

Antiviral Medications for Treatment of Influenza

Background

- Oseltamivir, zanamivir and peramivir are neuraminidase inhibitors that decrease replication of influenza viruses. Oseltamivir is administered orally, while zanamivir is administered via inhalation. Peramivir is only available for treatment in adults and is administered intravenously.
- Randomized trials have shown that treatment with oseltamivir can decrease the duration of symptoms by approximately 17 to 25 hours. Some meta-analyses of randomized trials have shown that treatment with oseltamivir decreases complications, such as lower respiratory infections requiring antibiotics, hospital admissions and otitis media. Meta-analyses of observational studies, mainly from the 2009–2010 pandemic, have shown decreases in hospitalization and mortality from treatment with neuraminidase inhibitors.
- Neuraminidase inhibitors work best if administered within 48 hours of symptom onset, but should be used beyond that time period in severely ill individuals and can be considered for use beyond that time period in those at high risk for influenza complications. When influenza is circulating in your community, laboratory confirmation of influenza is not required to initiate antiviral treatment.

Antiviral medications are recommended if you answer “yes” to all of the following questions:

Questions	Additional information and/or sources of information
1. Is influenza circulating in your community?	Consult Public Health Ontario’s Ontario Respiratory Pathogen Bulletin or your local public health unit .
2. Does your patient have symptoms compatible with influenza?	Symptoms compatible with influenza include: fever, cough, headache, sore throat, muscle aches and/or fatigue. Note: Fever may be absent in the elderly.
3. Is your patient at high risk for the complications of influenza? OR Does your patient have moderate, progressive, severe or complicated influenza, such as individuals who are hospitalized with influenza-like illness?	Those at high risk for complications of influenza for whom treatment is recommended include adults 65 years of age and over, pregnant women and women up to four weeks post-partum, Indigenous people, and those with underlying medical conditions. See Appendix A of Antiviral medication for influenza, Information for health care providers for additional details on high risk individuals.

Note: If patients without risk factors for complications and without serious illness present within 48 hours of symptom onset, antiviral treatment can be used as follows: on a case-by-case basis for those less than 1 year of age; can be considered, but is not routinely recommended for those 1 to 5 years of age; and can be considered in those 18 to 64 years of age.

For additional information, please see [Antiviral medication for seasonal influenza, Information for health care providers, 2019](#).

Antiviral Medications for Prevention of Influenza

Background

- Antiviral medications are recommended for prevention in institutional influenza outbreaks, such as in long-term care facilities and hospitals and also in retirement homes.
- Oseltamivir is the preferred drug because it is administered orally. It should be initiated as soon as possible in an influenza outbreak to prevent further spread in the facility.
- Studies have shown that oseltamivir is 50% to 90% effective in preventing symptomatic influenza.

Oseltamivir is recommended for prevention in the following groups during an influenza outbreak in an institutional setting:

- Residents/patients who are not ill with influenza symptoms and are located within the outbreak area, regardless of immunization status
- Unvaccinated staff members
- Vaccinated staff members when there is a mismatch between the vaccine and circulating influenza strains, based on consultation with public health officials

Note: residents/patients who are ill with influenza-like symptoms should be treated with antiviral medications.

How to use oseltamivir for prevention in institutional outbreaks

- Oseltamivir should be started as soon as an influenza outbreak is declared and continued until the outbreak is declared over.
- The usual adult dosage of oseltamivir for prophylaxis is 75 mg once daily, as per the [AMMI Canada Guidelines: Use of Antiviral Drugs for Seasonal Influenza: Foundation Document for Practitioners – Update 2019](#). Dose adjustment is only required for those with *known* renal impairment. Alternative dosing based on creatinine clearance in those with known renal impairment is provided in Table 3 of the [AMMI Guidelines](#). Checking of creatinine clearance and dose adjustments are not required for those who are not known to have renal impairment.
- The [Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2018](#) provides guidance on the use of antiviral medications (see pages 47 to 58) including:
 - The use of prophylaxis following treatment (see page 55);
 - Use only for affected unit(s) or for the whole facility (see page 52).

For additional information, please see [Antiviral medication for seasonal influenza, Information for health care providers, 2019](#).