EAST CAROLINA UNIVERSITY

INFECTION CONTROL POLICY

Department: Pulmonary Clinic
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Approved by:

__________________________________________
Department Chairman

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Administrator/Manager

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Chairman, Infection Control Committee

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Infection Control Nurse
I. Purpose: The Infection Control policy is established to help safeguard patients and personnel from the transmission of infection between patient and personnel during patient care. All ECU personnel, students, and other healthcare workers are to comply with all infection control policies.

II. Personnel:

A. All new and current employees will comply with employment screening as outlined in the Prospective Health Policy. All Employee Health records will be maintained by Prospective Health.

B. Employees who have potential for blood or other potentially infectious material exposure will be offered hepatitis B vaccine at no charge to the employee. Medical Students and employees who have potential for exposure to *Mycobacterium tuberculosis* (MTB) have PPD skin testing with follow-up per Prospective Health protocol.

Other health care students with clinical rotations through ECU clinics, other non-employee healthcare workers, and any others, who may have patient contact, will have documentation of Infection Control training, required vaccines administered, and PPD skin testing results according to BSOM policy for students/visitors.

C. Any ECU staff (including physicians) or student who has an exposure to a communicable disease through a needle stick or other means will report that exposure to their supervisor or instructor and follow-up will be done per Bloodborne Pathogen Exposure Control Plan, Tuberculosis Exposure Control Plan or Prospective Health Policy depending on exposure. Resident physicians (Interns, Resident’s or Fellows) who have an exposure to a communicable disease in ECU clinics are to notify ECU Prospective Health for testing of the source patient, then personally follow-up with Vidant Occupational Health. Non-ECU students will follow their institutional policy.

If there is any use of biologicals or radiation, Staff and other workers will follow ECU policy with regard to training, monitoring, etc. Accidental exposures to chemicals and radiation will be reported on an incident report form. The person exposed to these hazards will be evaluated according to ECU Policy. Refer to Radiation Safety Manual, the Biological Safety Manual, and the Chemical Hygiene Plan.

D. Employees will receive education on infection control, standard precautions and OSHA TB and Blood borne pathogen standards upon employment and yearly thereafter clinical employees will complete an Employee Health Update annually.

E. This policy will be evaluated every three (3) years and as needed due to change in practice or standards.
III. Physical Layout:

A. Description: Pulmonary Clinic occupies half of the first floor of the Moye Medical Building and consists of fourteen exam rooms (all with sinks), one procedure room with a sink, two triage rooms, one medical storage room, one clean linen storage room, one dirty utility room with two sinks, a janitor closet with a mop sink, a patient registration area, a nurses station, one break room, one meeting room and eight offices.

B. Isolation room location: Exam rooms 1 and 2 are negative pressure airborne infection isolation rooms.

IV. Infection control procedures:

A. Handwashing is done with an antimicrobial soap and water immediately before and after each patient contact. Handwashing facilities are available.

If handwashing facilities are not immediately available, antiseptic hand cleaners or antiseptic towelettes are provided.

B. Aseptic techniques should be strictly observed with (see appendix A)

C. Standard precautions will be observed on all patients. Gloves are worn if hands may be exposed to blood and other potentially infectious materials. Protective mask and eyewear or face shield is worn if facial splashing is likely. Gowns are worn if more extensive splashing of uniform or clothing is likely.

Needles and sharps will be handled according to the Needle Stick Safety and Prevention Act. Needles should not be bent or broken. Needles should not be resheathed unless absolutely necessary. If needles must be resheathed, it must be done with a mechanical device or with a one-handed technique. Safety sharps will be used according to OSHA policy and per manufacturer’s instructions.

Providers and staff will maintain strict adherence to safe injection practices during patient care:

- Never administer medications from the same syringe to more than one patient, even if the needle is changed.
- Do not enter a vial with a used needle or syringe (even if the needle is changed).

Hepatitis C virus, Hepatitis B virus, and HIV can spread from patient to patient when the above precautions are not followed. Additional protection is offered by adhering to the following:
• Medications packaged as single-use vials will not be used for more than one patient.
• Medications packaged as multi-use vials will be assigned to a single patient whenever possible.
• Bags or bottles of intravenous solution will not be used as a common source of supply for more than one patient.
• Absolute adherence to proper infection control practices will be maintained during the preparation and administration of injected medications.

