

Current Recommendations for Treatment, Chemoprophylaxis, Testing and Personal Protection for Managing People with Influenza-Like Illness

Version 3, Revised October 21, 2009

This document summarizes the current treatment, chemoprophylaxis, testing and personal protection recommendations for managing people with influenza-like illness based on the Ministry of Health and Long-Term Care Guidance Document for Ambulatory Care Settings (Issue 6, Volume 18, October 14, 2009).

Additional details are available in that document: <http://www.health.gov.on.ca/en/ccom/flu/h1n1/pro/> ; see Ambulatory Care Settings, Guidance Document – October 14, 2009 . The document contains useful charts and flow diagrams.

TREATMENT:

The need for treatment of people with influenza-like illness is dependant on their risk conditions and/or clinical presentation, and the incidence of influenza in the community. Currently, influenza activity in Middlesex-London is increasing so treatment with oseltamivir is appropriate for people in the following groups:

- **People with influenza-like illness who are at risk for complications:**

- Pregnant women or women within the first month post-partum;
- People who are morbidly obese (BMI > 40);
- People from communities remote from hospital care;
- Less than 5 years of age;
- 65 years of age and over;
- Underlying medical conditions:
 - chronic respiratory disease, including asthma
 - cardiac disease
 - diabetes mellitus and other metabolic diseases
 - cancer
 - immunodeficiency or immunosuppression (due to underlying therapy and/or disease including HIV/AIDS)
 - renal disease
 - anemia or hemoglobinopathy
 - children less than 18 years of age on long term aspirin therapy
 - conditions that compromise the management of respiratory secretions and are associated with an increased risk of aspiration, such as neurologic conditions or cognitive disorders

- **People with influenza-like illness and severe or worsening disease as manifest by one or more of the following:**

- Hospitalization required;
- Pneumonia;
- Dyspnea;
- Prostration;
- Dehydration;
- Abnormal vitals signs for age (hypotension, tachycardia, tachypnea or low O₂ saturation)

Oseltamivir is the drug of choice for treatment. The Ministry's stockpile of oseltamivir, which will be available from local pharmacies in the week of October 19, 2009, can be used for treating people meeting the above criteria. The dosages of oseltamivir are listed below:

Patient Group	Oseltamivir Treatment	Oseltamivir Post-Exposure Prophylaxis
Adults	75 mg every 12 hours x 5 days	75 mg once daily for 10 days
Children ≥ 12 months	>40 kg	75 mg every 12 hours x 5 days
	24-40 kg	60 mg every 12 hours x 5 days
	16-23 kg	45 mg every 12 hours x 5 days
	15 kg or less	30 mg every 12 hours x 5 days
Children 6-11 months	25 mg every 12 hours x 5 days	25 mg once daily for 10 days
Children 3-5 months	20 mg every 12 hours x 5 days	20 mg once daily for 10 days
Children < 3 months	12 mg every 12 hours x 5 days	Not recommended

For children less than 1 year of age, particularly for very young or premature infants, weight-based dosing can be considered as follows:

- less than 9 months of age 3.0 mg/kg/dose;
- 9 months up to the first birthday - 3.5 mg/kg/dose.

For treatment this dose is given BID for 5 days; for chemoprophylaxis it is given daily for 10 days.

Source: D Kimberlin et al. Oseltamivir (OST) and OST Carboxylate (CBX) Pharmacokinetics (PK) in Infants: Interim Results from a Multicenter Trial.

Source: CDC, <http://www.cdc.gov/h1n1flu/recommendations.htm> Accessed: October 21, 2009

It is recommended that oseltamivir be started within 48 hours of symptom onset. In people with severe influenza-like illness requiring hospitalization, oseltamivir can be started even if more than 48 hours has elapsed from symptom onset, and for adults, a higher dose of 150 mg BID can be considered.

See the Ministry of Health and Long-Term Care Ambulatory Care Guidance document for the management of patients with renal failure.

