Protocol 700-C1 | Cardiac Arrest | Rev: 2/18

BLS Treatment

- Treat life threats. (See Procedure 701 *Life Threats*)
- Confirm DNR Status
- PIT Crew CPR. See Reference 806 *Core Principles: Managing Cardiac Arrest*.
- Apply AED 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*
  - Treat according to Table 1
  - Known dialysis patients with possible hyperkalemia
    - **Sodium Bicarbonate** 1 mEq/kg IV/IO
    - **Calcium Chloride** 1 gram IV/IO.
  - Penetrating Chest Trauma
    - Consider Tension Pneumothorax (see Procedure 702 *Pleural Decompression*)
- If ROSC achieved:
  - Maintain $SpO_2 \geq 95\%$ using lowest concentration of O_2 possible
  - Ventilate the patient 10-12 breaths per minute to achieve an end tidal CO_2 of 35 – 45 mmHg Warning: Avoid hyperventilation
  - Maintain SBP ≥ 90 mmHg.
    - IV fluids, **Normal Saline** 1 liter bolus
    - Push dose **Epinephrine** (See Protocol 700 M9 *Shock*).
    - If the patient's BP is 100 systolic or higher, there is no need for any further circulatory support.
  - Manage post-arrest arrthymias as needed.
  - Obtain a 12 lead ECG and transmit as indicated.
- Consider transporting hypothermic, drug-overdosed, or electrocuted patients.
- Consider termination of resuscitative efforts after at least 20 contiguous minutes if: (See Policy 613 *Determination of Death in the Field*)
  - Unwitnessed arrest with no bystander CPR
  - No shock delivered (AED or manual defibrillator)
  - No ROSC
  - $ETCO_2$ waveform or readings less than 1

*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)	

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Table 1		
Asystole	**Pulseless Electrical Activity (PEA)**	**Ventricular Fibrillation or Pulseless Ventricular Tachycardia**
❖ **Epinephrine** ➢ (1:10,000)1mg IVP or IO ➢ Repeat q3-5minutes for duration of arrest. ❖ Consider **Normal Saline** ➢ 250 ml fluid challenge. ➢ May repeat as indicated, ❖ If no response consider termination of resuscitative efforts (see Policy 613, *Determination of Death in the Field*)	❖ **Epinephrine** ➢ (1:10,000)1mg IVP or IO ➢ Repeat q3-5minutes for duration of arrest. ❖ Consider **Normal Saline** ➢ 250 ml 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, *Determination of Death in the Field*)	❖ Defibrillate ASAP ❖ **Epinephrine** ➢ (1:10,000)1mgIVP/IO ➢ Repeat q3-5min ❖ Defibrillate at max. joules as above after 5 cycles of CPR ❖ Defibrillate after each medication throughout the arrest ❖ **Amiodarone** ➢ 300 mg IVP/IO ➢ Repeat with 150 mg IV/IO if no response ❖ 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 *San Benito County Patient Care Record (PCR) and Transfer of Care Document*)
- ❖ Minimum documentation elements include:
  - ➢ Primary or Secondary Impression (esituation.11 or esituation.12)= "*Cardiac Arrest -Non-traumatic*"

❑ Bystander CPR (PUB-1)	❑ Defibrillation (number and dose)
❑ AED prior to arrival (CAR-1)	❑ Intubation (see #6)
❑ First Arrival time to rescuer CPR	❑ ROSC (y/n) (CAR-2)
❑ Initial rhythm recorded	❑ Survival to ED discharge(CAR-3)
❑ $EtCO_2$ readings (initial and continuous)	❑ Survival to hospital discharge (CAR4)

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