Sierra – Sacramento Valley EMS Agency Treatment Protocol

Non-Traumatic Pulseless Arrest

C-1

Approval: Troy M. Falck, MD – Medical Director | Effective: 04/01/2026

Approval: John Poland – Executive Director | Next Review: 01/2029

MANUAL CHEST COMPRESSIONS

- Rate: 100-120/min
- Depth: 2 inches - allow full chest recoil
- Minimize interruptions (≤10 secs)
- Rotate compressors every 2 mins
- Perform CPR during AED/defibrillator charging
- Resume CPR immediately after shock

MECHANICAL CHEST COMPRESSION DEVICES

Indications

- Adult pt (≥15 yo)

Contraindications

- Pt does not fit the device
- 3rd trimester pregnancy

ⓘ Apply following completion of at least one manual CPR cycle, or at the end of a subsequent cycle

ⓘ Use in accordance with manufacturer guidelines

DEFIBRILLATION & GENERAL PT MANAGEMENT

- Analyze rhythm & check pulse after every 2 min CPR cycle
- Biphasic manual defibrillation detail:
  - Follow manufacturer recommendations
  - If unknown, start at 200 J (subsequent doses should be equivalent or higher)
- Movement of pt may interrupt CPR or prevent adequate depth and rate of compressions
- Consider resuscitation on scene up to 20 mins
- Go to ROSC protocol (C-2) if ROSC is obtained

ADVANCED AIRWAY MANAGEMENT

- Consider/establish advanced airway at appropriate time during resuscitation
- Do not interrupt chest compressions to establish an advanced airway
- Waveform capnography (if available) shall be used on all pts with an advanced airway in place
  - An abrupt increase in $PETCO_2$ is indicative of ROSC
  - Persistently low $PETCO_2$ levels (<10 mmHG) suggest ROSC is unlikely

TREAT REVERSIBLE CAUSES

- **H**ypovolemia
- **H**ypoxia
- **H**ydrogen Ion (acidosis)
- **H**ypo-/hyperkalemia
- **H**ypothermia
- **T**amponade, cardiac
- **T**ension pneumothorax
- **T**hrombosis, pulmonary
- **T**hrombosis, cardiac
- **T**oxins

ⓘ Consider early transport of pts who have reversible causes that cannot be adequately treated in the prehospital setting

ⓘ Contact the base/modified base hospital for consultation & orders as appropriate

ⓘ Refer to Hypothermia & Avalanche/Snow Immersion Suffocation Resuscitation Protocol (E-2) or Traumatic Pulseless Arrest Protocol (T-6) as appropriate

BLS TERMINATION OF RESUSCITATION (TOR)

Base/Mod. Base Hosp. Physician Order Required

- BLS providers may use the following TOR criteria when ALS is not available (**all 3 must apply**):

1. Arrest not witnessed by EMS
2. No AED shocks delivered
3. No ROSC after 3 rounds of CPR/AED analysis

ALS TERMINATION OF RESUSCITATION (TOR)

- ALS providers may use the following TOR criteria:

1. Arrest not witnessed by EMS
2. No AED shocks or defibrillations delivered
3. No ROSC after full ALS care

Base/Mod. Base Hosp. Physician Order only required for pt's not meeting all 3 ALS criteria

SPECIAL TOR CIRCUMSTANCES

- In the event of communication failure, BLS/ALS providers may terminate resuscitation on pts requiring base/modified base hospital physician order when rescuers are exhausted or physically unable to continue resuscitation

SEE PAGE 2 FOR TREATMENT ALGORITHM

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