

Table 1. Summary Recommendations for the Management of Thoracic Injuries

Summary Recommendations for the Management of Thoracic Injuries	
1.	Tube thoracostomy is indicated as the initial therapeutic intervention for most patients with penetrating thoracic trauma, and for any patient with suspected significant pneumothorax/hemothorax. At the Role 1 level, needle decompression is indicated for suspected tension pneumothorax.
2.	Intrapericardial cardiac or great vessel injury should be suspected in any patient with penetrating thoracic or upper abdominal trauma, and generally can be diagnosed using ultrasonography or surgical pericardial window.
3.	Left anterolateral thoracotomy (resuscitative thoracotomy) is the incision of choice in any penetrating thoracic trauma patient who is in extremis or profoundly unstable, who loses vital signs immediately before arrival, or has an observed loss of vital signs. This should be combined with right tube thoracostomy or extension of the thoracotomy to a clamshell if a mediastinal or right chest injury is suspected.
4.	For a patient with palpable pulses and penetrating chest wound with hemopericardium, sternotomy is usually the preferred initial incision. If the diagnosis of hemopericardium is uncertain, sternotomy should be preceded by subxiphoid pericardial window.
5.	The management of suspected subclavian vascular injuries is complex and technically demanding, and may require a combination of sternotomy, anterior thoracotomy, and supra/infraclavicular incisions.
6.	For patients with suspected esophageal perforation, tracheobronchial injury, or blunt great vessel injury, the initial focus should be on stabilization, temporary control and wide drainage, rather than definitive repair.
7.	For unstable patients with significant combined thoracic and abdominal trauma, exploratory laparotomy should be combined with bilateral tube thoracostomy and trans-diaphragmatic pericardial window to allow for a complete assessment and treatment of major injury.
8.	Patients undergoing surgical intervention for acute thoracic trauma should be approached in the supine position and prepped for multiple potential incisions with a low threshold for additional incisional exposure to control life-threatening injuries. Posterolateral thoracotomy is rarely indicated in the acute trauma setting.
9.	Observation of a small pneumothorax is not appropriate for any patient undergoing prolonged transport. In cases where clinical or radiographic findings are equivocal, clinicians should err on the side of tube thoracostomy prior to transport.
10.	In rare circumstances, the use of Extra-Corporeal Membrane Oxygenation may be needed in the setting of a complex thoracic injury resulting in severe hypoxia, hypercapnia, or heart failure. For ECMO referrals 24/7, contact (210) 916-ECMO/DSN (312) 429-ECMO (leave message if not answered immediately); alternate contact is SAMMC operator at (210) 916-2500/DSN (312) 429-2500.