**Approach to Cardiovascular Trauma**

*3 Critical Diagnoses:*

1. **Cardiac Tamponade**: Blood in the pericardial sac (Usually due to penetrating trauma, but can be due to blunt) → Increased pressure on heart → Decreased preload → Hypotension → Death.
   a. Management: Ultrasound of heart (During FAST Exam). If you see blood (fluid stripe) → Pericardiocentesis (remove the fluid) → if that doesn’t work → Bedside Thoracotomy to cut pericardial sac and relieve pressure on heart.

2. **Aortic Dissection** (Tear in aortic wall): check pulses in each extremity, look for mediastinal widening on CXR, usually due to rapid deceleration injury.
   a. Management: CTA of Chest, if + → give Esmolol (to slow heart) and Nitroprusside (to lower BP). Also get surgery consult.

3. **Blunt Cardiac Injury**: Heart gets smacked against chest wall and causes bruising/swelling → Arrhythmia → Death
   a. Management: EKG, can also check a troponin level, if have abnormalities: admit patient to hospital and watch for arrhythmias

**References**


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**“PIMP” Questions**

**Beck’s Triad**
1. Hypotension
2. Muffled heart sounds
3. Distended neck veins

**Ligamentum Arteriosum**: small ligament that attached aorta to pulmonary artery. This is the point where the aortic tear often occurs

**Commotio cordis**: Mild impact to the heart can cause cardiac arrest and death.