**History**
- Birth defect (tracheal atresia, tracheomalacia, craniofacial abnormalities)
- Surgical complications (accidental damage to phrenic nerve)
- Trauma (post-traumatic brain or spinal cord injury)
- Medical condition (bronchial or pulmonary dysplasia, muscular dystrophy)

**Signs and Symptoms**
- Nasal flaring
- Chest wall retractions (with or without abnormal breath sounds)
- Attempts to cough
- Copious secretions noted coming out of the tube
- Faint breath sounds on both sides of chest despite significant respiratory effort
- AMS
- Cyanosis

**Differential**
- Allergic reaction
- Asthma
- Aspiration
- Septicemia
- Foreign body
- Infection
- Congenital heart disease
- Medication or toxin
- Trauma

**Pearls**
- Always talk to family / caregivers as they have specific knowledge and skills.
- Use patients equipment if available and functioning properly.
- Estimate suction catheter size by doubling the inner tracheostomy tube diameter and rounding down.
- Suction depth: Ask family / caregiver. No more than 3 to 6 cm typically. Instill 2 – 3 mL of NS before suctioning.
- Do not suction more than 10 seconds each attempt and pre-oxygenate before and between attempts.
- DO NOT force suction catheter. If unable to pass, then tracheostomy tube should be changed.
- Always deflate tracheal tube cuff before removal. Continual pulse oximetry and EtCO2 monitoring if available.
- **DOPE:** Displaced tracheostomy tube / ETT, Obstructed tracheostomy tube / ETT, Pneumothorax and Equipment failure.

**Respiratory Distress With a Tracheostomy Tube**

- **Tracheostomy Tube in place**
  - **NO**
  - **Tracheostomy Tube available**
  - **YES**
  - **Obturator Removed**
    - **NO**
    - **Remove Obturator**
    - **Inner Cannula in place (Double lumen)**
      - **YES**
      - **Remove Inner Cannula**
      - **Suction Tracheostomy Tube**
    - **NO**
    - **Speaking Valve**
      - **Decannulation plug Removed**
        - **NO**
        - **Remove Speaking Valve**
        - **Remove Decannulation plug**
        - **Suction Tracheostomy Tube**
      - **YES**
      - **Suction Tracheostomy Tube**
    - **YES**
    - **Continued Respiratory Distress**
      - **YES**
      - **Assist Ventilations via Tracheostomy Tube / ETT**
      - **Exit to Appropriate Pediatric Respiratory Distress Protocol(s)**
      - **Notify Destination or Contact Medical Control**
    - **NO**
    - **Monitor and Reassess**
  - **YES**
  - **Place Tracheostomy Tube / Appropriately sized ETT into stoma**
  - **Place Appropriately sized endotracheal tube into stoma**
  - **Continued Respiratory Distress**
    - **NO**
    - **YES**

Any local EMS System changes to this document must follow the NC OEMS Protocol Change Policy and be approved by OEMS

**Revised 10/30/2013**