2.24 Pulmonary Care Services

Purpose

To provide infection control guidelines for pulmonary care personnel at UTMB. All Therapists/Technicians are required to adhere to the following guidelines to prevent exposure of patients to contaminated equipment and to decrease the risk of nosocomial infections related to pulmonary care.

Audience

All UTMB employees, contract workers, volunteers, and students in the Pulmonary Care Services Department

Personnel

- Hand hygiene shall be performed before and after each patient contact and at other times as required (see policy: Hand Hygiene for All Hospital Employees).
- Personnel shall comply with Employee Health Center guidelines for their area.
- Eating and drinking shall be confined to an area outside of clinical or departmental work areas.
- All personnel shall adhere to the hospital dress codes and the dress code of each department.
- Personnel entering a patient's room shall follow Standard Precautions to avoid contact and soilage of their clothing by the patient's blood, other body fluids or excretions.
- All personnel shall follow the instructions posted on the door or isolette of a patient in isolation. All guidelines shall be followed. Items taken into isolation rooms should not have contact with surfaces in those rooms.
- Suspected or known exposure to or acquisition of an infectious disease shall be reported to the Employee Health Center or Healthcare Epidemiology immediately.
- A clean uniform shall be worn daily.
- All cuts and lacerations shall be covered with a waterproof dressing.
- The Standard Precautions Policy shall be followed for contact with any and all blood and body fluids.
- Strict aseptic and sterile techniques shall be maintained for all invasive procedures.
- Healthcare workers with direct patient contact must maintain their fingernails so that the tips of the nails do not extend past the end of the fingers. The nail surface should remain smooth. Artificial nails/wraps or acrylic overlays are not permitted. Nail polish must not be chipped or cracked.
- Equipment used for emergency care shall be covered until used, with the exception of crash carts.

Equipment and Supplies

- Equipment in use shall be cleaned at least daily with a disinfectant solution and more often as necessary (see policy: Cleaning and Reprocessing of Patient Care Equipment and Medical Devices).
- Ventilators that are discontinued from patient use shall be wiped down with Cavicide prior to delivery to the department for reprocessing.
- Processing reusable equipment - all equipment to be sterilized or disinfected shall be thoroughly cleaned to remove all blood, tissue, food or other residue. Packaging for processed reusable equipment shall be checked prior to use to verify that it is intact. Large pieces of respiratory care equipment shall be covered with dust covers in the storeroom. There shall be a system for rotating stock. Clean equipment and dirty equipment shall not be stored in the same area.
- When equipment and instruments are soaked in activated glutaraldehyde, the container shall be covered and the activation date and the expiration date of the solution written on the lid. (see policy: 1.5 Cleaning and Reprocessing Equipment and Medical Devices).
- All clean and sterile supplies shall be stored on shelves or pallets 8-10" off the floor. Clean and sterile supplies shall be dust-free.
- Any equipment removed from an isolation room will be wiped down with a hospital grade disinfectant and covered with an equipment bag. Equipment that remains contaminated before transporting to the department for reprocessing will be clearly labeled as contaminated.

Laryngoscope Blades

- Laryngoscope blades will be cleaned and then disinfected with a high level disinfectant in Pulmonary Care Services.
- The blades will be packaged in a plastic wrapper.
- Blades shall be returned to Pulmonary Care Services if their plastic wrappers are not intact or are absent.
- Plastic wrappers shall be removed immediately prior to use. Healthcare workers shall take care to touch only the upper area of the blade before or during use.
- Pulmonary Care Services will check the lights on the laryngoscope blades prior to dispensing them to patient care units.

