HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER
MATERNITY AND CHILDREN HOSPITAL

Department:	Infection Prevention and Control Department		
Document:	Multidisciplinary Policy and Procedure (MPP)		
Title:	Respiratory Protection Program		
Applies To:	Patient Care Area		
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1. PURPOSE:

1.1 To improve the awareness of respiratory threats in healthcare settings and to inform healthcare workers about the effective means available to protect themselves, patients, and visitors from those hazards

1.2 The Respiratory Protection Program (RPP) aims to provide effective protection from respiratory risks and to ensure that all employees, patients, and visitors are protected from respiratory hazards.

2. DEFINITONS:

2.1 Aerosol Transmissible Diseases (ATDs) are diseases transmitted when infectious agents, which are suspended or present in particles or droplets, contact the mucous membranes or are inhaled.

2.2 Aerosol-Generating Procedures (AGPs):

2.2.1 An aerosol-generating procedure (AGP) is defined as any medical procedure that can induce the production of aerosols of various sizes, including small (< 5 microns) Particles. AGPs includes bronchoscopy, sputum induction, intubation and extubation, cardiopulmonary resuscitation, open suctioning of airways, Ambu bagging, nebulization therapy, high frequency oscillation ventilation and Bilevel Positive Airway Pressure ventilation – BiPAP

2.3 An Air-Purifying Respirator (APR):A respirator with an air-purifying filter, cartridge, or canister removes specific air contaminants by passing ambient air through the air-purifying element.

2.4 Aerosol: It is a mist composed of tiny, lightweight particles that can remain suspended in the air for long periods and travel long distances. These particles can penetrate the respiratory system and are generally <5 microns in diameter.

3. POLICY:

3.1 Standard Precautions are the foundation of infection control and represent the minimum infection prevention measures that apply to all patient care.

3.2 The IPC committee regularly discusses RPP program's activities, progress, and any issues with potential to impede the effective implementation of the program.

3.3 Training & education of staff on RPP in addressing practice, compliance, and knowledge of respiratory protection.

3.4 Respirators for infectious agents must be selected according to anticipated exposure by task and according to recognized and generally accepted good infection control practices and public health guidance.

3.5 Proper maintenance of all portable HEPA filter machines and all HEPA filters are changed on a regular basis and according to the manufacturer's recommendations. Monitor and record the maintenance and changing of HEPA filters.

3.6 HCWs must perform aerosol generating procedures (AGPs) on any suspected or confirmed respiratory illnesses cases in a negative pressure room or single room with a portable high-efficiency particulate air (HEPA) filter machine (if the negative pressure room is not available) and by using proper PPE (e.g., N95 fitted mask, eye protection, gloves, and gown).

3.7 Written reminders in the emergency department for updated definitions of respiratory illnesses of national alert are available and based on updated national guidelines and staff are quite familiar with these definitions (Case definition posters, personal cards etc.).

3.8 ER physicians & other relevant staff regarding updated case definition of respiratory illnesses and last orientation/ training e.g MERS- CoV & COVID-19.

3.9 The RPP aimed to provide effective protection from respiratory risks and to ensure that all employees, patients and visitors are protected from respiratory hazards through the adoption of a systematic approach that incorporates the four major elements with relevant

