

CPAP PROTOCOL



Continuous Positive Airway Pressure

The following protocol is the recommended guidelines for the use of CPAP on the adult patient presenting with respiratory insufficiency. This protocol is put into place in attempts to reduce the number of patients requiring intubation as a result of respiratory failure.

CPAP does not replace conventional methods. Aggressive airway management with early oxygen delivery and medications continues. CPAP enhances the effectiveness of the medications by shifting the alveolar fluids and reducing atelectasis.

The CPAP unit will provide a continual 31% oxygen source when appropriately attached to a DISS prot (50 PSI) and securely sealed against the patient's face. This is a critical component to making the CPAP effective for the patient.

The following patients are candidates for use of CPAP:

- Ability to maintain their own airway.
- Spontaneous respiratory efforts.
- Presumed cardiogenic pulmonary edema.
 - A. History of cardiac failure.
 - B. Bi-basilar or diffuse rales.
- Respiratory distress.
 - A. Retractions.
 - B. Accessory muscle use.
 - C. Respiratory rate > 25.
 - D. Pulse oximetry reading less than 92%.

Procedure

- Assess ABCs, apply oxygen, assess vital signs, pulse oximetry.
- Identify the patients at risk for respiratory failure from one of the above related conditions.
- Attach cardiac monitor, perform 12-Lead ECG.
- Apply CPAP. The initial use of this device requires encouraging the patient to relax. The mask must be sealed against the face to insure adequate delivery and function. Some patients may be more comfortable if they are allowed to hold the mask against their face, providing they have an adequate level of consciousness. The patient should be encouraged to concentrate on their respiratory efforts. Expiration becomes an active process.
- Start an IV, Normal Saline TKO.
- Consider the need for SL NTG, Morphine. Respiratory rate should be closely monitored. Refer to the respiratory failure (pulmonary edema) protocol.

- The patient will need to be monitored closely and reassessed often. Blood pressure should be re-evaluated every 5-10 minutes. Positive pressure ventilations have been associated with reducing blood pressure. Lung sounds should be auscultated with each assessment.

Patient reports should be given early to allow for the receiving facility to prepare for their continued use of the CPAP.

Contact **Medical Control** for any concerns.

Patients excluded from consideration for the use of CPAP:

- Respiratory or cardiac arrest.
- Systolic blood pressure < 90 mmHg.
- Unresponsive
- Inability to maintain own airway.
- Airway blocked or damaged or abnormal structure.
- Major trauma.
- Vomiting or active GI bleeding.
- Obvious signs or symptoms of infection.
- Patients suffering with asthma are not candidates for CPAP.

Potential risks include barotraumas, hypotension and unrecognized respiratory failure. Medics can avoid these complications by closely monitoring and assessing the patient. Should a patient deteriorate during the use of CPAP, the medic is to immediately discontinue its use and evaluate need for assisted ventilations with BVM.

Medics can consider contacting Medical Control to request Versed to improve anxious/agitated patients compliance and tolerance of the CPAP device. Close attention to the patient's respiratory function is critical.