

The majority of Influenza-like Illness (ILI) during the fall and winter of 2009/10 will be related to pH1N1. Seasonal influenza is expected to circulate to a lesser degree, potentially later into the winter.



Centre for Effective Practice

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## HOW DO I DIAGNOSE pH1N1?

Diagnosing pH1N1 depends on the following clinical criteria for Influenza-like Illness (ILI):

Acute onset of respiratory illness with **FEVER** and **COUGH** plus one or more of the following:

- sore throat
- joint pain
- muscle pain
- extreme exhaustion

*Fever may not be present in young children and the elderly. Some people report diarrhea and vomiting with pH1N1.*

## HOW DO I ASSESS PATIENTS WITH SUSPECTED pH1N1?

**1. Screen for underlying conditions** that put people at higher risk of complications from ILI. *Most people who contract pH1N1 will have a typical course of influenza with a few days of self-limited illness. People with risk factors may experience more severe and complicated illness.*

**2. Assess for abnormal vital signs.** Hypotension, tachycardia, and tachypnea are early indicators of serious illness.

**3. Assess for worsening clinical status** such as increasing shortness of breath, chest pain, and confusion.

## Those at RISK of developing complications from pH1N1 are:

- **People with underlying health conditions:** cardiac disease, chronic pulmonary diseases, diabetes mellitus and other metabolic diseases, cancer, immunodeficiency, immunosuppression, 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.
- **People over age 65.**
- **Children under age 5** (risk greater for children under age 2).
- **Children under 18 years** of age on long-term **ASA therapy.**
- **Pregnant women** (especially those in 2nd and 3rd trimesters and up to 6 weeks postpartum).
- **People living in rural areas** remote from hospital care (e.g., remote First Nations communities).
- **People living in long-term care homes.**

This document is a summary of *Guidance for the Management of Influenza-Like Illness in Ambulatory Care Settings during Pandemic (pH1N1) 2009*, developed by the Ontario Ministry of Health and Long Term Care. These guidelines were updated on November 13 2009.

For further details, go to

[www.health.gov.on.ca/en/ccom/flu/h1n1/pro/docs/ambulatory\\_guidance.pdf](http://www.health.gov.on.ca/en/ccom/flu/h1n1/pro/docs/ambulatory_guidance.pdf)

## WHAT SPECIAL CONSIDERATIONS ARE THERE FOR PEDIATRIC PATIENTS? RU

- Younger infants may progress rapidly to severe illness,
- Presentation of ILI in children may be atypical (gastrointestinal symptoms may be present and fever may not be prominent), and
- Viral load is usually high and shedding may be more prolonged in young children as compared to adults.

The likelihood that the infant/child with ILI may have pH1N1 is greater if he/she has been in contact with a symptomatic family member within the previous week.

In paediatric patients with the following health conditions, health care providers should consider a diagnosis of ILI even if fever is absent:

- Children with chronic pulmonary or airway disorders (e.g. asthmatics with exacerbations of symptoms, Cystic Fibrosis patients with exacerbations),
- Infants and neonates with apnea, unexplained respiratory distress, unexplained sepsis or unexplained lethargy and poor feeding,
- Immunocompromised children with respiratory symptoms in absence of fever or fever in the absence of respiratory symptoms,
- Neurologically impaired children,
- Patients presenting with sepsis and other catastrophic illnesses,
- Patients with presumed encephalitis.

*Note that the above does not capture every potential manifestation of ILI in infants and children; clinical judgment must be used.*

## WHEN IS TESTING RECOMMENDED?

Nasopharyngeal (NP) swab tests are not generally recommended or helpful in primary care settings for the clinical management of patients with ILI.

## WHAT ARE THE CURRENT TREATMENT GUIDELINES FOR ILI?

**Stable patients with no risk factors** ► supportive therapy. Antiviral therapy not generally necessary but may be considered based on clinical judgement.

**Patients with risk factors** ► supportive therapy, antiviral therapy if within 48 hrs of symptom onset. After 48 hrs, use clinical judgement, follow closely.

