarding long distance athletic events (marathon, triathlon) which of the following is **false**
 - a. Risk factors for symptomatic hyponatraemia <125 are exercise > 4 hours, female sex, low BMI
 - b. Severe hyponatraemia with associated confusion, altered conscious state and seizures should have a goal of replacing Na by 2mmol/L/hour until symptoms resolve
 - c. Hyponatraemia secondary to dehydration can be prevented by drinking >500ml/h of water
 - d. Caution should be exercised with use of 3% saline as correcting Na too quickly can cause central pontine myelinolysis

Answers

1. B (AED semiautomatic only advises shock and charges, manual pressing of delivery must still be done, fully automatic will shock automatically after a countdown)
2. C (contraindicated for hip fractures or dislocations, can be used in displaced and angulated tib #)
3. D (ETT aim 20-30 cm water, almost 0% survival for traumatic cardiac arrests, nil need for chest tube for small pneumothorax not needing decompression normally)
4. A (preductal is right hand, Fi 1.0 paO₂ <100 with signs of cyanotic heart disease indicates a right to left shunt and needs PGE1 to reopen ductus arteriosus)
5. C (hyponatraemia due to free water overload can be prevented by limiting drinking to <500 ml/h)