San Joaquin County
Emergency Medical Services Agency

BLS Cardiac Arrest

AUTHORITY: Health and Safety Code, Division 2.5, Sections 1797.60, 1797.80, 1797.197, 1797.197a, 1797.204, 1797.220, 1798; California Code of Regulations, Title 22, Chapter 2, Sections 100062, 100063, 100064

PURPOSE: The purpose of this policy is to provide direction for BLS providers for resuscitation of patients in cardiopulmonary arrest.

DEFINITIONS:

A. "Adult" means patients 13 years of age and older.
B. "Pediatric" means patients 12 years of age and younger.
C. "Traumatic Cardiac Arrest" means a patient in cardiac arrest after receiving a blunt force or penetrating mechanism of injury or after drowning.
D. "Medical Cardiac Arrest" means cardiac arrest not caused by trauma excluding drowning.
E. "MICR" means minimally interrupted cardiac resuscitation that focuses upon maintaining high quality chest compressions with both depth and rate.
F. "Passive Oxygen Insufflation" (POI) is the method of providing oxygen to a patient during the first eight (8) minutes of resuscitation with an oral pharyngeal airway (OPA), high flow oxygen via non-rebreather mask, and no ventilations.

POLICY:

I. Adult Medical Cardiac Arrest.
   A. Primary Survey.
   B. Information Needed
      1. Estimated down time.
      2. Circumstances surrounding arrest.
      3. Onset (witnessed or un-witnessed).
      4. Preceding symptoms.
      5. Bystander CPR.
      6. Duration of CPR.
      7. Medications.
      8. Environmental factors (hypothermia, inhalation, asphyxiation).
   C. Contraindications for use of MICR include:
      1. Traumatic arrest.
      2. Pediatric arrest.
      3. Drowning.

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D. Treatment:
1. Conduct resuscitation using MICR for eight (8) minutes with the goal of preserving cerebral function through meticulous attention to procedure in the following rank order:
   a. Provide high quality chest compressions at a rate of 100-120 compressions per minute with minimal interruptions.
   b. Apply ECG or AED for analysis and defibrillation.
   c. Follow AED prompts
   d. Initiate POI.
      i. Insert OPA or NPA followed by 100% Oxygen via non-rebreather mask.
   e. Alternate provision of compressions between team members every 2 minutes.
2. If no return of spontaneous circulation (ROSC) following eight (8) minutes of MICR, transition resuscitative efforts to provide ventilation.
   a. If an ALS airway is provided, give ventilations at 8-10 per minute. DO NOT HYPERVENTILATE.
   b. If an ALS airway is not available give compressions in a ratio to ventilations at 30:2.
   ~~f.~~c. Insert i-Gel only if unable to maintain airway with OPA/BVM or if patient has history of drowning or respiratory arrest prior to cardiac arrest and ventilate at 8-10 per minute.
~~2.~~3. For return of spontaneous circulation continue to monitor patient and assist respirations only as needed and prepare for transport.

II. Adult Traumatic Cardiac Arrest:
A. Primary Survey.
B. Information Needed:
1. Patient down time.
2. Prior treatments.
3. Whether blunt or penetrating mechanism of injury.
C. Findings:
1. Unconscious with ineffective or absent respirations.
2. Absence of pulse.
3. Signs of trauma or blood loss.
4. Air and skin temperature.
5. If signs of obvious death refer to EMS Policy No. 5103 Determination of Death in the field.
D. Treatment:
1. Initiate chest compressions at a rate of 100-120/min.
2. Insert OPA or NPA followed by 100% Oxygen via bag valve mask and give compressions to ventilations in a ratio of 30:2 at a rate of 100-120 compressions per minute. Do not hyperventilate.
3. Apply AED and defibrillate patient following AED prompts between cycles every two minutes.
4. Alternate provision of compressions between team members every 2

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minutes.

5. Insert an i-Gel only if unable to maintain airway with OPA/BVM or if patient has history of drowning or respiratory arrest prior to cardiac arrest and ventilate at 8-10 per minute.

III. ~~-~~Pediatric medical or traumatic cardiac arrest.

A. Primary Survey.

B. Information Needed:

1. Patient down time.
2. Prior treatments.
3. Whether blunt or penetrating mechanism of injury.

C. Findings:

1. Unconscious with ineffective or absent respirations.
2. Absence of pulse.
3. Signs of trauma or blood loss.
4. Air and skin temperature.

D. Treatment:

1. Initiate chest compressions at a rate of 100-120/min.
2. Insert OPA or NPA followed by 100% Oxygen via bag valve mask and give compressions to ventilations in a ratio to at 15:2 at a rate of 100-120 compressions per minute.
~~2.~~ If single rescuer compression to ventilation ratio is 30:2. Do not hyperventilate.
3.
~~3.~~ Apply AED and defibrillate patient following AED prompts between cycles every two minutes.
4. Alternate provision of compressions between team members every 2 minutes.
5. Insert an i-Gel only if unable to maintain airway with OPA/BVM or if patient has history of drowning or respiratory arrest prior to cardiac arrest and ventilate at 8-10 per minute.

~~3.~~

IV. Airway considerations:

A. Only use ~~supraglottic airway (~~i-Gel~~)~~ if unable to maintain airway with BVM and OPA.

B. The approved airway management procedure for the unconscious patient consists of the following:

1. Providing BLS airway management skills;
2. Correctly assessing the need for an i-Gel Airway;
~~4.~~3. Successfully inserting an i-Gel Airway ONLY IF there is no compliance with BVM and OPA.

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