3.10 The Components of the Respiratory Protection Program RPP. See attachment 7.1

4. PROCEDURE:

4.1 Respiratory Protection Program (RPP) four major elements with relevant sub-elements:

- 4.1.1 Prevention of respiratory hazards through the use of administrative controls
  - 4.1.1.1 Sub elements of this component include:
    - 4.1.1.1.1 Development of the RPP and Assigning Responsibilities of Hospital Respiratory Protection Program Team
    - 4.1.1.1.2 Discussion of RPP Activities in the Infection Prevention & Control Regular Committee
    - 4.1.1.1.3 Development of policy and Procedure that govern all aspects of the RPP, developed according to the MOH guidelines and regulations & easily accessible to all healthcare workers. (HCWs) with emphasis on staff vaccination and efficient respiratory protection program record keeping.
    - 4.1.1.1.4 Regular program monitoring and evaluation are required by the RPP team
    - 4.1.1.1.5 Respiratory Protection Program Education & Training which is a critical component of an effective RPP.
- 4.1.2 Early identification of respiratory hazards
  - 4.1.2.1 Sub elements of this component include:
    - 4.1.2.1.1 Respiratory Hazard Evaluation
    - 4.1.2.1.2 Early Identification of Patients with Acute Infectious Respiratory Illnesses
    - 4.1.2.1.3 Early Recognition and Source Control of Patients with Acute Infectious Respiratory Illnesses
    - 4.1.2.1.4 Transportation of Suspected/Confirmed Infectious Respiratory Illnesses Cases
    - 4.1.2.1.5 Collecting & Handling of Respiratory Specimens
- 4.1.3 Prevention of respiratory hazards through the use of engineering controls
  - 4.1.3.1 Sub elements of this component include:
    - 4.1.3.1.1 Availability and functioning of Airborne Infection Isolation Room (AIIR)
    - 4.1.3.1.2 Availability and Functioning of Portable High-Efficiency Particulate Air Filter (HEPA filter)
    - 4.1.3.1.3 Availability and Functioning of Laboratory's Biological Safety
- 4.1.4 Prevention of respiratory hazards through the use of respiratory protection equipment
  - 4.1.4.1 Sub elements of this component include:
    - 4.1.4.1.1 Availability of RPE Including Face Mask, Respirator, and Powered Air Purifying Respirator (PAPR)
    - 4.1.4.1.2 Respirator Fit Testing

4.2 Management protocols of patients with respiratory illness:

- 4.2.1 Case definition of suspected and confirmed case of respiratory illness
- 4.2.2 Description of respiratory pathway / Designated respiratory triage area with clear flowchart
- 4.2.3 Transmission based Precautions
- 4.2.4 Patient Placement
- 4.2.5 Personal Protective Equipment (PPE) For Healthcare workers
- 4.2.6 Environmental Cleaning /Disinfection & Handling waste and linen
- 4.2.7 IPC Precautions for Aerosol-Generating Procedures (AGPs)
- 4.2.8 Management of exposure to Respiratory illness (HCWs & Patient exposure)
- 4.2.9 Management of respiratory illness outbreaks
- 4.2.10 Duration of isolation Precautions for specific respiratory illness

4.2.11 Home Isolation instructions for eligible patients
4.2.12 Laboratory Diagnosis (Specimen shipment protocols: Sample collection, packaging and shipping)
4.2.13 General outlines of Management
4.2.14 Managing bodies of deceased patients with respiratory illness (MERS – CoV & COVID-19 etc)

4.3 Respiratory triage and pathway should effectively prevent the transmission of respiratory diseases to patients, healthcare workers (HCWs), and visitors through using simple clinical symptoms and clinical history needed for rapid identification and isolation of suspected cases with infectious respiratory diseases.
4.3.1 A simple screening method for the early detection of patients with respiratory symptoms. It must be available at the entry point of the healthcare facility for effective capturing & early identification of all individuals passing through the entrance with ARI symptoms.
4.3.2 A triaging scoring system applied to alert healthcare workers in an emergency (ED) and hemodialysis units for the possibility of occurrence of respiratory infections with a particular pathway for those patients.

4.4 Respiratory triage area specifications:
4.4.1 A certified trained HCW should operate the respiratory triage point, and they must be able to communicate with patients in both Arabic and English.
4.4.2 The area should be manned by HCWs continuously (24/7).
4.4.3 An informative / attention poster should be erected in the respiratory triage area on the mandatory steps that are required before passing through it.
4.4.4 Updated version of the respiratory triage screening tool.
4.4.5 Availability of medical masks and alcoholic hand rub solution at the respiratory triage desk.
4.4.6 Patients identified with infectious respiratory illness should be asked to perform hand hygiene and wear a face mask.
4.4.7 Those with respiratory symptoms meeting scoring criteria must be immediately directed to the respiratory pathway (i.e., the respiratory clinic or waiting area) without first opening a patient file (staff members or caregivers can perform the registration in the reception instead.)
4.4.8 One-way flow of patients should be ensured at all times.

