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<b>Continuous Positive Airway Pressure Device</b> Formulated: 01/09/04	<b>Effective:</b> 5/31/05 <b>Revised:</b> 04/06/18 <b>Reviewed:</b> 08/15/23

## Continuous Positive Airway Pressure

### Purpose

To identify proper patient selection in the use of Continuous Positive Airway Pressure

### Scope

Indication for a patient to be placed on CPAP and the factors that are contraindications to use CPAP on other patients.

### Audience

Licensed Respiratory Care Practitioners with an understanding of age specific requirements of patient population

### Indications

- Patients who use CPAP device at home
- Patients with Obstructive Sleep Apnea.
- Patients without artificial airways who exhibit medically unacceptable or worsening hypoxemia despite administration of supplemental oxygen.

### Contraindications

- Patients with facial burns
- Patients with maxillo-facial fractures
- Patients with artificial airways
- Patients incapable of maintaining life-sustaining ventilation in the event of mal-positioning of the mask.
- Patients with or susceptible to pneumothorax or pneumomediastinum should be monitored closely
- A history of allergy or hypersensitivity to the mask
- ICP > 20 mm Hg
- Acute sinusitis
- Epistaxis
- Esophageal surgery
- Active hemoptysis
- Nausea
- Known or suspected tympanic membrane rupture or other middle ear pathology.

### Procedure

Step	Action
1	Review Chart for order, diagnosis, indications, and other information, wash hands and verify patient using two identifiers.
2	Explain procedure to patient; Demonstrate use of nasal

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	<p>facemask while determining proper size mask to obtain seal. The mask should fit from the end of the nasal bone to just below the nares. Be careful in ensure the mask rest above the upper lip. Placement in the area immediately above or on the lip may increase the likelihood for leaks. The mask should fit the patient comfortably. The mask sizing gauge may be used to assist in selection.</p>
3	<p>Assemble circuit and connect to the CPAP device. Ensure proper placement of exhalation valve (facing outward and unobstructed). Connect oxygen tubing for supplemental oxygen (prescribed in liters per minute or by O<sub>2</sub> to maintain SpO<sub>2</sub> in a specified range). Verify machine setting are in accordance with written orders.</p>
4	<p>Place the mask over the patient's nose and select proper spacer size. Attach spacer to the mask. Attach heads strap to mask. Apply mask and head strap to patient. Adjust the straps until all significant leaks are eliminated. Avoid over-tightening, which may cause leaks and patient discomfort. Skin integrity (pressure prevalence) must be documented with each assessment for patients that require continuous CPAP therapy or for those who are wearing CPAP for &gt;8 hours at a time.</p>
5	<p>In Epic, document the specific CPAP pressures and alarms if applicable. Note mask size and supplemental oxygen liter flow, as well as appropriate clinical data. Adjustments of set parameters are made in accordance with arterial blood gas results and saturations as per physician orders. Monitor clinical and physiological parameters.</p>
6	<p>Patients requiring continuous CPAP Pressure Device support (&gt;8 hours per day), will be assessed every 4 hours by Respiratory Care Services. Documentation in EPIC will be required with each assessment. Because skin irritation or rashes may occur due to pressure from the mask and/or headgear, as part of this assessment, the therapist will:</p> <ul style="list-style-type: none"> <li>• Remove the mask and head gear to allow for pressure relief for as long as patient tolerates</li> <li>• Inspect skin integrity at key pressure points (including bridge of nose, cheeks, head, and neck)</li> <li>• Place a protective skin barrier to these pressure points</li> </ul>

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	as needed (note: protective skin barrier must be removed with each assessment to allow for proper inspection of skin integrity) <ul style="list-style-type: none"> <li>• Perform oral care and provide suctioning as needed during these assessments</li> <li>• Re-secure the mask avoid a too-tight fit (therapist should be able to place 1-2 fingers under headgear)</li> </ul>
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**Addendum** Patients who bring their CPAP device from home will be monitored by Respiratory Care Services and provided with supplemental oxygen as prescribed by a physician. Patients with a home CPAP device will need to have appropriate orders written by their assigned inpatient physician. Clinical Equipment Services must be contacted at 24040 to perform an electrical safety inspection prior to being placed into service. Full face mask may only be worn on the general floors if it is part of the patient’s home equipment setup.

Respiratory Care Services will track patients with a home CPAP device and assist as necessary throughout the patient’s hospitalization.

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**Infection Control** Follow procedures outlined in the Healthcare Epidemiology Policies and Procedures #2.24; Respiratory Care Services

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**References** RCS Policy BiLevel Pressure Device , 7.3.30  
AARC Clinical Practice Guidelines; Use of Positive Airway Pressure Adjuncts to Bronchial Hygiene Therapy Respiratory Care 1993;38:516-521