



This policy applies to the following campuses:

- The Queen's Medical Center – Punchbowl
- The Queen's Medical Center – West Oahu
- Both

July 2016

POLICY NAME: AIRBORNE ISOLATION

POLICY TYPE:

Clinical/Nursing Departments – Requires Approval by Appropriate Manager

<input type="checkbox"/> Behavioral Health	<input type="checkbox"/> Clinical Nursing/Mosby	<input type="checkbox"/> Decentralized Lab	<input type="checkbox"/> Emergency Dept.
<input type="checkbox"/> Environmental Svc	<input type="checkbox"/> Hemodialysis (2119)	<input checked="" type="checkbox"/> Infection Prevention	<input type="checkbox"/> Imaging
<input type="checkbox"/> Laboratory	<input type="checkbox"/> Nursing Policies (502)	<input type="checkbox"/> Pharmacy Services	<input type="checkbox"/> Progressive Care Unit
<input type="checkbox"/> Radiation Services	<input type="checkbox"/> Respiratory Therapy	<input type="checkbox"/> Surgical Services	<input type="checkbox"/> Transplant Center
<input type="checkbox"/> Trauma Services			

PUNCHBOWL CAMPUS

WEST OAHU CAMPUS

*Nona Irvine* 9/6/16  
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 Nona Irvine Date  
 Director, Quality & Patient Safety

*Susan R. Murray* 8/15/16  
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 Susan R. Murray, FACHE Date  
 QHS Sr VP, West O'ahu Region  
 COO, The Queen's Medical Center  
 West O'ahu

*Mimi Harris* 8/16/16  
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 Mimi Harris, RN, MS, NEA-BC Date  
 Interim Vice-President & CNO

Submitted for Revision by:	Date	Date Approved by Dept. Mgr. (Nursing/Clinical)	Date Approved By SLC (Admin)	Date Approved By MEC/BOT (Medical Staff)
Most Recent Revision Info	06/2015			
Previous Revision Info	02/2014 07/2013, 12/2010	07/2009		

**Distribution:** Available via the Queen's Medical Center Intranet and to Medical Staff Members upon request. The master, signed original document is located in the office of the identified guardian.

***This policy/procedure is for the Queen's Medical Center use and is not to be disseminated by any other organization or persons without prior approval.***

## AIRBORNE ISOLATION

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### PURPOSE

To limit exposure to infectious agents that can be transmitted person-to-person by the airborne route.

### POLICY

Airborne Isolation will be instituted for all patients with infectious conditions indicated on Appendix A: "Isolation Requirements for Infectious Conditions" to Policy & Procedure #IC-xx-38-B, *Isolation Precautions Procedures*. These include measles (rubeola virus), chickenpox (varicella virus), TB (*M. tuberculosis*), and SARS (SARS-CoV).

If necessary, an Infection Control Coordinator has the authority to place these patients on Airborne Isolation.

### PROCEDURE

1. Patient Placement – Patients who require Airborne Isolation should be placed in a private airborne infection isolation room (AIIR) with negative airflow.<sup>i</sup> The door must remain closed when not required for entry and exit.

(Airborne Isolation door sign: [http://eww.queens.org/ic/policies/Sign\\_AIRBORNE.pdf](http://eww.queens.org/ic/policies/Sign_AIRBORNE.pdf).)

2. Personal Protective Equipment (PPE)<sup>ii</sup>

- 2.1. Respiratory Protection – N95 respirators (3M 1860, 3M 1870 or Tecno "duckbill") are required. Prior to entering room, don respirator and perform user seal check. Remove respirator after leaving room.

- 2.1.1. Initial and annual fit testing for N95 respirators are required by OSHA.

- 2.1.2. For staff that do not pass the fit test for the disposable respirator, fit testing and training for half masks can be provided by Security at the request of the staff's Nurse Manager. Staff is required to maintain respirator in usable condition.

- 2.1.3. Reuse of Respirators

- 2.1.3.1. N95 Disposable respirators may be reused under the following conditions:

- The patient does not require Contact or Droplet Isolation in addition to Airborne Isolation; *i.e.*, do not reuse if the patient is suspected/confirmed with Chickenpox and requires Airborne and Contact Isolation.
- Respirators are stored in a clean plastic/paper bag labeled with the user's name in a manner that will not allow moisture to be retained.
- Respirators are discarded at the end of the shift or sooner if they are soiled, misshapen, moist, or adequate seal cannot be obtained.

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- 2.1.3.2. Reusable Respirators (half/full mask) shall be cleaned at the end of the shift or after each use if the patient is also in Contact or Droplet Isolation. Disposable filters should be changed if integrity is impaired or increase in breathing resistance is identified.
    - 2.1.4. Shortage or Unavailability of N95 Respirators – In the event of a shortage of disposable N95 Respirators, the Infection Prevention and Control Department shall provide interim measures and recommend substitute respiratory protection.
  - 2.2. Glove, Gowns, and Eye Protection – Wear protection as necessary based on Standard Precautions.
  - 2.3. Hand Hygiene must be performed after removal of PPE upon leaving the isolation room.
3. Patient Transport – Transport and movement of patients outside of the AIIR should be limited to medically-necessary purposes. When transport or movement is necessary, patient must wear a surgical or procedure mask if tolerated and follow Respiratory Hygiene/Cough Etiquette. PPE is not required for the transport personnel if the patient is wearing a mask and infectious skin lesions are covered.