4.5 Respiratory Pathway: Respiratory Clinic:
4.5.1 Patients with respiratory symptoms should be screened in the respiratory clinic (i.e., as part of the respiratory pathway) according to the respiratory triage process.
4.5.2 After the clinical assessment, the physician must decide whether the patient meets the case definition for any particular disease.
4.5.3 Accordingly, the patient will be directed to an Airborne Infection Isolation Room (AIIR) so that a respiratory specimen can be performed.
4.5.4 if an AIIR is not available, a single room with a portable HEPA filter should be used.
4.5.5 Portable chest X-rays must be available for chest imaging and to minimize the transfer of patients around the hospital

4.6 Respiratory Waiting Area:
4.6.1 The waiting area for the respiratory pathway should be a well-ventilated separate area that is only used for suspected infectious respiratory cases.
4.6.2 The respiratory waiting area should be kept free of excessive equipment or furniture.
4.6.3 Should be equipped with chairs that are easy to clean and fix, with a safe social distance of 1.2 m between chairs.
4.6.4 Educational materials (posters and screens) about respiratory hygiene and cough etiquette must be available, together with hand hygiene supplies, tissues, and ordinary waste receptacles.

4.7 Flowchart is available in Emergency room for early detection & management of respiratory illness patients
4.7.1 Flowchart for respiratory illness patients based on updated MOH guidelines. Flowchart should clearly describe respiratory pathways from the initial checkpoint at ER / HDU entrance to the final destination.

4.8 Patients who have acute infectious respiratory symptoms are instructed to wear surgical masks and placed in a dedicated and separated waiting area with at least 1.2-meter distance between them.
4.8.1 In dealing with patients with acute respiratory symptoms the respiratory triage nurse must instruct to perform hand hygiene & wear surgical mask. The respiratory nurse must direct the patient to the dedicated respiratory waiting area.

4.9 Conducts a tracing for all HCWs who have exposed to a confirmed respiratory illness as per the latest national guidelines (e.g: TB or MERS-CoV) cases as per the latest national guidelines and implemented system for reporting, follow up, and management of exposure to open pulmonary TB, MERS-CoV, chicken pox, measles, mumps, and rubella.

4.9.1 All healthcare facilities should identify and trace all health care workers who had protected (proper use of PPE) or unprotected (without wearing PPE or PPE used improperly) exposure to patients with respiratory like MERS-CoV & Tuberculosis infection.

4.9.2 Healthcare workers shall be assessed daily for 14 days post exposure for the development of symptoms through the activation of log. Log with line listing of all contacts exposed to confirmed respiratory illness (e.g: TB or MERS-CoV) cases with record of signs & symptoms for the duration of 14 days.File of any patient of suspected or confirmed respiratory illnesses cases.

4.10 Implemented system for reporting, follow up, and management of exposure to open pulmonary TB, MERS-CoV, chicken pox, measles, mumps, and rubella.

4.10.1 1) Llists of HCWs who had exposed to MERS-CoV, open pulmonary TB, chicken pox, measles, mumps or rubella, with classification into low or high risk / protected or non-protected Exposure.
2) Isolation room's logs that record HCWs who had exposed to the abovementioned diseases
3) Evidence of reliable reporting of exposures to GDIPC when indicated (e.g., exposure to MERS-CoV confirmed cases, exposures during chicken pox or measles outbreaks, etc..).
4) Annual report of the employee health clinic that includes exposure incidents to MERS-CoV, open pulmonary TB, chicken pox, measles, mumps and rubella

4.10.2 Isolation room's logs that record HCWs who had exposed to the abovementioned diseases

4.10.3 Evidence of reliable reporting of exposures to GDIPC when indicated (e.g., exposure to MERS-CoV confirmed cases, exposures during chicken pox or measles outbreaks, etc..).

4.10.4 Annual report of the employee health clinic that includes exposure incidents to MERS-CoV, open pulmonary TB, chicken pox, measles, mumps and rubella

4.11 Aerosol generating procedures (AGPs) (e.g; nasopharyngeal swabs, tracheal aspirate, etc) of suspected infectious respiratory patients are performed by trained HCWs , and there must be schedule for assigned trained HCWs to cover all shifts.