Health care workers who have exudative lesions or weeping dermatitis shall be prohibited from handling patient care equipment and devices used in performing invasive procedures and from all direct patient contact until evaluation by Prospective Health and clearance obtained. Open wounds or sores should be covered with a protective dressing. Refer to policy Work Restriction for Personnel.

Patients who are seen in the ECU clinics are evaluated for signs and symptoms of *Mycobacterium tuberculosis* (MTB) and any infectious respiratory illness. Refer to policy Identification of Patients with potential Tuberculosis and any other Communicable Respiratory Illness. If a patient exhibits symptoms consistent with possible pulmonary tuberculosis (cough for ≥ 3 weeks hemoptyis or coughing up blood, or chest pain for > 3 weeks) or if tuberculosis is suspected (part of the differential diagnosis) respiratory protection WILL be initiated. If other transmissible respiratory pathogens are possible, then respiratory isolation procedures should be initiated; using current epidemiologic factors as a guide; e.g. fever and cough, presence of influenza or SARS in the community, suspicion of unusual clinical presentation etc. These procedures include masking the patient, limiting the time in waiting areas, and placement in a negative pressure airborne infection isolation (AI) room. All staff having patient contact will wear appropriate respiratory protective equipment: N-95 mask in proper size for those having been fit tested. A colleague will see the patient for an employee unable to pass a fit test (due to sizing, facial hair, etc.) Each clinic will provide proper sized masks and additional masks stocked for replacement. Surgical masks will be available in all clinic areas and reception area. Patients identified with known or suspected diagnosis of MTB, or other respiratory illness, will be asked to wear the mask until triaged or examined. If TB is part of the differential diagnosis the mask will be worn until evaluation is completed, including during transportation to x-ray or lab. If the patient is suspected to have active TB or any other airborne communicable illness and requires extensive care or hospital admission, they will be transported, wearing a mask, to other facilities (i.e. Vidant) as deemed necessary. The receiving facility will be notified by phone of patient requiring airborne precautions. If a patient is diagnosed with MTB prior to being evaluated in the clinic, the patient will wear a mask throughout the clinic visit and may be scheduled at a less busy time during the clinic (ie the end of the day).
The clinic is equipped with negative pressure exam rooms 1 and 2. After the patient leaves the room, the door will be closed and not reused for 20-30 minutes to allow time for air-borne infectious agents to be cleared from the air. A sign will be posted on the door notifying staff when it is safe to resume use.

D. Between patient visits, contaminated areas of exam tables and counter tops will be cleaned with an approved disinfectant. Table paper is changed, soiled linen removed, and contaminated or used supplies disposed of or removed from room between patients.

E. All patient specimen containers will be placed in leak-proof plastic bags marked with a biohazard label and transported in a covered secondary container marked with a biohazard label.

F. Personnel protective equipment that includes gloves, gowns, masks and eyewear, or face shield, and appropriate respiratory protection for MTB, will be available for employees, non-employees and students. Personal protective equipment is located in the medical storage room. Gloves are located in each exam room and procedure room.

G. Refer to Appendix A for a list of commonly performed procedures and the minimum personal protective equipment required.

V. Equipment and Supplies:

A. Clean equipment is stored in the Medical storage room.

Dirty disposable supplies are placed in red biohazard containers and placed in dirty utility room for pickup by the biohazard waste technician.

Reusable dirty equipment is thoroughly cleaned, with approved instrument cleaner, to remove all organic matter. This clinic does not have an autoclave. Critical equipment that will enter sterile tissues or the vascular system will be cleaned with instrument cleaner, packaged with chemical indicators in each pack and taken to be autoclaved at outside facility.

B. Equipment is inspected periodically and repaired or replaced as necessary. Reusable contaminated equipment will be discarded in appropriate containers.

C. Each exam room will have an appropriately labeled contaminated trash can (red bag) and a noncontaminated trash can (clear or brown bag). Any contaminated non-sharp trash will be placed in the red bag trash. These red bags will be gathered by ECU Biohazard Waste technicians and sent for incineration. Any non-contaminated trash will be placed in a clear or brown bag to be collected by housekeeping.
D. Sharp disposal units are located in each examination and procedure room, and the nurse’s station. These containers are checked routinely by staff and disposed of when they are 3/4 full. They should be securely sealed and placed in the red bag storage area prior to pick-up for incineration.

