

PANDEMIC INFLUENZA RESPONSE PLAN

SECTION FIVE – INFECTION CONTROL TABLE OF CONTENTS

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INFECTION CONTROL

Target Audience

All staff in Assiniboine Regional Health Authority (ARHA) facilities and programs

Introduction

The primary strategies for preventing pandemic influenza are the same as those for seasonal influenza: vaccination, early detection, treatment with antiviral medications, and the use of infection control measures to prevent transmission during client care. However, when a pandemic begins, a vaccine may not yet be widely available, and the supply of antiviral drugs may be limited. The ability to limit transmission in healthcare settings will, therefore, rely heavily on the appropriate and thorough application of infection control measures.

Routine practices and additional precautions to prevent the transmission of infection during the delivery of health care in all health care settings during a pandemic are important. Certain precautions may be feasible only in the pandemic alert and early pandemic periods as they may not be achievable or practical as the pandemic spreads and resources (equipment, supplies and human resources) become scarce. Strict adherence to hand-washing or hand hygiene and cough etiquette may at times be the only significant preventative measures available during a pandemic. Routine Practices, Additional Precautions and Respiratory Disease Outbreak polices are located in the regional Infection Control Manual (ICM) and shall be referred to by staff during pandemic.

The infection control guidelines provided in this section are based on our knowledge of routes of influenza transmission, the pathogenesis of influenza, and the effects of influenza control measures used during past pandemics and interpandemic periods. Given some uncertainty about the characteristics of a new pandemic strain, all aspects of preparedness planning for pandemic influenza must allow for flexibility and real-time decision-making that take new information into account as the situation unfolds.

Infection Control Guidelines

During the influenza pandemic, adherence to infection control practices is extremely important to prevent or minimize transmission of influenza. These guidelines for the management of pandemic influenza in traditional and other settings are based on published guidelines from the Public Health Agency of Health Canada (PHAC), as well as the Canadian, Manitoba, Ontario and British Columbia Pandemic Influenza Plans.

Principles of Infection Control

Mode of Transmission

Influenza is transmitted by:

Droplet contact of the oral, nasal or possibly conjunctiva mucous membranes with the oropharyngeal secretions of an infected individual.

Indirect contact from hands and articles freshly soiled with discharges of the nose and throat of an acutely ill individual.

Droplet transmission from the respiratory tract of an infected individual.

Possibly by the airborne route (controversial) during aerosolizing procedures.

Period of Communicability

Period of communicability of influenza is **24 hours before** symptom onset and **up to 7 days after** the onset of symptoms (may be longer in children and some adults).

Note: Influenza A and B virus can survive on hard surfaces for 24 to 48 hours, on softer, porous surfaces for 8 to 12 hours and on the hands for up to 5 minutes.

Incubation Period

The incubation period is **1 to 7 days**.

Infection Control Practices

All health care settings in ARHA follow/incorporate the regional ICM of infection control precautions, such as Routine Practices, Additional Precautions and Outbreak Management, specifically Respiratory Disease Outbreak during a pandemic.

Emergency Medical Services (EMS) also incorporates the Manitoba Health & Healthy Living (MHHL) Emergency Treatment Guidelines – G19 for Infection Control and Communicable Diseases document.

Health Canada provides two excellent guidelines on infection control precautions.

- *Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Health Care*, which has current infection control recommendations for acute care, long term care, ambulatory care facilities, and home care. This document also provides tools to assist in the implementation of these practices.
- *Infection Control Guidelines for Hand Washing, Cleaning, Disinfection and Sterilization in Health Care*, which has recommendations for hand hygiene and gloves, cleaning and processing of client care equipment, housekeeping, laundry, and waste management.

MHHL provides the Infection Control Guidelines for Health Care Workers (HCW's) in the Community located in the Support Materials section of the ARHA Infection Control Manual.

Routine Practices (Universal)

Routine practices are the infection prevention and control practices used in the routine care of all clients at all times in all health care settings.

Routine practices outline the importance of:

- Hand hygiene
- Cough etiquette
- The need to wear gloves, masks, eye protection or face shields, and gowns when contact with blood, body fluids, secretions or excretions is possible
- The cleaning of client-care equipment & environment including the handling of soiled linen, waste disposal procedures
- Client placement procedures and precautions to reduce the possibility of HCW's exposure to blood borne pathogens and other infectious pathogens.

Hand Hygiene

Staff, residents and visitors should be reminded that hand washing/hand hygiene is the most important procedure in preventing and controlling the spread of infection. Meticulous hand hygiene will inactivate the virus.

- Hand hygiene should be performed before and after direct contact with individuals with suspected or confirmed influenza and after contact with their personal articles or their immediate environment.
- Hands must be washed with soap and water when hands are visibly soiled with blood, body fluids, secretions, excretions, and exudates from wounds.
- When hands are not visibly soiled, an alcohol –based hand rub or wash with soap and water are both acceptable.
- HCW's should be vigilant to avoid touching their face with their hands, as well as to avoid contact with mucous membranes, including the eyes.
- If the client bathroom is used, avoid contamination of hands from potentially contaminated surfaces and objects after washing.
- Frequently missed areas on the hand include the thumb, under nails, backs of fingers and hands.
- Hand hygiene procedures for soap and water or alcohol-based hand sanitizers should be reinforced and teaching sheets are available in the Support Materials section of the ARHA ICM (for staff, visitors, and family).

