Status **Active** PolicyStat ID **19616958**

Origination	03/2023	Contact	Stephanie Spain: Trauma Prgm Mgr Adult
Last Approved	01/2026	Area	Trauma Surgical Critical Care
Effective	01/2026	Applicability	Erlanger Health - Baroness
Last Revised	01/2026		
Next Review	01/2029		

Resuscitative Thoracotomy and REBOA Practice Management Guideline

1. Process/Procedure Description

Practice Management Guideline for Resuscitative Thoracotomy (RT):

2. Who Should Read This Process/Procedure?

Trauma Faculty, Surgery Residents, Trauma Critical Care Nurse Clinicians

3. Process/Procedure

Process Instructions/Description:
Background Mechanism and down time are critical factors in the decision to perform a resuscitative thoracotomy because these factors are directly linked to survival. The following table developed from EAST's Practice Management Guide Line Committee Summarizes a meta-analysis of all relevant studies on RT. Signs of life include palpable pulse, respiratory effort, pupillary response and movement. Strong recommendation means you should perform RT, conditional rec means should consider and proceed if there are no extenuating circumstances.

Injury	Survival (%)	Neurologic outcome (%)	Recommendation
Penetrating Thoracic with Signs of Life	182/853 (21.3)	53/454 (11.7)	++
Penetrating Thoracic without Signs of Life	76/920 (8.3)	25/641 (3.9)	+
Pen. Extrathoracic with Signs of Life	25/160 (15.6)	14/85 (16.5)	+
Pen. Extrathoracic without Signs of Life	4/139 (2.9)	3/60 (5)	+
Blunt with Signs of Life	21/454 (4.6)	7/298 (2.4)	+
Blunt without Signs of Life	7/995 (0.7)	1/825 (0.1)	NR

++- strong recommendation +- conditional recommendation
NR- Not Recommended

In patients that have little chance of meaningful survival, committing the resources and risk of exposure to blood-born pathogens should be avoided. Finally, REBOA catheters should NOT be used in pulseless trauma patients or patients that may have a cardiac injury at EMC.

Incidence of Blood Born Pathogens in the Trauma Population			
Mechanism	HIV	Hepatitis B	Hepatitis C
Blunt	3.7%	Not Reported	12.3%
Penetrating	1.9%	0.6%	9.9%

Guideline:

1.Confirm absence of pulse upon presentation to the trauma bay and ascertain in your own mind the validity that the patient was truly pulseless prior to arrival. If patient was receiving CPR upon arrival and you detect pulse or feel patient was not in cardiac arrest, proceed aggressively with ATLS and RT as indicated.

2. Patients sustaining penetrating trauma with CPR underway < 10 min may be considered for RT.

3. Patients with penetrating mechanisms should proceed with resuscitative efforts without external chest compressions until 2 units of PRBCs or 2 units of whole blood have been administered if RT has not been undertaken (refer to Penetrating Trauma Arrest attachment).

4. Patients sustaining blunt trauma with a witnessed arrest on the grounds (e.g., ambulance bay, helicopter pad) at EMC may be considered for a RT.

5. Blunt trauma patients without cardiac activity on the heart windows of a FAST exam may be pronounced deceased and no further intervention performed.

6. Patients that have exceeded the time limit for RT, consider performing the ATLS primary and secondary surveys before pronouncing patient deceased looking for some correctable cause of death other than exsanguination, e.g. tension pneumothorax.

7. Any patient with blunt or penetrating thoracoabdominal trauma that has a witnessed arrest in the trauma bay and that does not have exposed gray matter should be strongly considered for RT.

References:

1. Brenner M, Teeter W, Hoehn M, Pasley J, Hu P, Yang S, Romagnoli A, Diaz J, Stein D, Scalea T. Use of resuscitative endovascular balloon occlusion of the aorta for proximal aortic control in patients with severe hemorrhage and arrest. JAMA Surg 2017.doi:10.1001/jamasurg.2017.3549
2. Moore LJ, Brenner M, Kozar RA, Pasley J, Wade CE, Baraniuk MS, Scalea T, Holcomb JB. Implementation of resuscitative endovascular balloon occlusion of the aorta as an alternative to resuscitative thoracotomy for noncompressible truncal hemorrhage. J Trauma Acute Care Surg 2015;79:523–32.doi:10.1097/TA.0000000000000809
3. Seamon MJ, Haut ER, Van Arendonk, K. Emergency Department Thoracotomy. J Trauma 2015;79:159-173. www.east.org/education/practice-management-guidelines/emergency-department-thoracotomy
4. www.westerntrauma.org/algorithms/WTAAlgorithms_files/svg_8.htm

Attachments

- Penetrating Trauma Arrest - Selective Resuscitation.pdf
- REBOA Algorithm.pdf

Approval Signatures

Step Description	Approver	Date
VP Approval	Jessica Holladay: VP & ACNO Surg & Trauma Svcs	01/2026
Trauma Services Committee Approval	Stephanie Spain: Trauma Prgm Mgr Adult	01/2026
	Stephanie Spain: Trauma Prgm Mgr Adult	01/2026

Applicability

Erlanger Health - Baroness