E. Clean linen is stored in the clean linen storage room. Soiled linen should be placed in covered dirty linen hampers. This linen is picked up each week by the contract linen service. Gloves will be worn when handling soiled linen.
# APPENDIX A
Minimum PPE Required for Commonly Performed Procedures

<table>
<thead>
<tr>
<th>Common Procedures</th>
<th>Minimum Equipment Required</th>
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</thead>
<tbody>
<tr>
<td>IM, Subq, and intradermal injections</td>
<td>Gloves if bleeding is anticipated or patient is uncooperative</td>
</tr>
<tr>
<td>Pulmonary Function Testing</td>
<td>Gloves for handling mouth and nose pieces</td>
</tr>
<tr>
<td>Bronchoscopy</td>
<td>Gloves, gown, eye protection, N-95 mask</td>
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Appendix B

Infection Control Measures for Bronchoscopy Procedures Done at the Moye Medical Pulmonary Clinic

Purpose: Fiberoptic bronchoscopy involves direct visualization of the upper and lower respiratory tract for the diagnosis and management of a spectrum of inflammatory, infectious, and malignant diseases of the chest. Bronchoscopy may include retrieval of tissue specimens, (bronchial brush, forceps, needle), cell washings via bronchoalveolar lavage, or removal of abnormal tissue. Bronchoscopy may also be used to remove aspirated objects from the respiratory tract.

A. Patient selection: Precautions will be taken to decrease the possibility of performing outpatient bronchoscopy on patients with active pulmonary TB disease.
   1. All patients will be screened for symptoms suggestive of pulmonary TB. If patient symptoms include cough > 2-3 weeks, positive PPD and abnormal chest X-ray, then additional precautions will be taken including consideration of doing the bronchoscopy in the Vidant Bronchoscopy lab.

Bronchoscopy Procedure Room
   1. Ventilation requirements
      • Continuous negative pressure of >0.01 inch water gauge pressure compared with adjacent areas
      • Airflow differential >50-cfm versus exhaust
      • Sealed room, no more than approximately 0.5 sq. ft. leakage
      • Minimum of 12 air changes per hour
      • Direct air exhaust to outside, directed away from populated areas or air intakes
      • Permanent Visual Monitor/pressure gauge outside the room
      • Anteroom to enter
   2. Other Room considerations
      a. The room will be checked for negative pressure daily by monitor reading. Results will be recorded on a retrievable log.
      b. A “Do Not Enter” sign will be posted outside the door during procedures
      c. Designated “clean” and “dirty” reprocessing areas will be maintained to separate used and clean instruments.

B. Personnel Require
   1. All bronchoscopy personnel will be educated in infection control practices including sharps precautions, bronchoscope cleaning and reprocessing, and handling of potentially infectious materials.
   2. Standard airborne precautions will be mandated for every procedure and includes full barrier clothing (gown, mask, and eye shields).
3. The mask must be an N-95 respirator. All bronchoscopy staff will be fit tested and instructed on the use of the N-95 mask. If unable to wear a mask, a power air purifying respirator (PAPR) will be available.

C. Bronchoscope cleaning and disinfection
1. Refer to the Endoscopic Equipment Cleaning and Disinfection Policy for step by step reprocessing, cleaning and disinfection instructions.
2. Personnel assigned to reprocess endoscopes will receive device specific reprocessing instructions; (i.e. the bronchoscope and/or the automated endoscope washer-disinfector) upon hire and competency testing will be performed annually and as needed to ensure proper cleaning and high-level disinfection.
3. All personnel who use chemicals will be educated about the biologic and chemical hazards present while performing procedures that use disinfectants.
4. Adherence to the ECU Infection Control Policy for Endoscopic Equipment Cleaning and Disinfection will be monitored.

D. Quality Assurance
1. Staff will monitor reusable high level disinfectants for minimal effective concentrations at least daily and maintain a log of results. See Glutaraldehyde Usage Guidelines Policy.
2. Quality controls recommended by the manufacturer of the automated endoscope reprocessor (AER) will be adhered to and documented.
3. A procedure log will be kept to assist in outbreak investigation and will include:
   - The procedure date and time
   - The patient’s name and medical record number
   - The bronchoscopist
   - The bronchoscope’s model and serial number or other identifier
   - The AER (if used) model and serial number or other identifier
   - The staff member reprocessing the scope
4. Any suspected or identified endoscopy related infections will be reported to the infection control nurse at 744-3202 for further investigation.
5. A maintenance record for each bronchoscope and AER will be maintained