Mercy Hospital
Trauma Care Guideline

Management of Chest Tube Removal

Purpose:
To communicate evidence-based guidelines related to the management of chest tube removal

Guidelines:
Based on recommendations from current literature

Level 1 recommendations:

- Chest drainage should be less than 150 cc in the previous 24 hours prior to removal.
- Chest tubes should not be removed unless the pneumothorax is gone or minimal/stable

Level 2 recommendations:

- Chest tubes can be removed equally safely at end-inspiration or end-expiration
- Chest tubes can be safely removed on suction
- A brief trial of waterseal prior to chest tube removal may allow occult air leaks to become clinically apparent and reduce the need to chest tube reinsertion due to recurrent pneumothorax. Such trials, however, may increase length of hospital stay as well as the number of radiographs.

Level 3 recommendations:

- In mechanically ventilated patients, follow-up CXR after chest tube removal should occur within 1-3 hours
- In non-mechanically ventilated patients, follow-up CXR after chest tube removal should occur in approximately 6 hours.

Adopted at the Trauma M&M Conference March 26, 2013.

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Chest Tube Management. Department of Surgical Education, Orlando Regional Medical Center. (rev. 2009) Retrieved from http://surgicalcriticalcare.net/Guidelines/chest_tube_2009.

The Trauma Professional's Blog. Dr. Michael D. McGonigal. 2012. Regions Trauma Center. October, 2012. Retrieved from http://regionstraumapro.com/post/35271877202.

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Algorithm for Chest Tube Removal