MetaNeb Therapy

Purpose
The Meta Neb System facilitates mobilization of secretions, lung expansion therapy, the treatment and prevention of pulmonary atelectasis and also has the ability to provide supplemental oxygen when used with compressed oxygen.

Audience
A qualified respiratory care practitioner will administer Meta Neb therapy to the patient.

Accountability/Training
- The Meta Neb therapy may be administered by a Licensed Respiratory Care Practitioner trained in the procedure(s).
- Training must be equivalent to the minimal entry level in the Respiratory Care Service with the understanding of age specific requirements of the patient population treated.

Indications
- Mobilization of secretion
- Lung expansion therapy
- Treatment and prevention of pulmonary atelectasis.

Absolute Contraindication
- Untreated Pneumothorax

Procedure

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
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<tbody>
<tr>
<td>1</td>
<td>Connect the gas hose to the oxygen source and to the controller. Connect the circuit to the controller.</td>
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<tr>
<td>2</td>
<td><strong>Do the pre-use check.</strong>&lt;br&gt;Set the mode to CHFO and select higher. Set the selector ring to the three dot position. Put the master switch in the ON position. Occlude the patient opening, and the pressure reading should be between 15 and 30 cwp. Set the mode to CPEP. Turn the flow counter clockwise to full flow, selector ring on three dots, occlude the opening and the pressure reading should be between 20 and 30 cwp. If the device is not within the parameters, do not use the unit.</td>
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<td>3</td>
<td><strong>Meta Therapy Treatment</strong>&lt;br&gt;Turn the master switch on. Fill nebulizer with prescribed medication if applicable. Set the mode to CPEP. Instruct the patient to inhale and exhale slowly. Adjust the selector ring for resistance. Adjust the CPEP flow as applicable. Continue CPEP for 21/2 minutes. Move the selector switch to higher and the mode to CHFO. Continue CHFO</td>
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for 21/2 minutes. Alternate between CPEP and CHFO until the treatment is complete (about 10 minutes or until the nebulizer is empty)

**In-Line with Ventilator Protocol**

4. Assemble the circuit and connect it to the controller. Prepare the handset for in-line use. Remove the blue selector ring from the handset and replace it with the black occlusion ring to make sure the exhalation orifice is blocked.

5. Put the spring valve tee adapter into the inspiratory limb of the ventilator circuit. Fill the nebulizer with the prescribed medications. Set the mode to CHFO and select ‘Higher’. Turn the master switch on. Connect the handset to the tee adapter. Continue the treatment for 10 minutes.

6. Suction secretion as necessary.

7. When the treatment is complete, remove the handset and adapter from the spring valve tee and cap the tee before you put the master switch in the OFF position.


**Assessment of outcome**

9. Therapy will be discontinued per facility protocol or when one of these occur:
   - Secretion clearance is <5cc per treatment for a 24 hour period. The post therapy chest exam shows an absence of retained secretions and atelectasis.
   - Breath sounds have become clear or have improved.

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**Infection Control**

Follow procedures outlined in Healthcare Epidemiology Policies and Procedures #2.24; Respiratory Care Services.


**References**