WAKEMED TRAUMA CENTER

RETAINED HEMOTHORAX GUIDELINE

Concern for retained hemothorax on chest x-ray >48 hours after initial chest tube placement*

CT chest (without contrast)

Retained hemothorax >300 cc (i.e. >1.5 cm pleural stripe on axial images)

No

Yes

*28 Fr chest tubes are non-inferior to larger tubes

Observe

Good operative candidate: VATS washout

Poor operative candidate: Consider alternative treatments

1) Intrapleural fibrinolytic therapy: Alteplase 10 mg BID + dornase alfa 5 mg BID (search for EPIC order set "intrapleural," administered together, 1 hr dwell time)

2) Second drainage procedure: Additional chest tube placement (image-guided when appropriate)
WHO SHOULD READ THIS PROCEDURE:
This procedure shall be read by WPP Surgery and all practitioners caring for trauma population

PURPOSE: Define best practices for the management of posttraumatic retained hemothorax.

Contributing specialties: Trauma surgery

SUMMARY:
I. Hemothorax occurs in over one third of patients with chest injury.
II. Posttraumatic retained hemothorax can lead to fibrothorax (trapped lung), empyema, and pneumonia.
III. CT scan is the gold standard for diagnosing retained hemothorax. It can also differentiate between retained hemothorax and parenchymal injury or consolidation and help quantify the volume of retained blood.
IV. Treatment should be pursued when retained hemothorax is >300 cc (i.e. >1.5 cm pleural stripe on axial images).
V. Good operative candidates should undergo VATS washout. Poor operative candidates may be treated with alternative therapies including intrapleural fibrinolytics or a second drainage procedure.

References: