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## **MEDICAL ADVISORY: Prescribing antivirals at the retirement home, and long term care home settings**

TO: Family Physicians  
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Long Term Care and Retirement Homes  
Infectious Disease Physicians  
Infection Control Professionals

### FOR YOUR INFORMATION:

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FROM: Dr. Bart Harvey, Associate Medical Officer of Health

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### **Purpose**

This document outlines local guidance in terms of use of antiviral medications for influenza treatment in individuals at retirement homes, nursing homes, long term care home or other chronic care facilities.

### **Key messages**

- Treatment of antiviral medications can decrease the duration of influenza symptoms and may reduce risk of influenza-related complications, including hospitalization and death.<sup>1</sup>
- Early empiric antiviral therapy is recommended in adults belonging to priority groups, including (see [Box 2](#) for complete list, also attached as appendix):<sup>1</sup>
  - **Age 65 years or older**
  - **Residents of nursing home or other chronic care facilities**
  - Chronic conditions (e.g., COPD, congestive heart failure, chronic renal insufficiency, diabetes mellitus, chronic liver disease)
- Having antiviral prescriptions in advance help prevent delays in starting therapy during potential influenza outbreaks for both staff and residents.<sup>2</sup>
- Antiviral medications are recommended for both suspected and confirmed mild or uncomplicated influenza and severe, complicated influenza.<sup>1</sup>
  - Antivirals work best if administered early (within 48h of symptom onset) but should be used beyond this time period in severely ill individuals (i.e., hospitalized patients, those at risk of severe, complicated illness).
- When influenza is circulating in community, antiviral treatment should be started ASAP; initiation of therapy should not wait for laboratory confirmation of influenza.<sup>1</sup>
  - Antiviral treatment can be discontinued if laboratory testing for influenza is negative.

## Recommendations for residents

As per guidance from [AMMI](#) (2021-2022), recommendations remain focused on the use of oseltamivir, zanamivir, and amantadine.<sup>1</sup>

- **Oseltamivir** (oral): **drug of choice** for treatment and prophylaxis of influenza (for residents in long-term care homes).
- Zanamivir (inhaled): use in those not responding to oseltamivir, or if suspected/confirmed influenza B infection.
  - Not preferred in elderly individuals due to difficulty administering inhaled zanamivir.
  - Not recommended in COPD or asthma due to risk of bronchospasms.
  - Cannot be administered to intubated patients
- Amantadine: not recommended due to concerns of widespread resistance to influenza A.

In advance to start of influenza season, consider:<sup>2</sup>

- Prescriptions (with refill orders) for influenza antivirals to have on file for pharmacy/residents, as a standing order in preparation of use during outbreak at facility.

### Prophylaxis<sup>2,3</sup>

- During a laboratory-confirmed influenza outbreak, antiviral prophylaxis should be provided to residents as per **Table 1**.
- If respiratory symptoms develop in a resident while on prophylaxis, dose should be changed to treatment dose as per **Table 1**.

### Treatment<sup>2,3</sup>

- Once outbreak has been declared, additional laboratory confirmation of new cases is not required to begin treatment (see **Table 1**) of residents who meet case definition.
- Ill residents should remain in their rooms for the duration of the antiviral treatment (i.e., total 5 days).

**Table 1** (based on recommendations from Association of Medical Microbiology and Infectious Diseases Canada ([AMMI](#))<sup>3</sup> and treatment guidance from [Public Health Ontario](#)<sup>4</sup>)

	Antiviral treatment (for lab-confirmed or symptomatic cases)	Prophylaxis (given for 14 days or until end of outbreak)
Tamiflu™ (drug of choice) <ul style="list-style-type: none"><li>• Oseltamivir</li></ul>	75 mg PO BID for 5 days	75 mg PO OD
Relenza™ (alternative if Tamiflu resistance suspected) <ul style="list-style-type: none"><li>• Zanamivir</li></ul>	10 mg (2 puffs) INH BID for 5 days (Avoid use in persons with chronic pulmonary diseases)	10 mg (2 puffs) INH OD  (Avoid use in persons with chronic pulmonary diseases)

Dose adjustment for renal impairment can be found in [Table 3](#) of AMMI guidelines

## Recommendations for staff

Further details on guidance can be found on [Ministry of Health and Long-Term Care](#) and [CDC](#) interim guidance on outbreak management. In brief, if outbreak has been declared:

*Note: Refer to **Table 1** re: prophylaxis and treatment doses for influenza*

### Immunized staff<sup>2,5</sup>

- Staff immunized ≥2 weeks (inactivated or live attenuated influenza vaccine) prior to outbreak declaration are considered immune, and therefore, have no work restrictions, provided they are feeling well.

- Staff immunized <2 weeks with inactivated influenza vaccine, should take antiviral prophylaxis until immunity is reached (2 weeks from vaccination) or until outbreak is declared over, whichever is shorter.
- Staff immunized <2 weeks with live attenuated influenza vaccine, should not receive antiviral treatment or prophylaxis for at least 2 weeks after vaccination, unless medically indicated.
  - Antiviral agents may kill the replicating virus from the administered live vaccine. If antivirals are given during the 2 week timeframe after vaccination, revaccination should be done with an inactivated influenza vaccine.

#### *Unimmunized staff<sup>2,5</sup>*

- Unimmunized staff should be offered vaccine and antiviral prophylaxis until immunity is reached (2 weeks from vaccination) or until outbreak is declared over, whichever is shorter.
- If unimmunized staff refuse to be immunized, then antiviral prophylaxis should be taken until outbreak is declared over, while working at outbreak-affected area
  - Staff may commence work with residents as soon as they start antiviral prophylaxis
- Staff who choose to be immunized, but refuse antiviral medications, should NOT be permitted to work in outbreak-affected area until 2 weeks has lapsed since vaccination
- Staff who choose not to be immunized and refuse antiviral medications, may be excluded from working in the outbreak-affected area depending on policies from the facility (refer to [MOHLTC](#) for details)

#### *Nirmatrelvir/ritonavir (Paxlovid):*

- Patients with both influenza virus and SARS-CoV-2 co-infection receiving SARS-CoV-2 antivirals should also receive oseltamivir per the oseltamivir treatment regimen, based on a medical assessment. Drug-drug interactions with co-administration remain uncertain<sup>1</sup>
- In the setting of a mixed influenza, SARS-CoV-2 outbreak, symptomatic residents should be started on an antiviral treatment regimen as outline above. Should the causative organism be determined to not be influenza, this treatment course should be stopped.<sup>1</sup>
- If SARS-COV-2 infection is determined to be the causative organism by diagnostic testing, medical assessment and consideration should be given for [appropriate antiviral treatment for COVID-19 such as nirmatrelvir/ritonavir](#) (Paxlovid)

#### **References**

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4. Public Health Ontario. At a glance: Influenza antiviral treatment [Internet]. Toronto, ON: Queen's Printer for Ontario; 2021 [updated 2021 Sep 9; cited 2022 Nov 17]. Available from: <https://www.publichealthontario.ca/-/media/documents/f/2020/fact-sheet--antiviral-medications-influenza.pdf?la=en>
5. Centers for Disease Control and Prevention. Influenza (flu) – Guidance: outbreak

management in long-term care facilities [Internet]. USA: U.S. Department of Health & Human Services; 2017 [updated 2020 Nov 17; cited 2021 Oct 15]. Available from: <https://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>

Appendix 1: **Box 2:** Adults and children with influenza-like illness for whom early empiric antiviral therapy for influenza should be considered when influenza is circulating in the community<sup>1</sup>

**Box 2:** Adults and children with influenza-like illness for whom early empiric antiviral therapy for influenza should be considered when influenza is circulating in the community

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Early empiric antiviral therapy for influenza should be prescribed for adults and children who

1. have severe, complicated, or progressive illness,<sup>\*</sup>
2. are hospitalized,<sup>\*</sup> and
3. are at higher risk of complications of influenza, which include the following age groups, chronic medical conditions, and persons:
  - Asthma and other chronic pulmonary disease, including asthma, 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 (eg, 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 disease and neurodevelopmental disorders that compromise handling of respiratory secretions (cognitive dysfunction; spinal cord injury; neuromuscular, neurovascular, neurodegenerative, and seizure disorders; cerebral palsy; metabolic disorders)
  - Children aged younger than 5 years<sup>\*</sup>
  - Individuals aged 65 years or older
  - People of any age who are residents of nursing homes or other chronic care facilities
  - Pregnancy and up to 4 weeks postpartum regardless of how the pregnancy ended<sup>†</sup>
  - Obesity with a BMI  $\geq 40$  or a BMI  $>3$  z-scores above the mean for age and gender
  - Children and adolescents aged younger than 18 years undergoing treatment for long periods with acetylsalicylic acid because of the potential increase in Reye's syndrome associated with influenza
  - Indigenous peoples

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<sup>\*</sup> Among healthy children aged younger than 5 years, the risk of hospitalization is further increased among those aged younger than 2 years<sup>15</sup>

<sup>†</sup> The risk of influenza-related hospitalization increases with length of gestation (ie, it is higher in the third trimester than in the second)