Pregnancy and Breastfeeding:

Oseltamivir at the adult treatment dose listed above is the recommended drug for treating pregnant and breastfeeding women (if treatment is indicated for breastfeeding women based on the above criteria). The risk of complications in pregnancy increases in the second and third trimester and up to 4 weeks post-partum. The Public Health Agency of Canada (PHAC) recommendations focus on treatment in these time periods, while the Ontario Ministry of Health and Long-Term Care (MOHLTC), the US Centres for Disease Control and Prevention (CDC) and the Society of Obstetricians and Gynaecologists of Canada (SOGC) recommend treatment regardless of the stage of pregnancy. Data based on approximately 150 pregnant women (including 90 women in their first trimester) did not identify any safety concerns with the use of oseltamivir in pregnancy.

References:

- Canadian PHAC recommendations: <http://www.phac-aspc.gc.ca/alert-alerte/h1n1/guidance-orientation-07-09-eng.php>
- US CDC recommendations: http://www.cdc.gov/H1N1flu/pregnancy/antiviral_messages.htm
- Ontario MOHLTC recommendations: <http://www.health.gov.on.ca/en/ccom/flu/h1n1/pro/>
- SOGC recommendations: http://www.sogc.org/h1n1/infohealthprofessionals_e.asp
- CMAJ article on antivirals in pregnancy: Tanaka T et. Al 181 (1-2), July 7, 2009, pp. <http://www.cmaj.ca/cgi/content/full/181/1-2/55> .

CHEMOPROPHYLAXIS (PREVENTION):

Prophylaxis is generally not indicated and widespread use of oseltamivir for chemoprophylaxis may contribute to antiviral resistance and thereby decrease the usefulness of the drug for treatment. Prophylaxis before exposure is not recommended. The Ministry guidance document opens the door for limited post-exposure prophylaxis. Although not specified in the document, post-exposure prophylaxis should be used very judiciously, carefully considering the ill person's likelihood of having influenza, the extent of exposure and likelihood of transmission (household contacts or prolonged, intense contact - if last contact within the preceding 48 hours), and the risk factors of the exposed person (the exposed person is at very high risk for complications). Early treatment after symptom onset is a very reasonable alternative to post-exposure chemoprophylaxis.

Even if chemoprophylaxis is offered to an exposed person, they should be advised to notify their health care provider if symptoms develop, since antiviral dosages will need to be adjusted. See the above table for dosages of oseltamivir. Zanamivir can also be used for prophylaxis in older children and adults. The dose for zanamivir is 10 mg (2 inhalations, each inhalation is 5 mg) daily for 10 days. Zanamivir should not be used in people with COPD / asthma as bronchospasm has been reported.

NASOPHARYNGEAL SWABS:

Nasopharyngeal swabs should be taken on the following individuals:

- **People with influenza-like illness and severe or worsening disease as manifest by one or more of the following:**
 - Hospitalization required;
 - Pneumonia;
 - Dyspnea;
 - Prostration;
 - Dehydration;
 - Abnormal vitals signs for age (hypotension, tachycardia, tachypnea or low O2 saturation)

Swabs can also be taken in unusual situations such as swine workers with influenza-like illness or health care workers with influenza-like illness who have been providing direct patient care.

Note that it is currently taking a median of 2 days (range 1 - 6 days) for swabs to come back positive for influenza A. This time may increase as the laboratory becomes busier, so laboratory testing is generally not helpful for clinical management of the patient.

Please clearly indicate the patient's exposure history and clinical symptoms on the requisition form and label all specimens carefully.

PERSONAL PROTECTION:

When assessing a patient with influenza-like illness (who may or may not have influenza), wear an N95 mask, eye protection (prescription glasses are not enough) and gloves. Gowns or a lab coat can also be worn to avoid contamination of clothing. If the patient can tolerate it, they should also wear a surgical mask. If an N95 mask is not available, wear a surgical mask, however an N95 mask should always be worn when performing aerosol-generating procedures.

To remove your personal protective equipment:

- Remove your gloves and gown (if used)
- Wash your hands or use an alcohol-based hand rub
- Remove your eye protection
- Remove your mask
- Wash your hands or use an alcohol-based hand rub.

Throw out your mask every time you remove it; wash your eye protection after each time you remove it.

Please see the accompanying document entitled “Caring for People with Symptoms of Influenza” (October 16, 2009) that is intended for distribution to patients.

Please contact the Middlesex-London Health Unit at 519-663-5317 ext. 2330 if you have any questions, or visit our web site at www.healthunit.com and click on the yellow box to the right, or go to www.healthunit.com/h1n1info .