

COUNTY OF VENTURA EMERGENCY MEDICAL SERVICES		HEALTH CARE AGENCY POLICIES AND PROCEDURES	
Policy Title: Needle Thoracostomy		Policy Number: 715	
APPROVED: Administration: Steven L. Carroll, EMT-P		Date: June 1, 2013	
APPROVED: Medical Director Angelo Salvucci, M.D.		Date: June 1, 2013	
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- I. Purpose: To define the indications, procedure and documentation for needle thoracostomy use by paramedics.
- II. Authority: Health and Safety Code, Sections 1797.220 and 1798. California Code of Regulations, Title 22, Sections 100145 and 100169.
- III. Policy: Paramedics may perform needle thoracostomy on patients with a suspected tension pneumothorax in accordance with this policy.
- IV. Procedure:
 - A. Indications
 1. Patients with **ALL** of the following:
 - a. Clinical suspicion of pneumothorax (e.g., trauma, dyspnea, chest pain),
 - b. Systolic Blood Pressure less than 90, and
 - c. Absent or significantly decreased breath sounds on the affected side.
 - B. Contraindications: None in this setting
 - C. Equipment
 1. Povidone-iodine prep swab
 2. 10 ml syringe
 3. 5.0 - 6.0 cm, 12-16 gauge over-the-needle catheter
 4. Connection tubing
 5. Heimlich valve
 6. Tape
 - D. Placement
 1. Attach the syringe to the needle/catheter.
 2. Identify and prep the site:
 - Locate the second intercostal space in the mid-clavicular line.
 - If unable to place anteriorly, lateral placement is in the fourth intercostal space in the mid-axillary line.

- Prepare the site with antiseptic solution.
3. Insert the needle/catheter perpendicular to the skin over the rib and direct it just over the top of the rib into the intercostal space.
 4. After inserting the needle under the skin, maintain negative pressure in the syringe.
 5. Advance the needle/catheter through the parietal pleura until a “pop” is felt and/or air or blood enters the syringe, then advance **ONLY** the catheter (not the syringe/needle) until the catheter hub is against the skin.

CAUTION: Do not reinsert needle into cannula due to danger of shearing cannula.

6. Hold the catheter in place and remove and discard the syringe and needle.
7. Attach tubing and Heimlich valve.
8. Secure the catheter hub to the chest wall with dressings and tape.
9. Reevaluate the patient (VS, lung sounds).

E. Documentation

1. All needle thoracostomy attempts must be documented in the Ventura County Electronic Patient Care Reporting System (VCePCR).
2. Documentation will include location, size of equipment, number of attempts, success, complications, patient response and any applicable comments..