

Antiviral Prophylaxis and Treatment for Influenza in Congregate Residential Settings

Introduction

Respiratory infections result in a significant burden of illness among residents of long-term care facilities (LTCF), personal care homes (PCH), and community care homes (CCH) because of rapid viral transmission and frequent outbreaks in these settings. Influenza viruses are the greatest concern as residents are at high risk of influenza-related complications resulting in increased morbidity, mortality, and hospitalizations.

Annual influenza vaccine is the most effective way of preventing severe illness from influenza among residents and staff. In addition to encouraging seasonal influenza vaccination, traditional Infection Prevention and Control (IPAC) strategies and antivirals such as Tamiflu (Oseltamivir) should be used to protect residents of LTCF, PCHs, and CCH from influenza.

Purpose

This guidance is intended to complement the provincial outbreak management protocol and assist congregate residential facilities to plan for the influenza season and to streamline antiviral treatment or chemoprophylaxis for residents.

The following would be considered congregate residential facilities: LTCFs (including those located in acute health care facilities), PCHs, CCHs, correctional facilities, and some alternate care facilities.

Influenza Antiviral Prophylaxis and Treatment

Antiviral prophylaxis should not replace annual influenza vaccination. When indicated, antivirals should be given even if the individual was vaccinated. Unless there are contraindications, residents who have not been vaccinated should also be offered influenza vaccine.

Planning for Antiviral Use

Since antivirals against influenza need to be given **as soon as possible and ideally within 48 hours**, facilities should be prepared to prescribe antivirals quickly during influenza season.

To make best use of this plan, facility staff, NP or responsible physician should meet prior to influenza season to review and update the facility's plan.

Preapproved orders for the most responsible healthcare provider or other plans to obtain antiviral prescriptions on short notice can expediate antiviral administration.

The following should be obtained prior to influenza season:

- The resident's (or substitute decision maker's) consent for influenza vaccine and treatment
- **A recent creatinine clearance documented for all residents. ***
- A plan with the contracted pharmacy so antivirals can be given in a timely manner

*** Oseltamivir requires dose adjustment for people with renal impairment. "Recent" means within 12 months for residents who are medically stable or a more recent creatinine clearance if there is suspicion their renal function has changed.**

Antiviral Prophylaxis and Treatment for Influenza Outbreak Management

The use of antivirals during outbreaks is one of several interventions needed to control and end the outbreak. Please refer to the applicable sections of the Outbreak Management Protocol for complete information on outbreak management.

1. Antivirals as Post-Exposure Prophylaxis

During a lab-confirmed influenza outbreak, antiviral post-exposure prophylaxis should be offered to all residents in the outbreak affected area who are not already ill with influenza, whether previously vaccinated or not, until the outbreak is declared over.

The resident should be switched to a treatment regime if they develop ILI symptoms.

The advantages and disadvantages of providing antiviral prophylaxis to the outbreak unit(s) only or to the whole facility is evaluated based on the specific characteristics of the outbreak and the design of the facility.

Use of antivirals for post-exposure prophylaxis in an outbreak situation is determined by the Newfoundland and Labrador Health Services Medical Officer of Health (NLHS MOH) (on-call or designate). The ordering of the antiviral is the responsibility of the attending physician or nurse practitioner.

2. Antivirals as Early Empiric Therapy for Symptomatic Residents

Use of early empiric therapy for influenza may be recommended by the NLHS MOH or designate, but the final decision to treat a symptomatic resident will fall with the most responsible healthcare provider.

Adults and children with influenza-like illness (ILI) who meet the following criteria should be considered for early empiric therapy while awaiting lab-confirmation during influenza outbreaks or when influenza is circulating in the community:

- the resident has a severe, complicated, or progressive illness **OR**
- is hospitalized, **OR**
- is at higher risk of complications from influenza
 - Asthma and other chronic pulmonary disease, including bronchopulmonary dysplasia, cystic fibrosis, chronic bronchitis, and emphysema
 - Cardiovascular disease (excluding isolated hypertension; including congenital and acquired heart disease, such as congestive heart failure and symptomatic coronary artery disease)
 - Renal disease
 - Chronic liver disease
 - Diabetes mellitus and other metabolic diseases
 - Anemia and hemoglobinopathies, such as sickle cell disease
 - Cancer, immunosuppression, or immunodeficiency due to disease (e.g., HIV infection, especially if CD4 is $<200 \times 10^6/L$) or management of underlying condition (solid organ transplant or hematopoietic stem cell transplant recipients)
 - Neurological diseases and neurodevelopmental disorders that compromise the handling of respiratory secretions (cognitive dysfunction; spinal cord injury; neuromuscular, neurovascular, neurodegenerative, and seizure disorders; cerebral palsy; metabolic disorders)
 - Children younger than 5 years old, particularly those younger than 2 years old who have further increased risk of hospitalization due to influenza
 - Individuals aged 65 years or older
 - Individuals of any age who reside in nursing homes or other chronic care facilities
 - Pregnancy and up to 4 weeks postpartum regardless of how the pregnancy ended because the risk of influenza-related hospitalization increases with length of gestation
 - Obesity with a BMI ≥ 40 or a BMI >3 z-scores above the mean for age and gender
 - Individuals younger than 18 years undergoing long-term treatment with acetylsalicylic acid because of the potential increase in Reye's syndrome associated with influenza
 - Indigenous peoples

Quick Reference: Antiviral Medication for Prevention and Treatment of Influenza A & B during an influenza outbreak in congregate residential settings	
RESIDENT	
Criteria	Recommendation
Client is symptomatic for <48 hours and exposed to influenza outbreak or has lab-confirmed case of influenza A or B	Antiviral treatment dose for 5 days then switch to antiviral prophylaxis for duration of outbreak.
Symptomatic > 48 hours and exposed to influenza outbreak	Consult with most responsible healthcare provider to determine if antivirals are appropriate.
Asymptomatic and exposed to influenza outbreak regardless of their vaccination status	Antiviral prophylaxis for the duration of the outbreak at the discretion of NLHS MOH
Residents on antiviral prophylaxis who become symptomatic	Switch to antiviral treatment dose for 5 days
STAFF	
Criteria	Recommendation
Asymptomatic staff immunized > 2 weeks prior to the outbreak	May continue to work if asymptomatic, wearing of facemask is recommended.
Unimmunized staff or staff immunized < 2 weeks prior to the outbreak, who were not wearing appropriate personal protective equipment when exposed to an infectious patient with lab-confirmed influenza infection.	<p>The use of antiviral post-exposure prophylaxis should take into consideration the individual staff member's risk for severe influenza outcomes, adverse effects of antivirals, and the likelihood of infection based on the exposure.</p> <ul style="list-style-type: none"> For PCH or CCH staff, the use of antiviral post exposure-prophylaxis is at the clinical discretion of their healthcare provider or NLHS MOH. For LTCF staff, the use of antiviral post exposure-prophylaxis is at the clinical discretion of their healthcare provider or occupational health recommendations.
Staff with ILI symptoms whether vaccinated against influenza or not	<p>Stay at home and do not go to work until symptoms improve and there is no fever for at least 24 hours.</p> <p>Consider antiviral for treatment for 5 days if laboratory-confirmed influenza infection or if meets criteria for early empiric antiviral treatment as per the clinical discretion of their healthcare provider. If the staff member was on prophylaxis before symptom onset, increase dose to treatment dose for 5 days.</p>

Note: Oseltamivir doses require adjustment for individuals with renal impairment.

Resources for Healthcare Professionals: [2021–2022 AMMI Canada guidance on the use of antiviral drugs for influenza in the COVID-19 pandemic setting in Canada](#)