NEEDLE THORACOSTOMY

ADULT	PEDIATRIC (≤34KG)

BLS

Universal Protocol #601

BLS Optional

Pulse Oximetry – O_2 administration per Airway Management Protocol #602

ALS Standing Orders

- Locate mid-clavicular 2nd intercostal space or mid-axillary 4th 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

- As needed

Notes

Indication: Tension pneumothorax with significant respiratory compromise, traumatic cardiac arrest.

- Signs and symptoms may include:
  - 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
  - Large IV catheter (10-12 Ga.) with a syringe
  - One-way valve i.e. Asherman Seal
  - Antiseptic products, povidone-iodine/alcohol swabs
- Indication: Trauma patients who arrest after EMS arrival on scene and < 20 min from trauma center or hospital, with the suspicion of chest trauma, perform bilateral needle thoracostomy.