



# Pulseless Electrical Activity (PEA)



## History

- Past medical history
- Medications
- Events leading to arrest
- End stage renal disease
- Estimated downtime
- Suspected hypothermia
- Suspected overdose
  - Tricyclics
  - Digitalis
  - Beta blockers
  - Calcium channel blockers
- DNR, MOST, or Living Will

## Signs and Symptoms

- Pulseless
- Apneic
- Electrical activity on ECG
- No heart tones on auscultation

## Differential

- Hypovolemia (Trauma, AAA, other)
- Cardiac tamponade
- Hypothermia
- Drug overdose (Tricyclics, Digitalis, Beta blockers, Calcium channel blockers)
- Massive myocardial infarction
- Hypoxia
- Tension pneumothorax
- Pulmonary embolus
- Acidosis
- Hyperkalemia

## AT ANY TIME

Return of  
Spontaneous Circulation



Go to  
Post Resuscitation  
Protocol

## Cardiac Arrest Protocol

P	Cardiac Monitor	P
	CPR	
	Airway Protocol	
I	IV Protocol	I
I	Epinephrine or Vasopressin	I
P	Atropine if rate <60	P

## Consider early in all PEA pts:

I	Normal Saline Bolus Dextrose 50% Naloxone Glucagon (suspected Beta Blocker Overdose)	I
P	Calcium (hyperkalemia) Bicarbonate (tricyclic overdose, hyperkalemia, renal failure) Dopamine Chest decompression	P

## Criteria for Discontinuation

Yes

Stop  
resuscitation

No

M	Notify Destination or Contact Medical Control	M
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P	Consider Epinephrine Drip	P
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## Legend

	MR	
B	EMT	B
I	EMT- I	I
P	EMT- P	P
M	Medical Control	M

## Pearls

- **Recommended Exam: Mental Status**
- Consider each possible cause listed in the differential: Survival is based on identifying and correcting the cause!
- Discussion with Medical Control can be a valuable tool in developing a differential diagnosis and identifying possible treatment options.