

Adult, Failed Airway

Protocols AR 1, 2, and 3 should be utilized together (even if agency is not using Drug Assisted Airway as they contain useful information for airway management.

Unable to Ventilate and Oxygenate $\geq 90\%$ during or after one (1) or more unsuccessful intubation attempts.
and/or
Anatomy inconsistent with continued attempts.
and/or
Three (3) unsuccessful attempts by most experienced Paramedic/AEMT.
Each attempt should include change in approach or equipment

NO MORE THAN THREE (3) ATTEMPTS TOTAL

- Capnography Monitoring**
- End-tidal (EtCO₂) monitoring is mandatory following placement of an endotracheal tube.
 - EtCO₂ monitoring is mandatory following placement of a BIAD once available on scene.

Failed Airway

Call for additional resources if available

BVM
Adjunctive Airway NP / OP
Maintains
Oxygen Saturation $\geq 90\%$
Preferably $\geq 94\%$

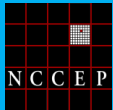
Continue BVM
Supplemental Oxygen

Exit to
Appropriate Protocol(s)

NO

B	Attempt Airway Blind Insertion Airway Device Procedure
A	Airway Video Laryngoscopy Device Procedure <i>if available</i> Optional
P	Airway Cricothyrotomy Surgical Procedure
	Supplemental oxygen BVM with Airway Adjuncts Maintain Oxygen Saturation $\geq 90\%$ Preferably $\geq 94\%$
	Post-intubation BIAD Management Protocol AR 8

Notify Destination or Contact Medical Control



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Pearls

- **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 $\geq 90\%$, it is acceptable to continue with basic airway measures.**
- **Ventilation rate should be 8-10 per minute to maintain a EtCO₂ of 35-45. Avoid hyperventilation.**
- **Anticipating the Difficult Airway and Airway Assessment:**
 - **Difficult BVM Ventilation (MOANS):** Mask seal difficulty (hair, secretions, trauma); Obese, obstruction, OB – 2d and 3d trimesters; Age ≥ 55 ; No teeth; Stiff lungs or neck
 - **Difficult Laryngoscopy (LEON):** Look externally for anatomical problems; Evaluate 3-3-2 (Mouth opening should equal 3 of patient's finger's width, mental area to neck should equal 3 of patient's finger's width, base of chin to thyroid prominence should equal 2 of patient's finger's width); Obese, obstruction, OB – 2d and 3d trimesters; Neck mobility limited.
 - **Difficulty BIAD (RODS):** Restricted mouth opening; Obese, obstruction, OB – 2d and 3d trimesters; Distorted or disrupted airway; Stiff lungs or neck
 - **Difficulty Cricothyrotomy / Surgical Airway (SMART):** Surgery scars; Mass or hematoma, Access or anatomical problems; Radiation treatment to face, neck, or chest; Tumor.
- **Capnography Monitoring (EtCO₂):**
 - **Continuous Waveform or Quantitative Capnography and Pulse Oximetry are required for intubation verification and ongoing patient monitoring (Not validated and may prove impossible in the neonatal population - verification by two (2) other means is recommended in this population.)**
 - **Capnography verification and monitoring is required for BIAD verification and monitoring once available on scene.**
- **Nasotracheal intubation:**
 - **Procedure requires spontaneous breathing and may require considerable time, exposing patient to critical desaturation. Contraindicated in combative, anatomically disrupted or distorted airways, increased ICP, severe facial trauma, basal skull fracture, and head injury. Orotracheal route is preferred.**
 - **Intubation attempt defined as laryngoscope blade passing the teeth or endotracheal tube passed into the nostril.**
 - **If First intubation attempt fails, make an adjustment and try again: (Consider change of provider in addition to equipment)**
 - AEMT and Paramedics should consider using a BIAD if oral-tracheal intubation is unsuccessful.
 - During intubation attempts use External Laryngeal Manipulation to improve view of glottis.
 - Gastric tube placement should be considered in all intubated patients if available or time allows.
 - It is important to secure the endotracheal tube well to better maintain ETT placement. Manual stabilization of endotracheal tube should be used during all patient moves / transfers.
 - **DOPE:** Displaced tracheostomy tube / ETT, Obstructed tracheostomy tube / ETT, Pneumothorax and Equipment failure.