



AAST Acute Care Surgery Didactic Curriculum

Hemothorax

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Hemothorax

Highlights:

- Many occult hemothoraces (less than 300 to 500ml) can safely be observed
- Small bore (<20 French) chest tubes perform similarly to large bore chest tubes (≥20 French)

Pneumothorax

Highlights:

- Small pneumothoraces (<35mm) may be safely observed with a minority requiring tube thoracostomy

Retained Hemothorax / Empyema

Highlights:

- Treatment of retained hemothorax should be initiated once diagnosed, VATS and intrapleural fibrinolytic therapy have similar rates of success, both are better than second chest tube placement.
- Empyema is classified into three stages: exudative (thin serous or cloudy fluid), fibrinopurulent (thickened pleural fluid possibly with septations) and fibroblastic (development of a pleural peel and trapped lung)
- Intervention for empyema (tube thoracostomy or surgical) is indicated for pleural fluid with pus, a positive Gram Stain or culture; and laboratory results of a pH less than 7.2, LDH > 1000 IU/L or glucose < 40mg/dL.

Controversies:

- What chest tube is needed for adequate drainage of traumatic hemothorax? Are pigtailed (14 French) or small chest tubes (<20 French) adequate? Does Yankauer-assisted evacuation (YATS) or chest tube irrigation at time of placement reduce the need for secondary intervention?
- Fibrinolytics vs. VATS for retained hemothorax – EAST PMG would suggest early VATS rather than a trial of fibrinolytics, although one randomized control trial found equivalence.