

Monterey County EMS System Policy



Policy Number: 4503
Effective Date: 7/1/2022
Review Date: 6/30/2025

CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP)

I. PURPOSE

CPAP may be utilized for severe respiratory distress or impending respiratory failure due to various conditions such as pulmonary edema, COPD, asthma, non-fatal drowning, pneumonia, or other respiratory conditions where ventilation and/or gas exchange is impaired. CPAP may improve these conditions through improving gas exchange by creating constant pressure that keeps the bronchioles and alveoli open while forcing excess fluid from the interstitial tissue surrounding the alveoli as well as by reducing the overall work of breathing.

II. POLICY

- A. CPAP should be used in accordance with the conditions outlined below.
- B. Paramedic Service Provider personnel shall have documented training in the use of the CPAP device(s) currently in use in Monterey County. This training shall include the practical application of the device and documented understanding of this policy. Training shall be provided prior to deployment of CPAP and at least annually.

III. INDICATIONS

Patients age 9 or older in severe respiratory distress.

IV. CONTRAINDICATIONS

ABSOLUTE Contraindications (DO NOT USE)

- A. Age <9
- B. Respiratory or Cardiac Arrest
- C. Agonal Respirations
- D. Severely depressed level of consciousness
- E. Systolic blood pressure < 110mmHg
- F. Signs and symptoms of pneumothorax
- G. Major facial, head, neck, or chest trauma
- H. Inability to maintain airway patency
- I. Facial anomalies that prevent adequate mask seal
- J. Possible transmissible airborne infectious disease (COVID, TB, etc.)
- K. Vomiting or active GI bleeding

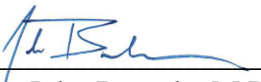
RELATIVE Contraindications (USE WITH CAUTION)

- A. History of Pulmonary Fibrosis
- B. Claustrophobia or unable to tolerate mask (after coaching attempt and a two-minute trial)

V. PROCEDURE

- A. It is imperative to mentally prepare and reassure your patient prior to applying the CPAP device. Approach the patient slowly with the mask and hold it a few centimeters away from their face prior to application and securing the headstraps.
- B. Follow manufacturer's directions for set up and placement of the CPAP device. Ensure an adequate oxygen supply.
- C. Start CPAP at 7.5 .cm H₂O.Provider may increase up to 10 cm H₂O based on patient's presentation. Base hospital contact shall be obtained to adjust the setting > 10 cm H₂O.
- D. In-line nebulization may be used with the CPAP circuit to administer a bronchodilator during CPAP use.
- E. Monitor and document vital signs (BP, heart rate, respiratory rate, SPO₂, cardiac rhythm, and ET_{CO}2) and patient response to treatment every 5 minutes.
- F. Observe for signs of deterioration or failure of response to CPAP.

END OF POLICY



John Beuerle, M.D.
EMS Medical Director



Teresa Rios
EMS Bureau Chief