San Mateo County Emergency Medical Services

Traumatic Arrest

For cardiac arrest with penetrating or blunt traumatic mechanism. NOT for trauma sustained after cardiac arrest, use primary impression Cardiac Arrest – Non-traumatic

History
- Evidence of trauma or blood loss
- Events leading to arrest
- Estimated downtime

Signs and Symptoms
- Unresponsive
- Apneic
- Pulseless

Differential
- Tension pneumothorax
- Cardiac tamponade
- Hypovolemic shock
- Spinal shock
- Traumatic brain injury

AT ANY TIME

Return of spontaneous circulation

Multi-System Trauma

If suspected thoracic trauma, bilateral pleural decompression

Control hemorrhaging

Apply tourniquet for uncontrolled hemorrhage

Begin continuous chest compressions
- Push hard (> 2 inches) and fast (110/min)
- Use metronome to ensure proper rate
- Change compressors every 2 minutes (Limit changes/pulse checks to < 5 seconds)

High flow oxygen via BVM

Immediate transport to trauma center

If suspected thoracic trauma, bilateral pleural decompression

If shockable rhythm, defibrillate

Notify receiving facility. Consider Base Hospital for medical direction

Does the patient meet all of the following criteria?
- Pulseless
- Apneic
- No other signs of life, including purposeful movement or pupillary response
- Asystole or PEA < 40bpm
- Physical signs of trauma or blood loss

The use of epinephrine in traumatic arrest is not indicated (see pearls).
Pearls

- Prevention and reversal of hypothermia associated with shock from severe traumatic injury is critical. Apply blankets early and consider activation of heater in the patient compartment of the ambulance.
- Traumatic arrest due to hypovolemia does not occur immediately after traumatic events. Traumatic arrest patients will experience maximal catecholamine release and vasoconstriction for a short period after the onset of cardiac arrest. Thus, epinephrine administration may worsen tissue perfusion. The use of epinephrine in traumatic arrest has not been associated with 1-month survival.
- Patients who do not qualify for field determination of death but have or develop cardiopulmonary arrest should be transported to the closest trauma center.