

Cardiac Arrest - Non-traumatic

For non-traumatic cardiac arrest in which any resuscitation is initiated, NOT dead on arrival

History

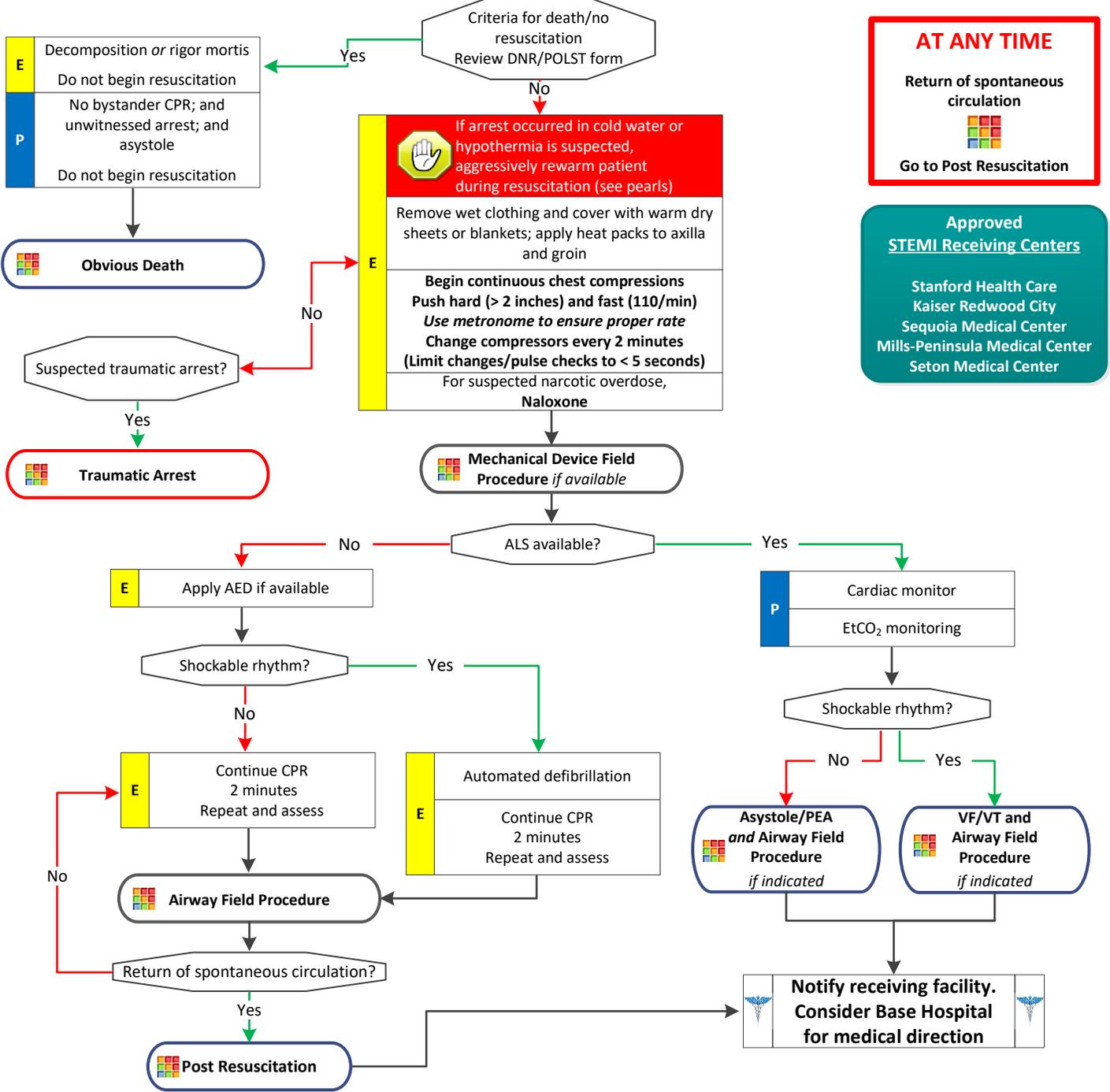
- Code status (DNR or POLST)
- Events leading to arrest
- Estimated downtime
- History of current illness
- Past medical history
- Medications
- Existence of terminal illness

Signs and Symptoms

- Unresponsive
- Apneic
- Pulseless

Differential

- Medical vs. trauma
- VF vs. pulseless VT
- Asystole
- PEA
- Primary cardiac event vs. respiratory arrest or drug overdose



Adult Cardiac Arrest – Non-traumatic Treatment Protocols



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Pearls

- **COLD WATER DEFINITION:** Any open body of water or unheated swimming pool/ spa.
- If arrest occurred in cold water or hypothermia is suspected, check for pulselessness for 30-45 seconds to avoid unnecessary chest compressions. Defer ACLS medications until patient is warmed.
- Hypothermic cardiac arrest patients who do not meet obvious death criteria listed in CA05 – Obvious Death may have good neurologic outcomes despite lengthy resuscitation. Transport should be initiated early and resuscitative efforts should continue until patient is warmed. Place hot packs on groin and in axilla bilaterally, apply blankets, and activate heater in the patient compartment of the ambulance.
- If cardiac arrest occurs during transport, divert to the nearest approved STEMI Receiving Center.
- Move patient to floor in an area where a 5-person crew have adequate space, and begin compressions.
- Efforts should be directed at high quality and continuous chest compressions with minimal interruptions.
- IV access, including EJ, must be attempted. If unsuccessful, then attempt IO.
- Use pediatric BVM with EtCO₂ and ventilate at a rate of 10 ventilations per minute delivered on compression upstroke.
- Placement of an advanced airway should be deferred unless a provider is unable to ventilate the patient with a BLS airway and BVM.
- Do not delay chest compressions while applying any device or intervention.
- Use a metronome during chest compression to ensure proper rate.
- In cases of obvious traumatic arrest with PEA or asystole, epinephrine is not indicated. Epinephrine will not correct arrest caused by a tension pneumothorax, cardiac tamponade, or hemorrhagic shock. If there is any doubt as to the cause of arrest, treat as a non-traumatic arrest.
- Provide resuscitative efforts on scene for 30 minutes to maximize chance of ROSC.
- If resuscitative efforts do not attain ROSC, consider cessation of efforts per Policy 507 – Determination of Death.
- Do not interrupt chest compressions to place advanced airway.
- Advanced airway preference: 1) Video Laryngoscopy, 2) Direct Laryngoscopy, 3) i-gel.
- Resuscitation is based on proper planning and organized execution. Procedures require space and patient access. Make room to work. Utilize a team focused approach assigning responders to predetermined tasks.
- Reassess and document ETT placement and EtCO₂ frequently, after every move, and at transfer of care.
- Maternal arrest: Treat mother per appropriate protocol with immediate notification to the Base Hospital along with rapid transport. Manually displace fetus from inferior vena cava to ensure continued fetal blood circulation by pushing the uterus to the left. Defibrillation is safe at all energy levels.
- Defibrillation vests should be removed by EMS personnel before compressions, but do not cut vests. Once removed, disengage battery to prevent alarming.

