Unable to Ventilate and Oxygenate ≥ 90% during or after one (1) or more unsuccessful intubation attempts.

Anatomy inconsistent with continued attempts.

Three (3) unsuccessful attempts by most experienced EMT-P/I.

*Each attempt should include change in approach or equipment*

NO MORE THAN THREE (3) ATTEMPTS TOTAL

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**Failed Airway**

- BVM Adjunctive Airway Maintains Oxygen Saturation ≥ 90 %
  - YES
  - NO

- Significant Facial Trauma / Swelling / Distortion
  - Place Oral and / or Nasal Airway
  - Oxygenation / Ventilation Adequate
    - YES
    - NO

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**Airway BIAD Procedure**

- Airway Cricothyrotomy Needle Procedure
  - Supplemental oxygen BVM Maintain Oxygen Saturation ≥ 90 %
  - See Pearls Section

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**Notify Destination or Contact Medical Control**

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**Supplemental Oxygen**

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**Supplemental oxygen BVM Maintain Oxygen Saturation ≥ 90 %**

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**Exit to Appropriate Protocol**

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**Call for additional resources if available**

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**B VM**

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**Adjunctive Airway Maintains Oxygen Saturation ≥ 90 %**

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**YES**
Pediatric Failed Airway

**Pearls**

- For this protocol, pediatric is defined as less than ≤ 11 years of age or any patient which can be measured within the Broselow-Luten tape.
- Capnometry (color) or capnography is mandatory with all methods of intubation. Document results.
- Continuous capnography (EtCO₂) is strongly recommended with BIAD or endotracheal tube use.
- If an effective airway is being maintained by BVM with continuous pulse oximetry values of ≥ 90%, it is acceptable to continue with basic airway measures instead of using a BIAD or Intubation.
- For the purposes of this protocol a secure airway is when the patient is receiving appropriate oxygenation and ventilation.
- An intubation attempt is defined as passing the laryngoscope blade or endotracheal tube past the teeth or inserted into the nasal passage.
- Ventilatory rate should be 30 for Neonates, 25 for Toddlers, 20 for School Age, and for Adolescents the normal Adult rate of 12 per minute. Maintain a EtCO₂ between 35 and 45 and avoid hyperventilation.
- Hyperventilation in deteriorating head trauma should only be done to maintain a pCO₂ of 30-35.
- It is strongly encouraged to complete an Airway Evaluation Form with any BIAD or Intubation procedure.
- If first intubation attempt fails, make an adjustment and then try again: Different laryngoscope blade; Gum Elastic Bougie; Different ETT size; Change cricoid pressure; Apply BURP; Change head positioning
- Paramedics should consider using a BIAD if oral-tracheal intubation is unsuccessful.
- Cricoid pressure and BURP maneuver may be used to assist with difficult intubations. They may worsen view in some cases.
- Gastric tube placement should be considered in all intubated patients.
- It is important to secure the endotracheal tube well and consider c-collar (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 Needle Procedure:**
  - Indicated as a lifesaving / last resort procedure in pediatric patients ≤ 11 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.