**Patients with abnormal vital signs or worsening clinical status** ► antiviral therapy, refer to hospital if clinically warranted. Consider concomitant bacterial infection.

## SUPPORTIVE THERAPY

- Rest
- Drink plenty of fluids
- Take steps to treat the fever:
  - Wear light clothing
  - Keep room temperature around 20°C (68°F)
  - Take ibuprofen or acetaminophen
- Practice proper hand hygiene
- Stay 2 meters away from others and/or wear a surgical mask
- Pay attention to signs of worsening illness

## WORSENING ILLNESS

### Symptoms of worsening illness include:

- Difficult or fast breathing or feeling short of breath
- Chest pain
- Purple or blue discolouration of the lips
- Vomiting and unable to keep liquids down
- Signs of dehydration
- Confusion, disorientation, seizures, difficulty waking
- Stiff neck or sensitive to light
- Fever that does not go away or comes back after four (4) to five (5) days

### In children also watch for:

- Any fever in a baby less than 3 months of age
- Crankiness or irritability

## ANTIVIRAL THERAPY

- Oseltamivir (Tamiflu®) is the first line antiviral agent.
- An alternative choice is zanamivir (Relenza®). Recommended dosage: 10mg q12h x 5 days for persons 7 yrs of age and older.
- Both oseltamivir and zanamivir are considered safe when breastfeeding.
- Antiviral treatment should be initiated within 48 hours of illness. If patients present more than 48 hours after illness onset, treatment is not generally recommended but may be initiated if clinically warranted.

### OSELTAMIVIR (TAMIFLU®)

Dosage forms: 75 mg, 45mg, and 30mg capsules and 12 mg/mL suspension\*

#### ADULTS

Normal renal function)	75mg q12h for 5 days
Creatinine clearance of 10-30mL/min	75 mg once daily for 5 days
Creatinine clearance <10 mL/min	Not recommended
Renal dialysis	No recommended dosing regimen available

#### CHILDREN\*\*

Children ≥12 months	>40 kg	75mg q12h for 5 days
	>24 kg to 40 kg	60mg q12h for 5 days
	>15kg to 23kg	45mg q12h for 5 days
	≤ 15kg	30mg q12h for 5 days
Children ≥9 months but <12 months†		3.5mg/kg q12h for 5 days
Children <9 months†		3.0 mg/kg q12h for 5 days

\*Suspension is currently in short supply. Pharmacies can compound the 30mg and 45mg capsules into a suspension using a special syrup.

† Consultation with an infectious disease specialist is recommended (if available) when prescribing Tamiflu to children <12 months due to limited safety data in this age group

\*\* If a child is receiving breast milk from a mother taking antivirals and the child needs treatment themselves, the recommended dose of Tamiflu or Relenza remains the same for the child and should still be given.



*Antivirals are available free of charge to all Ontario residents through most community-based pharmacies. Write “as per Ministry guidelines” on prescription to ensure patients are able to fill them at no charge.*

## WHY NOT GIVE EVERY PATIENT ANTIVIRAL THERAPY?

Antiviral medications are generally not recommended for pre or post exposure prophylaxis. Similarly, they are not necessary for clinically stable patients with mild illness. Overuse of antivirals could mean that these drugs may become unavailable to people who really need them, either through shortage of supply or development of resistance.

## WHEN CAN INFECTED PATIENTS RETURN TO WORK OR SCHOOL?

**Patients with ILI** should not resume normal activities (eg, return to school or work) until they have been afebrile for 24 hours (without fever medication) and are feeling generally well.

**Healthcare providers with ILI** should remain off work until 24 hours after all symptoms other than a mild cough have resolved, typically for a period of 5 to 8 days.

**Those who have been treated with Tamiflu® for 72 hours** are believed to be less infectious and may return to normal activities once they are feeling generally well other than a mild cough.

