FOUNDATIONS of Emergency Medicine

Foundations Frameworks

# Approach to Cardiac Arrest

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**1. The First Four Actions:** -Chest Compressions
-Pads on Patient
-Airway Management - BVM
-1mg Epinephrine (IO as needed)

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**2. Treatment during Arrest:**

Everyone: Epi (1mg Q3min)

Vtach/Vfib:
Defibrillation and amiodarone (300mg)
Magnesium for torsades
Consider Ca/glucose/sodium bicarb

Asystole/PEA:
Consider Ca/glucose/sodium bicarb

tPA: PE (maybe MI)

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**3. Treatable Causes**: - Airway/Breathing: Hypoxia; PTx
- Circulation: Hypovolemia, MI, Tamponade, PE
- Drugs/Metabolic: Hyperkalemia, Acidosis, Hypoglycemia, Hypo/Hyperthermia, AV nodal blockers or Na Channel blockers

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**4. ROSC Management:** - Airway/Breathing: intubate, avoid hypoxia and hypercapnia
- Circulation: norepinephrine and fluids, central and arterial line
- Neuro: Targeted Normothermia/Hypothermia

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**5. EKG = Disposition** -STEMI = Cath Lab
-non-STEMI = Discuss with Cardiology, 20-30% will still have culprit vessel lesion

**Narrow vs Wide QRS:**

- Narrow: structural –use US to diagnose, give fluids
  - PE
  - Tamponade
  - Ptx
  - Hypovolemia
  - MI
- Wide: tox/metabolic –give CaCl, glucose, bicarb puhes
  - Hyperkalemia
  - Na channel blockers
  - Acidosis

**Poor Prognostic Factors in Cardiac Arrest:**

- unwitnessed arrest
- no bystander CPR
- age > 85
- asystole/PEA >30 min until ROSC
- Lactate > 7
- pH < 7.2
- ESRD