Patient Care Procedures

- Multi-dose vials of medication shall be dated when opened and discarded according to the UTMB Pharmacy policy. Medications shall be supplied in single-dose vials when possible.
- The following Healthcare Epidemiology Policies will be followed in addition to the directions for safe care of ICU patients set forth in this policy.
    - 1.14 Hand Hygiene for all Healthcare Workers
    - 1.18 Intravascular Devices and Infusion Systems
    - 1.9 Isolation
    - 1.40 Prevention of Nosocomial Pneumonia
    - 1.45 Prevention of Urinary Tract Infection

Patient Care Procedures, continued

- Oral Care
  - Keep oral swabs inside the baggie and do not allow them to have contact with the table or any other surface prior to placing them in the patient's mouth.
- Respiratory Care
  - Small-volume medication nebulizers: In-line and hand-held nebulizers.
    - Between treatments on the same patient, remove the remaining medication from the cup, rinse with a sterile saline bullet, and wipe the inside of the cup thoroughly with an alcohol pad (first remove the plunger). Reattach to system and store for next use.
    - Use only sterile fluid for nebulization and dispense the fluid into the nebulizer aseptically.
    - Whenever possible, use aerosolized medications in single-dose vials. If multidose medication vials are used, follow manufacturers' instructions for handling, storing, and dispensing the medications.

  - Using an alcohol pledget, wipe the port and the top of the MDI vial prior to attaching to the tubing.
  - Suction Yankeur with warm water after suctioning patient.
  - Store Yankeur in a clean bag on a horizontal surface between uses.
  - Change Yankeur every 24 hours.
  - Disinfect the port with alcohol prior to attaching the cuffalator.
  - Disinfect the cuffalator with alcohol after each use; store in cuffalator box when not in use.
  - Wear clean gloves when working with the heat moisture exchanger, MDI or nebulizer.
- Cleaning Equipment
  - The ventilator must be cleaned daily by the respiratory therapist.
  - Upon discharge the ventilator will be thoroughly cleaned and tubing and circuit discarded.
  - Clinical Equipment service will clean the medical equipment in the room (except the ventilator). The nurse will assure that all settings on the equipment are appropriate after each room is cleaned.
- Specimen Collection
  - Gloves must be removed, hand hygiene accomplished and clean gloves donned before all blood draws and dressing changes and especially if the respiratory track has just been touched.

Patient Care Procedures, continued

- Hand Hygiene
  - Hand hygiene must be practiced (handwashing with an antimicrobial soap or application of an alcohol hand rub) prior to donning and after doffing gloves. Gloves must be removed followed by hand hygiene if hands have been contaminated with body fluids and a cleaner part of the body must be touched (i.e. working from clean to dirty).
- Multidose medications that are delivered via inhaler shall remain in the patient room until no longer needed or the patient is discharged.
- Gloves shall be worn during contact with mucous membranes or when cleaning items contaminated with patient's blood, other body fluids or excretions.
- Hand hygiene shall always be performed after removal of gloves.
- Perform tracheostomy procedures under sterile conditions. When changing a tracheostomy tube, use aseptic technique and replace the tube with one that has undergone sterilization or high-level disinfection.

Cleaning Procedures

- Floors and horizontal surfaces in the department shall be cleaned at least daily.
- Resuscitation bags shall be disposable or shall be sterilized or subjected to high-level disinfection between patients.
- Disposable single use items shall not be reprocessed and reused unless part of the UTMB reprocessing program. All contaminated reusable equipment shall be decontaminated by appropriate means prior to being reprocessed (i.e., in the decontamination room).
  - Gloves shall be worn by persons who decontaminate equipment.
  - When equipment cannot be decontaminated prior to servicing, a sticker displaying the biohazard symbol shall be attached. The area(s) contaminated shall be written on the front of the sticker.
- Opened bottles of saline and water shall be dated and discarded at the end of 24 hours.
- The drying cabinet shall be thoroughly cleaned with a disinfectant-detergent solution weekly and more often as needed.

References

1. Dreyfuss D, Djedaini K, Welsh P, et al. Prospective study of nosocomial pneumonia and of patients and circuit colonization during circuit changes every 48 hours versus no changes. Am Rev Resp Dis 1991; 143:738-743.
2. Guidelines for Preventing Healthcare-Associated Pneumonia, 2003. MMWR 2004; 53 (RR03):1-36.