##### *ABC Hospital*

##### Respiratory Protection Program

##### Policy

The purpose of this respiratory protection program is to ensure that all employees required to wear respiratory protection as a condition of their employment are protected from respiratory hazards through the proper use of respirators. Surgical masks, face shields and respirator use are components of a system of infection control practices to prevent the spread of infection between infected and non-infected persons.

Program Components

* Program Administration
* Program Scope/Application
* Identifying Work Hazards
* Respirator Selection
* Medical Evaluations
* Fit Testing
* Proper Respirator Use
* Cleaning and Disinfecting
* Inspecting, Maintenance and Repairs
* Respirator Training
* Evaluating/Updating Program
* Roles and Responsibilities
* Documentation and Recordkeeping

##### Program Administration

*(Example: Nursing Supervisor, Clinic Manager, employee health, human resources)* will be responsible for the administration of the respiratory protection program and thus is called the Respiratory Program Administrator (RPA)

(Example: *Nursing Supervisor, Clinic Manager, Employee* *Health, Human Resources*) will be responsible for monitoring the ongoing and changing needs for respiratory protection.

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##### Program Scope and Application

This program applies to all employees who could potentially be exposed to airborne respiratory illnesses during normal work operations, and during non-routine or emergency situations. This program is at no cost to the employee. Some of the types of work activities required to wear respirators are outlined in the table below:

|  |  |  |
| --- | --- | --- |
| **Work Process** | **Location** | **Type of Respirator** |
| Patient contact/care  (Airborne Precautions) | Patient Care Areas  Reception – Triage Areas | N95- disposable  PAPR  Reusable Half face Respirators |

##### Identifying Work Hazards

The respirators selected will be used for respiratory protection from potentially airborne infectious diseases; they do not provide protection from chemical exposure. Through normal working situations employees may be asked to have contact with patients who could be infected with a potentially airborne infectious agent such as *Mycobacterium Tuberculosis*. Examples of other potentially airborne infectious diseases that employees may be exposed to in emergency situations include: *Severe Acute Respiratory Syndrome (SARS), measles, and smallpox.* Because the condition/disease of a coughing patient is unknown most of the time, an employee should take precautions to protect themselves from all infectious respiratory disease including those which can be spread by droplet. Diseases that can be spread by droplet are: *pertussis (whooping cough), varicella (chickenpox), meningococcal disease (meningitis), plague and influenza*.

**Refer to Appendix A: Employee Risk Categories**

###### **Respirator Selection**

* Only respirators approved by the National Institute for Occupational Safety and Health (NIOSH) will be selected and used.
  + Filtering facepeice respirator (N95 respirators) are available for contact tracing, disease investigation and patient contact/care. (Airborne Precautions)
  + Reusable Particulate Respirator is a reusable respirator that fits over the nose and mouth. It is made of rubber or silicone with attached filters or cartridges and is available for contact tracing; disease investigation and patient contact/care (Airborne Precautions) *include this only if your facility uses these masks.*
  + A powered air-purifying respirator (PAPR) is available for contact tracing, disease investigation and patient contact/care. (*include this only if your facility uses PAPR’s)*
  + A PAPR may be selected for use if:

1. The N95 respirator choice(s) does not fit

1. Employee has facial hair or facial deformity that would interfere with mask-to-face seal.
2. The N95 respirator choice(s) are unavailable
3. Desired for high-risk aerosol-generating procedures

###### **Medical Evaluation**

* Employees assigned to tasks that require respiratory protection must be physically able to perform the tasks while wearing a respirator.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*(example: Medical Director, staff physician, nurse practitioner, physicians assistant occupational health physician, occupational health nurse under order sets of a physician, personal physician)* will determine individual medical clearance by a medical questionnaire and/or medical exam before fit testing and use. A written medical recommendation regarding the employee’s ability to use the respirator must be obtained from *(example: Medical Director, staff physician, nurse practitioner, physicians assistant occupational health physician, occupational health nurse under order sets of a physician, personal physician)*. Employees refusing a medical evaluation will not be allowed to work in conditions requiring respirator use.
* Annual review of medical status is not required; however, re-evaluation will be conducted under these circumstances:
  1. Employee reports medical signs or physical symptoms that are related to the ability to use a respirator. (Wheezing, shortness of breath, chest pain, etc.)
  2. It is identified that an employee is having a medical problem during respirator use.
  3. The healthcare professional performing the evaluation determines an employee’s need to be re-evaluated and the frequency of the evaluation.
  4. A change occurs in the workplace conditions that may result in an increased physiological burden on the employee.
  5. Employee facial size/shape/structure has changed significantly.
* All examinations and questionnaires are to remain confidential between the employee and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*(example: Medical Director, staff physician, nurse practitioner, physicians assistant occupational health physician, occupational health nurse, personal physician)*.

