

HEALTHEAST MEDICAL TRANSPORTATION MEDICAL OPERATIONS MANUAL

2B CARDIAC ARREST

PATIENT CARE GOALS

- Provide quality CPR that enhances cardiocerebral perfusion.
- Early recognition and reversal, if possible, of the cause of a cardiac arrest. Consider traditional “Hs and Ts” for PEA: Hypovolemia, Hypoxia, Hydrogen ions (acidosis), Hyperkalemia, Hypothermia, Hypo/Hyperglycemia, Tablets/Toxins/Tricyclics, Tamponade, Tension pneumothorax, Thrombosis (MI), Thromboembolism (Pulmonary Embolism), Trauma
- Early transport for a VF/VT arrest as there is a strong correlation with STEMI.
- Restoration of a perfusing cardiac rhythm.

EMT

1. Assess the patient and provide initial care, including oxygen and vascular access, per **1B: General Assessment and Care**.

ADULT	PEDIATRICS (less than 60 kg)
<ol style="list-style-type: none"> 2. Assess ABC's; confirm absence of pulse. 3. If arrest was <u>unwitnessed</u>, perform 2 minutes of CPR as per 7G High Performance CPR until a defibrillator is available. 4. If arrest is <u>witnessed</u>, immediately begin CPR as per 7G High Performance CPR, apply defibrillator, and if indicated, prepare for defibrillation as soon as possible. 5. Attach ResQPod¹ to BVM and maintain mask seal employing a 2-person technique. If no advanced airway, compressions to ventilations are 30:2. After an advance airway is in place, ventilate at 8-10 breaths per minute with continuous uninterrupted compressions. Provide a sufficient tidal volume to result in chest rise 6. After applying defibrillator pads turn on the AED or monitor and stop CPR to analyze rhythm². 7. If “<u>Shock Advised</u>” deliver a single shock and immediately provide 2 minutes of CPR beginning with chest compressions. Skip to step 9. 8. If “<u>No Shock Advised</u>” proceed to step 12. 9. After 2 minutes of CPR check pulse and analyze rhythm. 10. If “<u>Shock Advised</u>” return to step 7. 	<ol style="list-style-type: none"> 2. Assess ABC's; confirm absence of pulse. 3. If arrest was <u>unwitnessed</u>, perform 2 minutes of CPR as per 7G High Performance CPR until a defibrillator is available. 4. If arrest is <u>witnessed</u>, immediately begin CPR as per 7G High Performance CPR, apply defibrillator, and if indicated, prepare for defibrillation as soon as possible. 5. Attach ResQPod¹ to BVM and maintain mask seal employing a 2- person technique. If no advanced airway, compressions to ventilations are 30:2 (15:2 for 2 rescuers). After an advance airway is in place, ventilate at 8-10 breaths per minute with continuous uninterrupted compressions. Provide sufficient tidal volume to result in chest rise. 6. After applying defibrillator pads, turn on the AED or monitor and stop CPR to analyze rhythm². 7. If “<u>Shock Advised</u>” deliver single shock and immediately provide 2 minutes of CPR beginning with chest compressions. Skip to step 9. 8. If “<u>No Shock Advised</u>”, proceed to step 12 9. After 2 minutes of CPR check pulse and analyze rhythm. 10. If “<u>Shock Advised</u>” return to step 7.

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ADULT	PEDIATRICS (less than 60 kg)
<p>11. If “<u>No Shock Advised</u>” proceed to step 12.</p> <p>12. Check pulse.</p> <p>13. If pulse has returned, remove ResQPod while assessing for adequacy of breathing. Provide ventilation as needed at a rate of 10 to 12 breaths per minute (one breath every 5 to 6 seconds) and proceed to Guideline C.9 Post-Resuscitation Care</p> <p>14. If no pulse, resume CPR for 2 minutes, check pulse and analyze rhythm.</p> <p>15. If “<u>Shock Advised</u>” return to step 7.</p> <p>16. If “<u>No Shock Advised</u>” return to step 12.</p> <p>The following is to be performed during cycles of CPR as outlined in 7G High Performance CPR.³</p> <p>Secure the Airway: If not already in place, insert a supraglottic airway per 7E Supraglottic Airway or endotracheal tube per 7F2 Direct Laryngoscopy or 7F3 Video Laryngoscopy.</p> <p>Establish vascular access: Establish IV/IO with NS wide open.</p> <p>LUCAS Application: Apply the LUCAS mechanical CPR device according to 7G2: LUCAS Device Application.</p>	<p>11. If “<u>No Shock Advised</u>”, proceed to step 12.</p> <p>12. Check pulse</p> <p>13. If pulse has returned, remove ResQPod while assessing for adequacy of breathing. Provide ventilation as needed at a rate of 12 to 20 breaths per minute (one breath every 3 to 5 seconds) and proceed to Guideline C.9 Post-Resuscitation Care</p> <p>14. If no pulse, continue CPR for 2 minutes and return to step 12.</p> <p>15. If “<u>Shock Advised</u>” return to step 7.</p> <p>16. If “<u>No Shock Advised</u>” return to step 12.</p> <p>The following is to be performed during cycles of CPR as outlined in 7G High Performance CPR.³</p> <p>Secure the Airway: If not already in place, insert a supraglottic airway per 7E: Supraglottic Airway or endotracheal tube per 7F2 Direct Laryngoscopy or 7F3 Video Laryngoscopy.</p> <p>Establish vascular access: Establish IV/IO with NS wide open.</p> <p>LUCAS Application: Apply the LUCAS mechanical CPR device according to 7G2: LUCAS Device Application.</p>

DOCUMENTATION KEY POINTS

- Pertinent history, including events leading up to the arrest.
- Assessment and treatment done prior to your arrival, including specific times (s) of shocks or other interventions.
- ECG tracing documentation for all rhythm interpretations, treatment decisions, or changes in the patient’s clinical condition.
- Rationale for field termination of resuscitation including discussion with medical control.

NOTES

¹ The ResQPod may be used on BVM for all ages pediatric through adult. It may be used attached to a supraglottic airway or endotracheal tube as long as in doing so it does not compromise the security of the airway device.

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² EMTs are to follow the automated voice commands of the AED while paramedics may either use the AED function of the monitor/defibrillator or perform their own interpretation of the ECG rhythm to reach a “Shock Advised” or “No Shock Advised” conclusion.

³ Priority must be given to limit chest compression interruptions to less than 10 seconds. The optimal order for the procedures is listed but it is not unreasonable to have multiple procedures accomplished simultaneously as long as there is minimal impact in CPR quality.