Infection Control Manual		
UNC HEALTH CARE	Policy Name	**Pulmonary Function Laboratory**
	Policy Number	**IC 0050**
	Date this Version Effective	**Mar 2017**
	Responsible for Content	**Hospital Epidemiology**

I. Description

Addresses infection control management of patients receiving treatment/procedures from the Pulmonary Function Laboratory.

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II. Rationale

Patients tested in the Pulmonary Function Laboratory (PFL) may have one or more underlying infectious diseases. Effective infection control guidelines are necessary when caring for patients in the PFL to minimize the risk of transmission of infectious diseases to hospital personnel or to other patients.

III. Policy

A. Personnel

1. Personnel should adhere to guidelines established by the Hospital Occupational Health Service (OHS). See policy, "Infection Control and Screening Program – OHS."
2. Healthcare personnel must adhere to the "Infection Control Policy: Isolation Precautions Policy IC0031".
3. Personnel must adhere to the "Infection Control Policy: Exposure Control Plan for Bloodborne Pathogens IC0021" and the "Infection Control Policy: Tuberculosis Control Plan IC0060".
4. Personnel should adhere to all personnel guidelines in the "Infection Control Policy: Infection Control Guidelines for Adult and Pediatric Inpatient Care IC0030
5. Hand hygiene will be performed in accordance with the "Infection Control Policy: Hand Hygiene and Use of Antiseptics for Skin Preparation IC0024".
6. Personnel must be familiar with the Exposure Control Plan for Bloodborne Pathogens Policy" and report all needlestick/sharps, mucous membrane, and nonintact skin exposures from blood and other potentially infectious materials to the OHS by calling the **Needlestick Hotline at 984-974-4480**. University employees should report the exposure to University Employee Health Service at 966-9119.
7. Infection control education, which includes OSHA Bloodborne Pathogens and Tuberculosis training, is required annually via LMS.

8. Respirators are worn by all personnel caring for patients suspected of tuberculosis and other airborne infectious diseases, otherwise surgical masks and protective eyewear are to be worn during all bronchoscopies.
9. Isolation gowns and gloves are worn by personnel performing pulmonary function tests on patients requiring Contact Precautions.
10. During bronchoscopy on patients requiring Contact Precautions, a fluid resistant gown, surgical mask, and eye protection are worn by personnel.

B. Patients

1. Patients with known or suspected tuberculosis should be tested at the end of the day in an appropriate Airborne Infection Isolation (AII) room when there are no other patients in that testing room. Negative pressure rooms in the Pulmonary Function Lab must have at least 6 air exchanges per hour (ACH) and air exhausted to the outside. The testing room should remain closed for at least 30 minutes after the patient is removed and any personnel entering the room during that time must wear an N95 respirator
2. When the Bronchoscopy Suite is used for a patient known or suspected to have tuberculosis, staff will perform a tissue test to verify negative pressure. Results will be recorded on a log kept in the department. The room pressure is also monitored by the Maintenance Department periodically. The Bronchoscopy Suite negative pressure room must have ≥12 air exchanges per hour (ACH) and air exhausted to the outside. An Airborne Precautions sign should be displayed on the outside door to the Bronchoscopy Suite. N95 masks will be available by the entrance door.
3. Personnel will use aseptic technique when performing invasive procedures (e.g., bronchoscopy and arterial line insertion).

C. Equipment

Disposable filters are used with all pulmonary function equipment. These filters have a filtration efficiency of 99.99% for bacteria and 99.90% for viruses. A new filter is used for each patient.

