I. POLICY STATEMENT:

 Transmission of airborne diseases (e.g., Active Tuberculosis [TB] Disease, Measles, Varicella, etc.) is a recognized risk in healthcare facilities. Transmission may occur from residents or staff with an undiagnosed airborne transmitted disease. An effective Respiratory Protection Program requires early detection, isolation, and treatment of persons with airborne transmitted diseases.

 The Respiratory Protection Program (RPP) shall consist of three infection prevention measures: administrative controls, engineering controls, and personal respiratory protection.

II. PURPOSE:

Early recognition, isolation, and treatment of airborne transmitted diseases in residents and/or employees will ensure employee and public safety during potential exposures to airborne diseases.

III. PROCEDURE:

A. Administrative Controls:

1. Supervisory Responsibility:

Facility‑wide management of the RPP occurs through Infection Prevention Department (excluding the industrial respiratory program). Infection Prevention will manage equipment selection, clinical and technical support, disease surveillance, program development and policy updates. Professional Development provides oversight of training and education, and coordination of Just-In-Time training. The Director of MET or designee is responsible for maintenance and operation of the AIIR .

2. Risk Assessment:

1. Infection Prevention shall conduct the TB Risk Assessment annually to determine the risk of TB transmission throughout the community, facility, and in specific areas/groups of employees and residents.

3. Rapid Identification, Screening, Counseling and Diagnostic Evaluation of Suspect Cases of Airborne Diseases:

1. Referring facilities are expected to notify of residents with suspected or confirmed airborne transmitted diseases at the time of referral. Results of TB testing, (TST, Quantiferon Gold, etc.) may be requested.
2. Infection Prevention/designee and the attending Medical Staff shall be immediately notified when a resident is suspected of having and airborne infection.
3. Residents with persistent cough (>2 weeks duration) and/or other symptoms compatible with airborne disease (e.g., bloody sputum, night sweats, weight loss, fever, malaise) shall be evaluated for airborne disease. The resident will be provided with a surgical mask immediately and placed in a private room with the door closed as soon as feasible when airborne disease is suspected if immediate transfer to a facility with an AIIR Negative pressure room is not possible.

4. Airborne Infection Isolation Precautions - Airborne Precautions:

a. When the resident has a suspected or confirmed airborne transmitted disease, this RPP policy shall be immediately initiated.

5. Treatment and Interventions for Airborne Transmitted Diseases:

1. Public Health, Medical Staff, and Infection Prevention shall be consulted to provide guidance concerning the treatment and management protocols (e.g., Directly Observed Therapy for active tuberculosis, immune globulin, or vaccination for exposed individuals).
2. Efforts shall be made to facilitate resident adherence to isolation measures by providing additional accommodations when indicated. Interventions shall include, but not be limited to:

i. Telephone, television, and/or radio access.

ii. Providing visitation opportunities. Depending on the disease, visitors may be subject to isolation if an exposure of an airborne disease occurs in accordance with Public Health directives.

iii. Special dietary requests.

 iv. Treatment and/or activities as coordinated by the Activities Staff.

c. Residents placed on airborne precautions shall remain in the room with the door closed. If possible, diagnostic and treatment procedures shall be performed in the room. If residents must be transported outside the room, for medically essential procedures, they shall be required to wear a surgical mask that covers their mouth and nose during transport. Persons transporting the residents may wear respiratory protection if indicated in consultation with Infection Prevention/designee. Procedures for these residents should be scheduled at times when they can be performed rapidly and when waiting areas are less crowded.

d. Discontinuation of airborne precautions:

i. Discontinuation of Airborne Precautions shall occur when a suspected case is ruled out. If a diagnosis cannot be ruled out, the resident shall remain in isolation until a determination has been made that the resident is non-infectious.

1. Medical staff and Infection Prevention shall be involved in making the decision to discontinue the Airborne Precautions. Public Health may also be consulted.
2. The Director of Facilities, Manager of Environmental Services, and the Nursing Supervisor/House Officer shall be notified when airborne precautions are discontinued.

 iv. Discharge planning for residents being treated for active TB disease shall be in collaboration with Public Health.

 6. Education:

 a. Resident and family/legal guardian education and counseling shall be tailored to the resident’s and family/legal guardian’s learning potential and needs as identified in the resident’s assessments.

 b. Education of peers, if needed, shall be completed utilizing the resource information available, and the focus shall be on the use of airborne precautions while maintaining resident confidentiality.

c. Employee Education:

 i. Employee education shall include the mechanisms of airborne transmitted diseases, airborne isolation precautions, where to isolate the resident, and personal respiratory protection. Employees who are immunocompromised may request reasonable accommodations to reduce their risk of exposure.

