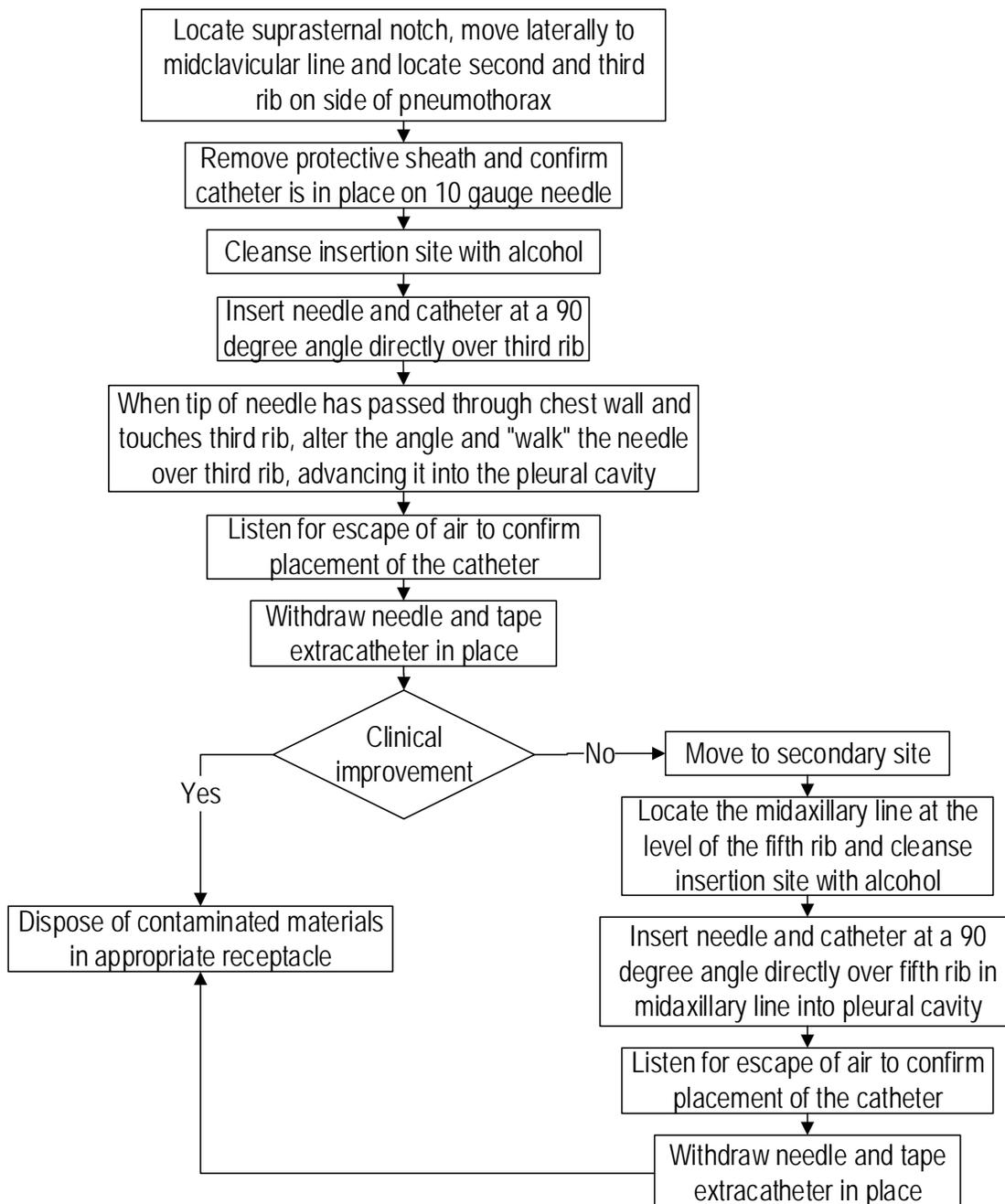


Initial: 9/92  
 Revised: 3/1/16  
 Revision: 4

MILWAUKEE COUNTY EMS  
 PRACTICAL SKILL  
 NEEDLE THORACOSTOMY

Approved: M. Riccardo Colella, DO, MPH, FACEP  
 Page 1 of 2

<b>Purpose:</b> To provide an open vent into the pleural space to decompress suspected tension pneumothorax		<b>Indications:</b> Patients presenting with suspected tension pneumothorax
<b>Advantages:</b> Decompress tension pneumothorax Facilitate ventilation	<b>Complications:</b> Vascular injury Iatrogenic pneumothorax Abdominal perforation/Solid organ injury Cardiac injury	<b>Contraindications:</b> None if patient meets clinical criteria

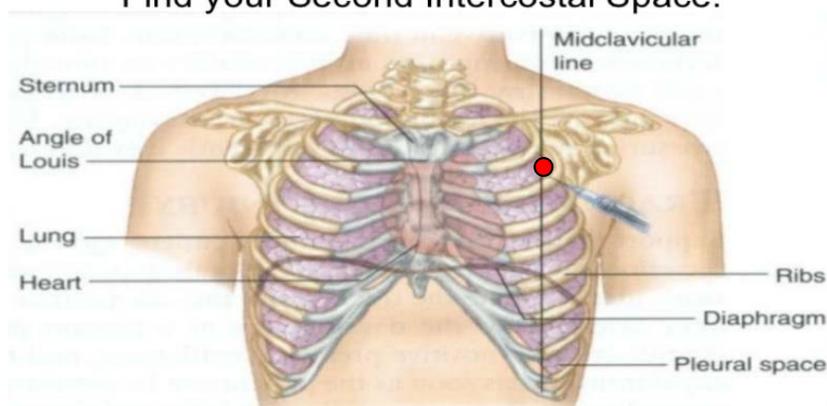


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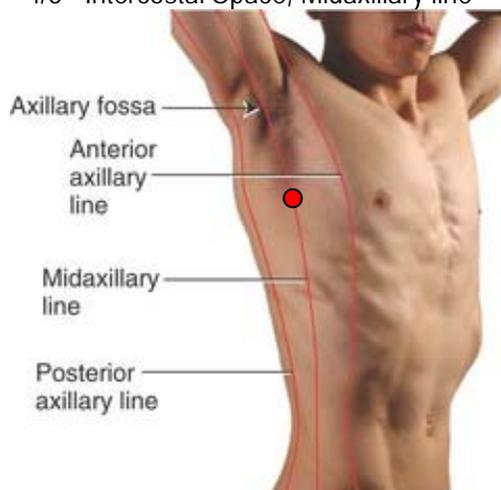
**NOTES:**

- *Signs/symptoms of a tension pneumothorax:* restless/agitated; increased resistance to ventilation; jugular vein distention; severe respiratory distress; decreased or absent breath sounds on the affected side; hypotension; cyanosis; tracheal deviation away from the affected side; subcutaneous emphysema
- *Indications that procedure was successful:* increase in blood pressure; loss of jugular vein distention; decreased dyspnea; easier to ventilate patient; improved color; improved mental status
- *Landmarks*
  - Primary Site – 2<sup>nd</sup> Intercostal Space, Midclavicular line

**Find your Second Intercostal Space.**



- Secondary Site – 4/5<sup>th</sup> Intercostal Space, Midaxillary line



▪ **PEARLS**

- 4<sup>th</sup> ICS is at the level of the nipple in a healthy adult male
- 4<sup>th</sup> ICS may be higher than nipple level of women and obese patients due to breast tissue
- Err on being too high, than too low in placement to avoid abdominal perforation