Public Health Ontario | Santé publique Ontario

AT A GLANCE

Antiviral Medications for Seasonal Influenza in 2024-25: Public Health Considerations

Published: September 2024

Purpose

This document briefly describes key considerations for the use of antiviral medications as a public health measure for reducing the spread and severity of seasonal influenza, including outbreak prevention and control. It also provides additional resources for health care providers who may be prescribing influenza antivirals for their patient population(s).

Key Considerations

Overview

Antiviral medications may be used for both the prevention (i.e., chemoprophylaxis) and treatment of seasonal influenza.[1] In Canada, two neuraminidase inhibitors – oseltamivir (Tamiflu®) and zanamivir (Relenza®) – are licensed for the treatment and prevention of seasonal influenza.[1] Although still licensed in Canada, amantadine is no longer recommended due to high rates of resistance observed among circulating influenza A viruses.[1] Although a third antiviral – baloxavir marboxil (Xofluza®) - was approved by Health Canada in 2020 for the treatment of uncomplicated influenza in those 12 years of age and older, it has not yet been marketed in Canada.[2]

Antivirals for Prevention of Seasonal Influenza

Neuraminidase inhibitors are well-tolerated and effective when used for chemoprophylaxis of seasonal influenza in select circumstances.[1] The Association of Medical Microbiology and Infectious Disease Canada (AMMI) recommends the use of influenza antiviral chemoprophylaxis, combined with antiviral treatment of symptomatic individuals and concurrent administration of influenza vaccine, to reduce the spread of seasonal influenza during outbreaks in closed facilities, that have a fixed residential population with limited turnover or units that can be closed (such as retirement homes, long-term care homes and correctional facilities).[1]

Early empiric treatment (i.e., initiating treatment as early as possible after onset of symptoms and before test results are received) with influenza antiviral medications is preferred over other strategies such as continuous seasonal prophylaxis (i.e., pre-exposure) or post-exposure prophylaxis (PEP).[1]

Pre-exposure prophylaxis may be considered for use during community outbreaks of influenza for individuals at high-risk for complications in the following scenarios:

- During the 14-day period post-immunization (if vaccinated); OR

- When vaccination is contraindicated; OR
- When there is evidence of poor seasonal influenza vaccine effectiveness.[1]

For persons at very high risk of complications, early presumptive treatment initiated as soon as possible after exposure to an infectious case (i.e., before symptoms begin), may be appropriate when influenza is prevalent; this strategy is preferred over PEP due to concerns regarding drug resistance arising during PEP.

Antivirals for Treatment of Seasonal Influenza

When used for treatment, antiviral medications have been shown to decrease the duration of influenza symptoms and may reduce the severity and possible complications of influenza, such as hospitalizations and potentially deaths.[1]

AMMI recommends early empiric antiviral treatment for seasonal influenza based on an individual's clinical presentation and their risk factors for developing complications.[1,3] Specifically, when influenza is circulating in the community, AMMI recommends influenza antivirals be used to treat adults and children with influenza-like illness (ILI) who:

- Are at higher risk of complications of influenza; OR
- Have severe, complicated, or progressive illness; OR
- Are hospitalized.[1,3]

Antiviral medications work best if administered within 48 hours of symptom onset. Therefore, when influenza is circulating in the community, antiviral treatment should be started as soon as possible without waiting for laboratory-confirmation of influenza.[1,3] However, antiviral treatment should still be initiated beyond the window of 48 hours in severely ill individuals (such as hospitalized patients), and for those with progressive, severe, or complicated illness or risk factors for complications of influenza.[1,3]

When to Consider Antiviral Medications for the Treatment of Seasonal Influenza

Antiviral medications are recommended for the treatment of seasonal influenza if the answer is 'Yes' to all three of the following questions:

1. Is influenza circulating in your community?
    a. Consult the Ontario Respiratory Virus Tool[4] or your local public health unit.[5]
2. Does your patient have symptoms of influenza-like illness (ILI)?
    a. Symptoms can include: sudden onset of fever (which may be absent in older adults), cough, headache, sore throat, muscle aches, and fatigue.
3. Is your patient at high risk for complications of influenza and/or does your patient have moderate, progressive, severe, or complicated influenza, such as individuals who are hospitalized with ILI?
    a. 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. For additional details on high risk individuals, see the AMMI Canada foundational document for antivirals.[1]

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

- Considered, but not routinely recommended, for those 1 to 5 years of age;
- Considered in those 18 to 64 years of age.[3]

Co-Administration of Influenza and SARS-CoV-2 Antivirals

Individuals co-infected with influenza and COVID-19 who are receiving remdesivir or other antivirals for their SARS-CoV-2 infection should also receive oseltamivir if they meet the above criteria for initiation of influenza antiviral treatment; however, it is presently uncertain whether there are significant drug-drug interactions.[3]

Additional Resources for Prescribers

AMMI Recommendations

Use of antiviral drugs for seasonal influenza: foundation document for practitioners – update 2019.[1]

AMMI Canada 2023 update on influenza: Management and emerging issues.[2]

2021–2022 AMMI Canada guidance on the use of antiviral drugs for influenza in the COVID-19 pandemic setting in Canada.[3]

Product Monographs

Product monograph: Tamiflu®.[6]

Product monograph: Relenza®.[7]

References

1. 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. J Assoc Med Microbiol Infect Dis Can. 2019;4(2):60-82. Available from: https://jammi.utpjournals.press/doi/10.3138/jammi.2019.02.08

2. Harrison R, Mubareka S, Papenburg J, Schober T, Allen UD, Hatchette TF, et al. AMMI Canada 2023 update on influenza: management and emerging issues. J Assoc Med Microbiol Infect Dis Canada. 2023;8(3):176-85. Available from: https://jammi.utpjournals.press/doi/full/10.3138/jammi-2023-07-12

3. Aoki FY, Papenburg J, Mubareka S, Allen UD, Hatchette TF, Evans GA. 2021–2022 AMMI Canada guidance on the use of antiviral drugs for influenza in the COVID-19 pandemic setting in Canada. J Assoc Med Microbiol Infect Dis Can. 2022;7(1):1-7. Available from: https://jammi.utpjournals.press/doi/10.3138/jammi-2022-01-31

4. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Ontario respiratory virus tool [Internet]. Toronto, ON: King's Printer for Ontario; 2023 [cited 2024 Aug 12]. Available from: https://www.publichealthontario.ca/en/Data-and-Analysis/Infectious-Disease/Respiratory-Virus-Tool

5. Ontario. Ministry of Health; Ministry of Long-Term Care. Public health unit locator. [Internet]. Toronto, ON: King's Printer for Ontario; 2023 [cited 2024 Aug 12]. Available from: https://www.phdapps.health.gov.on.ca/phulocator/

6. Hoffman-La Roche Limited. Product monograph: Tamiflu® [Internet]. Mississauga, ON: Hoffman-La Roche Limited; 1999 [updated 2022 Sep 9; cited 2024 Aug 12]. Available from: https://www.rochecanada.com/PMs/Tamiflu/Tamiflu_PM_E.pdf

7. GlaxoSmithKline Inc. Product monograph: Relenza® [Internet]. Mississauga, ON: GlaxoSmithKline Inc.; 2018 [updated 2023 Nov 28; cited 2024 Aug 12]. Available from: https://ca.gsk.com/media/6209/relenza.pdf

Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). At a glance: antiviral medications for the 2024-25 seasonal influenza: public health considerations. Toronto, ON: King's Printer for Ontario; 2024.

ISBN : 978-1-4868-8440-7

Disclaimer

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.

Ontario