## HOW DO I PROTECT THE STAFF AND PATIENTS IN MY OFFICE?

### Prepare your office:

- Use the questions from the MOHTLC self-assessment tool ([www.ontario.ca/flu](http://www.ontario.ca/flu)) to:
  - Have patients screen themselves at home
  - Screen patients over the phone when making appointments
- Post signs at your office entrance reminding patients to self-screen for cough and fever.
- Ask all patients with cough or fever to wear a surgical mask.
- Have alcohol-based hand rub available at the entrance and throughout the office.
- If possible, space waiting room chairs apart and have ILI patients sit at least 2m away from others.
- Remove toys, books, and magazines from waiting room.
- Schedule ILI appointments together at the end of the morning and/or afternoon.

- Defer non-essential visits during peak flu season to accommodate increased ILI volumes.
- Consider doing more clinical assessments over the phone.

**To accommodate increased telephone services in response to pHINI, the MOHLTC has made the following fee-for-service telephone codes temporarily available to practitioners:**

- **K080** - \$11.00 (<10 minutes advice)
- **K081** - \$27.55 (>10 minutes advice or ½ unit of K082)
- **K082** - \$55.05 (psychotherapy, psychiatric or primary mental health care counselling, interviews, per unit)

### Billing for Vaccines

Use G590 and G591 to bill for vaccine administration. G590 can now be billed twice per patient to accommodate delivery of both seasonal and pHINI vaccines.

### Protect yourself:

- Perform hand hygiene before and after every patient.
- Wear personal protective equipment (PPE) when assessing ILI patients: eye protection, fit-tested N95 respirator, and gloves (wear gown only when there is a risk of clothing or skin contamination).
- If N95 respirators are not available, use a surgical mask.

Have a minimum of 4 weeks supply of personal protective equipment. If you run out of supplies and cannot purchase them from private suppliers, you can order a PPE kit from [www.health.gov.on.ca/poms](http://www.health.gov.on.ca/poms)

### SAMPLE OFFICE SIGNAGE

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## STOP

### Clean Your Hands

Respiratory illnesses like the flu spread easily. Read Carefully

1. Do you have a **NEW/ WORSE** cough or shortness of breath?

OR

2. Are you feeling **FEVERISH**, or have you had shakes or chills in the last 24 hours?

If the answer to **either** of these questions is **YES**, please put on a mask and see the receptionist or nurse right away.

For more information, visit [ontario.ca/flu](http://ontario.ca/flu)

## WHO SHOULD GET VACCINATED?

Effective November 19 2009, all Ontarians over the age of 6 months are eligible to be vaccinated.

### ADJUVANTED\* and NON-ADJUVANTED VACCINE

CATEGORY	DOSING RECOMMENDATION
Age 0 – 5 months	pH1N1 vaccine not authorized for use
Age 6 months to 35 months	2 half-doses of adjuvanted vaccine
<b>RU</b> Age 3 to 9 years (Children with chronic medical conditions)	<i>Interval between doses should be a minimum of 21 days</i>
<b>RU</b> 3 to 9 years (Healthy children)	1 half-dose of adjuvanted vaccine, for now**
<b>RU</b> Healthy people aged 10 to 64 years	1 dose either adjuvanted or non-adjuvanted vaccine
People aged 10 to 64 years with weakened immune systems	1 dose adjuvanted vaccine
People aged 65 years and over	1 dose adjuvanted vaccine
Pregnant women	1 dose non-adjuvanted vaccine
Pregnant women <i>more than 20 weeks pregnant</i>	If non-adjuvanted vaccine is not available and rates of H1N1 flu are high or increasing, women more than 20 weeks pregnant should be offered 1 dose of adjuvanted vaccine.
Pregnant women <i>with severe chronic disease</i>	If non-adjuvanted vaccine is not available and rates of H1N1 flu are high or increasing in the community, pregnant women with severe chronic disease should be offered 1 dose of adjuvanted* vaccine.

\*An adjuvant is a substance that is added to a vaccine to boost the individual's immune response. It includes naturally occurring oil (called squalene), water and vitamin E.

\*\*This recommendation may be updated as more information becomes available.

### Co-administration

- pH1N1 vaccine may be administered concurrently with seasonal flu vaccine and other vaccines. If co-administered, injections should be given in separate limbs.
- If not given concurrently, there is no minimum interval required between the pH1N1 vaccine and other vaccines.

