

**REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Intermediate, EMT – Paramedic**

SMO: CPAP / BiPAP

Overview: CPAP / BiPAP is the application of positive end expiratory pressure by facemask for relief of hypoxemia that does not respond to conventional therapy. Patient must be able to adequately ventilate spontaneously. The increase in airway pressure allows for better diffusion of gases and reexpansion of collapsed alveoli, resulting in improved gas exchange and reduction in the work of breathing.

The objective for the use of CPAP / BiPAP is

- To relieve hypoxemia that does not respond to conventional therapy
- To reduce the need for endotracheal intubation and shorten hospital stay

CPAP / BiPAP is to be used only by Providers that have been approved by their EMSMD

Indication for CPAP / BiPAP

- ___ Congestive Heart Failure / Pulmonary Edema
- ___ COPD / Asthma
- ___ Pneumonia
- ___ Near Drowning
- ___ Other causes of Respiratory Distress

INFORMATION NEEDED

- ___ Patient History
- ___ Respiratory rate and use of accessory muscles
- ___ Pulse oximeter

OBJECTIVE FINDINGS

Respiratory Distress – two or more of the following

- Retraction or use of accessory muscles
- Respiratory rate greater than 25
- Pulse oximeter less than 92%

GENERAL TREATMENT

- ___ Routine Medical Care – with continuous pulse ox monitoring
- ___ Refer to Pulmonary Edema and Wheezing protocols as necessary
- ___ 100% O2 by non-rebreather mask – while preparing for CPAP / BiPAP
- ___ Apply CPAP / BiPAP per device recommendations
- ___ Coach patient to place mask over their mouth and nose, then firmly attach mask
- ___ If wheezing, perform in-line Albuterol Nebulizer treatment
- ___ If patient deteriorates, remove CPAP / BiPAP, ventilate with BVM and consider airway insertion

Documentation of adherence to protocol:

- Document indication for CPAP / BiPAP
- Vital Sign and pulse oximeter before and during CPAP / BiPAP
- Document assessment of respiratory distress before CPAP / BiPAP
- Time CPAP / BiPAP started
- Patient tolerance
- Effects / adverse reaction

Medical Control Contact Criteria

- *Contact Medical Control if any questions arise regarding the best treatment options for the patient.

PRECAUTIONS AND COMMENTS

Contraindications

- Systolic blood pressure less than 90 mmHg
- Respiratory or Cardiac Arrest
- Inability to maintain patent airway
- Major trauma
- Vomiting or active GI bleeding
- Pneumothorax

Complications

- Barotrauma (very rare)
- Claustrophobia