1. Equipment Utilized with Patients Requiring Spirometry
2. All respiratory devices and equipment must be used and cleaned strictly according to the manufacturers' instructions for use (IFU) and cleaning. Be certain that staff is knowledgeable regarding all manufacturer's instructions.
3. All single use items must be discarded after each patient use and may not be used for more than one patient. Please consult the manufacturer's instructions. Questions should be directed to Hospital Epidemiology.
4. Tubes and tubing that are pasteurized must be protected after pasteurization in a clean plastic bag. Flow sensors and breathing valves are removed weekly and sterilized via the Central Sterile Processing department.
5. There are special requirements for equipment used with cystic fibrosis (CF), immunosuppressed, or multidrug-resistant organism (MDRO) patients:
    a. Spirometers used for these patients must have tubing changed after each use and between patients.
    b. When used by a cystic fibrosis patient or any patient known or suspected to be colonized or infected with a multi-drug resistant organism (MDRO), the head is changed between patients.
    c. The head on the flow sensor is changed weekly. The exterior is disinfected with an EPA-registered hospital disinfectant after each use and when visibly soiled. The flow sensor head is high-level disinfected weekly.

6. Cleaning, High-level Disinfection of Bronchoscopy Equipment
    a. Any health care personnel (HCP) responsible for processing and high-level disinfecting bronchoscopes shall refer to the Endoscope Infection Control Policy for a detailed, step-by-step procedure for the cleaning and disinfection of bronchoscopes and other semi-critical bronchoscopy equipment.
    b. HCP cleaning bronchoscopes will have competency training and certification upon employment and annually thereafter. Documentation of initial and annual competency testing is maintained in a log and kept in the Supervisor's office. Please refer to Section III.H in the Endoscope Infection Control Policy.
    c. Endoscope tracking: A log should be kept for flexible endoscopes, including the patient's name, date of procedure, and a scope identifier (such as serial number). The purpose of the log is for tracking all patients exposed to a particular scope in case of a reprocessing error or malfunction. Please refer to Section III.I in the Endoscope Infection Control Policy.
    d. When the bronchoscope is used after-hours, (at night or weekends), the Licensed Independent Practitioner (LIP) is asked to refer specifically to Section III.C of the Endoscope Infection Control Policy.
7. High-Level Disinfection of Flexible, Lumened Endoscopes, Accessories, and Instruments
    a. Pre-Cleaning: Preparing the Endoscope for Cleaning
        i. Pre-cleaning should be performed at the point of use, before bioburden has an opportunity to dry (within 20 minutes) and before complete decontamination. Pre-cleaning should remove visible debris by wiping the exterior of the endoscope /accessories with an appropriate detergent solution and aspiration of a large volume of detergent solution through the air/water and biopsy channels.
        ii. Appropriate personal protective equipment (PPE) must be worn to prevent staff exposure to blood and other potentially infectious materials (OPIM).
        iii. After tagging the scope as "dirty," transport the scope and any reusable accessories to reprocessing area in a leak-proof or leak-resistant container marked biohazard. A dirty scope may not be left in a clean area. Dirty/used scopes bound for reprocessing must be placed in a designated area used for dirty scopes only and tagged as dirty.
    b. Bronchoscope carts are cleaned with an EPA registered hospital disinfectant/after use in a Contact Precautions Room. Supplies in drawers should be accessed with clean hands.
8. Cleaning/Disinfection of Infant Pulmonary Function Equipment (IPFT)
    a. All respiratory devices and equipment must be used and cleaned strictly according to the manufacturers' instructions for use (IFU) and cleaning. Be certain that staff is knowledgeable regarding all manufacturer's instructions.
9. All single use items must be discarded after each patient use and may not be used for more than one patient. Please consult the manufacturer's instructions. Questions should be directed to Hospital Epidemiology.

D. Housekeeping

Housekeeping should be performed in a manner consistent with UNCH Environmental Services policies.

E. Implementation

It is the responsibility of the Supervisor and the Medical Director of the Pulmonary Function Laboratory to implement this policy.

IV. Reviewed/Approved by

Hospital Infection Control Committee

V. Original Policy Date and Revisions

Revised on June 2004, Feb 2006, May 2008, Mar 2011, Mar 2013, Mar 2017