Fingernails:

- Artificial fingernails, gel nails, or extenders shall not be worn in direct care areas.
- Natural nail tips should be no longer than 0.635 centimeters (1/4 inch) long.
- Nail polish can be worn but should be removed when chipped.

Hand Jewelry:

- Avoid wearing hand jewelry.

Hand Lotions:

- HCW's should be provided with lotion to minimize skin irritation that may occur with frequent hand washing/hand hygiene.
- Select only lotions that are compatible with hand hygiene products and gloves being used.

Hand Hygiene or Dispensers:

- Do not add fresh soap hand rub or lotions to a partially empty dispenser. The practice of “topping up” can lead to bacterial contamination of product.
- Reusable dispensers, if used must be emptied, washed and dried prior to refilling.
- Hand lotion bottles should not be reused.

Agents used for Hand Hygiene:

Alcohol Based Hand Rub

- Must contain a minimum of 60% alcohol.
- Use in all clinical situations, except when hands are visibly soiled.
- Use as an alternative to plain or antimicrobial soap except when hands are visibly soiled.

Plain Soap

- For routine hand washing.

Antimicrobial Soap

- Use in high-risk areas, i.e. OR, Emergency Dept., Nursery.
- Before contact with invasive devices.
- Before performing any invasive procedures.
- Before contact with immunocompromised clients.
- Before/after contact with clients on infection prevention and control precautions/isolation.

Cough Etiquette

Simple measures both clients and HCW's can utilize to minimize the spread of respiratory organisms:

- Cover your cough.
- Cover your mouth and nose with a tissue when you cough or sneeze; or cough or sneeze into your upper sleeve, not your hands.
- Put your used tissue in the waste basket.
- You may be asked to put on a surgical/procedure mask to protect others
- Clean your hands after coughing or sneezing.
- Wash with soap & water or clean with alcohol-based hand rub.

A MHLH poster entitled “Cover your Cough” can be found at the following website:

<http://www.gov.mb.ca/health/flu/docs/cough.pdf>

A MHLH poster entitled “Hand Hygiene: can be found at the following website:

<http://www.gov.mb.ca/health/flu/docs/hand.pdf>

Personal Protective Equipment (PPE)

Gloves

Gloves are used as an additional measure to, not as a substitute for, hand hygiene.

- Clean, non-sterile gloves of appropriate size shall be worn.
- When in contact with blood, body fluids, secretions and excretions, mucous membranes, draining wounds, or non-intact skin.
- For handling items visibly soiled with blood, body fluids, secretions or excretions.
- When the HCW has open lesions of his or her hands.
- When indicated, gloves should be put on directly before contact with patients or just before the task/procedure requiring gloves.
- Gloves shall be changed between care activities and procedures with the same client, and after contact with materials that may contain high concentrations of microorganisms (i.e; after handling an indwelling urinary catheter, after open suctioning of an endotracheal tube, after perineal care).
- Remove gloves immediately following completion of task at point-of-use, and before touching clean environmental surfaces.
- Hand hygiene shall be performed immediately after removing gloves.
- Single-use, disposable gloves should not be reused or washed.
- Gloves should be selected based on the task and personal comfort and fit.

Gowns

- Routine use of gowns is not recommended.
- Gowns shall be utilized to protect uncovered skin and prevent soiling of clothing during procedures and client care activities likely to generate splashes or sprays of blood, body fluids, secretions and excretions.
- Gowns should be large enough to overlap at the back.
- Sleeves should be to the wrist and cuffed/elasticized for snug fit.
- A disposable impervious/water repellent apron may be used under the gown to prevent contamination of clothing from leakage of large volumes of blood, body fluids, secretions or excretions.
- When a gown has been worn, it is to be removed immediately after completion of the client care activity requiring its use.
- Gowns are to be worn once. Disposable impervious gowns are discarded after each use; cloth gowns are laundered.

Masks

- Standard surgical/procedure masks shall be worn to protect the mucous membranes of the nose and mouth during procedures and client care activities of a coughing client when a respiratory infection is suspected.
- Masks are worn within 1 meter (3 feet), preferably 2 meters (6 feet).
- Discard a mask that is crushed, wet, has dangled around the neck, or has become contaminated.
- Perform hand hygiene immediately after mask removal.

N95 masks

N95 masks are required only for **aerosol generating respiratory procedures** on suspect/known cases of Influenza Like Illness (ILI)
(refer to additional precautions page 5-9)

Please see **Appendix A** Aerosol Generating Respiratory Procedures on suspect/known ILI cases for a list of procedures, and administrative, engineering, and environmental controls.

Eye Protection – Goggles and Face Shield

- Eye protection (goggles or face shield) shall be worn to protect the mucous membranes of the eyes during procedures and client care activities likely to generate splashes, sprays or aerosols of blood, body fluids, secretions or excretions.
- Avoid self-contamination when removing eye protection. Prescription eyeglasses are not considered eye protection. They do not provide adequate protection from splashes or sprays.
- Eye protection should fit over prescription glasses and protect the eyes from splashes or sprays.
- If eye protection is reusable, it should be easy to clean and cleaned in a manner to avoid contamination of the HCW.

