

LUNG INJURY

The 3 Critical Diagnoses...

Other Common Pulmonary Pathologies

- Rib Fractures: Pain with inspiration causes patients to take shallow breaths. Treat with pain medications. Can progress to flail chest
- Small Pneumothorax: Can be worsened by intubation and mechanical ventilation, otherwise just treat with supportive care
- Pulmonary contusion: Treat with supportive care

Approach to Lung Injury

- 1) ATLS Primary Survey-Airway, Breathing: Look for lung injury= respiratory distress, hypoxic, tracheal deviation, bullet wound/stab wound, unequal breath sounds, etc.
- 2) If patient is crashing and in obvious respiratory distress → Consider placing a chest tube
- 3) Get Imaging: Usually CXR or ultrasound to start. Best test is a CT chest with contrast, but only if the patient is stable (You don't want to do compressions in the CT scanner, so make sure they're stable 1st!)
- 4) 3 Critical Diagnoses:
 - 1) **Tension Pneumothorax**: Air and pressure builds up between chest wall and lung → Hypoxic, decreased preload. Treatment is Needle decompression, then chest tube.
 - 2) **Open Pneumothorax**: Prevents lung from expanding during inspiration. Treatment is 3-sided occlusive dressing and then a chest tube.
 - 3) **Hemothorax**: Blood fills up the lung cavity → Hypoxia, decreased preload, hypotension. Treatment is a chest tube.

References

Jones J, Stearley S. Chapter 24. Chest Trauma. In: Stone C, Humphries RL, eds. CURRENT Diagnosis & Treatment Emergency Medicine, 7e. New York, NY: McGraw-Hill; 2011. <http://accessemergencymedicine.mhmedical.com/content.aspx?bookid=385&Sectionid=40357239>. Accessed October 05, 2016.

Jones D, Nelson A, Ma O. Pulmonary Trauma. In: Tintinalli JE, Stapczynski J, Ma O, Yealy DM, Meckler GD, Cline DM, eds. Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 8e. New York, NY: McGraw-Hill; 2016. <http://accessemergencymedicine.mhmedical.com/content.aspx?bookid=1658&Sectionid=109445746>. Accessed October 13, 2016