## SUBJECT: Infection Control

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<th>Effective Date:</th>
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### A. Purpose
Respiratory therapy equipment and personnel are a high risk of potential agents for cross contamination. It is therefore imperative that appropriate procedures and precautions be followed with precision to prevent nosocomial infections.

### B. Policies
1. All patients who are being seen by Respiratory Care personnel should be instructed in proper methods of controlling droplet spray from the respiratory tract when they cough or sneeze. Instruct patients to use tissues and sputum containers, not basins or trashcans. Also teach them to dispose of tissues and soiled items in appropriate containers.
2. Respiratory Care personnel may become transiently colonized with antibiotic-resistant organisms. For the protection of employees and patients, each person should adhere to the hospital's dress code and isolation policies.
3. Handwashing between patients is mandatory for respiratory care personnel.
4. Whenever possible, respiratory care personnel with acute respiratory infections should not have direct contact with high-risk patients (e.g. neonates, immunocompromised hosts).
5. Respiratory Care personnel should wear a mask anytime there is doubt concerning the possibility of a patient or the caregiver having a contagious respiratory infection.
6. Hands should be washed after contact with respiratory secretions even if gloves were worn at the time of exposure.
7. Universal Standard Precautions will be observed at all times on all patients.

### C. Equipment
1. General guidelines have been established to provide a system that will ensure the use of properly decontaminated respiratory therapy equipment in order to prevent nosocomial infections.
2. Sterile, disposable items will be used when available.
3. All sterile disposable items should be discarded after single patient use. Disposable respiratory therapy equipment should not be reused and should be discarded in an appropriate container (preferably in a plastic bag).
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4. All respiratory care equipment should be sterilized prior to use on a patient or decontaminated according to manufacturer’s recommendations.

5. All used respiratory care equipment should be considered contaminated and handled in a safe manner to protect patients and employees.

6. Never mix contaminated and clean equipment, supplies or solution in the same transport cart or storage room.

7. Any non-disposable equipment that had been used in patient care areas must be cleaned and processing before using it on another patient; no equipment may be transferred directly from patient to patient.

8. Any equipment that can not be sterilized by submersion in a high-level disinfectant or by gas sterilization, will be thoroughly sprayed with a germicidal aerosol and wiped clean.

9. Microbiological monitoring of respiratory therapy equipment will be performed only when epidemiological studies suggest that an infection problem may exist. Monitoring should be done in conjunction with infection Control Program personnel.

10. The breathing circuit of ventilators should be changed when necessary.

11. Pre-filled disposable nebulizer reservoirs should be changed between patients and discarded when empty.

12. Oxygen tubing, nasal prongs, or masks should be changed between patients, when malfunctioned or becomes coated with secretions.

13. The oxyhood, nebulizer, reservoir, hood, and tubing should be changed every 48 hours.

14. The pneumatic nebulizer of the aerosol tent should be changed every 48 hours; the tent canopy should be changed every 96 hours and the entire tent should be changed every 6 days.

15. Removable IPPB machine parts and spirometer will be cleaned and disinfected between each patient use; each patient must have his own disposable breathing circuit with a bacterial filter; after each treatment, the circuit should be drained of any excess moisture and stored in a clean plastic bag at the bedside; replace the circuit every 48 hours; if the patient is in isolation, leave the IPPB machine in the room until treatment is discontinued.

16. Medication vials should not be used beyond their expiration date; sterile solutions will be used in nebulizers and humidifiers using aseptic technique; unit dose medications will be used when available.

D. Procedure

1. General guidelines have been established to ensure proper procedures for processing and sterilizing equipment and supplies that are considered to be reusable by their respective manufacturers.

2. All reusable semi-critical equipment will be cleaned as recommended by the manufacturer.

3. Items should then be rinsed with running tap water.

4. Moisture should be shaken from equipment and then placed in the heated dryer of up to 150°F Fahrenheit.

5. All equipment that receives high-level disinfecting only must be dried in the heated dryer.

6. Equipment that will be gas sterilized can be air-dried or heat dried before beginning the gas cycle.

7. After drying, each item will then be processed in a manner appropriate for that particular piece of equipment.
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E. High level disinfection
In the event equipment requires disinfection as opposed to sterilization, or disinfecting in addition to sterilization, a high-level disinfectant will be used. The respiratory therapy department utilizes activated gluteraldehyde solutions.

1. Gluteraldehyde solution should be tested and documented prior to each use to verify that the effective concentration is still present. Tests should be performed on those days equipment is to be disinfected/sterilized.
2. Report of test results will be sent to the Infection Control Department monthly.
3. Gluteraldehyde is a chemical that has been reported to cause skin and eye irritation. Employees should be aware that activated gluteraldehyde can cause eye damage. The following guidelines should be followed when disinfecting equipment with gluteraldehyde:
   4. Gluteraldehyde solution container should remain covered at all times.
   5. Goggles and gloves must be worn when equipment is put into or removed from the gluteraldehyde bins or when rinsing the equipment after removal.
   6. Goggles and gloves must be worn when activating the gluteraldehyde or when discarding expired solution.
   7. Gluteraldehyde has been approved for disposal by pouring down the sink drain and flushing with running water.
   8. Use gluteraldehyde in a well-ventilated area.
   9. Employees who use gluteraldehyde must have received appropriate training to do so.

F. Steam autoclave
In the event equipment can not be processed by high-level disinfectant or gas sterilization in accordance with manufacturer's recommendations, the equipment will be prepackaged by respiratory care and then steam autoclaved by Central Supply.

G. Ethylene Oxide
Equipment requiring ethylene oxide gas sterilization will be cleaned and pre-packaged according to the sterilization department's recommendation.