HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER MATERNITY AND CHILDREN HOSPITAL

Department:	Infection Prevention and Control Department		
Document:	Multidisciplinary Policy and Procedure (MPP)		
Title:	Management of Influx of Airborne Infection Diseases		
Applies To:	Nurses and Technician		
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1. PURPOSE:

1.1 To provide clear guidelines for managing an influx of airborne infections in a setting where there is shortage of negative pressure rooms. A separate bioterrorism plan is to be utilized, if there is suspected bioterrorism incident, and is part of the disaster plan.

2. DEFINITONS:

2.1 Influx of infectious patients - presentation of a large number of probable or confirmed infectious patients at the hospital that is in excess of the hospital's ability to provide patient care during a specified time period.

2.2 Epidemic - an excess over the expected incidence of disease within a geographical area during a specified time period.

2.3 Surge capacity - having adequate resources for managing a sudden, unexpected increase in patients requiring acute medical care.

2.4 Surge capability - having adequate specialized resources to treat specific patient groups such as highly contagious patients.

2.5 Extended use of N95 respirator- refers to the practice of wearing the same N-95 respirator for repeated close encounters with several patients, without removing the respirator between patient encounter.

2.6 Reuse of N95 respirator- refers to the practice of using the same N95 respirator for multiple encounters with patients but removing it after each encounter. The respirator is stored in between patients to be put again prior to the next encounter with the same patient.

3. POLICY:

3.1 In the event of a real or risk of an influx of infectious patients, the hospital will implement a plan of response to reduce the risk of the spread of an infectious disease.

3.2 Hospitals will face the challenges of caring for large influx of patients following an outbreak of an emerging infection which can pose a threat to the safety and health of our patients and health care workers. Thus, having an adequate supply of resources for managing a sudden, unexpected increase in patients requiring Airborne precautions and immediate treatment must be addressed.

3.3 Preparedness for emerging infectious emergencies is imperative for local, regional and national response planning.Secondly, patient management issues which include rapid identification, transport and isolation of potentially infectious patients are important factors in the prevention of the spread of infection.

4. PROCEDURE:

4.1 In order for the hospital to be better prepared in managing an influx of airborne infectious diseases or emerging new pathogens the following steps are necessary to take.

4.2 Airborne Infection Isolation Room (AIIR) - is defined as a patient room meeting the following criteria:

4.2.1 Private room;

4.2.2 Provide a negative pressure in the room;

4.2.3 An air flow rate of 12 changes per hour (supplement with high efficiency particulate air (HEPA) filtration system if insufficient dilutional ventilation; and

4.2.4 Direct exhaust to the outside of the building from an air intake or exhaust through a HEPA filtration system before returning to circulation.

4.3 Facility Assessment

4.3.1 Assess the current ventilation system in the facility

4.3.1.1 Maintain a record of the number and location of the different HVAC (heating, ventilation, air conditioning) zones and air handling units.

4.3.1.2 Ensure all systems are functioning as designed.

4.3.2 Identify and maintain a current list of all AIIRs and isolation rooms throughout the whole hospital and ensuring that they are all functioning well.

4.3.3 Utility & Maintenance staff:

4.3.3.1 Document optimal HVAC control settings for normal use and take the necessary steps to modify the system as per IP&C advice in the event of an emergency.

4.3.3.2 Ensure that there is effective communication plan between IP&C, clinical staff and Engineering Department to initiate system modifications, if needed.

4.3.3.3 Implement immediate environmental controls as per IP&C advice, or as deemed necessary

4.3.3.4 HEPA filter is made available in the event of lack of negative pressure rooms.

4.4 Infectious Disease Epidemic Plan (IDEP)

4.4.1 IP&C will monitor potential epidemics or influx of airborne infectious disease through routine surveillance of admission provided by Emergency Department (ED), syndrome surveillance, and surveillance of microbiology results.

4.4.2 IP&C will coordinate with Microbiology Department to identify the infectious agent and establish the likely mode of transmission. This must be a priority in order to implement the appropriate control measures at the point of entry into the hospital facility. These measures will include droplet, contact, and airborne precautions, as indicated.

4.4.3 An IDEP of a specific emerging pathogen will be developed by IP&C as the need arises. The IDEP will be made available and accessible to all healthcare workers through the intranet website.

4.5 Patient Management

4.5.1 Emergency Department (ED) Responsibilities:

4.5.1.1 In the event of an increase in the number of suspected and confirmed airborne infectious diseases cases, ED Unit Manager will immediately notify the responsible persons as indicated in Section "H" Notification.

4.5.1.2 Place signage in English and Arabic that would direct sick patients to a designated isolation room or waiting area, thereby, minimizing exposures among patients in the waiting area.

4.5.1.3 If possible, have a separate waiting area for patients with respiratory symptoms.

4.5.1.4 Provide direction for patients with respiratory symptoms to wear a surgical mask and use alcohol-based hand rubs (ABHR).

4.5.1.5 Ensure surgical masks, ABHRs and waste containers are readily available for patients with respiratory symptoms to prevent aerosolization of infectious particles.

4.5.1.6 Have enough supply of N95 masks, surgical masks, and ABHRs for healthcare providers.

4.5.1.7 An N95 mask/respirator is single use and is to be disposed after a patient encounter. In the event of a shortage such as in an outbreak, reuse of N95 mask/respirator is allowed as long as it remains functional. Refer to below recommendations:

4.5.1.7.1 Follow manufacturer's specific guidance on the use of their product.

4.5.1.7.2 If no guidance is available, limit the number of reuse to no more than five uses per device per shift

4.5.1.7.3 Discard any respirator that is damaged or became hard to breathe through.

4.5.1.7.4 Instruct HCW to perform hand hygiene after putting the respirator on and following removal/placement in a storage location.

