



# MIAMI TOWNSHIP FIRE & EMS CLERMONT COUNTY, OHIO *PROCEDURE PROTOCOLS*

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## AIRWAY, OXYGEN ADMINISTRATION, & VENTILATION

### Airway Procedures

1. Basic manual airway opening procedures.
  - A. Head tilt/chin lift for unconscious adults in the absence of trauma.
  - B. Modified jaw thrust without head extension for trauma patients.
  - C. Sniffing position without hyperextension for pediatric patients  $\leq 8$  years.
  
2. Basic airway adjunct procedures.
  - A. Oral pharyngeal airway (OPA) for patients without a gag reflex.
  - B. Nasal pharyngeal airway (NPA) for patients with a gag reflex and or a clenched jaw.
    - i. Do not use in patients with severe maxillofacial trauma or suspected basilar skull fractures.
  
3. Advanced airway procedures.
  - A. Oral tracheal intubation is the preferred technique for intubation in all of the following situations:
    - i. Any apneic patient. (cardiac or respiratory arrest)
    - ii. Impending respiratory failure utilizing RSI.
    - iii. Acute GCS  $\leq 8$  (trauma, drug overdose, status epilepticus) utilizing RSI.
    - iv. All pediatric patients  $< 14$  years.
  - B. Nasotracheal intubation should be considered when the patient is a poor candidate for RSI.
    - i. Difficult airway anatomy with potential for “can’t intubate or ventilate scenario”.



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- C. King LTS-D should only be utilized as a rescue airway when primary intubation techniques are unsuccessful and the following criteria are met:
  - i. Patients must be 5-6 ft tall.
  - ii. No known esophageal disease.
  - iii. No acute ingestion of caustic substances.
- D. Quicktrach is the surgical airway device of choice for patients that urgently need an airway for ventilation when all other methods to facilitate *VENTILATION* have failed.

## **Oxygenation**

Oxygen administration should be based on clinical exam including respiratory effort, oxygen saturation, capnograph and any acute or chronic medical conditions that may be present. In general, any patient with an oxygen saturation of < 95% should be given supplemental oxygen. The following information outlines the appropriate oxygen device, recommended flow, and clinical situation.

1. Nasal cannula: 2-6 LPM for patients in mild distress without signs of hypoxia.
2. Non-rebreather mask: 10-15 LPM for patients in moderate to severe distress with signs of hypoxia.
3. Nebulizer: 6-8 LPM for patients with signs of bronchospasm (wheezing) or poor air movement (tight breath sounds).
4. CPAP: 100 % oxygen through 50 psi DISS for patients with signs of acute pulmonary edema.
5. Bag-Mask Ventilation: 15 LPM for patients requiring ventilatory support.



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## Ventilations

Bag-mask positive pressure ventilations should be performed on all patients requiring ventilatory support. The following information outlines the appropriate rates of ventilation:

1. Cardiac arrest
  - A. Adult/Pediatric 8-10 breaths per minute.
2. Ventilatory support with a perfusing rhythm.
  - A. Adult 10-12 breaths per minute (PCO<sub>2</sub> 35-45 mm Hg).
  - B. Pediatric 12-20 breaths per minute (PCO<sub>2</sub> 35-45 mm Hg).
3. Elevated ICP with possible herniation 10-20 breaths per minute titrated to a PCO<sub>2</sub> level 30-35 mm Hg.
  - A. Signs of impending herniation: *Cushing's Triad*
    - i. Bradycardia
    - ii. Hypertension (widening pulse pressure)
    - iii. Change in respiratory pattern (Cheyne-Stokes)
    - iv. Unequal pupils (not part of Cushing's but often present)
    - v. GCS ≤ 8