

AT A GLANCE

Influenza Antiviral Treatment

09/09/2021

Purpose

This document outlines the use of two antiviral medications, oseltamivir (Tamiflu®) and zanamivir (Relenza®), for influenza treatment.

Key Messages

- Treatment with antiviral medications decreases the duration of influenza symptoms and can help to prevent the complications of influenza, such as hospitalization and potentially deaths.¹
- When influenza is circulating in the community, antiviral medications are recommended to treat:
 - Patients with influenza-like-illness (ILI) who are at high risk for complications; OR
 - Patients with moderate to severe ILI (e.g., hospitalized patients).²
- Antiviral medications work best if administered within 48 hours of symptom onset, but should be used beyond that time period in severely ill individuals (such as hospitalized patients) and can also be considered for use beyond that time period in those at high risk for complications.²
- When influenza is circulating in your community, treatment should be started as soon as possible², therefore laboratory confirmation of influenza is not required before initiating antiviral treatment.
- See [Table 1](#) for information on when to use antiviral medication.
- See [Table 2](#) for a quick reference on how to use antiviral medications for treatment.

Table 1. When to use antiviral medications for treatment of influenza

Antiviral medications are recommended for treatment if you answer “Yes” to all three questions (1, 2, and either 3a or 3b).

Questions	Additional Information
1. Is influenza circulating in your community?	Consult Public Health Ontario’s Ontario Respiratory Pathogen Bulletin ³ or your local public health unit . ⁴
2. Does your patient have symptoms that are compatible with influenza?	Symptoms can include: fever*, cough, headache, sore throat, muscle aches, and fatigue. *Note: Fever may be absent in the elderly.

Questions	Additional Information
3a. Is your patient at high risk for complications of influenza? OR	Those at high risk for complications include adults 65 years of age and older, pregnant women and women up to four weeks post-partum, and those with underlying medical conditions.
3b. Does your patient have moderate, progressive, severe, or complicated influenza, such as individuals who are hospitalized with influenza-like illness?	See Appendix A of Antiviral Medication for Seasonal Influenza: Information for Health Care Providers, 2019 , for additional details on high risk individuals. ¹

Note: If patients without risk factors for complications and without serious illness present within 48 hours of symptom onset, antiviral treatment can be:

- used on a case-by-case basis for those less than 1 year of age;
- considered, but not routinely recommended, for those 1 to 5 years of age;
- considered in those 18 to 64 years of age.²

Table 2. How to use antiviral medications for treatment of influenza

Product specifics	Oseltamivir (Tamiflu®)	Zanamivir (Relenza®)
Route of administration	Oral	Oral inhalation
Dosage for treatment	75mg twice daily for 5 days for adults (or longer if clinically indicated) Dose adjustments may be needed if individual is known to have renal impairment. ^a See the Association of Medical Microbiology and Infectious Disease Canada (AMMI Canada) guidelines . ² For pediatric dosing, see Table 2 of the AMMI Canada guidelines. ²	10mg (2 inhalations; 5mg/inhalation) twice daily*, for 5 days (or longer if clinically indicated) for children 7 years of age and older and adults. *On first day of treatment, a second dose should be taken provided there is at least 2 hours between doses. On the remaining days, doses should be taken about 12 hours apart. ⁶
Side effects	Nausea, vomiting. Taking with food may increase tolerability. Post-marketing reports of serious skin reactions and sporadic, transient neuropsychiatric events, including self-injury or delirium, particularly among children. See product monograph for additional details. ⁵	Allergy-like reactions: oropharyngeal or facial edema, bronchospasm (especially in those with underlying airway disease), sinusitis, or dizziness. Post-marketing reports of serious skin reactions and sporadic, transient neuropsychiatric events, including self-injury or delirium, particularly in Japan. See product monograph for additional details. ⁶

Product specifics	Oseltamivir (Tamiflu®)	Zanamivir (Relenza®)
Contraindications	None. Preferred for use in pregnancy. ² See product monograph for additional details. ⁵	Severe underlying airway conditions (e.g., chronic obstructive pulmonary disease or asthma). Allergy to milk protein. See product monograph for additional details. ⁶

^a Checking creatinine clearance and dose adjustments are not required for those not known to have renal impairment.¹ For those with known renal impairment, alternative dosing based on creatinine clearance is provided in Table 3 of the AMMI Canada guidelines.²

References

1. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Antiviral medications for seasonal influenza: information for health care providers, 2019 [Internet]. Toronto, ON: Queen’s Printer for Ontario; 2019 [cited 2021 Aug 05]. Available from: <https://www.publichealthontario.ca/-/media/documents/q/2019/qa-antiviral-medication-influenza.pdf?la=en>
2. Aoki FY, Allen UD, Mubareka S, Papenburg J, Stiver HG, Evans GA. Use of antiviral drugs for seasonal influenza: foundation document for practitioners – update 2019. JAMMI. 2019;4(2):60-82. Available from: <https://jammi.utpjournals.press/doi/10.3138/jammi.2019.02.08>
3. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Ontario respiratory pathogen bulletin [Internet]. Toronto, ON: Queen’s Printer for Ontario; 2020 [updated 2021 Jun 30; cited 2021 Aug 05]. Available from: <https://www.publichealthontario.ca/en/data-and-analysis/infectious-disease/respiratory-pathogens-weekly>
4. Ontario. Ministry of Health, Ministry of Long-Term Care. Health services in your community: public health units [Internet]. Toronto, ON: Queen’s Printer for Ontario; 2019 [updated 2021 Apr 29; cited 2021 Aug 05]. Available from: <https://www.health.gov.on.ca/en/common/system/services/phu/locations.aspx>
5. Hoffman-La Roche Limited. Product monograph: Tamiflu® [Internet]. Mississauga, ON: Hoffman-La Roche Limited; 1999 [updated 2020 Feb 07; cited 2021 Aug 05]. Available from: https://www.rochecanada.com/PMs/Tamiflu/Tamiflu_PM_E.pdf
6. GlaxoSmithKline Inc. Product monograph: Relenza® [Internet]. Mississauga, ON: GlaxoSmithKline Inc.; 2018 [cited 2021 Aug 05]. Available from: <https://ca.gsk.com/media/535135/relenza.pdf>

Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Influenza antiviral treatment. Toronto, ON: Queen's Printer for Ontario; 2021

Disclaimer

This document was developed by Public Health Ontario (PHO). PHO provides scientific and technical advice to Ontario's government, public health organizations and health care providers. PHO's work is guided by the current best available evidence at the time of publication. The application and use of this document is the responsibility of the user. PHO assumes no liability resulting from any such application or use. This document may be reproduced without permission for non-commercial purposes only and provided that appropriate credit is given to PHO. No changes and/or modifications may be made to this document without express written permission from PHO.

Public Health Ontario

Public Health Ontario is an agency of the Government of Ontario dedicated to protecting and promoting the health of all Ontarians and reducing inequities in health. Public Health Ontario links public health practitioners, front-line health workers and researchers to the best scientific intelligence and knowledge from around the world.

For more information about PHO, visit publichealthontario.ca.

©Queen's Printer for Ontario, 2021