Equipment

- Reusable non critical equipment that has been in direct contact with the patient must be cleaned with a facility-approved disinfectant before use on another client.
- A routine cleaning schedule should be established, assigning responsibility and accountability for cleaning of the equipment (e.g. electronic thermometer/commode)
- Visibly soiled equipment shall be cleaned immediately.
- Soiled client care equipment must be handled in a manner that prevents contact to the HCW's skin and mucous membranes or contamination of clothing and the environment.
- Where possible, dedicated client care equipment shall be used where there is a high risk for transmission of organisms.
- Toilets/commodes shall be cleaned regularly and when soiled.
- Bedpans shall be reserved for use by a single client and labeled appropriately.
- Mouthpieces, resuscitation bags, or other ventilation devices must be provided for use in settings where the need to resuscitate is likely to occur.
- Personal care supplies (e.g., lotions, creams, soaps, razors) are not to be shared between clients.

Environmental Control/Housekeeping

- Procedures should be established for routine care, cleaning and appropriate disinfection of client furniture and environmental surfaces with an approved disinfectant.
- All horizontal and frequently touched surfaces should be cleaned daily and more often if visibly soiled.
- Immediately clean up all spills of blood and/or body fluids with a facility approved disinfectant according to facility approved policy.

Specimen Collection

- All clinical specimens are considered potentially infectious and shall be handled carefully to prevent contamination.
- Place all specimens in leak proof containers with secure lids to prevent leaking. Avoid contamination of the outside of the specimen container and the laboratory requisition. If contamination of the outside of the container occurs, it shall be cleaned with an approved disinfectant prior to transport.
- Specimens shall be transported to the laboratory in plastic/Ziploc® type bags. Requisitions shall be placed in the exterior pouch of the bag for transport, if using a two-pouch bag.
- PPE should be considered when collecting and handling specimens.
- Perform hand hygiene immediately after specimen collection.

Dishes

- There is no need for any special precautions for dishes.
- There is no need for disposable dishes.
- Hand hygiene must be performed after contact with dishes.

Linen

- Linen should be handled with a minimum of agitation and bagged at the site of collection in a manner that prevents contamination or soaking through. Double bagging is not routinely necessary. A second outer bag is only required to contain a leaking inner bag.

Waste

- Clinical waste should be contained in waste-holding bags that prevent contamination. Double bagging of waste is not required.

Sharps

- Used needles and other sharp instruments must be handled with care to avoid injuries during disposal or reprocessing. Used sharp items should be disposed of immediately in designated puncture-resistant containers located in the area where the items were used.

Inter-pandemic Period

During the inter-pandemic years, the Health Canada guidelines recommend that in addition to routine practices, additional precautions (droplet and contact precautions) should be taken in appropriate settings as determined for pediatric and adult clients with ILI or Severe Respiratory Illness (SRI). Children and adults, who are both physically and cognitively able to practice good hand hygiene and good personal hygiene, should be encouraged to do so.

Definition of Influenza Like Illness (ILI)

A person presenting with:

- Fever * > 38°C AND cough and one or more of sore throat, arthralgia, myalgia or prostration**

In clients <5 or ≥ 65, or those receiving corticosteroids, fever may not be prominent.

**In children <5 years of age, gastrointestinal symptoms may also be present. Cough may not be prominent in young children.

Definition of Severe Respiratory Illness (SRI)

Client assessed to require hospital care with **all** of the following:

- Fever (>38°C). Note: In patients under 5 or 65 and older, fever may not be prominent.
- New onset of (or exacerbation of chronic) cough or breathing difficulty.
- Radiographic evidence of infiltrates consistent with atypical pneumonia or Acute Respiratory Distress Syndrome (ARDS) **OR** severe febrile respiratory illness resulting in complications (hospitalization, atypical pneumonia, death).
- No alternate diagnosis that better explains the illness.

Additional Precautions

Additional Precautions are required when Routine Practices are not sufficient to prevent transmission of pandemic influenza. In the ARHA, these additional precautions include droplet and contact precautions.

Droplet Precautions

Droplet precautions for influenza during the inter-pandemic years include the use of PPE, such as a mask, goggles or a face shield when providing care.

Contact Precautions

Contact precautions for influenza during the inter-pandemic years include wearing gloves and gowns when providing care to the client and when in contact with frequently touched environmental surfaces or objects that may be contaminated.

Droplet and contact precautions in regard to pandemic influenza are addressed for each specific area in this section and are described in general in the Routine Practices and Additional Precautions sections of the ARHA ICM.

Client Placement

If possible, clients with symptoms of an ILI should be separated from those without symptoms. ILI clients should:

- Be placed in a single room or cohorted with another client with an ILI.
- Have dedicated bathrooms.
- Be separated by **at least** one-meter (3 feet) distance and if possible 2 meters (6 feet).

Other Activities to Limit Spread of Influenza

As much as possible, staff working with symptomatic clients should avoid working with clients who are not symptomatic (staff cohort). This can be accomplished as follows:

- Attempt to assign the same staff to assist symptomatic clients.
- Keep symptomatic clients in room until symptoms cease.
- Limit movement and activities of clients including transfers within the facility.
- Limit unvaccinated visitors.
- Avoid group activities.