4.11.1 List of healthcare workers (Doctors, nurses etc.) who have received training on appropriate technique of nasopharyngeal swab & tracheal aspirate which are Aerosol generating procedures (AGPs).Schedule for duty covering 24 hours for the trained assigned HCWs for Aerosol generating procedures (AGPs) (e.g; nasopharyngeal swabs, tracheal aspirate, etc)

4.12 Application of transmission-based (Airborne and Droplet) Precautions

4.12.1 Droplet Precautions:

4.12.1.1 Droplet-related precautions should be taken with respect to patients known to be or suspected of being infected with pathogens transmitted by respiratory droplets generated by a patient while coughing, sneezing, or talking as follow:

4.12.1.2 Source control should be exercised by putting a mask on the patient.

4.12.1.3 Ensure appropriate patient placement (in a single room if possible).

4.12.1.4 If a single room is not available at an acute care hospital, the recommendations for alternative patient placement must be utilized.

4.12.1.5 In long-term care and other residential settings, decisions regarding patient placement must be made on a case-by-case basis, while considering the risk of infection to other patients in the room, as well as available alternatives.

4.12.1.6 In ambulatory settings, patients who require droplet-related precautions should be taken to an examination room or cubicle as soon as possible and instructed to follow respiratory hygiene/cough etiquette protocols.

4.12.1.7 A color-coded isolation sign should be used in the patient isolation room or cubicle

4.12.1.8 PPE should be used appropriately.

4.12.1.9 A mask should be donned upon entry to the patient's room or space.

4.12.1.10 Transporting and moving patients outside the room should be limited to what is necessary medically.

4.12.1.11 Color-coded Transportation Card should be used during patient transportation.

4.13 Airborne Precautions: Airborne precautions should be taken for patients known or suspected to be infected with pathogens transmitted via an airborne route (e.g., those with open pulmonary tuberculosis, measles, and chickenpox) as follows:

4.13.1 Source control should be exercised by putting a mask on the patient.

4.13.2 Ensure appropriate patient placement in an airborne infection isolation room (AIIR) constructed according to the Guideline for AIIR specification.

4.13.3 In settings where AIIR is not available, masking the patient and placing the patient in a private room with the door closed will reduce the likelihood of airborne transmission until the patient is either transferred to a facility with an AIIR or returned home. o A color-coded isolation sign should be used in a patient isolation room

4.13.4 Restrict susceptible healthcare personnel from entering the room of patients known or suspected to have measles, chickenpox, disseminated zoster, or smallpox if other immune healthcare personnel are available.

4.13.5 Use personal protective equipment (PPE) appropriately, including a fittested approved respirator for healthcare personnel.

4.13.6 Limit transporting and moving patients outside the room to what is necessary medically, and if transportation or movement outside an AIIR is necessary, instruct the patient to wear a surgical mask, if possible, and observe respiratory hygiene/cough etiquette.

4.13.7 Color coded transportation cards should be used during patient transportation

4.13.8 Healthcare personnel transporting patients who are on airborne precautions do not need to wear a mask or respirator during transportation if the patient is wearing a mask and infectious skin lesions are covered.

4.13.9 Immunize susceptible persons as soon as possible following unprotected contact with vaccine-preventable infections (e.g., measles, varicella, or smallpox).

4.14 Transportation of Suspected/Confirmed Infectious Respiratory Illnesses Cases. The following protocols should be followed during patient transportation:

4.14.1 Avoid moving and transporting patients out of their rooms unless medically necessary.

4.14.2 Use designated portable chest imaging (i.e., chest x-ray) equipment.

4.14.3 If patient transport is necessary, use pre-determined transport routes with less traffic to minimize exposure for staff, other patients, and visitors

4.14.4 During transportation, the patient should be asked to wear a surgical mask, if clinically possible, and follow respiratory hygiene and cough etiquette instructions.

4.14.5 Colored coded transportation cards should be used during transportation.

4.15 Collecting & Handling of Respiratory Specimens

4.15.1 Collection of Upper Respiratory Tract Specimens:

4.15.1.1 Oropharyngeal (OP) and nasopharyngeal (NP) swabs.

4.15.1.2 2Nasopharyngeal wash/aspirate.

4.15.2 Collection of Lower Respiratory Tract Specimens.Sputum, tracheal aspirate, bronchi alveolar lavage (BAL) fluid, or pleural fluid. Area Requirements for the Collection of Upper/Lower Respiratory Specimens:

4.15.3 Preferably, upper/lower respiratory samples should be performed in a negative pressure room or a single room with a portable certified HEPA filter.

