

## B-300 Humidification via Cascade

**Purpose:** To provide humidity to the airway as an artificial airway (tracheostomy) bypasses the body's natural humidification process.

### Applies To

- Registered Nurses
- Licensed Practical/Vocational Nurses

### Equipment/Supplies

- Humidification device supplied by DME Company, corrugated tubing to connect to vent circuit and ventilator, temperature probe for older device as newer devices have internal temperature control, sterile water for inhalation or distilled water per DME company recommendation for device and a water trap.

### Procedure

1. Wash hands and dry. Refer to the Hand Washing procedure. Don clean gloves.
2. Place humidification device below level of client's tracheostomy tube. Fill with distilled water &/or sterile water for inhalation ordered by DME Company to fill line. Connect short corrugated tubing to ventilator and longer tubing to circuit as manufacturer recommends.
3. Connect temperature probe per DME Company direction, usually closer to the humidification unit if older unit.
4. Turn on humidification unit and dial up until corrugated ventilator tubing glistens with water droplets.
5. Place water trap by cutting vent tubing at most dependent portion of loop and inserting trap.
6. Remove HME.

### Documentation guidelines

Document in the clinical record:

1. Type of humidification device and patient's response to device.
2. Character, color and amount of secretions.
3. Respiratory rate, character and effort.

### Nursing Considerations

- Monitor temperature with ventilator checks each hour. If temperature controlled internally, monitor consistency of droplets in corrugated tubing. If they become large, turn down and if not glistening in tubing turn upward until desired humidity. Turn upward for thicker secretions.

- Keep water filled to line on condenser bottle.
- Keep water trap emptied.
- Use caution in repositioning client to avoid dumping water into tracheostomy.
- Assure that collar is over the top of the tracheostomy tube.
- Use a continuous pulse oximetry if one is ordered for client while using humidity as a safety device.
- Quickly respond to coughing, gagging or decreased oxygen saturations.

**Pediatric Considerations**

- . Keep infant or child from pulling on tracheostomy or at corrugated tubing.
- Constantly assure that movement does not cause water to be directed toward client’s tracheostomy causing dumping of water in tracheostomy.

**Related Procedures**

Tracheal Care Suctioning, HME use and pulse oximetry monitoring.

**Policy History**

Approval Date	01/17/2010
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