

Hemothorax (Diagnosed clinically or by CXR, CT, U/S)

LEGEND

- Decision Point
- Selection
- Diagnostic Step
- Action Item

- Steps to irrigation:**
1. Apply suction to chest tube or with Yankauer
 2. Irrigate with 1000cc warmed N.S.
 3. Repeat suction
 4. Reconnect to pleurovac

Chest Tube

Consider Auto-transfusion when available

Hemodynamically unstable due to chest injury?

No

Yes

Irrigate with N.S.

SBP < 70

Chest tube output >1500ml initially or 200ml/hr x 3h

No

Yes

No

Yes

Observe

Consider OR Thoracotomy or VATS

OR Thoracotomy

ED Thoracotomy

CXR within 72hrs

Persistent opacity or air leak?

No

Yes

CT Chest

Consider repeat CXR post removal

Persistent opacity or air leak?

No

Yes

Discontinue Chest Tube

Refer to CPG for Retained Hemothorax

Al Tannir AH, Biesboer EA, Golestani S, Tentis M, Maring M, Gellings J, Peschman JR, Murphy PB, Morris RS, Elegbede A, de Moya MA. Thoracic cavity irrigation prevents retained hemothorax and decreases surgical intervention in trauma patients. *Journal of Trauma and Acute Care Surgery*. 2024 Jul 1;97(1):90-5.

Carver TW, Berndtson AE, McNickle AG, Boyle KA, Haan JM, Campion EM, Biffl WL, Carroll AN, Sise MJ, Berndt KS, Burris JM. Thoracic irrigation for prevention of secondary intervention after thoracostomy tube drainage for hemothorax: A Western Trauma Association multicenter study. *Journal of Trauma and Acute Care Surgery*. 2024 Nov 1;97(5):724-30.

Moore FO, Duane TM, Hu CKC, Fox, AD, McQuay N Jr, Lieber ML, et al. Presumptive antibiotic use in tube thoracostomy for traumatic hemopneumothorax. *Journal of Trauma and Acute Care Surgery*. 2012 Nov;73:S341-1.

Mowery NT, Gunter OL, Collier BR, Diaz JJ Jr, Haut E, Hildreth A, et al. Practice Management Guidelines for Management of Hemothorax and Occult Pneumothorax. *The Journal of Trauma: Injury, Infection and Critical Care*. 2011 Feb;70(2):510-8.