4.15.3.1 The door must be closed at all times while in use.

4.15.3.2 The floor should be made of material that can be cleaned easily, preferably vinyl, and without cracks.

4.15.3.3 Ideally, the furniture should be made of steel or another material that is easy to clean and disinfect.

4.15.3.4 Hand washing basins equipped with liquid soap and paper towels are preferred or alcoholic hand rub dispensers.

4.15.3.5 Personal protective equipment should be accessible and available.

4.15.3.6 Environmental disinfectant spray or wipes should be available.

4.15.3.7 Medical waste containers with medical waste bags should be available inside the respiratory specimen's collection room.

4.15.3.8 All HCWs should be trained about the proper use of PPE and various techniques of respiratory sample collection.

4.16 Airborne Infection Isolation Room (AIIR)

4.16.1 AIIR is a single-occupancy patient-care room used to isolate patients with a suspected or confirmed airborne infectious disease..

4.16.2 Airborne isolation rooms should be fully meet MOH requirements

4.16.3 Environmental factors are controlled in AIIRs to minimize the transmission of infectious agents that are usually transmitted from person to person by droplet nuclei associated with coughing or aerosolization of contaminated secretions.

4.16.4 Well clearly labelled AIIRs should provide (-2.5) Pascal negative pressure in the room as a minimum which is continuously monitored by the fixed audio-visual monitor for an airflow rate of 12 air changes per hour (ACH) as a minimum and direct exhaust of air from the room to the outside of the building after being passed through HEPA filter with 100% fresh air supply all the time.

4.16.5 Bathroom ventilation exhaust should pass through HEPA filter.

4.16.6 An anteroom is not required, but it is preferable if it is possible.

4.16.7 Negative pressure isolation room walls, floors, and ceiling surfaces should be easily cleanable and highly durable to withstand frequent cleaning and disinfection with an approved disinfectant.

4.16.8 Monitoring of Airborne Infection Isolation Rooms:

4.16.8.1 Maintenance and monitoring of environmental conditions (pressure, temperature, and humidity) should take place, together with follow-up of periodic maintenance of the low-pressure insulation rooms.

4.16.8.2 Environmental conditions (temperature, relative humidity [RH%], and ACH should be monitored, as well as room pressure in relation to the outer corridor.

4.16.8.3 The pressure from the monitoring device installed at the entrance to the AIIR should be recorded daily in the log designated for that purpose by the responsible nursing staff in the department.

4.16.8.4 Temperature and humidity should be monitored and recorded in the isolation rooms on a daily basis.

4.16.8.5 Any difference in negative pressure value should be monitored using a pressure meter, daily if patients are present and weekly if patients are absent.

4.16.8.6 In the event of deviation from the specified engineering specifications (setpoints), a maintenance request should be submitted to the maintenance department.

4.16.8.7 Routine follow-up of the AIIR pressure difference and air change per hour (ACH) should be carried out by qualified engineers from the maintenance department monthly and the reading should be recorded in the log designated for that.

4.16.8.8 All HEPA filters are changed from 6 to 12 months, depending on the visual inspection or according to the manufacturer's recommendations

4.16.8.9 In the event of needing to change the HEPA filters, appropriate PPE measures should be taken, together with their disposal, as medical waste, in coordination with the infection control department at the facility.

4.17 Availability and Functioning of Portable High-Efficiency Particulate Air Filter (HEPA filter)

4.17.1 Portable HEPA Filter:A portable HEPA filter can theoretically remove at least 99.97% of dust, pollen, mold, bacteria, and any airborne particles with a size of 0.3 microns (µm).

Indications of Use:

4.17.1.1 During aerosol-generating procedures (AGPs), e.g., nasopharyngeal swabbing in case of AIIR is not available.

4.17.1.2 The HEPA filter is used to improve the air quality in infectious respiratory patients in the waiting areas, and chest clinics.

4.17.1.3 In the autopsy room if the AIIR is not available

4.17.2 Special Considerations of HEPA Filter:

4.17.2.1 The portable HEPA filter is not needed and is not a part of droplet and contact precautions.

4.17.2.2 The portable HEPA filter device is considered a part of environmental surfaces that should be cleaned and disinfected from its outer surface as a part of the terminal cleaning process of the patient room after patient discharge or transfer.

