Division: Emergency Medical Services Agency Effective Date: 08/01/2019

Procedure #705

# NEEDLE THORACOSTOMY

ADULT PEDIATRIC (≤34KG)

#### **BLS**

Universal Protocol #601 Pulse Oximetry

O<sub>2</sub> administration per Airway Management Protocol #602

## **ALS Standing Orders**

- Locate mid-clavicular 2<sup>nd</sup> intercostal space on affected side
- Prep site with povidone-iodine and alcohol
- With syringe attached, insert large bore IV catheter (maximum 10 Ga.) at a 90° angle slightly superior to the rib
- Once in the pleural space diminished resistance should be noted with air and/or blood return
- Holding the needle, advance the catheter and remove the needle allowing pressure to be relieved
- Secure the catheter and provide for a one-way valve
- · Assess and reassess lung sounds

## **Base Hospital Orders Only**

- For decompression location at the mid-axillary 4<sup>th</sup> intercostal space
- As needed

#### Notes

Indication: Tension pneumothorax with significant respiratory compromise

- Signs and symptoms may include:
  - O Deteriorating respiratory status
  - Decreased SBP, increased pulse
  - Diminished lung sounds on affected side
  - Jugular vein distension
  - Hyper-resonance to percussion on affected side
  - Tracheal shift away from affected side (difficult to assess)
  - Increased resistance with ventilation (BVM, ET)
- Equipment
  - o Large IV catheter (10-12 Ga.) with a syringe
  - One-way valve i.e. Asherman Seal
  - Antiseptic products, povidone-iodine/alcohol swabs