

	<b>POLICIES &amp; PROCEDURES</b> Number: <b>30-20</b> Title: <b>Airborne Precautions</b>
<b>Authorization:</b> <input checked="" type="checkbox"/> SHR Infection Prevention & Control Committee <input type="checkbox"/> Facility Board of Directors	Source: <b>Infection Prevention &amp; Control</b> Date Initiated: May 1, 2001 Date Reaffirmed: March 2013, July 2014 Date Revised: October 2014 Scope: SHR Agencies & Affiliates

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### **Introduction**

Airborne transmission refers to dissemination of microorganisms by aerosolization. Organisms are contained in droplet nuclei (5µm or smaller in size) which result from evaporation of large droplets or in dust particles containing skin cells that can remain suspended in the air and be widely dispersed by air currents within a room or over a long distance.

### **Policy**

In addition to Routine Practices, use Airborne Precautions for clients known or suspected to be infected with microorganisms transmitted by the airborne route as outlined in the Infection Prevention and Control Manual Reference Table: Precautions by Etiology or Clinical Presentation (i.e., chicken pox, measles, tuberculosis).

### **Purpose**

1. To protect the clients, visitors and hospital staff by preventing and controlling the spread of infectious disease throughout the facility by identifying and interrupting the specific route of transmission.

### **Procedure**

1. Client Placement
  - Place the client in an Airborne Infection Isolation Room (AIIR) which is a room that has an anteroom, monitored negative air pressure in relation to the surrounding areas with appropriate discharge of air outdoors or if not available place them in a private room with monitored high-efficiency filtration of room air before recirculation to other areas. See [Appendix B](#)

AIIR rooms:

  - Royal University Hospital: Designated AIIR are on unit 6200-#6205 and #6207; PICU-#4 and #5; ICU #9.
  - St. Paul's Hospital Designated AIIR are #409, #614-6, #543, ICU#14 and ER#2.

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- Keep door closed at all times to maintain negative pressure.
- If an AIIR room is not available call your site ICP (Monday to Friday 8 am to 4:30 pm) or the ID on call (call switchboard and have them paged) to determine action.
  - Using the algorithm in [Appendix A](#) an assessment can be made to determine if another client who is less risk is in an AIIR, move them to an appropriate alternate room and put the higher risk client in the AIIR.
  - If this is not possible place the client in a private room with the door closed.
- Post Airborne Precautions sign (SHR Printing Services #102105).
- Isolation supplies must be located outside the room. The location of the dedicated station must be placed away from possible sources of contamination such as sinks and sharps containers.
- The dedicated PPE station such as a supply cart needs to be properly stocked. Supplies should include:
  - Alcohol based hand rub (ABHR)
  - Gloves (3 sizes)
  - N95 respirator (several sizes)
  - Hospital grade disinfectant
- Inside the room –
  - Waste basket
  - Dirty linen hamper
- Attach Airborne Precaution label to chart cover (available from your site ICP).

## 2. Masks

- High filtration respirators (i.e., N95 particulate respirators) are to be worn for all who enter the room.
- Refer to policies [40-20 Chickenpox \(Varicella\)](#), [40-100 Measles \(Rubeola\)](#), and [40-175 Tuberculosis Management Program](#) in the IP&C P&P Manual
- Family and friends: in conversation with family, assess risk of exposure. All people who enter the room need to wear high filtration respirator. Since they will not be fitted, assess proper fit by performing a seal test with them prior to entering the room

## 3. Client Transport

- Notify receiving department that Airborne Precautions are required.
- Client should wear a regular mask during transport. If the client is unable to tolerate a regular mask, accompanying staff must wear a special high filtration respirator (i.e., N95 particulate respirator). Exception: Refer to the policy [40-20 Chickenpox \(Varicella\)](#) in the IP&C P&P Manual.
- Transportation of the client to other departments should be limited to essential procedures only.

## 4. Visitor Restrictions

- Instruct visitors regarding the proper application of the special high filtration respirators.
- Visitors should be kept to a minimum.
- Refer to policies [40-20 Chickenpox \(Varicella\)](#), [40-100 Measles \(Rubeola\)](#), and [40-175 Tuberculosis Management Program](#) in the IP&C P&P Manual

5. Client and family teaching

- Clients should understand the nature of their infectious disease and the precautions being used, as well as the prevention of transmission of disease to other clients, family and friends during their hospital stay and upon their return to the community. See section 2 – Masks for further information.

