## A. Policy Statement

The Respiratory Care Department will use helium mixed with oxygen (with a FiO2 of no less than .21) for therapeutic purposes as ordered by physician.

## B. Purpose of Policy

To ensure proper and safe set-up and delivery of helium therapy to patient's with airway obstruction or edema.

**Indications:** for helium therapy include management of airway obstruction.

**The Goal:** of helium therapy is to decrease the work of breathing in patients experiencing airway obstruction.

**Contraindications:** include using a helium oxygen mixture of less than 20% oxygen.

**Adverse Reactions:** Helium therapy for patients with COPD may include a decrease in ventilation, carbon dioxide production, and oxygen consumption.

Generally the only hazard of helium in the non-intubated patient includes the change in one's voice (a temporarily high pitched voice).

## C. Procedure

1. After verification of a written physician order for administration of helium therapy, the practitioner should assemble the appropriate equipment (see the equipment assembly section of this manual, policy #3364-136-01-18).

2. The practitioner should then identify the patient in accordance with departmental policy #3364-136-01-11 and explain the treatment purpose and procedure to the patient.

3. As with all patient oriented or equipment procedures performed by respiratory personnel, special attention should be given to maintaining asepsis.

4. Prior to initiation of and during helium therapy, a respiratory assessment should be done, including a heart rate, respiratory rate, breath sounds and general overall appearance and tolerance of treatment. Patient response to therapy should also be noted, as described in policy #3364-136-03-07 of this manual.

5. Careful attention should be given to delivery of the proper FiO2. An oxygen analyzer should be used at all times during helium therapy. Pulse oximetry will be monitored continuously.

6. The practitioner should chart procedure in the EMR: RT; RT Treatment; HeO2. The patient must
be *closely monitored* for any changes in cardio-respiratory status. They must be on a cardiac monitor and a pulse oximeter.

7. *Adverse reactions to therapy:*

   A. The patient should be closely monitored for the occurrence of any increased shortness of breath, drowsiness, nausea/vomiting, dizziness, bronchospasms, cyanosis, chest pain, tachycardia, agitation, or any other undesirable side effects.

   B. If the patient's response to therapy is adverse, it may be necessary to modify or terminate therapy. Continue to monitor the patient for further change in symptoms, contact the patient's nurse and/or physician, and document appropriately (according to policy 3364-136-03-06 of this manual).