4.17.2.3 The portable HEPA filter device should be operated during the occupancy of the room or area.

4.17.2.4 It is enough for a certified regular patient room to use one portable HEPA filter device, and there is no need to use more than one.

4.17.2.5 If the portable HEPA filter device has adjustable airflow, the airflow should be selected that is appropriate to the size of the room to give the desired air changes per hour.

4.17.2.6 Portable HEPA filters require proper preventive maintenance for their effective continued operation.

4.17.2.7 The filter should be replaced according to the manufacturer's recommendation.

4.17.2.8 Only trained personnel are allowed to replace these filters and should be instructed by infection control about the proper use of personal protective equipment.

4.17.2.9 Used replaced filters should be discarded as infectious medical waste.

4.17.2.10 The maintenance procedure should be performed in an area safely away from any patient locations.

4.17.2.11 The unit should be placed as close to the expected source of the contamination as possible to increase effective capture of the infectious/hazardous agents, so the distance from the patient impacts the ability to filter out droplet nuclei.

4.17.2.12 The use of the portable HEPA filter within the facility should be guided by a written policy that is created using the information in these guidelines.

4.18 Proper Selection and Use of Respiratory Protection Devices Guide:

4.18.1 Medical / Surgical Face Masks:

4.18.1.1 A face mask is a loose-fitting, disposable device that creates a physical barrier between the mouth and nose of the wearer and potential contaminants in the immediate environment.

4.18.1.2 Face masks are not to be shared and may be labelled as surgical, isolation, dental, or medical procedure masks.

4.18.1.3 They could come with or without a face shield.

4.18.1.4 Face masks are made in different thicknesses and have different abilities to protect health care workers from contact with liquids. These properties may also affect how easily HCW can breathe through the mask.

4.18.1.5 If worn surgical/medical mask properly will help block large-particle droplets, splashes, sprays, or splatter that may contain germs (viruses and bacteria), keeping them from reaching the wearer's mouth and nose. It also helps reduce exposure of wearer saliva and respiratory secretions to others.

4.18.1.6 While a face mask could be effective in blocking splashes and large-particle droplets but does not filter or block tiny particles in the air that may be transmitted by coughs, sneezes, or certain medical procedures.

4.18.1.7 Face masks do not provide complete protection from germs and other contaminants because of the loose fit between the surface of the mask and your face.

4.18.1.8 Face masks are not intended to be used more than once.

4.18.1.9 If the mask is damaged, wet, or soiled, or breathing through the mask becomes difficult, it should be removed, discarded safely, and replaced with a new one; hand hygiene should be practiced accordingly.

4.18.1.10 Medical/Surgical face mask is considered to be contaminated once it has been used and should be discarded immediately. Mask should be removed by the edges or the ties rather than the front panel.

4.18.2 Different Protection levels / Types of the surgical/medical mask according to EN 14683 standard, ASTM F2100, and intention of use of each Level/Type:

4.18.2.1 Level 1/Type I

For general purpose medical procedures, where the wearer is not at risk of blood or body fluid splash or to protect staff and the patient from droplet exposure to microorganisms (e.g., patient with upper respiratory tract infection visits clinic).

4.18.2.2 Level 2/Type II
For use in emergency departments, dentistry, changing dressings on minor wounds, or healing wounds where minimal blood droplet exposure may possibly occur (e.g., endoscopy procedures).

4.18.2.3 Level 3/Type III
They are used for all surgical procedures, major trauma first aid, or in any area where the health care worker is at risk of blood or body fluid splash (e.g., orthopedic, cardiovascular procedures).

4.18.3 Medical / Surgical Mask Standards: General standards:

4.18.3.1 Single-use.

4.18.3.2 It has a flexible, bendable nose bridge.

4.18.3.3 Latex-Free, non-allergic, Fiberglass free.

4.18.3.4 Fluid Resistant.

4.18.3.5 Three Ply (layers) construction.

4.18.3.6 Have 3 pleats of folds to allow the user to expand the mask, covering the area from the nose to the chin.

4.18.3.7 Mask secured with an ear loop to be placed behind the ears or tied behind the head.

4.18.4 Respirators Mask: A respirator is a respiratory protective device designed to achieve a very close facial fit and efficient filtration of airborne particles. Note that the edges of the respirator are designed to form a seal around the nose and mouth.