1. Employee education shall be completed prior to assignment of tasks requiring the use of a personal respirator involving the N-95, and shall include a *Respiratory Protection Health Screening Questionnaire*, medical clearance, and the *Airborne Infection Isolation Precautions Competency*

 iii. Only staff that have completed the education program and the *Airborne Infection Isolation Precautions Competency* shall be allowed to care for a resident requiring Airborne Isolation Precautions.

iv. Immediate supervisors of individuals participating in this Program shall be familiar with the RPP, and coordinate completion of the *Airborne Infection Isolation Precautions Competency* with their staff.

v. All staff who attend orientation will receive introductory training on the Respiratory Protection Program.

viii. Departments will maintain a RPP competent trainer in their department for Just-In-Time training if needed. A subset of employees can be fit tested if those individuals can address all the multidisciplinary needs of the resident throughout all shifts.

 ix. Infection Prevention and/or Professional Development will provide training to trainers as needed.

 x. If a facility wide airborne infection outbreak occurs, Professional Development will provide N95 competency training to those who have not been fit tested in the previous year. (N95 competency must occur within one year of using the N95 respirator, or sooner if health changes occur.)

B. Engineering Controls:

1. Engineering control practices and proper ventilation of the facility are the responsibility of the Director of Facilities/designee.

1. Doors to the room shall be kept closed, except when entering or exiting the room.
2. Facilities will manage optimizing air flow in accordance with [Ventilation in Buildings | CDC](https://www.cdc.gov/coronavirus/2019-ncov/community/ventilation.html) https://www.cdc.gov/coronavirus/2019-ncov/community/ventilation.html

5. Terminal cleaning of the room:

a. When a resident with a confirmed airborne transmitted disease is discharged from a room, terminal cleaning shall be delayed when feasible until the infected individual has vacated the room for at least four hours. If room is needed prior to the four hours, staff shall use personal respiratory protection (N95) during the terminal cleaning process.

* 1. If the resident is not found to have an airborne infection, standard precautions are appropriate during terminal cleaning.

C. Personal Respiratory Protection:

1. All employees entering a room where Airborne Infection Isolation Precautions are in use shall be required to wear a National Institute for Occupational Safety and Health (NIOSH) approved personal respirator. Infection Prevention will select respirators applicable to the potential hazards as defined by the Risk Assessment.

2. The employee shall complete a *Respiratory Protection Health Screening Questionnaire* and medical clearance shall be provided prior to the employee’s competency review.

 3. N-95 fit testing shall be completed in accordance withOSHA regulations *1910.134.*

4. A list of competent employees is available to supervisors in the event of a potential case of airborne disease to allow prompt use of respiratory protection, using employees who are trained.

5. Students, interns, volunteers, and medical residents will not routinely be fit‑tested and will not enter a room with a resident on Airborne Precautions.

1. Employees are responsible for inspecting the personal respirator (prior to use) for breaks, moisture, loss of elasticity of head straps, and improper fit. Respirators that do not appear intact or fit improperly shall be immediately discarded.
2. Employees are responsible for notifying their supervisor of any changes in medical condition or work practice that could impact their medical clearance for respirator use. The nature of the change does not have to be disclosed to the supervisor, but an additional confidential medical evaluation may be needed.
3. Employees will notify their supervisor of changes in physical condition such as dental changes and facial hair that may affect respirator fit.

 9. N-95 personal respirators shall be labeled with the employee's name on the storage bag. The respirator may be reused throughout a work shift and stored in a paper bag labeled with the employee’s name and the date use was initiated for most airborne diseases. Exceptions may occur for residents on Airborne and Droplet Precautions (e.g., severe acute respiratory syndrome [SARS]) or for diseases where the mode of transmission is undetermined. Infection Prevention shall be consulted and shall provide guidance in accordance with current Public Health recommendations.

IV. REPORTING:

* 1. Infection Prevention shall report all investigations of epidemiologically significant events to leadership, state and federal authorities as required. Many airborne diseases are reportable

and will be reported to Public Health.

References:

Association for Professionals in Infection Control and Epidemiology, 4th Edition, 2014.

Centers for Disease Control and Prevention, Division of Tuberculosis Elimination *Appendix B; Tuberculosis (TB) risk assessment worksheet*. 9/27/2006.

Centers for Disease Control and Prevention. Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings, 2005. Morbidity and Mortality Weekly Report, December 30, 2005. 54 (RR17).

Heymann, D.L. Control of Communicable Diseases Manual Washington: American Public Health Association. 20th Edition. 2015.

Occupational Safety and Health Administration Standards 29 CFR Part 1910.134.

Addendums:

*Airborne Infection Isolation Room Precaution Checklist*.

*Environmental Services Airborne Infection Terminal Cleaning Checklist*.