6. Environmental Cleaning

- Interim cleaning of rooms is performed in the same manner as for all clients while wearing high filtration respirator for Airborne Precautions.
- Following discharge or discontinuation of precautions:
  - Airborne Precaution sign should remain in place until precautions discharge cleaning is completed and adequate time has passed for the room to remove the contaminants in the air. The time required for this is dependent on the number of air changes in that room (Refer to [Appendix B](#)). Contact the facilities department for more detailed information about air changes if needed.
  - Precautions discharge cleaning is performed for all clients.
  - Wear high filtration respirator for Airborne Precautions when entering the room where a client has been on Airborne Precautions. See [Appendix B](#) for details about time required for removal of contaminants from the air.

7. Aerosol Generating Medical Procedures (AGMP)

- Refers to procedures that generate aerosols as a result of artificial manipulation of a person's airway. Procedures include: intubation and related procedures (i.e., manual ventilation, open endotracheal suctioning), cardiopulmonary resuscitation, nebulized therapy, surgery and autopsy, non-invasive positive pressure ventilation (i.e., CPAP, BiPAP)
  - a) AGMPs should **not** be performed on client's with confirmed or suspected cases of SARS, TB or other emerging respiratory infections unless medically necessary.
  - b) Healthcare workers should wear respirators and a full face shield to provide eye protection when performing or assisting with AGMPs on clients listed in point (a).
  - c) Implementing strategies to reduce aerosol generation when performing AGMPs on clients with signs and symptoms of suspected or confirmed Tuberculosis (TB), SARS or other emerging respiratory infections.
  - d) Number of healthcare workers present should be limited to only those essential for client care and support.
  - e) Droplet and Contact Precautions in addition to Routine Practices should be used when performing AGMPs on client's with seasonal influenza.
  - f) Routine Practices are required for AGMPs on other client's.

\* Information handouts, Fact Sheets and signage are available from SHR Printing Services.

**References**

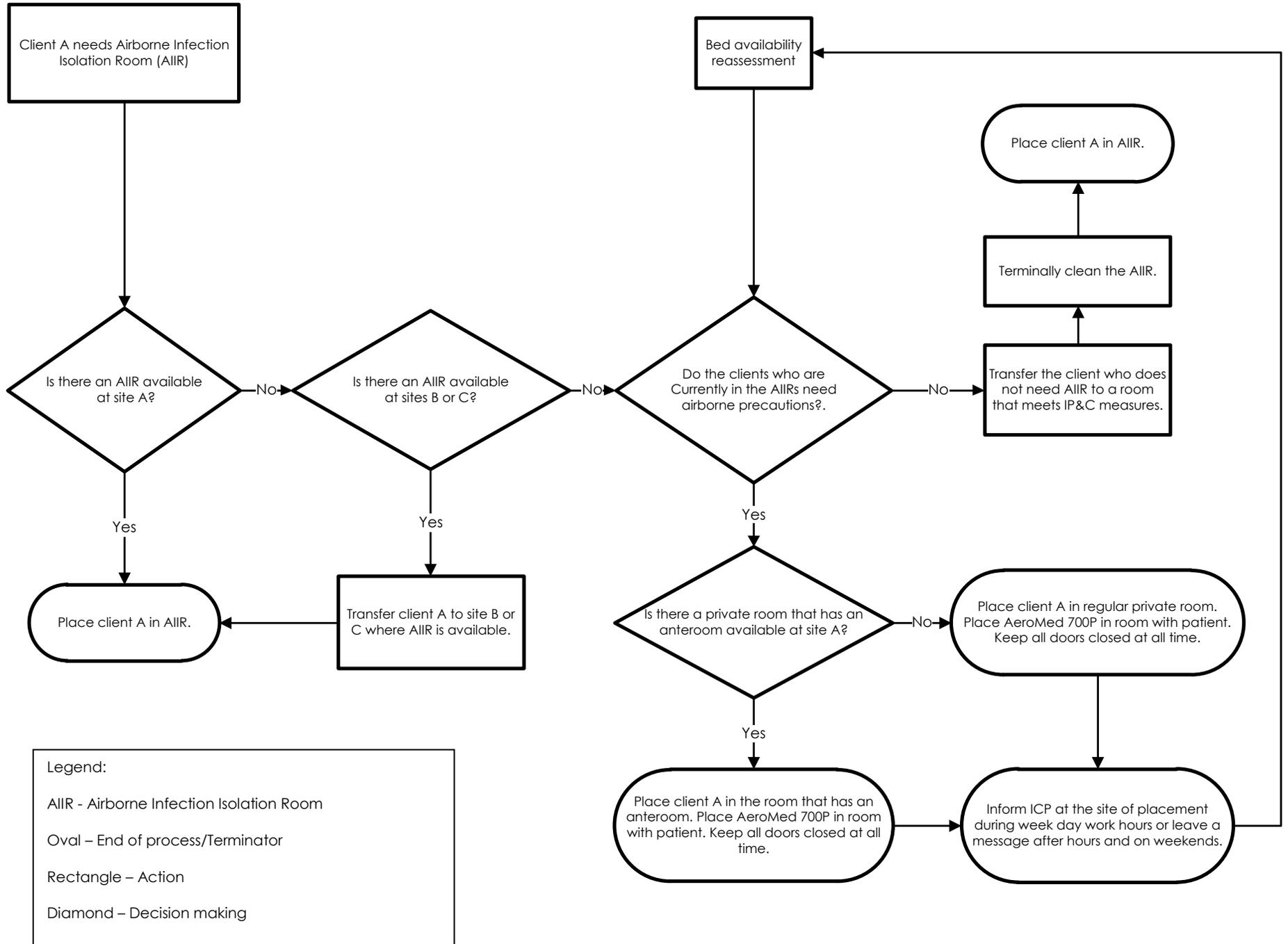
1. [Canadian Tuberculosis Standards 2014, \(7<sup>th</sup> edition\)](#)
2. Center for Disease Control and Prevention (CDC). *Guidelines for isolation precautions in hospitals*. Hospital Infection Control Practices Advisory Committee (HICPAC), 1996;
3. Center for Disease Control and Prevention (CDC). *Guidelines for preventing the transmission of mycobacterium tuberculosis in health care facilities*. MMWR 43 1994; 1-132.