**People who have not had laboratory confirmation of influenza A or pH1N1 should receive the vaccine even if they have had symptoms of influenza.**

The information contained in this brochure is subject to change as new information becomes available. If you have additional questions, consult your local Public Health Unit. If you require guidance and support, contact the Health Care Provider Hotline toll-free at 1-866-212-2272.

Responding to

**pH1N1**

in a Primary Care Setting:

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**At the Centre for Effective Practice, we strive to  
provide practical solutions for best practice in  
primary care. We welcome your comments at  
[feedback@effectivepractice.org](mailto:feedback@effectivepractice.org)**

# RESOURCES

## Ontario

Information related to pH1N1 is changing regularly. We recommend that you consult with your local Public Health Unit regularly for updated news on this issue.

Below are some links to helpful information related to the assessment, treatment and management of pH1N1. We will post new links and information here as things progress.

### 1 **Assessment**

MOHLTC Self-Assessment Tools (pages 11-13)

[www.health.gov.on.ca/en/ccom/flu/h1n1/pro/docs/ambulatory\\_guidance.pdf](http://www.health.gov.on.ca/en/ccom/flu/h1n1/pro/docs/ambulatory_guidance.pdf)

### 2 **Treatment**

MOHLTC Ambulatory Care Settings Clinical Management Algorithm (pages 14-15)

[www.health.gov.on.ca/en/ccom/flu/h1n1/pro/docs/ambulatory\\_guidance.pdf](http://www.health.gov.on.ca/en/ccom/flu/h1n1/pro/docs/ambulatory_guidance.pdf)

Antiviral dosing

[www.healthunit.com/h1n1info](http://www.healthunit.com/h1n1info) - go to **Treatment and Testing Guidelines**

### 3 **Office Management**

Checklist for physician offices

[www.bcmj.org/pandemic-influenza-and-physician-offices-figure?size=\\_original](http://www.bcmj.org/pandemic-influenza-and-physician-offices-figure?size=_original)

Signage in different languages

[www.toronto.ca/health/cdc/h1n1/multilingual\\_resources.htm](http://www.toronto.ca/health/cdc/h1n1/multilingual_resources.htm)

Office management and infection control (includes diagrams on waiting room configuration and proper use of PPE)

<http://www.health.gov.bc.ca/pandemic/response/clinical.html> - go to **Guidelines for Pandemic Influenza-related Office Management and Infection Control for Private Physicians**

# 4

## pH1N1 vaccine dosing

Printable chart of PHAC H1N1 vaccine dosing recommendations

[www.phac-aspc.gc.ca/alert-alerthe/h1n1/vacc/recommendation-recommandation-eng.php](http://www.phac-aspc.gc.ca/alert-alerthe/h1n1/vacc/recommendation-recommandation-eng.php)

# 5

## General information

Public Health Agency of Canada - Guidance H1N1 Flu Virus

[www.phac-aspc.gc.ca/alert-alerthe/h1n1/guidance\\_lignesdirectrices-eng.php#11](http://www.phac-aspc.gc.ca/alert-alerthe/h1n1/guidance_lignesdirectrices-eng.php#11)

pH1N1 Information for Primary Care Practitioners

Department of Family and Community Medicine, University of Toronto

<http://dfcm19.med.utoronto.ca/h1n1>

OHIP Bulletins – Physician Services (Bulletins 4051 and 4052) –  
temporary changes to billing schedules

[www.health.gov.on.ca/english/providers/program/ohip/bulletins/4000/bulletin\\_4000\\_mn.html](http://www.health.gov.on.ca/english/providers/program/ohip/bulletins/4000/bulletin_4000_mn.html)

Pandemic H1N1: Fast facts for front-line clinicians

College of Family Physicians of Canada

[www.cfpc.ca/local/files/Communications/flu/H1N1\\_FastFact\\_Engl.pdf](http://www.cfpc.ca/local/files/Communications/flu/H1N1_FastFact_Engl.pdf)

Middlesex-London Health Unit

[www.healthunit.com/h1n1info](http://www.healthunit.com/h1n1info)