

	COUNTY OF SACRAMENTO EMERGENCY MEDICAL SERVICES AGENCY	Document #	8032.02
	<u>PROGRAM DOCUMENT:</u> Traumatic Cardiac Arrest	Initial Date:	06/22/21
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Signature on File

EMS Medical Director

Signature on File

EMS Administrator

Purpose:

- A. To serve as the treatment standard for treating traumatic cardiac arrest patients.

Authority:

- A. California Health and Safety Code, Division 2.5
- B. California Code of Regulations, Title 22, Division 9

Protocol:

- A. The pathophysiology of traumatic cardiac arrest differs from medical cardiac arrest and is primarily due to one or a combination of factors: hypovolemia, obstruction of blood flow, and hypoxia.
- B. The initial cardiac rhythm for most patients in survivable traumatic cardiac arrest is pulseless electrical activity (PEA). Traumatic cardiac arrest PEA is most often a very low output state due to hypovolemia.
- C. Traumatic cardiac arrest patients undergoing resuscitation shall be transported as quickly as possible to the hospital.
- D. Patients with trauma in cardiac arrest who, by prehospital presentation, may have suffered a medical event before trauma shall undergo medical cardiac arrest resuscitation per Policy# 8031 - Cardiac Arrest, with attention and appropriate management to emergent trauma needs (hemorrhage control, pneumothorax decompression as indicated, and orthopedic immobilization as indicated)
- E. There is no evidence-based medical support for the use of medications in traumatic cardiac arrest. In traumatic arrest, Epinephrine and Amiodarone are **NOT** indicated in traumatic cardiac arrest. If there is any doubt as to the cause of the arrest, treat it as a non-traumatic arrest.

Policy:

BLS
<ol style="list-style-type: none"> 1. Treat immediate threats to life 2. External hemorrhage control per PD# 8065 - Hemorrhage Control. Apply tourniquets as necessary. 3. Airway and Breathing: Clear airway when indicated; place OPA and BVM ventilation. 4. Chest compressions/high-quality CPR for any rhythm other than Wide Complex PEA < 40 bpm or Asystole. 5. The use of a Mechanical CPR Device should be omitted if it will cause a delay in transport. 6. Expedite transport to the closest Trauma Center.

ALS

1. Continue transport with BLS airway if adequate ventilation/chest rise is achieved. Advanced airway as needed per policy.
2. Correct potential obstructive shock – maintain a high index of suspicion for tension pneumothorax. Bilateral needle thoracostomy per PD# 8015 – Trauma.
3. Obtain large-bore IV or IO access. Give 1 liter of Normal Saline bolus by pressure bag infusion.
4. Cardiac monitoring – defibrillate shockable rhythms.

Post Resuscitation Considerations:

- A. Any traumatic cardiac arrest patient who has a Return of Spontaneous Circulation (ROSC) during any part of the resuscitation and who is transported shall be transported to a Trauma Center.
- B. Intravenous (IV) or Intraosseous (IO) fluids should be placed wide open with pressure bags.
- C. If a palpable pulse becomes present:
 1. Re-assess for and control external hemorrhage.
 2. Administer TXA as indicated per PD# 8065 – Hemorrhage Control.
 3. Titrate normal saline to SBP \geq 90 mmHg or palpable peripheral pulses.

Cross Reference:

- PD# 2033 – Determination of Death
PD# 2085 – Do Not Resuscitate
PD# 8015 – Trauma
PD# 8020 – Respiratory Distress - Airway Management
PD# 8024 – Cardiac Dysrhythmias
PD# 8026 – Respiratory Distress
PD# 8031 – Non-Traumatic Cardiac Arrest
PD# 8044 – Spinal Motion Restrictions
PD# 8065 – Hemorrhage Control

TRAUMATIC CARDIAC ARREST