Pandemic Period

Routine practices and additional precautions to prevent the transmission of infection during a pandemic are important. Some infection control strategies may be achievable only in the early pandemic period and other recommendations may not be achievable as the pandemic spreads and resources (equipment, supplies, private rooms, and human resources) become scarce.

The complexity of management of high-risk clients will be greatest in acute care hospitals that will continue to admit clients with other communicable respiratory diseases. It is possible that infection control resources may need to be prioritized to the acute care settings.

Masks may be useful in the pandemic alert and early pandemic periods during face-to-face contact with coughing individuals, especially when immunization and antivirals are not yet available. The use of masks may not be practical or helpful when transmission is widespread in a facility and in the community.

Acute Care Settings

Infection Control Practices

Routine Practices

Refer to 5-1 Infection Control Guidelines.

Additional Precautions

Refer to Infection Control Guidelines 5-1. Although droplet /contact precautions are recommended in preventing the transmission of influenza during an inter-pandemic period, these precautions may not be achievable or practical as the pandemic spreads and resources become scarce. Infection control resources may need to be prioritized to the acute care settings where the complexity of client care is greatest.

Physical Setting

a) Detection of persons entering the facility who may have pandemic influenza

- Post visual alerts at the entrance to hospital outpatient facilities (i.e., emergency departments, outpatient clinics) instructing persons with respiratory symptoms (i.e., clients, persons who accompany them) to:
 - Inform reception and healthcare personnel when they first register for care, and
 - Practice hand hygiene/cough etiquette
- Triage clients calling for medical appointments for influenza symptoms as per Section 12, Client Management-Telephone Triage Overview

- Discourage unnecessary visits to medical facilities.
- Instruct symptomatic clients on discharge of infection control measures to limit transmission in the home and when traveling to necessary medical appointments.

As the scope of the pandemic escalates locally, consider setting up a separate triage area for person's presenting with symptoms of respiratory infection. Because not every client presenting with symptoms will have pandemic influenza, infection control measures will be important in preventing further spread.

- During the peak of a pandemic, emergency departments and outpatients offices may be overwhelmed with clients seeking care. A "triage officer" may be useful for managing client flow, including deferral of clients who do not require emergency care.
- Designate separate waiting areas for clients with influenza-like symptoms. If this is not feasible, the waiting area should be set up to enable clients with respiratory symptoms to sit as far away as possible 1 meter/3 feet (if possible 2 metres/6 feet) from other clients.

b) Control measures to limit dissemination of influenza virus from respiratory secretions

- Post signs that promote respiratory hygiene/cough etiquette in common areas (i.e., elevators, waiting areas, cafeterias, lavatories) where they can serve as reminders to all persons in the healthcare facility.
- **Signs should instruct persons to:**
 - Cover the nose/mouth when coughing or sneezing.
 - Use tissues to contain respiratory secretions.
 - Dispose of tissues in the nearest waste receptacle after use.
 - Perform hand hygiene after contact with respiratory secretions.
- Facilitate adherence to respiratory hygiene/cough etiquette by ensuring the availability of material in waiting areas for clients and visitors.
 - Provide tissues and no-touch receptacles (i.e., waste containers with pedal-operated lid or uncovered waste container) for used tissue disposal.
 - Provide conveniently located dispensers of alcohol based hand rub.
 - Provide soap and disposable towel for hand washing where sinks are available.
- Promote the use of masks and spatial separation by persons with symptoms of influenza.
 - Offer and encourage the use of either procedure/ surgical masks by symptomatic persons to limit dispersal of respiratory droplets.
 - Encourage coughing persons to sit at least 1 meter/3 feet (2 meters/6 feet if possible) from other persons in common waiting areas.

c) Testing

The decision to test individuals fitting the criteria for ILI potentially caused by a novel influenza virus should be based on clinical judgment, taking into consideration the severity of infection and co-morbidity and the likelihood of having been exposed to novel influenza.

Individuals who are prescribed antiviral medication must first be tested for flu viruses.

If testing is indicated, you will need to take a nasopharyngeal aspirate or nasopharyngeal throat (NPT) swab or bronchoalveolar wash specimen. Throat swabs should only be used if NPT swabs are not available. The swab specimen are to be sent in Viral Transport Medium (VTM) to Cadham Provincial Laboratory. Only one specimen per client is required.

- i. Ensure the correct viral flocked swab and transport medium is used and that it is not past its expiry date.
- ii. Ensure that both the specimen and the requisition are clearly labeled with the client's name and another unique identifier such as date of birth and health care number. List the specimen date and referring physician with their address and contact number (for urgent reporting). Tear off a number label and attach to the specimen.
- iii. Note the exposure history and clinical symptoms on the lab requisition. Without this information on the lab requisition, the specimen may not get prioritized to appropriate novel influenza virus testing procedures.

d) Hospitalization of pandemic influenza patients

Client placement

- Limit admission of influenza clients to those with severe complications of influenza who cannot be cared for outside the hospital.
- Admit clients to either a single-patient room or an area designated for cohorting of clients with influenza.

