



Section 700P: Pediatric Treatment Protocols

Protocol 700-C1-P: Cardiac Arrest

Effective 10/1/2026
Review 1/1/2028

BLS Treatment

- ❖ Treat life threats. (See Procedure 701 *Life Threats*)
- ❖ Confirm DNR/POLST Status
- ❖ CPR per current County guidelines. Minimize delays and interruptions
- ❖ Establish airway
 - For patients <36kg, BVM ventilation is the preferred method of ventilatory management. If BVM ventilation is inadequate, an SGA device may be placed
- ❖ Apply defibrillator and use as indicated
- ❖ Prepare for transport/transfer of care.

ALS Treatment

- ❖ Treat life threats. (See Procedure 701 *Life Threats*)
- ❖ Cardiac Monitor and determine rhythm
- ❖ Identify possible causes*

*Causes of Cardiac Arrest	
• Hypovolemia	• Tox (OD/Drugs) (M1)
• Hypoxemia	• Tamponade (Cardiac)
• Hydrogen Ion (Acidosis)	• Tension Pneumothorax (702)
• Hyper/Hypokalemia	• Thrombosis (MI, PE)
• Hypothermia (E2)	
- Treat according to Table 1
- Known dialysis patients with possible hyperkalemia
 - Sodium Bicarbonate 1 mEq/kg IV/IO
 - **Calcium Chloride** 20 mg/kg IV/IO.
- Penetrating Chest Trauma
 - Consider Tension Pneumothorax (see Procedure 702 *Pleural Decompression*)
- ❖ If ROSC achieved:
 - Maintain SpO₂ ≥ 95% using lowest concentration of O₂ possible
 - Ventilate to achieve an end tidal CO₂ of 35 – 45 mmHg **Warning:** Avoid hyperventilation
 - Maintain SBP ≥ 90 mmHg.
 - IV fluids, **Normal saline** 20 cc/kg bolus
 - Push-dose **Epinephrine** 0.1 ml/kg very slow IV/IO every 3-5 minutes prn SBP < 90. See Procedure 708 *Push-dose Epinephrine Mixing Instructions*
 - ◆ Titrate to maintain SBP > 90 mmHg
 - ◆ For patients ≥ 10 kg, doses of 1.0 ml (10mcg) will apply
 - ◆ For patients less than 10kg, transfer diluted epinephrine to a smaller syringe (1ml or 3ml) to administer an accurate dose
 - Manage post-arrest arrhythmias as needed.
 - Obtain a 12 lead ECG and transmit as indicated. Crews in South County should contact Dominican Hospital before transporting a post-arrest STEMI patient north as transport to Watsonville Community Hospital may be more appropriate.
- ❖ Consider transporting hypothermic, drug-overdosed, or electrocuted patients.



Table 1

Asystole	Pulseless Electrical Activity (PEA)	Ventricular Fibrillation or Pulseless Ventricular Tachycardia
❖ Epinephrine ➤ (1:10,000) 0.01mg/kg IVP/IO ➤ Repeat q3-5minutes LIMIT 3 administrations total for the entire code ❖ Consider Normal saline ➤ 20 ml/kg fluid challenge. ➤ May repeat as indicated, ❖ If no response, consider termination of resuscitative efforts (see Policy 613, <i>Determination of Death in the Field</i>)	❖ Epinephrine ➤ (1:10,000)0.01mg/kg IVP/IO ➤ Repeat q3-5minutes for duration of arrest. LIMIT 3 administrations total for the entire code ❖ Consider Normal saline ➤ 20 ml/kg fluid challenge. ➤ May repeat as indicated, ❖ If electrical HR <40 BPM due to blunt trauma, consider determination of death prior to initiating resuscitation (see Policy 613, <i>Determination of Death in the Field</i>)	❖ Defibrillate ASAP, 2J/kg then subsequent shocks at 4J/kg ❖ Epinephrine ➤ (1:10,000) 0.01mg/kg IVP/IO ➤ Repeat q3-5min. LIMIT 3 administrations total for the entire code ❖ Defibrillate at max. joules as above after 5 cycles of CPR ➤ Start at 2 joules/kg then 4 joules/kg ➤ Defibrillate after each medication throughout the arrest ❖ Amiodarone ➤ 5mg/kg mg IVP/IO, max single dose 300mg • Magnesium ❖ If return to supraventricular rhythm, consider: ➤ Normal saline 250ml bolus

Documentation

- ❖ Cardiac Arrest is a System Quality Indicator (See Policy 101 Quality Improvement Program and System Evaluation and Policy 502 Santa Cruz County Patient Care Record (PCR) and Transfer of Care Document)
- ❖ Minimum documentation elements include:
 - ☒ Bystander CPR (PUB-1)
 - ☒ AED prior to arrival (CAR-1)
 - ☒ First Arrival time to rescuer CPR
 - ☒ Initial rhythm recorded
 - ☒ EtCO₂ readings (initial and continuous)
 - ☒ Defibrillation (number and dose)
 - ☒ Intubation (see #6)
 - ☒ ROSC (y/n) (CAR-2)
 - ☒ Survival to ED discharge (CAR-3)
 - ☒ Survival to hospital discharge (CAR4)