For patients with skin lesions associated with varicella or smallpox or draining skin lesions caused by *M. tuberculosis*, cover the affected areas to prevent aerosolization or contact with the infectious agent in skin lesions.
4. Supplies, Equipment, and Electronic Devices
  - 4.1. Store minimum supplies in the isolation room. Assemble necessary supplies prior to entering the isolation room.
  - 4.2. Whenever possible, disposable supplies should be used.
  - 4.3. Each patient will be issued his/her own thermometer, blood pressure cuff, and stethoscope.
  - 4.4. Dedicate the use of reusable equipment to a single patient, avoid sharing with others. If this is unavoidable, equipment must be cleaned and disinfected prior to use on another patient. If the equipment is heavily soiled, it should be returned to CPD for cleaning/disinfection. Items include: Computer on Wheels, rehabilitation equipment, scales, portable diagnostic equipment, Glucometers machines, gurneys, and wheelchairs.
  - 4.5. Healthcare worker's personal equipment that is/are **used** in the isolation room must be disinfected upon leaving the isolation room. Items include unit-based "cell phones," personal cell phones, stethoscopes, pens, pagers, and other electronic devices (iPad, etc.).
  - 4.6. For most equipment, the disinfectant wipes available in the department may be used.
5. Environmental Measures
  - 5.1. Negative air pressure shall be checked daily by Facilities.



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- 5.2. The AIIR should receive daily cleaning and disinfection with a focus on frequently-touched surfaces (e.g., bed rails, overbed table, bedside commode, lavatory surfaces in patient bathrooms, doorknobs) and equipment in the immediate vicinity of the patient.
6. Visitors – Limit visitations to immediate family or significant people as determined by the patient. Nursing staff shall instruct visitors on how to use the N95 respirator. Fit testing of visitors is not required. If a family member/visitor is providing patient care, s/he should use the same PPE a healthcare worker would use when providing the care. All visitors must be educated by nursing staff on the importance of hand hygiene.
7. Discontinuing Airborne Isolation – Airborne Isolation can be discontinued after signs and symptoms have been resolved or according to pathogen-specific recommendations in Appendix A: “Isolation Requirements for Infectious Conditions”) to the Isolation Precautions Procedures, IC-xx-38, *Isolation Precautions Procedures*.

## REFERENCES

1. Department of Health and Human Services, Centers for Disease Control and Prevention, Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings, 2007. [http://www.cdc.gov/ncidod/dhqp/gl\\_isolation.html](http://www.cdc.gov/ncidod/dhqp/gl_isolation.html)
2. Department of Health and Human Services, Centers for Disease Control and Prevention, Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings, 2005. <http://www.cdc.gov/tb/publications/guidelines/infectioncontrol.htm>
3. Department of Health and Human Services, Centers for Disease Control and Prevention, Guideline for Environmental Infection Control in Health-Care Facilities [http://www.cdc.gov/ncidod/dhqp/gl\\_enviroinfection.html](http://www.cdc.gov/ncidod/dhqp/gl_enviroinfection.html)

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<sup>i</sup> In *acute care hospitals and long-term care settings*, place patients who require Airborne Precautions in an AIIR that has been constructed in accordance with current guidelines.

### *Category IA/IC*

- Provide at least six (existing facility) or 12 (new construction/renovation) air changes per hour.
- Direct exhaust of air to the outside. If it is not possible to exhaust air from an AIIR directly to the outside, the air may be returned to the air-handling system or adjacent spaces if all air is directed through HEPA filters.
- Whenever an AIIR is in use for a patient on Airborne Precautions, monitor air pressure daily with visual indicators (e.g., smoke tubes, flutter strips), regardless of the presence of differential pressure sensing devices (e.g., manometers).
- Keep the AIIR door closed when not required for entry and exit.

In the event of an outbreak or exposure involving large numbers of patients who require Airborne Precautions:

- Consult infection control professionals before patient placement to determine the safety of alternative room that do not meet engineering requirements for an AIIR.

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- Place together (cohort) patients who are presumed to have the same infection (based on clinical presentation and diagnosis when known) in areas of the facility that are away from other patients, especially patients who are at increased risk for infection (e.g., immunocompromised patients).
- Use temporary portable solutions (e.g., exhaust fan) to create a negative pressure environment in the converted area of the facility. Discharge air directly to the outside, away from people and air intakes, or direct all the air through HEPA filters before it is introduced to other air spaces

<sup>ii</sup> No recommendation is made regarding the use of PPE by healthcare personnel who are presumed to be immune to measles (rubeola) or varicella-zoster based on history of disease, vaccine, or serologic testing when caring for an individual with known or suspected measles, chickenpox or disseminated zoster, due to difficulties in establishing definite immunity.