**Refer to Appendix B: Medical Evaluation Questionnaire**

**Appendix C: Respirator Health Questionnaire Follow-up**

**Fit Testing**

After the initial fit test, fit tests must be completed at least annually, or more frequently if there is a change in status of the wearer or if the employer changes model or type of respiratory protection (see below).

* Fit tests are conducted to determine that the respirator fits the user adequately and that a good seal can be obtained. Respirators that do not seal do not offer adequate protection.
* Fit testing is required for tight fitting respirators *(Persons with facial hair will not be fit tested.)*
* Fit tests will be conducted:

1. prior to being allowed to wear any respirator.

2. If the facility changes respirator product.

3. If employee changes weight by 10% or more.

4. If employee has changes in facial structure or scarring.

5. As Occupational Safety and Health Administration standards require

* Just In Time Fit Testing:
  + 1. Just in time-fit-testing may be required with TB, SARS – Novel influenza or other large scale outbreaks indicating the need for respiratory protection via N-95 masks.
    2. Medical evaluation questionnaire will be completed. Fit testing and training will be provided before employee is allowed to wear any respirator.
    3. Annual fit testing will apply if employee respirator needs continue/or they are at risk.

**Refer to Appendix D: Fit Test Procedure**

**Appendix E: Respirator Fit Test Record**

###### **Proper Respirator Use**

## General Use

* Employees will use their respirators under conditions specified by this program, and in accordance with the training they receive on the use of the selected model(s). In addition, the respirator shall not be used in a manner for which it is not certified by the National Institute for Occupational Safety and Health (NIOSH) or by its manufacturer.
* All employees shall conduct positive and negative pressure user seal checks each time they wear a respirator.
* All employees shall leave a potentially contaminated work area to clean/replace a (PAPR) or change (N95 - disposable) their respirator if the respirator is impeding their ability to work.

**Cleaning and Disinfecting**

* N95 – disposable
* If patient not in Contact Precautions (e.g., TB), discard if soiled, if breathing becomes labored, or if structural integrity is compromised.
* If patient in Airborne Precautions is also in Contact Precautions (e.g., SARS, smallpox), discard appropriately after use.
* Reusable Particulate Respirator will be changed by wearer whenever it becomes difficult to breathe. (include manufacturers cleaning and cartridge replacement recommendations here)
* Reusable respirators used in fit testing and training will be cleaned and disinfected after each use by the employee conducting the fit testing or training.
* PAPR
* *Recommendation on cleaning and disinfection differ among manufacturers. Include these recommendations here.)*

**Refer to Appendix F: Cleaning and Disinfecting**

**Storage, Maintenance and Inspection of Respirators**

All respirators will be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, and excessive moisture.

Respirators that will be used in patient care areas will be stored\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(E.g. on carts outside patient room, at nurse’s stations in labeled totes).

Reusable respirators that are assigned to individual users will be stored in a brown paper sandwich bags labeled with the user’s name (*you may use another storage method such as a plastic container. The respirator has to be kept in a clean environment where it will not be damaged or contaminated*)

PAPR’s will be stored\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (e.g. in central supply, at nurses station) and will be provided to employee’s *as needed is determined. (Contact Nursing Supervisor to request PAPR’s from storage)*

**All types of respirators should be inspected prior to use**

* N95 - disposable
  1. Examine the face piece of the disposable respirator to determine if it has structural integrity. Discard if there are nicks, abrasions, cuts, or creases in seal area or if the filter material is physically damaged or soiled.
  2. Check the respirator straps to be sure they are not cut or otherwise damaged.
  3. Make sure the metal nose clip is in place and functions properly (if applicable).
  4. Disposable respirators are not to be stored after use. They are to be discarded.
* Reusable Particulate Respirator

1. Condition of various parts including, but not limited to, the facepeice, head strap, valves, and cartridges.
2. Filters on reusable particulate respirators will be changed by wearer whenever it becomes difficult to breathe.