Cohorting

- Designated units or areas of a facility should be used for cohorting clients with pandemic influenza. During a pandemic, other respiratory viruses (i.e., non – pandemic influenza, respiratory syncytial virus, para-influenza virus) may be circulating concurrently in a community. Therefore, to prevent cross-transmission of respiratory viruses, whenever possible assign only clients with confirmed pandemic influenza to the same room. At the height of a pandemic, laboratory testing to confirm pandemic influenza is likely to be limited, in which case cohorting should be based on having symptoms consistent with pandemic influenza.
- HCW's, clinical and non-clinical, assigned to cohorted client care units for pandemic influenza clients should not "float" or otherwise be assigned to other client care areas. The number of HCW's entering the cohorted area should be limited to those necessary for client care and support.
- HCW's assigned to cohorted client care units should be aware that clients with pandemic influenza may be concurrently infected or colonized with other pathogenic organisms (i.e., Staphylococcus aureus, Clostridium difficile and should adhere to infection control practices (i.e., hand hygiene, changing gloves between client contact) used as part of Routine Precautions, to prevent health care associated transmission.
- Because of the high client volume anticipated during a pandemic, cohorting should be implemented early in the course of a local outbreak.

Client Transport

- Limit client movement and transport outside of the isolation area to medically necessary purposes.
- Consider having portable x-ray equipment available in areas designated for cohorting influenza clients.
- If transport or movement is necessary, ensure that the client wears a surgical/procedure mask. If a mask cannot be tolerated (i.e. due to the client's age or deteriorating respiratory status), apply the most practical measures to contain respiratory secretions. Clients should perform hand hygiene before leaving the room

Visitors

- Screen visitors for signs and symptoms of influenza before entry into the facility and exclude persons who are symptomatic.
- Family members who accompany patients with influenza-like illness to the hospital are assumed to have been exposed to influenza and should wear masks.
- Limit visitors to persons who are necessary for the client's emotional well-being and care.
- Instruct visitors to wear surgical or procedure masks while in the patient's room.
- Instruct visitors on hand-hygiene practices and cough etiquette.

e) Clinical Management

Physicians may wish to consult with Infectious Disease Specialists for clients with significant co-morbidities. Recommendations will be dependent on novel virus strain. Follow MHHL recommendations.

f) Control of Health Care Associated (nosocomial) pandemic influenza transmission

- Once clients with pandemic influenza are admitted to the hospital, surveillance should be heightened for evidence of transmission to other clients and health care personnel. (Once pandemic influenza is firmly established in a community this may not be feasible or necessary.)
- If limited Health Care Associated (nosocomial) transmission is detected (i.e., has occurred on one or two client care units), appropriate control measures should be implemented. These may include:
 - Cohorting of clients and staff on affected units
 - Restriction of new admissions (except for other pandemic influenza clients) to the affected unit(s)
 - Restriction of visitors to the affected unit(s) to those who are essential for client care and support
- If widespread Health Care Associated (nosocomial) infection occurs, controls may need to be implemented hospital wide and might include:
 - Restricting all nonessential persons
 - Stopping admissions not related to pandemic influenza and stopping elective surgeries

Cleaning, Disinfection and Sterilization of Client Care Equipment

Acute Care Facilities should adhere to the previously established policies and procedures for the cleaning, disinfection and sterilization of client care equipment, which are found in the Programs and Service Manual, and CSR manual. (Both available on the ARHA intranet)

Environmental Control (dietary, housekeeping, laundry, waste)

- Routine Practices are recommended for handling dishes and eating utensils used by a client with known or suspected pandemic influenza
- Acute care facilities should adhere to the previously established policies and procedures for housekeeping, laundry and waste disposal including regular garbage and biomedical waste.
- Special handling of linen or waste contaminated with secretions from clients suspected or confirmed to have influenza is not required.
- Enhanced cleaning and disinfection of common touch surfaces (handrails, door knobs, and sink/toilet) may be required as resources permit.
- Wear gloves when handling used or soiled client trays, dishes, utensils, linens, equipment and waste.

Client Activity Restrictions

- Limit movement/activities of clients including transfers within the hospital, unless the client has recovered from pandemic influenza.
- Clients with ILI who are coughing should only leave their room for urgent/necessary procedures. The need for the procedure and the scheduling of the time for the procedure need to be considered so that non-influenza clients are not exposed to those with influenza.
- Cancel group activities. One-on-one activities, such as physiotherapy, are desirable if the client feels well enough.
- Clients with ILI who are coughing should wear a surgical/procedure mask whenever they need to be out of their room until the period of communicability of the pandemic strain has passed.

The strict adherence to HAND HYGIENE and COUGH ETIQUETTE recommendations may be the only preventive measure available during a pandemic.

TRANSITIONAL CARE / PERSONAL CARE HOME SETTINGS

Influenza is a major cause of illness and death in residents of Transitional Care /Personal Care Home (PCH) facilities because the resident's advanced age and underlying illness increase the risk of serious complications. Institutional living increases the risk of influenza outbreaks and controlling its spread can be problematic.

Despite aggressive efforts to prevent the introduction of pandemic influenza virus, persons in the early stages of pandemic influenza could introduce it to the facility. Residents returning from a hospital stay, outpatient visit, or family visit could also introduce the virus. Early detection of the presence of pandemic influenza in a facility is critical for ensuring timely implementation of infection control measures.

