

# Asystole/PEA

## History

- Events leading to arrest
- Estimated downtime
- Past medical history
- Medications
- End stage renal disease
- Suspected hypothermia
- Suspected overdose
  - Tricyclic
  - Digitalis
  - Beta blockers
  - Calcium channel blockers
- DNR, POLST or living will

## Signs and Symptoms

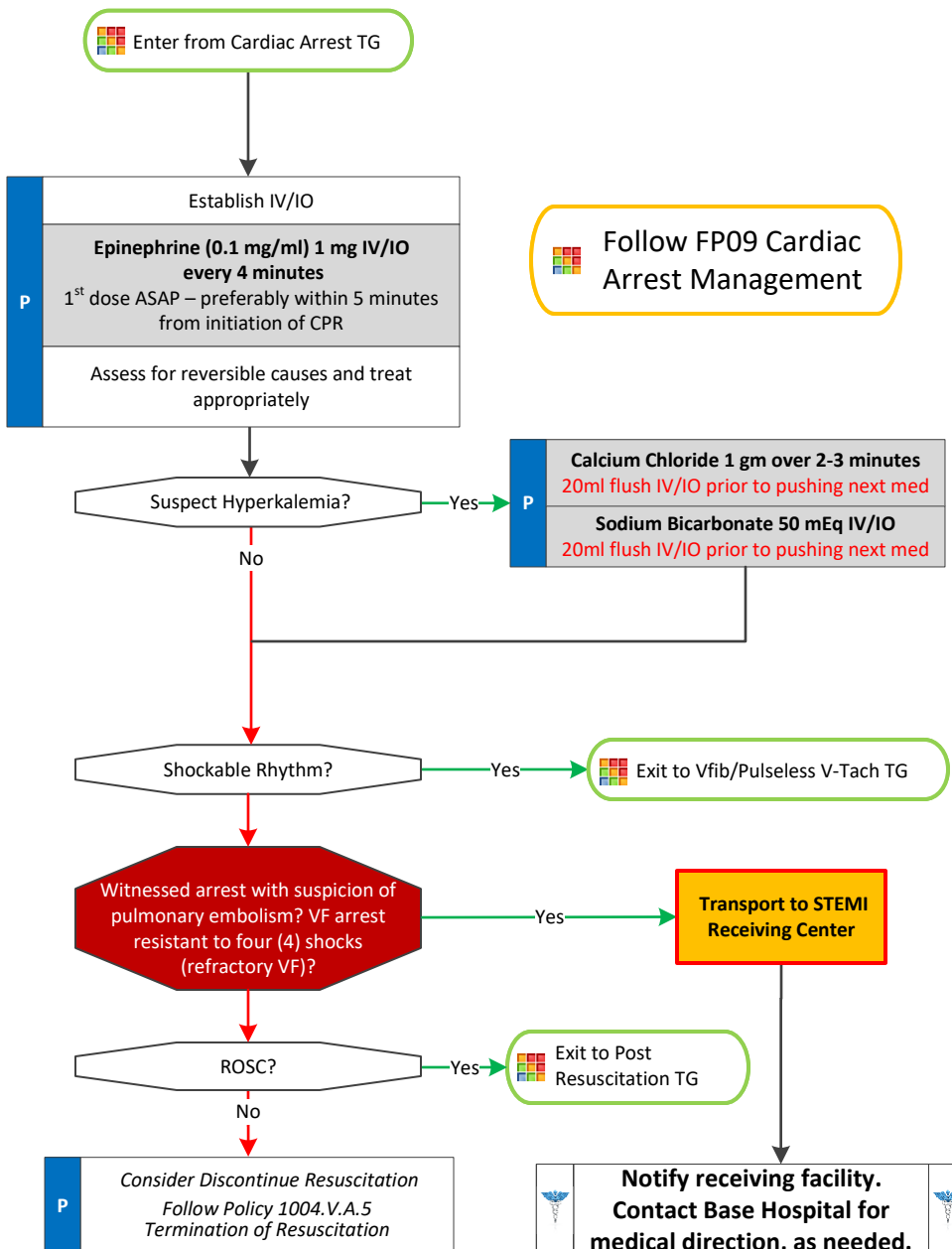
- Pulseless
- Apneic or agonal respirations

## Differential

- Hypovolemia (e.g. trauma, AAA or other)
- Cardiac tamponade
- Hypothermia
- Drug overdose (e.g. tricyclic, digitalis, beta blockers, or calcium channel blockers)
- Massive myocardial infarction
- Hypoxia
- Tension pneumothorax
- Pulmonary embolus
- Acidosis
- Hyperkalemia

## Reversible Causes

Hypovolemia  
Hypoxia  
Hydrogen ion (acidosis)  
Hypothermia  
Hypo/Hyperkalemia  
Hypoglycemia  
Tension pneumothorax  
Tamponade (cardiac)  
Toxins  
Thrombosis (pulmonary)(PE)  
Thrombosis (coronary)(MI)



Adult Cardiac Treatment Guidelines



# Asystole/PEA

- Passive ventilation for the first three cycles (6 minutes) of CPR. After that time, the patient should be ventilated using a BLS airway and BVM at a rate of 6 ventilation/minute (1:10 seconds) with continuous CPR.
- Placement of an advanced airway is recommended in patients who achieve ROSC or when the provider is unable to ventilate the patient with a BLS airway and BVM.
- Use a metronome during chest compressions to ensure proper rate unless a mechanical CPR device is deployed.
- If a non-shockable rhythm persists for 30 minutes despite aggressive resuscitative efforts, consider cessation of efforts as outlined in the Determination of Death policy.

## Pearls

- Maternal arrest: Treat mother per appropriate TG with immediate notification to the Base Hospital along with rapid transport. Place pillows or padding underneath mother to displace fetus from inferior vena cava as to ensure continued fetal blood circulation; left lateral position. IV/IO access should be preferably placed above the diaphragm. Defibrillation is safe at all energy levels.
- Per AHA 2020 guidelines, "It is reasonable for providers to first attempt establishing IV access for drug administration in Cardiac Arrest. IO access may be considered if attempts at IV access are unsuccessful or not feasible."
- Efforts should be directed at high quality and continuous chest compressions with limited interruptions and early defibrillation when indicated.
- The AutoPulse device is limited to 80 compressions/minute, which is acceptable when using this device during cardiac arrest.
- Treatment of hypoxia and hypotension are important after resuscitation from Asystole/PEA.
- Asystole is commonly an end stage rhythm following prolonged VF or PEA with a poor prognosis.

