(A) Policy Statement

BiPAP, CPAP and NIV (Non-invasive ventilatory support) has become standard treatment for patients with sleep disordered breathing. The use of these modalities has also been shown to help reduce rates of endotracheal intubation when applied prior to the onset of respiratory failure in selected populations of patients with transient compromise of ventilation due to congestive heart failure or COPD. These modalities are also used as a bridge after liberation from full ventilatory support.

All members of the Respiratory Care Department who are responsible for the BiPAP, CPAP or NIV will adhere to the following procedure. A complete physician order to initiate care must be in the patient chart.

Mechanical changes of BiPAP or CPAP settings may be made only by a member of the Respiratory Care Department. These changes will be made upon receipt of a complete written or verbal order from the appropriate physician.

(B) Purpose of Policy

To establish specific guidelines concerning the ordering, set-up, use and monitoring of BiPap, CPAP and NIV.

(C) Procedure

1. BiPAP machines from home will be safety tested and documented by the Biomedical Engineering Department.
   a. The physician must still write an order for the BiPAP settings.
   b. An RCP will help the patient apply unit every night, or as ordered, if needed.
   c. An RCP will check unit and document in the EMR of appropriate function.

2. When an order for BiPAP or CPAP is received and after checking the patient's chart for a complete order, a Respiratory Care Practitioner will initiate the therapy. The therapist will make sure it is on the therapy log schedule and the tracking board in the Respiratory Care department.

3. Documentation of the patient's response to the therapy will include:
   a. The specific mode of therapy must be ordered by the physician (i.e. Timed or Spontaneous), along with the pressure settings (i.e. IPAP, EPAP, CPAP) and oxygen flow with parameters set accordingly. In some acute situations, pressures will need to be adjusted to obtain desired results. Physician order must be obtained after set-up.
b. While connected to the patient, the BiPAP/CPAP system will be inspected, and documented at least every four hours, after a parameter change, and after any power failure.

c. Respiratory Care treatments will be provided as ordered by a physician.

d. The patient breathing circuit and appropriate sized disposable mask should be changed in accordance with policy #3364-136-06-01 of this manual.

4. The use of NIV via a mechanical ventilator should optimally be restricted to the ICUs, the ED and PACU. The reason for this is patient safety and to have the appropriate level of monitoring, with frequent assessment of ventilatory status, mental status and vital signs. Many of these patients are obtunded, restrained, receiving significant sedation and/or have significant respiratory compromise. The mask needed for NIV through the ventilator is different than a full face mask for BiPAP and is kept separate from them in the Respiratory Care Department. As always, there must be a complete order for NIV. There needs to be regular assessment of skin integrity and pressure necrosis of facial structures.

5. The use of a full face mask through a BiPAP machine necessitates a physician’s order for the full face mask. The therapist must also regularly assess facial skin integrity and pressure necrosis.

6. If oxygenation is inadequate as reflected in SpO2 values or blood gas results, supplemental oxygen should be added to the circuit and titrated as needed.

7. Mask Fitting: Carefully fit the nasal or full face mask. Proper size mask fitting has been shown to be one of the crucial components to the success of non-invasive ventilation.

8. Education of non-invasive ventilation should be thoroughly explained and documented. Patient understanding and acceptance is important to the success of this modality. It is important for the patient to be reasonably cooperative.

9. Consult machine manuals for specific operating procedures and references.

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Review/Revision Completed By:
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Policies Superseded by This Policy: