



Ministry of Health and Long-Term Care

Guidance for Management of Patients with Influenza-like Illness in Long-Term Care Settings during the Pandemic (H1N1) 2009 – Summary

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What you need to know...

During the fall and winter 2009/10, healthcare providers can expect to see patients with seasonal influenza and/or pandemic (H1N1) 2009 influenza (pH1N1). The following is a summary of the Ministry of Health and Long-Term Care's (MOHLTC) recommendations for the management of influenza-like illness (ILI) in **long-term care settings**; more detailed information follows this page.

- Long-term care settings residents are considered more susceptible to seasonal flu, but are vulnerable to complications from either seasonal or pandemic influenza.
- Currently, evidence indicates that pH1N1 is similar to seasonal influenza in overall clinical features, morbidity and mortality. Most people who contract pH1N1 will have a typical of course of influenza; however, those with risk factors may have more severe illness. Although pH1N1 has been seen to date as being a mild pandemic strain, influenza still remains a serious illness. As such, Ontario recommends vigilance, active prevention, and early treatment where clinically indicated.
- Healthcare providers and organizations should ensure that appropriate **infection prevention and control** and **occupational health and safety measures** are in place. **Section 5** of this document outlines recommended measures for residents and for health care providers. It is recommended that health care providers perform hand hygiene and wear appropriate personal protective equipment (e.g., gloves, gown, eye protection, fit-tested N95 respirator) when conducting clinical assessments. Although N95 respirators are not routinely recommended for seasonal influenza, because pH1N1 is a novel influenza virus the broadest level of precautionary measures are being recommended.
- Post signage (**passive screening**) at the entry to each long-term care setting reminding persons entering the home NOT to enter if they are having symptoms of ILI. Remind staff of the importance of staying home and reporting if they develop ILI.
- Continue to **monitor** residents according to the directions provided in **Section 6**. On-going monitoring will help to identify those with ILI early, so as to inform prevention and management activities.
- Report suspect outbreaks to the local public health unit. In consultation with the health unit, **laboratory testing** may be performed for suspect outbreaks. **Treatment with antivirals** is only recommended for individuals with risk factors, worsening clinical status and/or hospitalized and diagnosed with ILI.

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1. Purpose

This guidance document is being provided by the MOHLTC in response to pH1N1 influenza. This document replaces previous guidance to long-term care settings. It is based on current, available scientific evidence and expert opinion about this emerging disease and is subject to review and change as new information becomes available.

Given that there may be seasonal influenza and pH1N1 influenza circulating in the community at the same time, this guidance should assist healthcare providers with the clinical management of ILI in a long-term care setting.

Note, however, that positive predictive value of the ILI clinical definition increases as the prevalence of pH1N1 in the community increases.

2. Background

In the fall and winter of 2009/2010, it is anticipated that pH1N1 will become the predominant circulating influenza strain¹. Seasonal influenza is expected to circulate to a lesser degree, potentially later in the winter. During the 2009 influenza season in parts of the southern hemisphere, pH1N1 accounted for about 80% of influenza cases

¹ For information on influenza activity in Ontario, visit the MOHLTC Ontario Influenza Bulletin website at http://www.health.gov.on.ca/english/providers/program/pubhealth/flu/flu_09/flubul_mn.html

- pH1N1 is currently similar to seasonal influenza in overall clinical features, morbidity and mortality;
- pH1N1 has an incubation period of up to 4 days. People with pH1N1 are infectious for 24 hours before and up to 7 days after onset of symptoms, and possibly up to 10 days for children and people who are very ill. In each case this is longer than is the case with seasonal influenza;
- Most people who contract pH1N1 will have a typical course of influenza: they will be sick for a few days with cough and fever, and then recover;
- Most people born before 1957 are less susceptible to the pH1N1 influenza virus, and
- Although pH1N1 is a relatively mild strain, influenza can still be a serious illness, especially for people with conditions that increase their risk of complications. Ontario recommends vigilance, active prevention, and early treatment where clinically indicated,

3. Risk of Infection and Complications

The following groups are at higher risk of complications from pH1N1 influenza:

- (i) People with conditions that increase their risk of complications, such as:
 - cardiac disease
 - chronic pulmonary diseases (especially asthma)

- diabetes mellitus and other metabolic diseases
- cancer
- immunodeficiency (e.g., HIV)
- immunosuppression (e.g., transplant patients)
- renal disease
- anemia or hemoglobinopathy
- morbid obesity (BMI>40)
- conditions that compromise the management of respiratory secretions and are associated with an increased risk of aspiration (e.g., neurologic, neuromuscular, cognitive disorders)

- (ii) People over age 65 (although people over 65 years of age have the lowest risk of contracting pH1N1, they are still at highest risk of complications when they are infected)
- (iii) Children under age 5 (the risk is greater for children under 2 years old)
- (iv) Children under 18 years of age on long-term acetylsalicylic acid therapy
- (v) Pregnant women and women up to 4 weeks post-partum (the risk of developing complications from pH1N1 is higher later in pregnancy – 2nd and 3rd trimester - and up to 4 weeks post-partum)
- (vi) Persons living in rural areas remote from hospital care (e.g., remote First Nations communities)
- (vii) Residents of long-term care homes (most of whom have chronic conditions that put them at risk of complications).

4. Prevention

4.1 Public health measures

Residents, visitors and staff should be encouraged to consistently use public health measures to reduce/prevent pH1N1 transmission, including:

- proper hand hygiene;

- cough and sneeze etiquette;
- social distancing (e.g., keep 2 metres away from people who are coughing or sneezing), and
- stay home from work when experiencing influenza symptoms or when diagnosed with influenza or ILI.

4.2 Immunization

Because this is a different influenza season, this year's immunization campaign is also different. Ontario is implementing a three step approach to influenza immunizations this year based on what we know about the science of the virus, the groups that are most susceptible to serious illness from seasonal influenza and pH1N1, and the health system's capacity to administer immunizations.

- In October, seasonal influenza vaccine will be offered to people 65 years and older and all residents of long-term care homes;
- pH1N1 vaccine will be offered to all Ontarians who need and want it beginning in late October/early November. pH1N1 immunizations will occur in accordance with the sequencing guidelines identified nationally², and
- Following the pH1N1 immunization, seasonal influenza immunizations may be offered broadly to all Ontarians if there is seasonal influenza virus circulating.

For additional details on influenza immunization activities in your area, contact your local public health unit.

5. Infection Prevention and Control/Occupational Health and Safety

Influenza is predominantly a droplet-borne disease; however, transmission via small

² To see the national sequencing guidelines, visit Public Health Agency of Canada website at <http://www.phac-aspc.gc.ca/alert-alerte/h1n1/vacc/vacc-eng.php>

airborne sized particles cannot be ruled out. Influenza viruses can also survive on surfaces so both droplet and contact precautions are recommended to prevent transmission.

Protection of staff, residents, and visitors from the transmission of influenza may be best achieved using a hierarchy of controls (see Chapter 7 of the Ontario Health Plan for an Influenza Pandemic (OHPIP) for more information at www.health.gov.on.ca/english/providers/program/emu/pan_flu/ohpip2/ch_07.pdf).

Additional guidance for reducing the risk of exposure to seasonal and pH1N1 influenza in healthcare settings includes:

5.1 For residents

Instruct residents who report fever and/or respiratory symptoms to:

- Clean their hands with 60 to 90% alcohol-based hand rub (or soap and water)
- Put on a surgical mask, if tolerated
- If possible, stay 2 metres away from others or in a separate room while waiting for a clinical assessment.

Enhanced screening of residents for symptoms of ILI should be conducted; all residents should be monitored at least once per day. Residents should be monitored for signs and symptoms of complications related to influenza and should be transferred to acute care as required, using the Provincial Transfer Authorization Centre (PTAC).

5.2 For healthcare providers

Screening for health care providers:

- Encourage staff to perform self-assessment for symptoms of ILI. In general, staff should not work if they are experiencing ILI (see **Section 7.1: Supportive therapy** for more information). Staff should be reminded of the importance of reporting illness to those responsible for Occupational Health if symptoms of ILI develop while on duty.

Before the clinical assessment of a patient with ILI:

- Perform hand hygiene
- Wear a fit-tested N95 respirator and eye protection³. If supplies of N95 respirators and other personal protective equipment (PPE) are limited or depleted, settings should prioritize access to ensure that staff involved in high risk activities (e.g., aerosol-generating medical procedures⁴) are protected at all times, as recommended in Chapter 7 of the OHPIP (www.health.gov.on.ca/english/providers/program/emu/pan_flu/ohpip2/ch_07.pdf). If N95 respirators are not available, health care providers should use a surgical mask
- Put on gloves
- Wear a gown only when there is a risk of clothing or skin contamination.

During a clinical assessment of a patient with ILI:

- Instruct coughing resident to continue to wear a surgical mask over his/her nose and mouth.
- If obtaining a nasopharyngeal swab, lower the mask temporarily to expose the nose while still covering the mouth.

After a clinical assessment of a patient with ILI⁵:

- Remove gloves.
- Remove gown, if used.
- Perform hand hygiene.

³ Eye protection may include approved safety glasses, goggles or a face shield. Prescription eye glasses are not acceptable as eye protection.

⁴ Aerosol-generating medical procedures are any procedure carried out on a patient that can induce the production of aerosols of various sizes, including droplet nuclei. Examples include: non-invasive positive pressure ventilation (BIPAP, CPAP); endotracheal intubation; respiratory/airway suctioning; high-frequency oscillatory ventilation; tracheostomy care; chest physiotherapy; aerosolized or nebulized medication administration; diagnostic sputum induction; bronchoscopy procedure; autopsy of lung tissue.

⁵ If the health care provider is seeing a number of ILI patients consecutively (e.g., at a flu assessment clinic), it may not be necessary to change some types of PPE between each patient (e.g., N95 respirator). A risk assessment must be conducted by the healthcare provider.

- Remove eye or face protection first, then remove N95 respirator or mask by the straps (do not touch mask).
- Perform hand hygiene.
- Ensure surfaces touched by the resident or within droplet range are cleaned with a hospital-grade disinfectant.

5.3 For family members/visitors

Post signage (passive screening) at the entry to each long-term care setting reminding persons to refrain from entering the facility if they are having symptoms of ILI such as fever, cough, shortness of breath, muscle aches, or sore throat.

Signage should also provide clear instructions on how and when to perform hand hygiene and respiratory etiquette.

Active screening should be initiated if influenza is actively spreading in the community or during an institutional influenza outbreak.

6. Clinical Assessment and Diagnosis

6.1 Assess the resident's symptoms

The ILI clinical definition for both seasonal and pH1N1 influenza is:

- acute onset of respiratory illness with fever and cough PLUS one or more of the following:
 - sore throat
 - joint(s) pain
 - muscle pain
 - extreme exhaustion

Fever may NOT be present in young children and elderly. As well, some people have reported diarrhea and vomiting associated with the pH1N1 influenza.

The positive predictive value of the ILI clinical definition increase as the prevalence of pH1N1 influenza in the community increases.

6.2 Ask about contacts with ill people

This information may reveal an unusual cluster of cases that may require other public health measures.

6.3 Screen for underlying conditions

Screen for conditions that put people at higher risk of complications as indicated in **Section 3: Risk of infection and complications.**

6.4 Assess for abnormal vital signs

Abnormal vital signs are defined as one or more of the following: pulse, blood pressure, respirations and O₂ saturation by pulse oximetry if available, that are not within range of normal for age and health status. Hypotension, tachycardia and tachypnea may be early indicators of serious illness.

6.5 Assess for worsening clinical status

Worsening clinical status is defined as: progression of signs and symptoms (including increasing signs of pneumonia, dyspnea, prostration, hypotension, tachycardia and tachypnea, dehydration, shock) indicative of pending serious illness and hospitalization.

7. Clinical Management and Treatment

If testing, do not delay treatment while waiting for test result.

7.1 Supportive therapy

Provide guidance on supportive therapy for residents with ILI that are otherwise healthy or at risk of complications, which includes the following suggestions:

- Rest.
- Drink plenty of fluids.
- Take steps to treat fever, such as wearing lightweight clothing and keep the room temperature around 20°C (68°F).
- Consider taking basic pain or fever relievers such as acetaminophen (Tylenol®), ibuprofen (Advil®, Motrin®), or acetylsalicylic acid (ASA or Aspirin®), unless contraindicated.

As well, provide guidance on basic infection prevention measures that can limit the spread of influenza:

- Practice proper hand hygiene and cough and sneeze etiquette.
- Keep at least 2 metres away from others or wear a surgical mask if coughing or sneezing within 2 metres of other people.
- **Healthcare providers with ILI should remain off work until 24 hours after all symptoms other than a mild cough have resolved, typically a period of 5 to 8 days. However, healthcare providers who have been treated with oseltamivir (Tamiflu®) for 72 hours will not be as infectious and may return to work if they feel generally well except for a mild cough. Staff should consult with Occupational Health (if available) for a return to work assessment.**

7.2 Otherwise healthy residents

Treat otherwise healthy residents with no underlying conditions with supportive therapy (see **Section 7.1: Supportive therapy**).

Treatment with antivirals is not generally recommended for otherwise healthy residents. For additional information on treatment recommendations in an outbreak, see **Section 9: Additional Guidance in an Outbreak Specific to Long-Term Care Homes**.

7.3 Residents at risk of complications

In addition to the supportive therapy outlined in **Section 7.1: Supportive therapy**, treat residents who have ILI and risk conditions listed in **Section 3: Risk of infection and complications** with antivirals as quickly as possible and within 48 hours of developing symptoms, unless contraindicated. If residents are assessed/diagnosed more than 48 hours from onset of symptoms, antiviral treatment is not recommended, but may be initiated if clinically warranted.

Treat complications, such as bacterial infections, with antibiotics, following usual practice.

Healthcare providers should use clinical judgment to determine if residents with ILI symptoms require medical attention and transfer to an acute care setting. If transfer is required, residents should be managed using normal processes, including the use of the Patient Transfer Authorization Centre. The long-term care setting should notify the Emergency Medical Services and hospital emergency staff of the resident's ILI status so that appropriate precautions can be taken.

7.4 Residents with abnormal vital signs

Treat anyone who presents with abnormal vital signs for his/her age and health status, (see **Section 6.4: Assess for abnormal vital signs**) with antivirals and appropriate clinical management (supportive therapy).

7.5 Residents with worsening clinical status

Treat residents with worsening clinical status (see **Section 6.5: Assess for worsening clinical status**) with antivirals and appropriate clinical management (supportive therapy).

7.6 Other residents

Healthcare providers should consider antiviral post-exposure prophylaxis for highly vulnerable people at risk of complications who have had close, prolonged household-like contact with someone with influenza.

NOTE: Antiviral prophylaxis has been shown to be effective in selected settings for seasonal influenza (influenza outbreaks in long-term care homes). The decision to provide antiviral prophylaxis should be based on the clinical assessment of the contact, taking into account the fact that most people are experiencing mild illness from both seasonal influenza and pH1N1, and overuse of prophylaxis may affect the system's ability to treat people with influenza who are at risk of complications and contribute to antiviral resistance.

8. Laboratory Testing

See **Appendix A** for guidance on when to perform a **nasopharyngeal (NP) swab** for individual residents who present with ILI

symptoms. Forward those specimens for testing using existing laboratory resources.

Suspect outbreaks should be reported to the local public health unit. In consultation with the health unit, NP swabs may be performed for suspect outbreaks at long-term care settings and those specimens should be forwarded directly for testing with an outbreak number at public health laboratories.

NP swab testing for non-outbreak purposes generally take at least 48 hours to obtain NP test results, so the information will not be available soon enough to assist in treatment decisions.

Settings/healthcare providers with the skills and equipment to perform NP swabs may provide testing for certain groups of patients and clinical situations:

- patients at high risk of complications where testing will affect their clinical management;
- patients with worsening clinical status indicative of pending serious illness and hospitalization;
- all patients diagnosed with ILI and are hospitalized (Note: testing recommended for surveillance purposes);
- all patients who develop ILI while hospitalized (Note: testing recommended for surveillance purposes);
- detection of outbreaks in acute care facilities, long-term care homes and other locations in consultation with the local public health unit, and
- exceptional cases such as workers in the swine industry (e.g., farms, abattoirs) and healthcare providers that become ill at work and are providing direct patient care.

NOTE: Clinically diagnose and treat based on clinical symptoms, risk factors and influenza epidemiology in your region. If testing, do not delay treatment while waiting for test result.

When requesting NP swab testing:

- ensure that both the specimen and requisition are clearly labeled, and
- include exposure history and clinical symptoms on the requisition form.

If requisitions are incomplete, testing at the laboratory will not be performed.

NOTE: PCR testing done by Ontario's public health laboratories is highly sensitive (>99%) and specific (>99%). Point-of-care tests (rapid antigen tests) are NOT generally recommended because of their low sensitivity 40-60% (i.e., high rates of false negatives), and are mainly used to detect outbreaks in long term care homes.

There is no role for blood influenza serology testing in the clinical management of influenza.

9. Additional Guidance in an Outbreak Specific to Long-Term Care Homes

Outbreaks of pH1N1 can be declared over when no new cases have occurred for 11 days after the onset of symptoms in the last case. This is based on a four day incubation period plus seven day period of communicability.

For issues not specifically addressed in this guidance document, long-term care homes should follow their usual procedures in the management and control of influenza - including use of post exposure prophylaxis (PEP) in declared influenza outbreaks. Long term-care homes should continue to work closely with their local public health unit and refer to "A Control of Respiratory Infection Outbreaks in Long-Term Care Homes" available at:
http://www.health.gov.on.ca/english/providers/pub/pubhealth/ltc_respoutbreak/ltc_respoutbreak.pdf.

Information for Healthcare Providers

- Visit the MOHLTC’s pH1N1 website at www.ontario.ca/flu (click on the link to “Healthcare Professionals” in the left-hand column)
- Call the MOHLTC Healthcare Providers Hotline at 1-866-212-2272
- Sign up to receive the MOHLTC’s Important Health Notices at publichealthontario.ca
- Provide updated contact information to the appropriate association, regulatory college, and/or local public health unit.

Information for the Public

- Visit www.ontario.ca/flu (click on the link to “Public Information” in the left-hand column)

Appendix A: Lab Testing and Antiviral Treatment Recommendations

Clinical Presentation	NP Swab Testing Recommendations	Antiviral Treatment Recommendations
Mild upper respiratory illness that does not meet the case definition for influenza like illness (ILI)	No testing recommended	Treatment not recommended
ILI with no risk factors and normal vital signs	No testing recommended	Treatment not recommended
ILI in individuals with risk factors or ILI in individuals with abnormal vital signs* for their age and health status	No testing recommended except where testing will affect their clinical management	Initiate treatment within 48 hours of illness onset unless contraindicated, with or without testing. For patients presenting > 48 hours of illness onset, treatment is not recommended, but may be initiated if clinically warranted. Clinical judgment should be used.
ILI symptoms and worsening clinical status- Progression of signs and symptoms (including increasing signs of pneumonia, dyspnea, prostration, hypotension, tachycardia and tachypnea, dehydration, shock) indicative of pending serious illness and hospitalization	Testing recommended	Initiate treatment. Do not wait for NP swab test results to begin treatment.
Diagnosed with ILI and hospitalized	Testing recommended	Initiate treatment Do not wait for NP swab test results to begin treatment

* Abnormal vital signs are defined as:

- One or more of pulse, blood pressure, respirations and O2 saturation by pulse oximetry if available, that are not within range of normal for age and health status.
- Hypotension, tachycardia and tachypnea may be early indicators of serious illness.