



SANTA CLARA COUNTY CONTINUOUS CARDIOPULMONARY RESUSCITATION

Effective: February 12, 2019
Replaces: April 27, 2017
Review: February 12, 2021

1. Inclusion

- 1.1. Any patient in cardiac arrest.
- 1.2. Pediatric Symptomatic Bradycardia with a heart rate less than 60 BPM. (700-P05)

2. Exclusion

- 2.1. Patients that meet obvious death criteria according to Santa Clara County Prehospital Care Manual **Policy 600**: Field Pronouncement of Death.

3. Focused Considerations

- 3.1. Scene safety shall be maintained at all times.
- 3.2. Establish position assignments prior to arriving at patient's side whenever possible.
- 3.3. Always use a team approach, first arriving rescuers will own the **BLS CPR**.
- 3.4. Place patient supine and in an environment most accessible to perform CPR, with a rigid surface under the thoracic cavity.
- 3.5. Limit interruptions of chest compressions by performing continuous compressions throughout resuscitation.
- 3.6. Change providers performing compressions every two minutes to ensure depth and quality of compressions is maintained.
- 3.7. Chest compressions shall be performed at a rate of 110 per minute.
- 3.8. Adult chest compressions depth shall equal 2 - 2.4 inches.
- 3.9. Child chest compressions depth shall equal 1/3 the chest size, or about 2 inches.
- 3.10. Infant chest compressions depth shall equal 1/3 the chest size, or 1.5 inches.
- 3.11. Ensure the chest has full recoil after each compression, do not lean on chest.
- 3.12. Ventilations shall be delivered once every six seconds (1:6), or about 10 breaths per minute.

4. Function Descriptions and Duties

4.1. Compressor

- 4.1.1. Responsible for all quality continuous chest compressions with minimal interruptions.
- 4.1.2. Assess responsiveness and pulse.
- 4.1.3. Start continuous chest compressions at 110 BPM.
- 4.1.4. Count compressions out loud.

4.2. Defibrillator

- 4.2.1. Responsible for all defibrillations at the appropriate time with correct joule setting.
- 4.2.2. Power on defibrillator.
- 4.2.3. Apply the pads, If AED is used, follow instructions.
 - 4.2.3.1. Shock immediately if witnessed arrest has occurred.
 - 4.2.3.2. Hold Shock if unwitnessed, to complete two (2) minutes of compressions.
- 4.2.4. If ALS provider, consider establishing IV / IO access and begin administration of medications in the Three Rescuer mode.



4.3. Ventilator

- 4.3.1. Responsible for all ventilations at the appropriate tidal volume and time.
- 4.3.2. Insert appropriately sized OPA or NPA.
- 4.3.3. Ventilate using a BVM to initial chest rise on the upstroke of chest compression.
- 4.3.4. Utilize ETCO₂.
- 4.3.5. If ALS, provider will consider ALS Airway placement in the Three Rescuer mode.