4.18.5 Surgical Respirator

4.18.5.1 A surgical respirator (also referred to as a medical respirator) is recommended only for use by healthcare workers (HCWs) who need protection from both airborne and fluid hazards (e.g., splashes, sprays, droplets).

4.18.5.2 These respirators are not used or needed outside of healthcare settings.

4.18.5.3 Minimum requirements for (Fluid resistant respirator) surgical respirators are NIOSH approved (42 CFR Part 84) and FDA cleared as a surgical N95 respirator, EN 149 - 2001 as FFP2 and EN 14683 standard.

4.18.6 Respirator Facts:

4.18.6.1 Respirators reduce the wearer's exposure to airborne particles, from small particle aerosols to large droplets.

4.18.6.2 Respirators are tight-fitting that filter out at least 95% of particles in the air, including large and small particles.

4.18.6.3 An adequate seal to the face is essential. It is required that all healthcare workers undergo an annual fit test and conduct a user seal check each time the respirator is used.

4.18.6.4 When properly fitted and worn, minimal leakage occurs around the edges of the respirator when the user inhales, and almost all of the air is directed through the filter media.

4.18.6.5 The respirators are used as a part of personal protective equipment used while caring for a patient under airborne isolation precautions or during some aerosol generating procedures to a patient diseased or suspected to be diseased with droplet transmitted disease.

4.18.7 Frequency of Fit Testing:

4.18.7.1 Fit testing must be performed before using a respirator and must be repeated on the national regulations needed' frequency or when required.

4.18.7.2 Fit testing must be conducted when there are changes of respirator or a facial change; [examples of conditions that would require additional fit testing of an employee include but are not limited to; weight loss, cosmetic surgery, facial scarring, the installation of dentures, or absence of dentures that the individual wears typically].

5. MATERIALS AND EQUIPMENT:

5.1 **Forms and Records:**

5.1.1 N/A

Materials and Equipment

5.2.1 N/A

6. RESPONSIBILITIES:

6.1 It is the responsibility of infection control department to implement this policy.

7. APPENDICES:

7.1 The Components of the Respiratory Protection Program RPP. See attachment 7.2

7.2 Respiratory Hazards Evaluation Checklist

8. REFERENCES:

8.1 General Directorate of Infection Prevention and Control in Healthcare Facilities (GDIPC) Respiratory Protection Program (RPP). Version 3 Jul 2023

9. APPROVALS:

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7.1 The Components of the Respiratory Protection Program RPP

Components of Program		
1	Prevention of Respiratory Hazards Through Administrative Controls	5 elements
2	Early Identification of Respiratory Hazards	5 elements
3	Prevention of Respiratory Hazards Through Engineering Controls	3 elements
4	Prevention of Respiratory Hazards Through Respiratory Protection Equipment (RPE)	2 elements

7.2 Respiratory Hazards Evaluation Checklist

Assessment of risk of transmission should include consideration of the following elements that can contribute to an increased risk of transmission		
1.	Elements	Sub - Elements
	Current prevalence and transmission of the respiratory illnesses in the population	
2.	Patient specific factors	Duration of care (care that takes longer than 15 minutes)
		Distance that less than 2 meters.
		Intensity of exposure (symptoms such as sneezing or coughing, screaming, shouting).
		Individual patient/client/resident's ability to wear a surgical mask
		Patients with cognitive or behavioral issues (e.g., dementia, confused or aggressive).
3.	Procedures/ activities specific factors	Performing a respiratory Aerosol Generating Procedures (AGPs) on a patient with suspected or confirmed acute respiratory infection (e.g., COVID-19, measles, TB) or undertaking clinical work within this space.
		Cleaning & disinfecting a room or zone within 30 minutes of a respiratory AGP on a suspected or confirmed respiratory infection or communicable diseases with potential for airborne transmission.
		Laboratory operations involving aerosol transmissible pathogens for which biosafety plan requires respiratory protection.
4.	Setting-specific factors	Levels of ventilation or air handling (e.g., room size, air changes per hour, use of air filter, cleaning and maintenance).
		Availability of Airborne Infection Isolation Rooms (AIIR) in the facility based on the risk assessment.
		Multiple patients with upper respiratory tract infection cohorted in one area/zone or ward.
		Healthcare workers compliance to respiratory protection measures and BICSL coverage ratio.