Infection Control Practices

Routine Practices

Refer to 5-1 Infection Control Guidelines. In the early stages of pandemic, increase resident surveillance for influenza-like symptoms. Follow ARHA protocols for Outbreak Prevention/Management/Reporting of Respiratory Disease, found in the Outbreak Management section of the ARHA ICM.

Additional Precautions

Refer to 5-1 Infection Control Guidelines. If symptoms of pandemic influenza are apparent, implement droplet/contact precautions for the resident and roommates (if applicable), pending confirmation of the pandemic influenza virus infection. Residents and roommates should not be separated or moved out of their rooms unless medically necessary. Once a resident has been diagnosed with the pandemic virus, roommates should be treated as exposed cohorts.

Physical Setting

When a pandemic is declared, post signs at all entrances informing residents, clients, visitors, volunteers and staff of appropriate actions to be taken before or upon entering the facility:

Control of visitors:

- Restrict entry by persons who have been exposed to or have symptoms of pandemic influenza.
- Enforce visitor restrictions by assigning personnel to verbally and visually screen visitors for respiratory symptoms at points of entry to the facility.
- Provide a telephone number where persons can call for information on measures used to prevent the introduction of pandemic influenza (see Section 12 Clinical Management in this pandemic plan).

Control of staff and volunteers:

- Implement a system to screen all staff/volunteers for influenza-like symptoms before they come on duty. Symptomatic persons should be sent home until they are physically able to return to duty.
- Provide education to all staff/volunteers as appropriate.

Cohort residents and staff on units with known or suspected cases of pandemic influenza.

Limit movement within the facility, i.e. temporarily close common dining areas and serve meals in rooms; cancel social and recreational activities.

Although droplet and contact precautions may prevent transmission of influenza when there are individual cases, they may not be effective or feasible for pandemic outbreaks of influenza in Transitional Care/PCH facilities.

Testing

The decision to test individuals fitting the criteria for ILI potentially caused by a novel influenza virus should be based on clinical judgment, taking into consideration the severity of infection and co-morbidity and the likelihood of having been exposed to novel influenza.

Individuals who are prescribed antiviral medication must first be tested for flu viruses.

If testing is indicated, you will need to take a nasopharyngeal aspirate or nasopharyngeal throat NPT swab or bronchoalveolar wash specimen. Throat swabs should only be used if NPT swabs are not available. The swab specimen is to be sent in VTM to Cadham Provincial Laboratory. Only one specimen per client is required.

- i. Ensure the correct viral flocked swab and transport medium is used and that it is not past its expiry date.
- ii. Ensure that both the specimen and the requisition are clearly labeled with the client's name and another unique identifier such as date of birth and health care number. List the specimen date and referring physician with their address and contact number (for urgent reporting). Tear off a number label and attach to the specimen.
- iii. Note the exposure history and clinical symptoms on the lab requisition. Without this information on the lab requisition, the specimen may not get prioritized to appropriate novel influenza virus testing procedures.

Clinical Management

Physicians may wish to consult with Infectious Disease Specialists for clients with significant co-morbidities. Recommendations will be dependent on novel virus strain. Follow MHHL recommendations.

Environmental Control (dietary, housekeeping, laundry, waste)

- Routine Practices are recommended for handling dishes and eating utensils used by a client with known or suspected pandemic influenza
- Transitional Care/PCH facilities should adhere to the previously established policies and procedures for housekeeping, laundry and waste disposal including regular garbage and biomedical waste.
- Special handling of linen or waste contaminated with secretions from clients suspected or confirmed to have influenza is not required.
- Enhanced cleaning and disinfection of common touch surfaces (handrails, door knobs, and sink/toilet) may be required as resources permit.
- Wear gloves when handling used or soiled client trays, dishes, utensils, linens, equipment and waste.

Cleaning, Disinfection and Sterilization of Client Care Equipment

Transitional Care/PCH facilities should adhere to the previously established policies and procedures for the cleaning, disinfection and sterilization of client care equipment, which are found in the Programs and Service Manual, and CSR manual. (Both available on the ARHA intranet)

Transfer to Acute Care

Residents with influenza or ILI requiring more acute care should **only** be transferred to acute care settings under pre-established guidelines. Refer to Clinical Management Section 12 in this ARHA Pandemic Plan; Residents in Long Term Care Facilities

The strict adherence to HAND HYGIENE and COUGH ETIQUETTE recommendations may be the only preventive measure available during a pandemic.

AMBULATORY CARE SETTINGS

Clients with non emergent symptoms of an ILI may seek care from their medical provider in an ambulatory office setting (i.e. doctor/primary health clinic, public health office). Implementation of infection control measures when these clients present for care will help prevent exposure among other clients and clinical and non-clinical office staff.

Infection Control Practices

Routine Practices

Ambulatory care settings should adhere to the previously established policies and procedures they have in place for routine infection control practices, found in 5.1 Infection Control Guidelines, the ARHA Infection Control Manual and/ or the Health Canada Infection Control Guidelines *Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare*.

Additional Infection Control Precautions

Although droplet and contact precautions are recommended for preventing the transmission of influenza during an inter-pandemic period, these precautions may not be achievable or practical as the pandemic spreads and resources become scarce. Adherence to routine practices is achievable. Refer to 5.1 Infection Control Guidelines.

