M HEALTH
UNIVERSITY OF MINNESOTA

Hemothorax Guideline

Diagnosis:

- “Pleural effusion” with a history and/or radiologic evidence of chest trauma (rib fractures, pulmonary contusion, PTX) should be presumed to be hemothorax. This may be detected by CXR, CT chest, or ultrasound.

Initial Management:

- Trace hemothorax seen only on CT can be managed conservatively
- >30 % lung volume loss, > 500cc, associated pneumothorax, or clearly visible on *upright* CXR with blunting of the costophrenic angle→ place chest tube

Imaging:

- Obtain repeat CXR immediately after chest tube placement and daily thereafter to evaluate lung re-expansion
- Pts with occult hemothorax or pneumothorax who are managed *without* a chest tube should undergo repeat CXR (preferably upright) ~24 hours after injury or with significant changes in respiratory status.

Retained hemothorax/ additional imaging:

- Persistent effusion/ blunting of the costophrenic angle on CXR after 72 hours should undergo non contrast CT chest +/- **thoracic surgery consult** (consider lytic therapy, early VATS)

Discontinuing the chest tube:

-Chest tubes should initially be placed to suction

-Place chest tube to water seal once there is no air leak and follow up chest xray shows no pneumothorax/ hemothorax

- Discontinue chest tube when all of the below criteria are met:
  - Hemothorax resolved on CXR
  - No air leak
  - CT output < 200 cc/ day

References:

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Boersma WG et al Treatment of Hemothorax Resp Med 2010; 104: 1583-1587

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