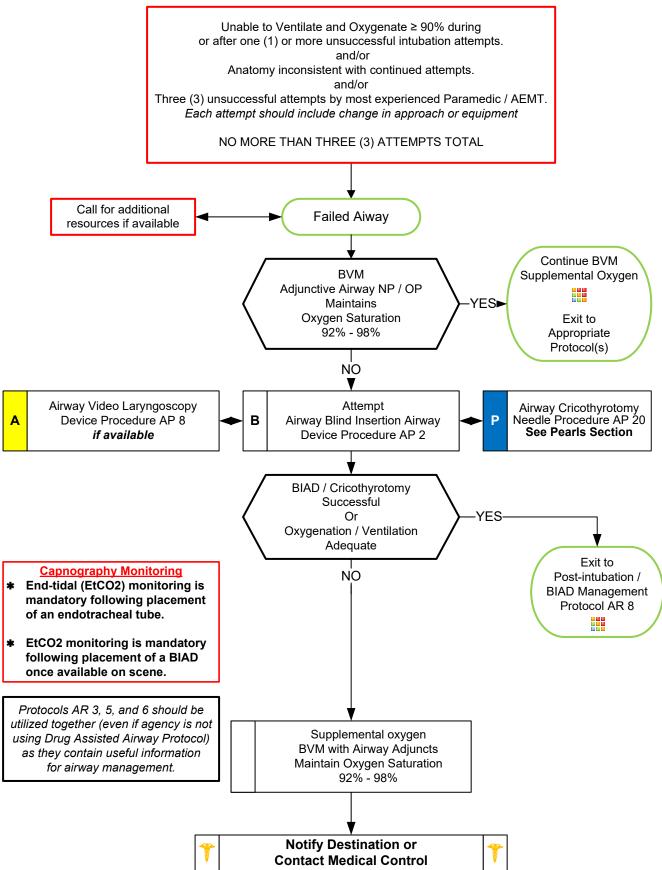
Pediatric Failed Airway





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Airway Respiratory Protocol Secti

Pearls

* Capnography Monitoring (EtCO2):

Pulse Oximetry & End Tidal Capnography is MANDATORY with all Advanced Airways. Document results. (Not validated and may prove impossible in the neonatal population - verification by two (2) other means is recommended in this population.)

This protocol is for use in patients who FIT within a Pediatric Medication/Skill Resuscitation System Product.

- * For the purposes of this protocol a secure airway is when the patient is receiving appropriate oxygenation and ventilation.
- * If an effective airway is being maintained by BVM with continuous pulse oximetry values of 92% 98%, it is acceptable to continue with basic airway measures.
- ***** Ventilation rate:

30 for Neonates, 25 for Toddlers, 20 for School Age, and for Adolescents the normal Adult rate of 10 - 12 per minute. Maintain EtCO2 between 35 - 45 and avoid hyperventilation.

* Ketamine for airway intervention and/ or sedation purposes:

Ketamine may be used in pediatric patients (fit within a Pediatric Medication/Skill Resuscitation System product, ≤ 15 years of age, or ≤ 49 kg) with DIRECT ONLINE MEDICAL ORDER by the system MEDICAL DIRECTOR or ASSISTANT MEDICAL DIRECTOR only.

***** KETAMINE:

Ketamine may be used with or without a paralytic agent in conjunction with either an OPA, NPA, BIAD or endotracheal tube. BIAD is preferred over endotracheal tube until hypoxia and/ or hypotension are corrected.

Ketamine may be used during the resuscitation of hypoxia or hypotension in conjunction with airway management. Once hypoxia and hypotension are corrected, use of a sedative and paralytic can proceed if indicated.

Ketamine may be used in the dangerously combative patient requiring airway management IM. IV/ IO should be established as soon as possible.

Ketamine may be used for sedation once a BIAD or endotracheal tube are established and confirmed.

* Intubation:

Attempt defined as laryngoscope blade passing the teeth or endotracheal tube passed into the nostril.

Use of a stylet is recommended in all pediatric intubations.

Endotracheal tube: Depth = 3 x the diameter of the ETT. Estimated Size = 16 + age (years) / 4. Term newborn = 3.5 mm.

If First intubation attempt fails, make an adjustment and try again: (Consider change of provider in addition to equipment)

***** NC EMS Airway Evaluation Form:

Fully complete and have receiving healthcare provider sign confirming BIAD or endotracheal tube placement.

Complete online in region specific ReadyOp and upload completed form.

Complete when Ketamine, Etomidate, Succinylcholine and/ or Rocuronium or used to facilitate use of a BIAD and/ or endotracheal intubation. Paramedics/ AEMT should consider using a BIAD if endotracheal intubation is unsuccessful.

- * Secure the endotracheal tube well and consider c-collar in pediatric patients (even in absence of trauma) to better maintain ETT placement.

 Manual stabilization of endotracheal tube should be used during all patient moves / transfers.
- * Airway Cricothyrotomy Percutaneous Needle Procedure:

Indicated as a lifesaving / last resort procedure in pediatric patients < 10 years of age.

Very little evidence to support it's use and safety.

A variety of alternative pediatric airway devices now available make the use of this procedure rare.

Agencies who utilize this procedure must develop a written procedure, establish a training program, maintain equipment and submit procedure and training plan to the State Medical Director/ Regional EMS Office.

≥ 10 years: Surgical cricothyrotomy or commercial kits based on agency preference recommended.

DOPE: Displaced tracheostomy tube/ ETT, Obstructed tracheostomy tube/ ETT, Pneumothorax and Equipment failure