

MEDICAL CONTROL GUIDELINE: CONTINUOUS POSITIVE AIRWAY PRESSURE

PRINCIPLES:

1. Continuous Positive Airway Pressure (CPAP) is a non-invasive, mechanically assisted, oxygen delivery system designed to decrease the work of breathing and allowing time for patients to respond to medical therapies. CPAP is approved for patients with moderate-to-severe respiratory distress who meet ALL of the following criteria:
 - a. Greater than 14 years of age
 - b. Awake
 - c. Cooperative
 - d. Able to follow commands
2. CPAP benefits:
 - a. Improved pulmonary gas exchange through increased alveolar ventilation
 - b. Decreased need for emergency endotracheal intubation
 - c. Decreased morbidity and mortality associated with invasive mechanical ventilation
 - d. Reduced intensive care admissions and shortened hospital length of stay
3. CPAP contraindications:
 - a. Age 14 years or younger
 - b. Uncooperative or unable to follow instructions
 - c. Respiratory or cardiac arrest
 - d. Suspected pneumothorax
 - e. Tracheostomy
 - f. Facial, head or chest trauma
 - g. Vomiting
 - h. Moderate to severe epistaxis
 - i. Hypotension (systolic blood pressure less than 90 mmHg)
4. Possible CPAP complications:
 - a. Hypotension
 - b. Pneumothorax
 - c. Corneal drying
 - d. Gastric distention
5. CPAP is approved under the local optional scope of practice for paramedics who have completed specialized training and are employed by an approved CPAP provider. All CPAP training materials and quality improvement review must be approved by the EMS Agency prior to implementation.

GUIDELINES:

1. Fully explain the procedure before starting CPAP to facilitate patient understanding and cooperation as these are critical to successful treatment. Provide support and encouragement throughout the procedure.
2. Titrate CPAP pressure to improvement of symptoms as tolerated by patient or to a maximum pressure of 10cmH₂O. Improvement is demonstrated by decrease in respiratory distress, improvement in vital signs, and an increase in oxygen saturation (SPO₂).

3. Continuously monitor vital signs, including SPO₂, to verify adequate ventilation and hemodynamic stability. Document findings at least every five minutes throughout the treatment until the transfer of care. Prepare to assist ventilations if the patient worsens or is unable to tolerate CPAP.
4. Maintain continuous CPAP for patients who tolerate treatment until patient is placed on a non-invasive positive airway pressure device, or patient care is assumed by the receiving facility.
5. 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.