DRUG-ASSISTED INTUBATION (DAI)

Expanded Scope Practice (NR)

Purpose: Achieve rapid tracheal intubation of patient with intact protective airway reflexes who needs an immediate airway through the use of pharmacological aids and techniques that facilitate intubation.

Consider indications for DAI:

- Actual or potential airway impairment or aspiration risk (trauma, stroke, AMS)
- Actual/ impending ventilatory failure (HF, pulmonary edema, COPD, asthma, anaphylaxis; shallow/labored effort; $SpO_2 \leq 90$; $ETCO_2 \geq 60$)
- Increased WOB (retractions, use of accessory muscles) resulting in severe fatigue
- GCS 8 or less due to an acute condition unlikely to be self-limited
  (Ex. self-limited conditions: seizures, hypoglycemia, postictal state, certain drug overdoses or traumatic brain injuries)
- Inability to ventilate/oxygenate adequately after inserting an OPA/NPA and/or via BVM
- Need for ↑ inspiratory or positive end expiratory pressures to maintain gas exchange
- Need for sedation to control ventilations

Contraindications/restrictions to use of sedatives: Coma with absent airway reflexes or known hypersensitivity/allergy. Use in pregnancy could be potentially harmful to fetus; consider risk/benefit.

1. **IMC:** SpO_2, evaluate before and after airway intervention; confirm patent IV/IO; ECG monitor
2. **Prepare patient:**
   - **Position** supine in sniffing position (earlobe horizontal w/ xiphoid) if not contraindicated
   - Assess for signs suggesting a difficult intubation
3. **Preoxygenate for 3 minutes**
   - Breathing at RR 8 or greater: O_2 12-15 L/NRM to avoid gastric distention
   - RR < 8 or shallow: O_2 15 L/BVM at 10 BPM (asthma: 6-8)
4. **Prepare equipment**: BSI, suction source (attach rigid tip catheter); drugs & airway equipment (bougie)
5. **Premedicate** while preoxygenating
   - Gag reflex present: **BENZOCAINE** 1-2 second spray, 30 seconds apart X 2 to posterior pharynx
     May need to wait until after & etomidate given if teeth clenched
   - Pain mgt if needed: Fentanyl standard dose per IMC
6. **Sedation**
   - **ETOMIDATE 0.5 mg/kg IVP up to local max dose per procedure *OR***
   - ***KETAMINE*** *(preferred for Asthma)* ***2 mg/kg*** *slow* ***IVP*** *(over one min) or* ***4 mg/kg IM***
   - Allow for clinical response before intubating (if possible)
7. **Intubate per procedure**: *Maintain O_2 6 L/NC during procedure*
   - Apply lip retraction, external laryngeal pressure; in-line stabilization if indicated
   - Monitor VS, level of consciousness, skin color, $ETCO_2$ (if available), SpO_2 q. 5 min. during procedure
   - Assist ventilations at 10 BPM if ↓ RR or depth, or ↓ BP & hypoxic
8. **Confirm tube placement**
   - Monitor $ETCO_2$ (quantitative waveform capnography preferred)
   - Ventilate and observe chest rise; auscultate over epigastrium, bilateral anterior chest, and midaxillary lines
   - If $ETCO_2$ not detected, confirm position with direct laryngoscopy
9. **If successful**
   - O_2 15 L/BVM at 10 BPM (asthma 6-8)
   - Inflate cuff (avoid overinflation); note diamond number on ETT level with teeth or gums (3 X ID ETT)
   - Secure ETT with commercial device. Reassess $ETCO_2$ & lung sounds. Apply lateral head immobilization.
   - Post-intubation sedation: If SBP ≥ 90 (MAP≥ 65): **MIDAZOLAM 2 mg slow IVP/IN** increments q. 2 min to 20 mg prn
   - Continue to monitor $ETCO_2$ or capnography to confirm tracheal placement.
10. **If unsuccessful**: Reoxygenate X 30 sec; repeat steps 7 & 8. Consider need for additional medication.
    If unsuccessful (max 2 attempts) or ETI attempts not advised: insert **alternate airway**; ventilate with O_2 15 BVM
11. **If unable to adequately ventilate**: Needle *or surgical cricothyrotomy* per System procedure.