*N95 use checklist*

*Stock supply list*

*Critical contact numbers*

Respiratory Protection Program Checklists

Contact Numbers

|  |  |  |
| --- | --- | --- |
|  | **Phone number** | **Email** |
| Nursing Supervisor |  |  |
| Infection Control |  |  |
| Facilities |  |  |
| Executive On Call |  |  |
| Environmental Services |  |  |
| Public Health |  |  |
| Isolation Unit  |  |  |
| Isolation Unit Coordinator |  |  |

References and Resources

Centers for Disease Prevention and Control Website**:** **www.cdc.gov**(Put useful links here)

Policy Manual: (list any of your related policies here)

 Exposure Control Plan

 Laundry Linen

 Multiple Drug Resistant Organisms

 Precautions, (Standard and Transmission)

 Respiratory Protection Program

Supply Management

Par Stock in PPE cart

|  |  |
| --- | --- |
| Item | Initial Stock |
| Surgical Masks | 1 box |
| N95 Respirators and infographic | 2 Boxes, 1 infographic |
| Gowns | 10 |
| Gloves | 1 box each size nitrile |
| Shoe covers | 10 |
| Face Shields | 5 |
| Goggles | 5 |
| Stop Signs/PPE posters | 3 |
|  (Checklists) | 1 |
| Blood Pressure Cuff | 1 |
| Stethoscope | 1 |
| Brown paper bags | 10 |
| Tissue | 2 boxes |
| Disinfecting wipes | 1 container |
| Biohazard Specimen bags | 5 |

NOTE: This is the initial stock. An updated stock request will be made by the Nurse in Charge when a resident is assigned to the room.

NURSING

**Airborne Infection Isolation**

**Resident(s) on AIRBORNE PRECAUTIONS will be placed in Room\_\_\_\_\_\_\_\_\_\_.**

PART A: To be completed by the Nurse Coordinator or Nurse Officer or Nurse in Charge or \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Item** | **Date/Time** | **Initials** | **Results/Notes/Comments** |
|  | **Suspected airborne transmitted infection (active TB disease, Measles, etc.), apply surgical mask to resident immediately** |  |  |  |
|  | **Inform unit leader of suspected disease** |  |  |  |
|  | **Call Facilities to ascertain optimizing airflow/HVAC etc.**  |  |  | **Contacted:**  |
|  | **Notify Infection Control, the Executive On Call and the Attending Medical**  |  |  | **Contacted:** |
|  | **Determine/Obtain list of N95 competent staff to unit** |  |  |  |

PART B: To be completed by the Nurse caring for Resident or charge

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Item** | Date/ Time | **Initials** | **Notes** |
|  | **If possible, resident should be placed in a private room** |  |  |  |
|  | **Roommate should be monitored for s/s airborne disease and placed in private room**  |  |  |  |
|  | **Initiate Airborne Precautions** |  |  |  |
|  | **Place STOP sign or PPE sign on door. Close doors** |  |  |  |
|  | **N-95 Personal respirators in use by all designated essential staff as per the Airborne Infection Isolation Precautions Competency.**  |  |  |  |
|  | **Just-in-time Teaching completed (as needed) for staff, resident, family, residents** |  |  |  |
|  | **Family/guardian/personal physician notified to ensure treatments that might be available to the resident are considered** |  |  |  |
|  |  **Resident to remain masked (surgical mask) during transport** |  |  |  |
|  | **Resident education completed** |  |  |  |
|  | **Resident instructed to cover mouth with tissue and deposit tissue in paper bag** |  |  |  |
| 1. **M**
 | **Airborne Precaution education or summary disseminated to staff**  |  |  |  |

Environmental Services

Airborne Infection Isolation

Terminal Cleaning

**Terminal Cleaning Checklist upon Discharge of Resident…**

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Date/Time** | **Initials**  | **Results/Notes/Comments** |
| **Check with Nursing to find out what time the resident was discharged from the room**  |  |  |  |
| **Before any cleaning procedures, check with Infection Prevention to determine the length of time needed for the ventilation system to remove airborne particles \*If room is needed immediately you may need to wear an N95 respirator during the procedure.** |  |  |  |
| **Using appropriate PPE as indicated by Nursing or Infection Prevention, clean the room** |  |  | **Note, depending on the disease, additional cleaning and different disinfectants may need to be used** |
| **Clean and disinfect all surfaces and equipment according to manufacturer’s instruction** |  |  |  |
| **Inspect the room and ensure it has been cleaned in accordance with department standards** |  |  |  |
| **Notify Nursing that the room has been cleaned** |  |  |  |

All Staff Using N95 Respirator

|  |  |
| --- | --- |
| **Check** | **Task** |
|  | **Do you have an Airborne Infection Isolation Precautions (RPP Competency) with approval to wear a N95 respirator? Is it current?** |
|  | **Has your health status changed since your last annual Health Screening Questionnaire? If so, consult Infection Prevention.** |
|  | **Obtain an N95 respirator, ensure it is not expired or damaged.** |
|  | **Don the N95 (see infographic if needed).**  |
|  | **Adjust the metal nose strip and straps.** |
|  | **Check the respirator to face seal with a quick Fit Check/seal check.** |
|  | **Remember to change N95 respirators if they become wet/damp or soiled.** |
|  | **Discard respirator after \_\_\_\_\_\_. Consult with IC to see how long the respirator can be worn, e.g., one shift, one care opportunity, multiple days** |
|  | **Store properly, Consult with IC to see how to store the respirator** |