4.5.1.7.5 Pack or store respirator in a breathable container such as a paper bag in between uses.

4.5.1.7.6 Label containers used for storing respirators or label the respirator itself (e.g., on the straps) with the user's name to prevent accidental usage of another person's respirator

4.5.1.7.7 The container bag is a single use item because the inner part can become contaminated due to storing used respirator. Therefore, the container bag should be discarded after the respirator is redonned.

4.5.1.8 Prioritize placement of patients in AIIRs or isolation rooms based on the risk of transmission, suspected diagnosis, and severity of symptoms.

4.5.1.9 Limit patients' movement to medically essential procedure.

4.5.1.10 Notify receiving units prior to transport of patients and observe appropriate precautions during the transfer

4.5.1.11 Elective admissions will be cancelled until epidemic of influx of infections is determined to be under control, in order to utilize the beds to house these patients.

4.5.1.12 ED staff will be asked to consider alternate levels of care for patients presenting to triage ED.

4.5.2 Infection Prevention & Control Responsibilities:

4.5.2.1 Notify U&M and Engineering Departments to prepare a back-up site for non-infectious patients if the ED capacity is exceeded with infectious patients.

4.5.2.2 Notify U&M to convert designated wards/rooms to negative pressure rooms in the event of an emergency and build barriers if deemed necessary.

4.5.2.3 All AIIRs rooms will be under the control of IP&C. Security officers will be placed to provide traffic and crowd control.

4.5.2.4 Determine where to house the infectious patients depending on the infectious agent and needs of the patients.

4.5.2.5 Provide consultation on the cohorting of patients with similar symptoms or diagnosis as appropriate to allow for increase in bed capacity

4.5.2.6 Advise the medical staff to review inpatients to assess patients that can be discharged to the next level of care.

4.5.2.7 Coordinate with Unit Managers and Bed Coordinators in the discharge planning process.

4.5.2.7 Ensure appropriate cleaning and disinfection of medical equipment and environmental surfaces are strictly followed as per hospital policy

4.5.2.9 Ensure proper management of infected waste.

4.5.2.10 Ensure proper management of soiled linens.

4.5.2.11 To conduct contact tracing and risk assessment for exposed healthcare workers and families.

4.5.3 Patient Transport

4.5.3.1 When a patient needs to be transferred, appropriate barriers should be used, such as placing a surgical mask on the patient and leak proof dressings to reduce potential contamination of the environment and the spread of infection.

4.5.4 Employee Health Services

4.5.4.1 To provide exposed HCWs with the recommended post exposure prophylaxis specific to the suspected or confirmed pathogen.

4.5.5 Visitor's Management and Exclusion: Visitors should be strictly limited. Exemptions may be considered on a case to case basis.

4.5.6 Notification: The following notifications are mandatory if there is an increase in the number of airborne infectious diseases are admitted in the ED:

4.5.6.1 The Admitting ED Physician notifies the:

4.5.6.1.1 Infectious Disease Consultant

4.5.6.1.2 Nurse-in-Charge of Emergency Department and ward where patient is to be admitted.

4.5.6.2 The Infectious Disease Consultant notifies the: Chairman of the Infection Control Committee who will then notify the:

4.5.6.2.1 Medical Services Director
4.5.6.2.2 Executive on Duty
4.5.6.2.3 Hospital Director
4.5.6.2.4 Infection Control Coordinator or Infection Preventionist (IP)
4.5.6.2.5 Laboratory and Radiology Departments
4.5.6.2.6 Family Medicine Department / Employee Health Clinic

4.5.6.3 The Nurse-in-Charge in ER notifies the:

4.5.6.3.1 Nursing Supervisor or Duty Administrator
4.5.6.3.2 ICU Head Nurse or Nurse-in-Charge if to be admitted to the ICU

4.5.6.4 The Nursing Supervisor notifies the:

4.5.6.4.1 Director of Nursing
4.5.6.4.2 Nurse Manager to consult on staffing
4.5.6.4.3 Materials department for equipment for strict isolation.

4.5.6.5 Infection Control Coordinator or IP notifies the:

4.5.6.5.1 Housekeeping Manager
4.5.6.5.2 CSSD Manager
4.5.6.5.3 Ministry of Health
4.5.6.5.4 Utilities and Maintenance for ventilation modification in patient rooms, if needed.

4.6 Education

4.6.1 Contents of patient education on specific pathogens translated in both English and Arabic will be developed by IP&C and provided to the patients and families.

4.6.2 IP&C to provide the necessary training and education to all HCWs on the proper management of the specific pathogen.

4.7 Resources

4.7.1 A list of supplies will be provided by Nursing Services and Logistics to IP&C on a daily basis to monitor surge capacity.

5. MATERIALS AND EQUIPMENT:

5.1 **Forms and Records:**

5.1.1 N/A

5.2 **Materials and Equipment**

5.2.1 N/A

6. RESPONSIBILITIES:

6.1 Nursing Services Responsibilities

6.1.1 Implement staffing plans to provide adequate patient care.

6.1.2 Ensure appropriate staff have the authority to place suspected and confirmed cases on appropriate isolation precautions

6.1.3 Initiate possible transfer of inpatients or initiating discharge of patients to offsite facilities.

7. APPENDICES:

7.1 N/A

8. REFERENCES:

8.1 GULF COOPERATION COUNCIL-CENTRE FOR INFECTION CONTROL (GCC-CIC) 3RD EDITION 2018. http://gdipc.org/wp-contenffuploads/2018/07/The-GCC-Infection-Prevention-and-Control-Manual-3rd- Edition.pdf. Page 79-83.

9. APPROVALS:

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