Physical Setting

a) Detection of patients with possible pandemic influenza

- Post visual alerts at the entrance to clinics/offices instructing persons with respiratory illness symptoms (i.e., clients, persons who accompany them) to:
 - Inform reception and healthcare personnel when they first register for care
 - Practice respiratory hygiene/cough etiquette
- Triage or refer clients calling for medical appointments for influenza symptoms as per Section 12 Client Management-Telephone Triage Overview.
 - Discourage unnecessary visits to medical facilities
 - Instruct symptomatic clients on infection control measures to limit transmission in the home and when traveling to necessary medical appointments.

b) Control measures

- Post signs that promote hand hygiene/cough etiquette in common areas (i.e., elevators, waiting areas, cafeterias, washrooms) where they can serve as reminders to all persons in the healthcare setting. Signs should instruct persons to:
 - Cover the nose/mouth when coughing or sneezing.
 - Use tissues to contain respiratory secretions.
 - Dispose of tissues in the nearest waste receptacle after use.
 - Perform hand hygiene after contact with respiratory secretions.
- Remove magazines, toys and other unnecessary items from the waiting room.
- Facilitate adherence to hand hygiene/cough etiquette by ensuring the availability of material in waiting areas for patients and visitors.

- Provide tissues and no –touch receptacles (i.e., waste containers with pedal-operated lid or uncovered waste container) for used tissue disposal.
- Provide conveniently located dispensers of alcohol based hand rub.
- Provide soap and disposable towel for hand washing where sinks are available.
- Promote the use of masks and spatial separation by persons with symptoms of influenza.
 - Offer and encourage the use of either procedure/ surgical masks by symptomatic persons to limit dispersal of respiratory droplets.
 - Encourage coughing persons to sit 1 metre/3 feet (2 metres/6 feet if possible) away from other persons in common waiting areas.

c) Testing

The decision to test individuals fitting the criteria for ILI potentially caused by a novel influenza virus should be based on clinical judgment, taking into consideration the severity of infection and co-morbidity and the likelihood of having been exposed to novel influenza. **Individuals who are prescribed antiviral medication must first be tested for flu viruses.**

If testing is indicated, you will need to take a nasopharyngeal aspirate or NPT swab or bronchoalveolar wash specimen. Throat swabs should only be used if NPT swabs are not available. The swab specimen are to be sent in VTM to Cadham Provincial Laboratory. Only one specimen per client is required.

- Ensure the correct viral flocculated swab and transport medium is used and that it is not past its expiry date.
- Ensure that both the specimen and the requisition are clearly labeled with the client's name and another unique identifier such as date of birth and health care number. List the specimen date and referring physician with their address and contact number (for urgent reporting). Tear off a number label and attach to the specimen.
- Note the exposure history and clinical symptoms on the lab requisition. Without this information on the lab requisition, the specimen may not get prioritized to appropriate novel influenza virus testing procedures.

d) Client Placement

- Where possible designate separate waiting areas for clients with symptoms of pandemic influenza. Place signs indicating the separate waiting areas.
- Place symptomatic clients in an evaluation room as soon as possible to limit their time in common waiting areas.

e) Clinical Management

Physicians may wish to consult with Infectious Disease Specialists for clients with significant co-morbidities. Recommendations will be dependent on novel virus strain. Follow MHHL recommendations.

Cleaning, Disinfection and Sterilization of Client Care Equipment

Ambulatory Care Facilities should adhere to the previously established policies and procedures for the cleaning, disinfection and sterilization of client care equipment, located in the Programs and Services manual- Support Services (SS) section and CSR manual or Health Canada Infection Control *Guidelines Hand Washing, Cleaning, Disinfection and Sterilization in Health Care*. It may be necessary to send equipment off site for cleaning and processing.

Environmental Control (housekeeping, laundry, waste)

- Special Handling of linen or waste contaminated with secretions from persons suspected or confirmed to have influenza is not required
- Enhanced housekeeping may be required as resources permit.
- Wear gloves when handling used or soiled client linens, equipment and waste.

Client Activity Transport

Clients with ILI should only leave the ambulatory care area as directed by ambulatory care staff, i.e. home, hospital, non-traditional sites

OTHER AMBULATORY CARE SETTINGS

A wide variety of ambulatory care settings provide chronic and episodic health care services (dental offices, mental health, occupation/physical therapy, etc.). When pandemic influenza is in the region, these settings should implement control measures similar to those recommended above. Other infection control strategies that may be utilized include:

- Screening clients for influenza-like illness by phone or before coming into the facility and rescheduling appointments for those whose care is non-emergency
- Cancelling all non-emergent services when there is pandemic influenza in the community

The strict adherence to HAND HYGIENE and COUGH ETIQUETTE recommendations may be the only preventive measure available during a pandemic.

CARE/SERVICE IN THE HOME

These guidelines can be used for any health care provided in the home setting.

Infection Control Practices

Routine Practices

Home care providers should adhere to the previously established policies and procedures they have in place for routine infection control practices located in the Regional Home Care Manual, ICM and the Manitoba Health Infection Control Guidelines for health care workers in the Community located in the Support Materials (SM) section of the ICM.

Perform an ILI assessment of the client and their household contacts by phone prior to the appointment or before going into the home. Assess the risk of influenza in the client or household contacts. Ask clients to notify health care provider if an ILI develops.

