

TRAUMA/CRITICAL CARE SURGERY
DEPARTMENTAL GUIDELINES AND
PROCEDURES

Procedure No:
Page Number: 1 of 2
Effective Date: 00/00

TITLE: TRANSMEDIAL GUNSHOT WOUND (TMGSW)

PURPOSE: The purpose of this guideline is to define and reflect the operative versus direct diagnostic interventions needed in patients who sustain TMGSWs.

I. DEFINITIONS:

DEFINITION OF TMGSW:

- 1) Evidence of missile entry and exit on opposite sides of the thorax
- 2) Evidence of missile entry with CXR showing missile on opposite side of thorax or in close proximity to mediastinum
- 3) Multiple gunshot wounds to the thorax

II. RATIONALE:

Transmediastinal gunshot wounds (TMGSW) can present a challenging diagnostic dilemma that often requires a special and rapid approach to quickly identify and repair life-threatening injuries. Little controversy exists concerning the treatment of hemodynamically unstable patients with TMGSWs – they generally have major cardiac or vascular injuries that require immediate operation. In the stable patient, occult injuries may be present to mediastinal structures, including vascular, tracheobronchial, or esophageal injuries. A pericardial (PC) FAST and an initial chest xray can diagnose hemopericardium or a hemo/pneumothorax, respectively, for which rapid intervention can be instituted. If operative intervention is not immediately required, a computed tomography (CT) scan of the chest can then further be used to assess for trajectory – a remote missile trajectory negates further testing, while a concerning or suspicious trajectory mandates further directed evaluation. This workup can include aortography/angiography, bronchoscopy, contrast esophagography, and esophagoscopy, with operative intervention utilized as needed based on findings.

REFERENCES/BIBLIOGRAPHY:

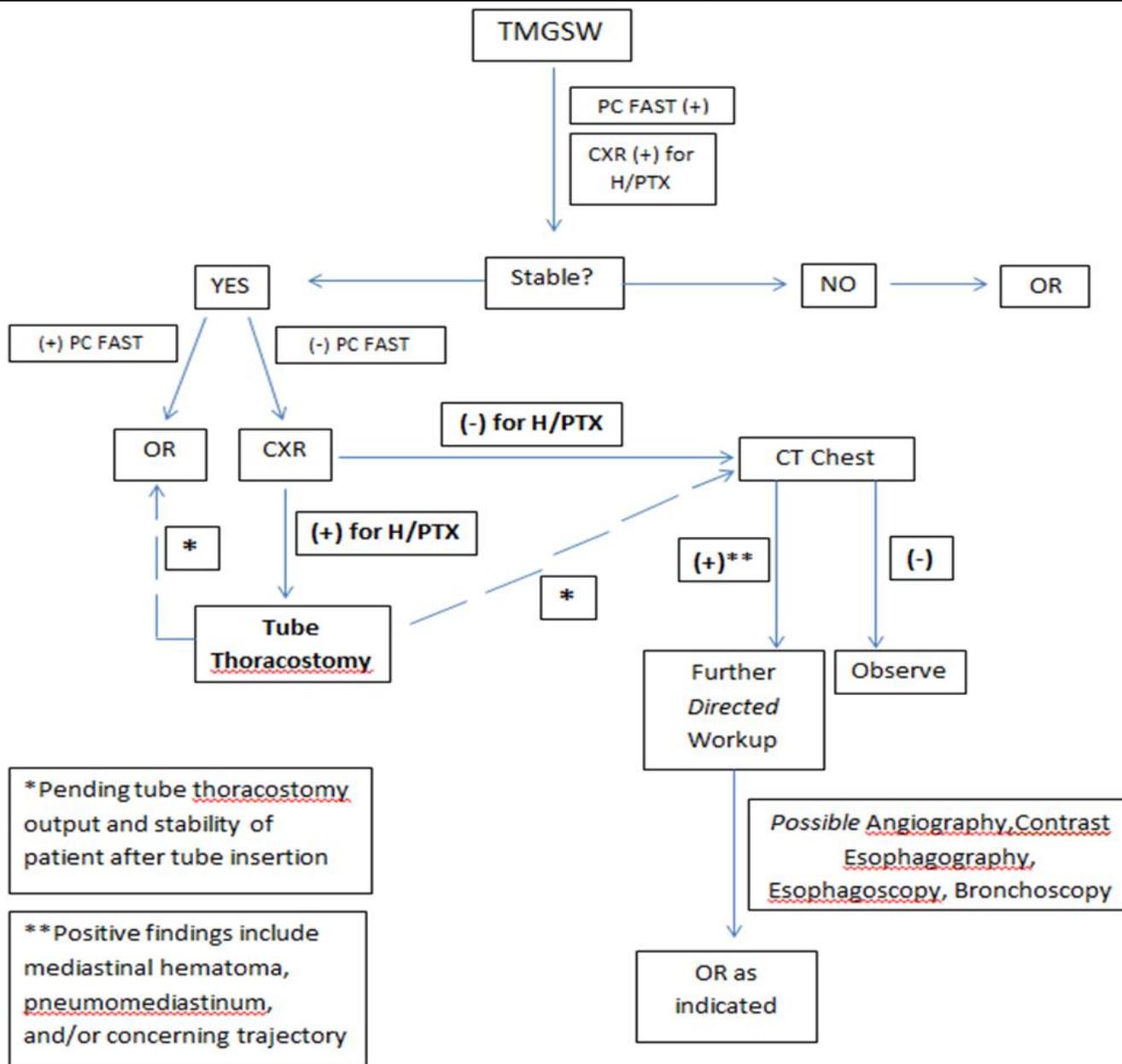
- Renz BM, Cava RA, Feliciano DV, Rozycki GS. Transmediastinal Gunshot Wounds: A Prospective Study. J Trauma. 2000;48;416-422.
- Stassen NA, Lukan JK, Spain DA, et al. Reevaluation of Diagnostic Procedures for Transmediastinal Gunshot Wounds. J Trauma. 2002;53;635-638.
- Rozycki GS, Ballard RB, Feliciano DV, et al. Surgeon performed ultrasound for the assessment of truncal injuries: lessons learned from 1540 patients. Ann Surg. 1998;228:557-567.

DEPARTMENT OF PRIMARY RESPONSIBILITY:

Trauma Services

**TRAUMA/CRITICAL CARE SURGERY
DEPARTMENTAL GUIDELINES AND
PROCEDURES**

Procedure No:
Page Number: 2 of 2
Effective Date: 00/00



REVISION HISTORY:

Effective Date	Version # (If Applicable)	Review or Revision Date (Indicate Reviewed or Revised)	Reviewed or Approved by: (Directors, Committees, Managers, and Stakeholders etc.)