4.4. Coordinator

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

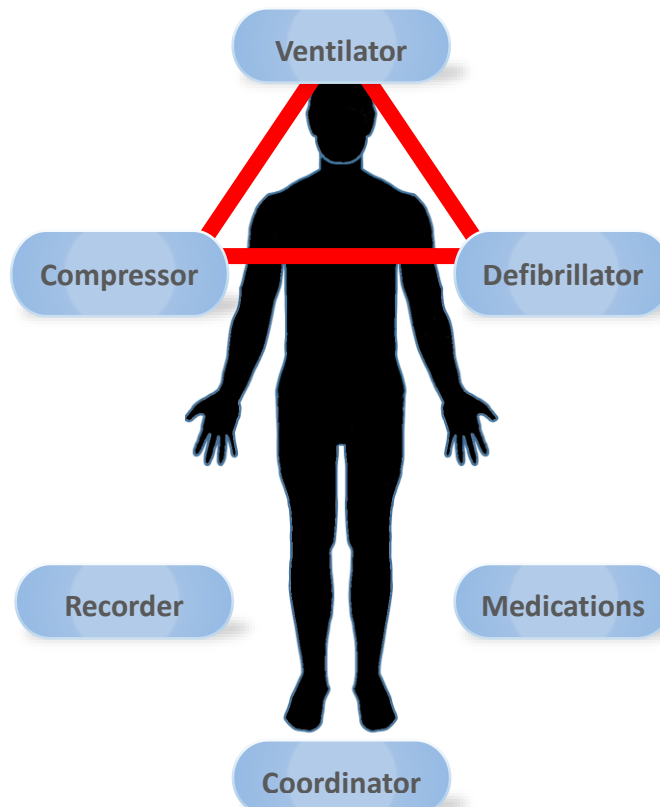
4.5. Medications

- 4.5.1. Responsible for establishing and maintaining IV / IO access.
- 4.5.2. Responsible for all drug interventions.
 - 4.5.2.1. Ensure the use of the “6 – Rights of Drug Administration”:
 - 4.5.2.1.1. Right Patient
 - 4.5.2.1.2. Right Drug
 - 4.5.2.1.3. Right Dose
 - 4.5.2.1.4. Right Route
 - 4.5.2.1.5. Right Time
 - 4.5.2.1.6. Right Documentation
 - 4.5.3. Announce each drug intervention taken at the time administered.

4.6. Recorder

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

5. Function Diagram





6. Single Rescuer Mode

- 6.1. The Single Rescuer acts in the following priority:
 - 6.1.1. **Defibrillator – Compressor**
- 6.2. Continue chest compressions until other rescuers arrive.

7. Two Rescuer Mode

- 7.1. In Dual Rescuer mode each will perform Functions in the following priority:
 - 7.1.1. Rescuer 1: **Compressor**
 - 7.1.2. Rescuer 2: **Ventilator and Defibrillator**
- 7.2. Rotate positions after each two (2) minute cycle of compressions.

8. Three Rescuer Mode

- 8.1. With Three (3) Rescuers, each rescuer will take an assignment in the following priority:
 - 8.1.1. Rescuer 1: **Compressor**
 - 8.1.2. Rescuer 2: **Ventilator and Coordinator**
 - 8.1.3. Rescuer 3: **Defibrillator and Medications**
- 8.2. Rotate positions after each two (2) minute cycle of compressions.

9. Four Rescuer Mode

- 9.1. With Four (4) Rescuers, each rescuer will take an assignment in the following priority:
 - 9.1.1. Rescuer 1: **Compressor**
 - 9.1.2. Rescuer 2: **Ventilator**
 - 9.1.3. Rescuer 3: **Defibrillator and Medications**
 - 9.1.4. Rescuer 4: **Coordinator and Recorder**
- 9.2. Rotate positions after each two (2) minute cycle of compressions.

10. Additional Rescuers

- 10.1. Additional Rescuers may be requested as needed for prolonged resuscitation.
- 10.2. Functions in the following priority as more rescuers arrive:
 - 10.2.1. Rescuer 5: **Medications**
 - 10.2.2. Rescuer 6: **Recorder**
 - 10.2.3. Other incoming rescuers arriving should be assigned as Compressor at the two (2) minute cycle switch.

11. Auxiliary Equipment

- 11.1. The use of Capnography Waveform measurements are required at all times when ALS is on scene.
- 11.2. The use of the following devices are encouraged:
 - 11.2.1. Metronome
 - 11.2.2. Mechanical feedback devices
 - 11.2.3. Rate and tidal volume feedback devices

12. Automated CPR Devices

- 12.1. Each county approved CPR device requires specific training, only EMS providers that are trained in the use of such devices may operate or monitor these devices (**700-M13**).
- 12.2. Do not apply Automated CPR Device until just prior to patient movement or transport.
- 12.3. Device application shall not interrupt High Performance CPR.