

**Medical Procedures****Date: 02/01/2021****Cardiopulmonary Resuscitation (CPR)****Policy #7170****I. Purpose:**

To establish indications, guidelines, and the standard procedure for performing cardiopulmonary resuscitation (CPR) in the pre-hospital setting.

**II. Authority:**

Health and Safety Code, Section 1797.220, 1798. Title 22, Section 100169.

**III. Policy:**

1. Imperial County EMS providers shall follow current American Heart Association ACLS guidelines.
2. **High quality CPR and early defibrillation is the key to survival in cardiac arrest and should be prioritized.**

**IV. Inclusion:**

1. Any patient in cardiac arrest.
2. Pediatric Symptomatic Bradycardia with a heart rate less than 60 BPM.

**V. Considerations:**

1. Scene safety shall be maintained at all times.
2. Establish position assignments prior to arriving at patient's side whenever possible.
3. Always use a team approach, first arriving rescuers will own the **BLS CPR**.
4. Place patient supine and in an environment most accessible to perform CPR, with a rigid surface under the thoracic cavity.
5. Limit interruptions of chest compressions by performing continuous compressions throughout resuscitation.
6. Change providers performing compressions every two minutes to ensure depth and quality of compressions is maintained.
7. Chest compressions shall be performed at a rate of 110 per minute.
  - i. Adult chest compressions depth shall equal 2 - 2.4 inches.
  - ii. Child chest compressions depth shall equal 1/3 the chest size, or about 2 inches.
  - iii. Infant chest compressions depth shall equal 1/3 the chest size, or 1.5 inches.
8. Ensure the chest has full recoil after each compression, do not lean on chest.
9. Ventilations:
  - i. Adult without an advanced airway: 30:2 (30 compressions to 2 breaths)
  - ii. Pediatric without an advanced airway: 30:2 for single rescue
    1. 15:2 for two rescuers
  - iii. Adult with an advanced airway: Continuous compressions between 100-120 bpm and 1 breath every 6 seconds (10 breaths per minute)

**VI. Role Description and Duties:****1. Compressor**

- i. Responsible for all quality continuous chest compressions with minimal interruptions.

**Medical Procedures****Date: 02/01/2021****Cardiopulmonary Resuscitation (CPR)****Policy #7170**

- ii. Assess responsiveness and pulse.
- iii. Start continuous chest compressions at 110 BPM.
- iv. Count compressions out loud.

**2. Defibrillator**

- i. Responsible for all defibrillations at the appropriate time with correct joule setting.
- ii. Power on defibrillator.
- iii. Apply the pads, If AED is used, follow instructions.
  1. Shock immediately if witnessed arrest has occurred.
  2. Hold shock if unwitnessed, to complete two (2) minutes of compressions.
  3. For defibrillation, continue compressions and **pre-charge** defibrillator until ready to defibrillate.
- iv. If ALS provider, consider establishing IV / IO access and begin administration of medications in the Three Rescuer mode.
- v. See the **Defibrillation Policy/AED Policy** for further information.

**3. Ventilator**

- i. Responsible for all ventilations at the appropriate tidal volume and time.
- ii. Insert appropriately sized OPA or NPA.
- iii. Ventilate using a BVM to initial chest rise on the upstroke of chest compression.
- iv. Utilize ETCO<sub>2</sub>.
- v. If ALS, provider will consider ALS Airway placement in the Three Rescuer mode.

**4. Coordinator**

- i. Serves as the code team leader.
- ii. Oversees rapid transitions and can alert rescuers of compression fatigue.

**5. Medications**

- i. Responsible for establishing and maintaining IV / IO access.
- ii. Responsible for all drug interventions.
- iii. Ensure the use of the “6 – Rights of Drug Administration”:
  - a. Right Patient
  - b. Right Drug
  - c. Right Dose
  - d. Right Route
  - e. Right Time
  - f. Right Documentation
- iv. Announce each drug intervention taken at the time administered.

**6. Recorder**

- i. Responsible for all documentation of events and timeline of all actions performed.

**VII. Role Divisions by Personnel Availability:****1. Single Rescuer:**

- i. The Single Rescuer acts in the following priority:
  - 1. Defibrillator – Compressor**
  2. Continue chest compressions until other rescuers arrive.

**Medical Procedures****Date: 02/01/2021****Cardiopulmonary Resuscitation (CPR)****Policy #7170**

2. Two Rescuer:
  - i. In Dual Rescuer mode each will perform Functions in the following priority:
    1. Rescuer 1: **Compressor**
    2. Rescuer 2: **Ventilator and Defibrillator**
  - ii. Rotate positions after each two (2) minute cycle of compressions.
3. Three Rescuer:
  - i. With Three (3) Rescuers, each rescuer will take an assignment in the following priority:
    1. Rescuer 1: **Compressor**
    2. Rescuer 2: **Ventilator and Coordinator**
    3. Rescuer 3: **Defibrillator and Medications**
  - ii. Rotate positions after each two (2) minute cycle of compressions.
4. Four Rescuer:
  - i. With Four (4) Rescuers, each rescuer will take an assignment in the following priority:
    1. Rescuer 1: **Compressor**
    2. Rescuer 2: **Ventilator**
    3. Rescuer 3: **Defibrillator and Medications**
    4. Rescuer 4: **Coordinator and Recorder**
  - ii. Rotate positions after each two (2) minute cycle of compressions.
5. Five Rescuer:
  - i. Additional Rescuers may be requested as needed for prolonged resuscitation.
  - ii. Functions in the following priority as more rescuers arrive:
    1. Rescuer 5: **Medications**
    2. Rescuer 6: **Recorder**
  - iii. Other incoming rescuers arriving should be assigned as Compressor at the two (2) minute cycle switch.

**VIII. Auxillary Equipment:**

1. The use of Capnography Waveform measurements are required at all times when ALS is on scene.
2. The use of the following devices are encouraged:
  - i. Metronome
  - ii. Mechanical feedback devices
  - iii. Rate and tidal volume feedback devices

APPROVED:

SIGNATURE ON FILE – DATEKatherine Staats, M.D.  
EMS Medical Director

**Medical Procedures**

**Date: 02/01/2021**

***Cardiopulmonary Resuscitation (CPR)***

**Policy #7170**

