

**CONTINUOUS POSITIVE AIRWAY PRESSURE – CPAP**

1. **PURPOSE:** To improve ventilation and oxygenation, and avoid intubation. *CPAP is required for all ALS providers.*
2. **INDICATIONS:** Patients age 8 or older in severe respiratory distress and:
  - ▶ **CHF with pulmonary edema**
  - ▶ **Near-drowning**
  - ▶ **Other causes of severe respiratory distress**
3. **CONTRAINDICATIONS** - Bag-valve-mask ventilation or endotracheal intubation should be considered for any patient who exhibits one or more of the following contraindications
  - 3.1 **Absolute Contraindications** (DO NOT USE):
    - ▶ Age < 8
    - ▶ Respiratory or cardiac arrest
    - ▶ Agonal respirations
    - ▶ Severely depressed level of consciousness
    - ▶ Systolic blood pressure < 90
    - ▶ Signs and symptoms of pneumothorax
    - ▶ Inability to maintain airway patency
    - ▶ Major trauma, especially head injury with increased ICP or significant chest trauma
    - ▶ Facial anomalies or trauma (e.g., burns, fractures)
    - ▶ Vomiting
  - 3.2 **Relative Contraindications** (USE CAUTIOUSLY):
    - ▶ History of Pulmonary Fibrosis
    - ▶ Decreased LOC
    - ▶ Claustrophobia or unable to tolerate mask (after first 1-2 minutes trial). Consider Sedation, page 139
4. **COMPLICATIONS:**
  - ▶ Hypotension
  - ▶ Pneumothorax
  - ▶ Corneal Drying
5. **GOALS OF CPAP:**
  - ▶ Elimination of dyspnea
  - ▶ Decreased respiratory rate
  - ▶ Decreased heart rate
  - ▶ Increased SpO<sub>2</sub>
  - ▶ Stabilized blood pressure

*Bag-valve-mask ventilation or endotracheal intubation should be considered if the patient fails to show improvement based on the above goals.*

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**For all CPAP patients:**

6. **FAILURE TO IMPROVE:** Should the patient fail to show improvement with CPAP (as evidenced by the following) remove the CPAP device and assist ventilations with BVM, as needed
  - 6.1 Sustained or increased heart rate,
  - 6.2 Sustained or increased respiratory rate,
  - 6.3 Sustained or increased blood pressure,
  - 6.4 Sustained or decreasing pulse oximetry readings, and/or
  - 6.5 Decrease in level of consciousness
7. **DOCUMENTATION:**
  - 7.1 The use of CPAP must be documented on the PCR
  - 7.2 Vital signs (BP, HR, RR, SpO<sub>2</sub>) must be documented every 5 minutes.
  - 7.3 Narrative documentation should include a description of the patient's response to CPAP. Refer to "Goals of CPAP" for descriptive terms that may be useful
  - 7.4 Additional narrative documentation should include if the patient does not respond to CPAP and endotracheal intubation is required