* PAPR
  1. Inspect the breathing tube and body of the High Efficiency Particulate Air (HEPA) filter for damage.
  2. Examine the hood for physical damage (if parts are damaged, contact the *Respiratory Program Administrator, supervisor, etc*).
  3. Check for airflow prior to use with the supplied air flow indicator.
  4. Follow manufacturer’s recommendations on maintenance, including battery recharging and HEPA filter replacement
* Any defective respirators shall be removed from service. Defective disposable respirators will be discarded and replaced.
* Defective reusable respirators will be turned in to \_\_\_\_ (*specify who*) for repair, adjustment or disposal. \_\_\_\_ (*specify who*) is responsible for charging and maintaining PAPR’s and batteries when they are stored or not in use.

###### **Respirator Training**

Healthcare workers will be trained prior to the use of a respirator and at least annually thereafter when deemed necessary by the Respiratory Program Administrator (*specify* *who*).

Training will include:

* Infection Control
* Identify hazards, potential exposure to these hazards, and health effects of hazards.
* Respirator fit, improper fit, usage, limitations, and capabilities for maintenance, usage, cleaning and storage.
* Emergency use if applicable.
* Inspecting, donning, removal, seal check and troubleshooting.
* Explaining respirator program (policies, procedures, OSHA standard, resources).

###### **Evaluating/Updating Program**

The Respiratory Program Administrator will review and complete an annual evaluation of the respiratory protection program and update as necessary.

* Evaluate any feedback information or surveys.
* The Respiratory Program Administrator will review any new hazards or changes in MDH/CDC recommendations that would affect respirator use.
* The Respiratory Program Administrator will make recommendations for any changes needed in the protection program.

**Refer to Appendix G: Respiratory Protection Program Evaluation**

**Roles and Responsibilities**

**Respiratory Program Administrator (RPA)**

The Respiratory Program Administrator is responsible for administering the respiratory protection program.

Duties of the RPA include:

* Identify work areas, processes, or tasks that require respiratory protection.
* Monitor OSHA policy and standards for changes and make changes to agency’s policy
* Select respiratory protection products.
* Monitor respirator use to ensure that respirators are used in accordance with their certification.
* Distribute and evaluate education/medical questionnaire.
* Evaluate any feedback information or surveys.
* Arrange for and/or conduct training and fit testing.
* Ensure proper storage and maintenance of respiratory protection equipment.

#### Physician or Other Licensed Health Care Professional (PLHCP)

Duties of the PLHCP include:

* Oversee the Medical Evaluation Process
* Approves guidelines for Medical Evaluation/Designee

#### Supervisor

The Supervisor for the respiratory protection program may also be the Respiratory Program Administrator. Supervisors are responsible for ensuring that the respiratory protection program is implemented in their particular units.

In addition to being knowledgeable about the program requirements for their own protection, Supervisors must also ensure that the program is understood and followed by the employees under their charge.

Duties of the Supervisor include:

* Knowing the hazards in the area in which they work.
* Knowing types of respirators that need to be used.
* Ensuring the respirator program and worksite procedures are followed.
* Enforcing/encouraging staff to use required respirators.
* Ensuring employees receive training and medical evaluations.
* Ensure proper storage and maintenance of all respirators.
* Coordinating annual retraining and/or fit testing.
* Notifying (specify who) with any problems with respirator use or changes in work processes that would impact airborne contaminant levels

**Employee**

* Participate in all training.
* Wear respirator when indicated.
* Maintain equipment.
* Report malfunctions or concerns.

**Other**

* Responsibilities may vary with your organization*.*

###### **Documentation and Recordkeeping**

* *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (example: Nursing Supervisor, Clinic Manager, employee health, human resources)* maintains the medical information for all employees covered under the respiratory program.
* The completed medical forms and documented medical recommendations are confidential and will remain with/in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *(example: RPA, healthcare provider conducting the evaluation, employee health, and human resources).*
* All relevant medical information must be maintained for the duration of the employment of the individual plus thirty years.

**Attachments**

Appendix A: Employee Risk Categories

Appendix B: Medical Evaluation Questionnaire

Appendix C: Respirator Health Questionnaire Follow-up

Appendix D: Qualitative Fit Test Procedure

Appendix E: Respirator Fit Test Record

Appendix F: Cleaning and Disinfecting

Appendix G: Respiratory Protection Program Evaluation

##### References

* NIOSH Respiratory Protection Program <http://www.cdc.gov/niosh/topics/respirators/>
* US Department of Health and Human Services, 1999, OSHA Technical Manual: Respiratory Protection 29 CFR 1910.134 <http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=12716>
* Minnesota Department of Health <http://www.health.state.mn.us/divs/idepc/dtopics/infectioncontrol/rpp/>