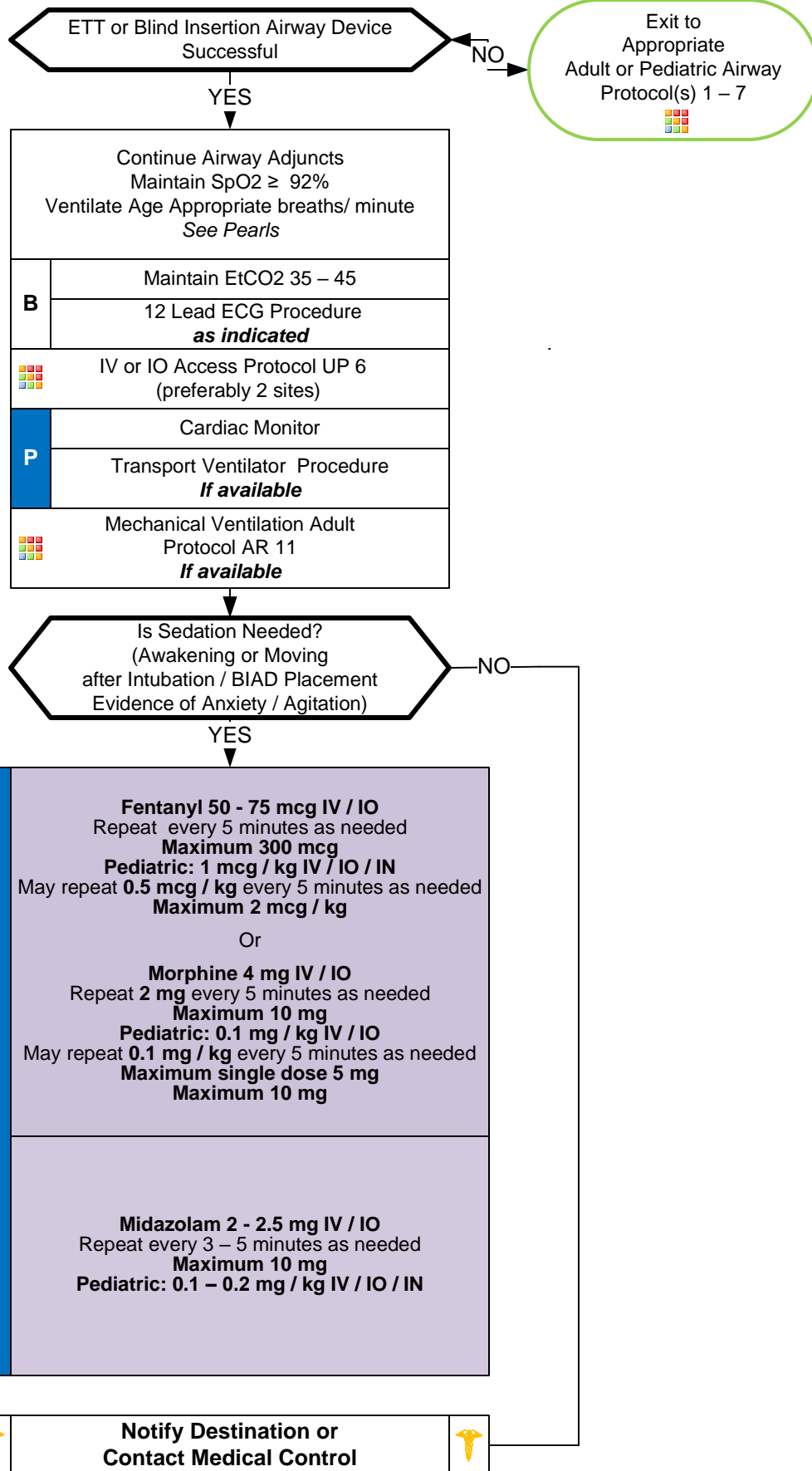# Post-intubation/ BIAD Management

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.**

Protocols AR 1, 2, 3, 5, and 6 should be utilized together (even if agency is not using Drug Assisted Airway Protocol) as they contain useful information for airway management.

ETT or Blind Insertion Airway Device Successful — NO → **Exit to Appropriate Adult or Pediatric Airway Protocol(s) 1 – 7**

YES
↓

Continue Airway Adjuncts
Maintain SpO2 ≥ 92%
Ventilate Age Appropriate breaths/ minute
See Pearls

B	Maintain EtCO2 35 – 45
	12 Lead ECG Procedure ***as indicated***
	IV or IO Access Protocol UP 6 (preferably 2 sites)
P	Cardiac Monitor
	Transport Ventilator Procedure ***If available***
	Mechanical Ventilation Adult Protocol AR 11 ***If available***

Is Sedation Needed?
(Awakening or Moving after Intubation / BIAD Placement Evidence of Anxiety / Agitation) — NO

YES
↓

P

Fentanyl 50 - 75 mcg IV / IO
Repeat every 5 minutes as needed
Maximum 300 mcg
Pediatric: 1 mcg / kg IV / IO / IN
May repeat **0.5 mcg / kg** every 5 minutes as needed
Maximum 2 mcg / kg

Or

Morphine 4 mg IV / IO
Repeat **2 mg** every 5 minutes as needed
Maximum 10 mg
Pediatric: 0.1 mg / kg IV / IO
May repeat **0.1 mg / kg** every 5 minutes as needed
Maximum single dose 5 mg
Maximum 10 mg

Midazolam 2 - 2.5 mg IV / IO
Repeat every 3 – 5 minutes as needed
Maximum 10 mg
Pediatric: 0.1 – 0.2 mg / kg IV / IO / IN

Notify Destination or Contact Medical Control

Pearls

- **Recommended Exam: Mental Status, HEENT, Heart, Lungs, Neuro**
- **Patients requiring advanced airways and ventilation commonly experience pain and anxiety.**
- **Unrelieved pain can lead to increased catecholamine release, ischemia, immunosuppression, and prolonged hospitalization.**
- **Ventilated patients cannot communicate pain/ anxiety and providers are poor at recognizing pain/ anxiety.**
- **Vital signs such as tachycardia and/ or hypertension can provide clues to inadequate sedation, however they are not always reliable indicators of a patient's lack of adequate sedation.**
- **Sedation strategy:**
    - **Pain is the primary reason patients experience agitation and must be addressed first.**
    - **Opioids and/ or Ketamine are the first line agents, alone or in combination.**
    - **Benzodiazepines may be utilized if patient is not responding to adequate opioid and/ or Ketamine doses.**
    - **Patients that have received paralytics may be experiencing pain with no obvious signs or symptoms.**
- **Ventilation rate:**
    - **Guidelines: 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.**
- **Ventilator/ Ventilation strategies will need to be tailored to individual patient presentations. Medical director can indicate different strategies above.**
- In general, ventilation with BVM should cause chest rise. With mechanical ventilation a reasonable tidal volume should be about 6 - 8 mL/kg and peak pressures should be < 30 cmH_2O. Plateau Pressures should be < 30 cmH_2O.
- Head of bed should be maintained at least 10 – 20 degrees of elevation when possible, to decrease aspiration risk.
- With abrupt clinical deterioration, if mechanically ventilated, disconnect from ventilator to assess lung compliance.
- **DOPE: D**isplaced tracheostomy tube/ ETT, **O**bstructed tracheostomy tube/ ETT, **P**neumothorax and **E**quipment failure.

Revised
10/15/2024

AR 8
Any local EMS System changes to this document must follow the NC OEMS Protocol Change Policy and be approved by OEMS

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