

Thoracostomy Tube Irrigation: A Multi-Center Trial Investigating its Efficacy in the Reduction of Secondary Intervention for the Management of Retained Hemothorax

Data Dictionary

Demographics / Injury Variables:

Medical Record #: For individual institution use, to track patients prospectively
 Name: For individual institution use, to track patients prospectively
 Age: Age of patient enrolled
 Sex: Sex of patient enrolled
 Race: Race of patient enrolled (circle one)
 Ethnicity: Ethnicity of patient enrolled (circle one)
 BMI: Body mass index of patient enrolled = weight (kg) ÷ height (m²)

Injury Data:

Date of Injury: Date injury occurred. (Local use only, no identified data will be entered into REDCap).

Mechanism of Injury: GSW = gunshot wound, SW = stab wound, MVC = motor vehicle collision, MCC = motorcycle collision, Pedestrian Struck = person walking hit by car, Fall = fall from standing. Enter mechanism if not found on list.

ISS: Numerical value for calculated Injury Severity Score (ISS)

Chest AIS: Highest numerical value for abbreviated injury scale (AIS), body region = Chest. Use scale below for calculation.

Organ Injury Scaling Chest Wall

Grade	Injury Description	AIS-90
I	Contusion Any size	1
	Laceration Skin and subcutaneous	1
	Fracture <3 ribs, closed	1-2
	nondisplaced clavicle, closed	2
II	Laceration Skin, subcutaneous and muscle	1
	Fracture =>3 adjacent ribs, closed	2-3
	Open or displaced clavicle	2
	Nondisplaced sternum, closed	2
	Scapular body	2
III	Laceration Full thickness including pleura	2
	Fracture Open, displaced or flail sternum	2
	Unilateral flail segment <3 ribs	3-4
IV	Laceration Avulsion of chest wall tissues with underlying rib fractures	4
	Fracture Unilateral flail chest => 3 ribs	3-4
V	Fracture Bilateral flail chest	5

Advance one grade for bilateral injuries.

<http://www.trauma.org/archive/scores/ois-cheswall.html>

Number of rib fractures: Numerical value for number of ribs fractured

Diaphragm injury: Indicate YES if patient has a diaphragm injury

Thoracostomy Tube (TT) Data:

Date of TT placement: Include only the date of first TT placement if the patient had multiple TT placed. (Local use only, no identified data will be entered into REDCap).

Attending of record at TT placement: Include name of Trauma faculty present at time of TT Placement. Exact name of the attending can be kept locally. Create a code book of which attending is which number. For example, Dr. Smith is '1', Dr. Doe is '2', etc. Report only the number associated with the attending.

TT Indication: Hemothorax or Hemopneumothorax, circle one. TT for pneumothorax only will not be included in this study.

Side of TT placement: Circle one

TT placed within 6 hours of presentation: Indicate YES if TT was placed within first 6 hours

TT placed within 24 hours of presentation: Indicate YES if TT was placed within first 24 hours

TT irrigated: Indicate YES if TT was irrigated

Initial TT volume evacuated prior to irrigation: Indicate total volume of hemothorax evacuated prior to TT irrigation. If no irrigation, indicate immediate volume of hemothorax evacuated by TT. If no irrigation performed, state N/A.

Initial TT volume evacuated following irrigation: Indicate total volume evacuated following TT irrigation. If no irrigation performed, state N/A.

Total volume irrigated: Indicate total volume of normal saline irrigated in TT. If no irrigation, indicate N/A.

Size of TT: 28 Fr – 36 Fr are acceptable TT sizes for this study. Circle one.

Antibiotic(s) given for TT placement: Circle one.

Antibiotic(s) given: Indicate which antibiotic(s).

Daily TT output: Record total daily TT output. Day 1 indicates hospital day 1, and so on. Record only as many days as TT remains in place.

Daily TT management: Indicate whether the TT was on waterseal or suction. Day 1 indicates hospital day 1, and so on. Record on as many days as TT remains in place.

Radiology Results:

Copy and paste the written CT/CXR radiology report for all days that

TT remains in place and that a CT/CXR was obtained. Routine, daily CT/CXR is not required. Obtain CT/CXR as clinically indicated or per divisional policy.

Outcomes:

- Date of removal of TT: Include only the date of first TT removal if the patient had multiple TT placed. (Local use only, no identified data will be entered into REDCap).
- Duration (in # of days) of TT placement: List the number of days the TT was in place. Include day of placement into the calculation of number of days. Day 1 is the day the TT is placed. For example, if placed 1/1/1900 and removed 1/3/1900, the duration is 3 days.
- Attending of record for secondary intervention: Include name of Trauma faculty who was the staff of record at the time of decision for secondary intervention. Exact name of the attending can be kept locally. Create a code book of which attending is which number. For example, Dr. Smith is '1', Dr. Doe is '2', etc. Report only the number associated with the attending. *** This is the same numeric coding as is used for "Attending of record at TT placement".***
- Indication for secondary intervention: The primary outcome for this study is secondary intervention for hemothorax or hemopneumothorax. If secondary intervention is performed for another indication, please describe.
- TT Day of secondary intervention / operation: Include only the date for the initial secondary intervention if the patient had multiple secondary interventions. If patient underwent TT placement on 1/1/1900 and VATS on 1/3/1900, then day of secondary intervention is Day 3.
- Attending of record at operation: Include name of Trauma faculty who was the staff of record performing the second TT placement or operation.
- Secondary intervention performed: Select all types of secondary intervention performed as applicable. Rib stabilization is not considered a secondary intervention, unless planned as part of a thoracotomy specifically for retained hemothorax. If **incidental** retained hemothorax is identified, please include in intra-operative findings (next variable).
- If Other, list: List all applicable 'other' secondary interventions.
- List sequence of secondary interventions if more than 1 is performed: Describe sequence of events if multiple interventions are performed.
- Intra-operative findings: Indicate intra-operative findings, including, but not limited to, hemothorax, empyema, etc.

Hospital Data:

Admission Date:	Date that patient was admitted to the hospital for initial TT placement. Include only the first hospitalization if the patient had multiple admissions. (Local use only, no identified data will be entered into REDCap).
Discharge Date:	Date that patient was discharged from the hospital. Include only the first hospitalization if the patient had multiple admissions. (Local use only, no identified data will be entered into REDCap).
Hospital Length of Stay (days):	Number of days the patient was admitted to the hospital. Include admission day and discharge day as whole days in the calculation.
ICU Length of Stay (days):	Number of days the patient was admitted to the ICU. Include admission day and discharge day as whole days in the calculation.

Complications:

Respiratory Complication Data:	Check all that apply.
Post-pull pneumothorax on CT/CXR:	Indicate YES if pneumothorax is present after TT is removed.
Post-pull PTX required replacement of TT:	Indicate YES if TT replacement is required
Post-pull effusion on CT/CXR:	Indicate YES if effusion is present after TT is removed.
Post-pull effusion required replacement of TT:	Indicate YES if TT replacement is required.
Clinic follow-up:	Indicate YES if patient was seen in clinic after discharge.
Follow-up CT/CXR:	Indicate YES if patient had a CT/CXR performed at follow-up clinic appointment, and copy and paste the written CT/CXR radiology report.
30-day readmission for thoracic reason:	Indicate YES if patient was readmitted within 30 days of index hospitalization discharge for a thoracic reason, i.e. hemothorax, pneumothorax, thoracic surgical site infection, thoracic pain, etc. Indicate reason for readmission.
Re-Intervention after Discharge:	Indicate what intervention was performed after hospital discharge, if any.
In hospital mortality:	Did the patient expire during index hospital admission?