

Medical Control Guideline: CONTINUOUS POSITIVE AIRWAY PRESSURE

PRINCIPLES:

1. Continuous Positive Airway Pressure (CPAP) is a non-invasive, mechanical ventilatory support system. It is effective in treating patients with shortness of breath by decreasing work of breathing, improving pulmonary gas exchange and improving pulmonary compliance. CPAP decreases the need for endotracheal intubation, reduces intensive care unit admissions, and shortens hospital length of stay.
2. CPAP is approved for patients with moderate-to-severe respiratory distress who meet ALL of the following criteria:
 - a. Greater than the length of the length-based resuscitation tape (i.e. Broselow™)
 - b. Awake
 - c. Cooperative
 - d. Able to follow commands
3. Contraindications to CPAP include:
 - a. Respiratory or cardiac arrest
 - b. Inability to protect airway
 - c. Cannot follow basic commands
 - d. Hypotension (systolic blood pressure < 90mmHg)
 - e. Tracheostomy
 - f. Vomiting
 - g. Suspected pneumothorax
 - h. Respiratory distress due to traumatic injury

GUIDELINES:

1. Explain the procedure to the patient prior to starting CPAP. Patient understanding and cooperation are critical to successful treatment.
2. Titrate CPAP pressure per manufacturer's guidelines to improvement of symptoms as tolerated by patient. Improvement is demonstrated by a decrease in respiratory distress, improvement in vital signs, and/or an increase in oxygen saturation.
3. Continuously monitor vital signs, including oxygen saturation and end-tidal carbon dioxide (CO₂), to ensure adequate ventilation and hemodynamic stability. Document findings at least every five minutes throughout the treatment until the transfer of care.
4. If the patient's condition worsens or is unable to tolerate CPAP, discontinue CPAP and continue to supplement oxygen per [MCG 1302](#). Be prepared to assist ventilations with a bag mask as indicated.
5. Maintain CPAP for patients who tolerate treatment until care is assumed by the receiving facility.
6. Document the patient's response to therapy, CPAP pressure (initial and at transfer of care), any adverse event while on CPAP, and rationale if CPAP is discontinued prior to the transfer of care.