

Citation: de Moya M, et al. [Evaluation and management of traumatic pneumothorax: A Western Trauma Association critical decisions algorithm.](#) J Trauma Acute Care Surg. 2022 Jan 1;92(1):103-107.

Methodology (Study design): unclear? Consensus algorithm from the Western Trauma Association, Level V. The current algorithm and recommendations are based on available published prospective cohort, observational, and retrospective studies and the expert opinion of the Western Trauma Association members. The literature was reviewed after a search in PubMed and Google scholar using the following key words: pneumothorax, traumatic pneumothorax, trauma, thoracic trauma.

Strengths: The algorithm was created with support from a review of current published literature coupled with the expert opinions of WTA members. Not many true “strengths” in terms of study design.

Weaknesses: The limitations of this article lie in the lack of information on the authors’ methods. The article does not report a clearly defined search strategy, nor does it explain how or why the experts were identified.

My Clinical Bottom Line:

The goal of this study was to create an algorithm offering a more nuanced approach to traumatic pneumothorax management.

Recommendation #1: If the patient is unstable and has pneumothorax, thoracostomy is recommended. This is true even if the instability is due to other concomitant injuries.

Recommendation #2: Using the smallest tube possible is advised when completing a thoracostomy. If there is hemopneumothorax, a 28F tube should be sufficient.

Recommendation #3: If a chest X-ray demonstrates a pneumothorax greater than 2 cm, or CT demonstrates a pneumothorax greater than 3.5 cm, placing an empiric chest tube is advised. If a pneumothorax is found to be smaller than these measurements, an observation period with 6-hour-interval X-ray is appropriate. The authors note that approximately 10% of patients are likely to fail observation and require thoracostomy.

Recommendation #4: Prophylactic antibiotic administration is advised before all chest thoracotomy procedures.