CCT: NEONATAL THORACENTESIS

PURPOSE
A. Guidelines for transport personnel performing a thoracentesis. The decision to perform thoracentesis should be based upon the severity of the infant’s condition.

SCOPE
A. This guideline applies to all members of the Indiana University Lifeline Critical Care Transport team.

DEFINITIONS
A. None

STATEMENTS
1. Air or fluid in the pleural cavity can compromise ventilation and/or oxygenation. The diagnosis is made by transillumination, chest radiograph, or clinical evaluation.

CONTRAINDICATIONS: None

GUIDELINES

Equipment
a. Sterile gloves, Iodine antiseptic solution and alcohol swabs, 16 to 22 gauge cannula-over-needle device (e.g., Angiocath), 3-way stopcock, 10 ml or 30 ml syringe, optional T-Connector

Procedure Technique
1. Select site for thoracentesis. Use 2nd intercostal space on involved side between midclavicular line and anterior axillary line (avoid breast tissue) or 3rd or 4th intercostal space anterior axillary line.
2. Quickly prep selected site with antiseptic solution as clinical condition permits.
3. Assemble selected needle device, stopcock, and syringe and check connections. A T-Connector may be inserted between the needle device and the stopcock.
4. Insert the needle device just over the superior margin of the selected rib (arteries and nerves run just below the ribs) directed perpendicular to the skin surface. Advance until you enter pleural space then advance catheter until able to aspirate air or fluid.
5. If using a cannula-over-needle device, hold the catheter firmly in place, remove the needle and attach the T-Connector or stopcock to the cannula.
6. Continue to aspirate air or fluid, using stopcock to allow syringe to be emptied as needed
7. If using a cannula-over-needle device, secure in place. Repeat aspiration as needed
8. If air or fluid continues to re-accumulate, a thoracostomy tube may be needed.
9. May leave angiocath in place and secure with sterile op site for transport making sure it is a closed system.

**Required Documentation:**
- Amount of air removed from chest
- Characteristics and amount fluid removed from chest

**Citations/References:**