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4. Health Canada. *Infection control guidelines. Routine practices and additional precautions for preventing the transmission of infection in health care.* CCDR 1999; 25S4; 38-41.
5. [Release notes -- TB Clinical Guidelines Revision Highlights 2014-Mar](#)

### 30-20 Appendix A – Airborne Infection Isolation Room (AIIR) Assignment Flow Chart



30-20 Appendix B: Airborne Infection Isolation Room (AIIR) Details

CSA Standard for ACH - Bronchoscopy Room					20	15
CSA Standard ACH - Airborne Illness Isolation Rooms (AIIR)					12	35
Site	Room Number	Negative Pressure (AIIR)	Meets Current CSA Standard	Aero Med 700P (Air Purifier)	Minimum Total Air Changes (ACH)	MINUTES (Minimum) required for 99.9% removal of contaminants
Royal University Hospital	6205	Yes	No	Yes	7.5	60
	6207	Yes	No	Yes	7.6	60
	3125	Yes	No	Yes	10	60
	3127	Yes	No	Yes	10	60
	PICU Bed 4 - 3328	Yes	No	Yes	6.4	70
	PICU Bed 5 - 3332	Yes	No	Yes	6.9	70
	ICU Bed 9 – 332	Yes	No	Yes	Not available	69
	NICU - 3215.1	Yes	No	No	13	35
	ER – has no AIIR	<b>No</b>	No	Yes (2) in a private room, door closed	Not available	Not available
	5720 – 1955 building	Yes	Yes	No	20	15
St. Paul's Hospital	409	Yes	Yes	No	19	28
	543	Yes	No	Yes	6	70
	614 - Bed 6	Yes	No	Yes	9.4	60
	ICU – Bed 14	Yes	Yes	No	22	15
	ER – Bed 2	Yes	Yes	No	32	15
	ER – Other	<b>No</b>	N/A	Yes (2)	Not available	Not available
	Day Surgery (2 <sup>nd</sup> floor A-Wing)	<b>No</b>	N/A	Yes (1) with bronchoscopies	Not available	Not available
	Plasmaphoresis Room	Yes	Yes	No	24	15
Saskatoon City Hospital	ICU - 3823	<b>No*</b>	Yes	Yes (re-deployed to SCH ER)	12	35
Humboldt District Hospital	G-33	Yes	Yes	No	12	35
Watrous Hospital	207	Yes	Yes	No	12	35

**NOTE:** If no AIIR is available and the client is in a private room, staff need to wear appropriate protection (i.e., N95 Respirator) for at least 2 hours after the client has left the room.

\*Can be re-instated by Facilities Management if given 2 weeks' notice.