Only well (asymptomatic/unexposed) visitors should visit severely immunocompromised clients in the home (i.e. transplant recipients, hematology/oncology clients) as these clients are at risk of serious complication if infected with influenza. Visitors for the terminally ill can be exempt, but should put on a mask before entering the home and restrict the length of time spent with the client if possible.

Provide clients and family members with information regarding symptoms of ILI, Self Care Guidelines and contact numbers for Telephone Triage as per Section 12 Clinical Management-Telephone Triage Overview.

Counsel clients and household contacts to avoid public gatherings to minimize exposure.

Basic Hygiene Measures

Home HCW's and their clients, should be encouraged to minimize potential influenza transmission through hygienic measures (i.e. use disposable, single-use tissues for wiping noses; covering nose and mouth when sneezing and coughing; hand washing/hand hygiene after coughing, sneezing or using tissues; and the importance of keeping hands away from the mucous membranes of the eyes and nose).

Strategically placed alcohol based hand sanitizers and boxes of tissues may enhance personal hygiene.

Cleaning, Disinfection and Sterilization of Client Care Equipment

Home HCW's should adhere to the previously established policies and procedures for the cleaning, disinfection and sterilization of client care equipment used in the home located in the Home Care Manuals, Regional ICM, Programs and Service Manual –Support Services (SS) section and the MHHL Infection Control guidelines for Health Care Workers in the Community located in the Support Materials (SM) section of the ICM. As supplies become scarce, it may become necessary to find alternative methods of cleaning and disinfecting equipment for home use.

Additional Precautions

HCW's who enter homes where there is a client with an ILI should follow the recommendations for Routine Practices as above and Droplet Precautions. Professional judgment should be used in determining whether to don a procedure/surgical mask upon entry into the home or only for client interactions. Factors to consider include the possibility that others in the household may be infectious and the extent to which the client is ambulating within the home.

Whenever possible, assign providers who are not at an increased risk for complications of pandemic influenza to care for these clients.

Although droplet and contact precautions are recommended in preventing the transmission of influenza during an inter-pandemic period, these precautions may not be achievable or practical as the pandemic spreads and resources become scarce. Adherence to Routine Practices is achievable.

The strict adherence to HAND HYGIENE and COUGH ETIQUETTE recommendations may be the only preventive measure available during a pandemic.

Physical Setting

When a pandemic is declared, cancel or postpone home health care visits that are **not** absolutely necessary. Communication between home HCW's and clients or their family members is essential for ensuring that clients and providers are appropriately protected

ALTERNATIVE SITES

If an influenza pandemic results in severe illness that overwhelms the capacity of existing health care resources, it may become necessary to provide care at alternate locations (i.e. schools, halls). Please refer to your ARHA Disaster and Emergency Response Plan for identification of local refuge sites.

The same principles of infection control apply in these settings as in other health care settings. Careful planning is necessary to ensure that resources are available and procedures are in place to adhere to the key principles of infection control.

OCCUPATIONAL HEALTH

HCW's are at risk for pandemic influenza through community and health care related exposures. Once pandemic influenza has reached a community, health care facilities must implement systems to monitor for illness in the ARHA workforce and manage those who are symptomatic or ill.

- Implement a system to educate HCW's about occupational health issues related to pandemic influenza.
- HCW's shall self-screen for influenza-like symptoms before they come on duty.
- Symptomatic personnel should remain home or be sent home until they are physically ready to return to duty.
- HCW's who have recovered from the pandemic influenza, and should develop antibody against future infection with the same virus, should therefore be prioritized for the care of clients with active pandemic influenza and its complications.
- HCW's who are at high risk for complications of pandemic influenza (i.e. pregnant women, immunocompromised persons) should be informed about their medical risk and offered an alternate work assignment where possible.

Please call the staff information line at 1-888-682-2253 for staff specific information.

Appendix A

Aerosol Generating Respiratory Procedures on suspect/known ILI cases

- HCW's require an N95 mask
- Administrative, Engineering and Environmental Controls must be in place

Procedures

- In circumstances where emergent resuscitation efforts are anticipated
- Nebulized therapy
- Use of bag-valve mask to ventilate client
- Endotracheal intubation, including during cardiopulmonary resuscitation
- Open airway suctioning
- Tube or needle thorascopomy
- Bronchoscopy or other upper airway endoscopy
- Tracheostomy
- Sputum Induction

Necessary Controls for Aerosol – Generating Client Procedures

Administrative Controls:

- Most experienced personnel performs the aerosol-generating procedure
- Signage which indicates Infection Control Precautions
- Keep the number of people in the room to a minimum (no more than 4)
- Procedures should be conducted in a controlled non emergent manner e.g., elective intubation
- Sedate client if intubation is required
- Ensure adequate equipment in the room

Engineering Controls:

- Maximize available air changes
- Perform the procedure in a negative pressure room, private room
- Vent exhausted air directly to the outside, or if air is recirculated, it must be passed through HEPA filters

Environmental Controls:

- Discard contaminated disposable equipment
- Clean/disinfect contaminated equipment before leaving the room
- All personnel in the room must wear:
 - N95 mask
 - Eye protection
 - Gloves
 - Long sleeved gown

These Infection Prevention and Control recommendations may change as further information about the epidemiology and spread of this virus is available.