ED Resuscitative Thoracotomy for Trauma

Indications: CPR in progress for 1) Penetration thorax less than 15 minutes  
2) Blunt trauma less 10 minutes  
3) Extremity trauma less than 5 minutes  
4) Head – no indication for thoracotomy

Steps
1) **Stretch left arm** above head to fully expose left thorax  
2) Prep area with betadine (if not available do not wait)

3) Start incision at **inframammary** fold (5th intercostal space)  
a. Start incision from contra-lateral side (**right**) of sternum  
b. Extend incision to left axilla following the curve of the rib  
c. Depth of incision should be to level of rib periosteum

4) **Open pleural space** by inserting curved Mayos at sternal costal boarder and extend along the superior aspect of underlying rib into axilla to maximally expose pleural space

5) Place retractor with ratchet ends facing towards the axilla and open

6) **Open the pericardium anterior to the phrenic nerve** by picking up pericardium with toothed pick ups and making a longitudinal incision.

7) Evacuate hemopericardium and repair cardiac defect with 3-0 prolene and Teflon pledgets

8) If cardiac activity present and patient remains hypotensive proceed to descending thoracic aortic cross clamping

9) Use fingers to bluntly dissect the pleural space above the level of the diaphragm to isolate aorta (anterior to spine). Cross clamp avoiding esophagus

10) If patient’s **BP is greater than 70 systolic** emergently transfer to operating room