Health PEI

ANTIMICROBIAL STEWARDSHIP SUBCOMMITTEE

Seasonal Influenza in Adults

Definitions

Influenza severity definitions:

- **Severe or complicated:** characterized by signs of lower respiratory tract disease, CNS abnormalities, complications of low blood pressure, myocarditis or rhabdomyolysis, or invasive secondary bacterial infection
- **Progressive:** characterized by signs or symptoms suggesting more than mild illness, including chest pain, poor oxygenation (e.g., tachypnea, hypoxia, laboured breathing), cardiopulmonary insufficiency (e.g., low blood pressure), CNS impairment (e.g., confusion, altered mental status), severe dehydration, or exacerbations of chronic conditions (e.g., asthma, COPD)

Most Common Organisms

- Influenza A and B cause seasonal outbreaks
- Co-infection with bacterial microorganisms (e.g. *Streptococcus pneumoniae*, *Staphylococcus aureus*) may be present

Initial Laboratory and Diagnostic Considerations

- Consider influenza when circulating in the community
- Weekly PEI respiratory illness summary reports are available
- Influenza is characterized by acute respiratory illness symptoms which vary and may include:
  - Systemic symptoms: fever, myalgia, arthralgia, headache, nausea, vomiting, diarrhea
  - Upper respiratory tract symptoms: sore throat, rhinorrhea
  - Lower respiratory tract symptoms: cough, shortness of breath
- Nasopharyngeal (NP) swab detects presence of influenza A and B. Testing detects live and dead virus, so test of cure is unnecessary in most patients

Management Considerations

- Initiate droplet/contact precautions
- For suspected influenza cases awaiting influenza PCR result, discontinue oseltamivir if the lab test returns as negative
- Consider treatment of bacterial co-infection (see Community acquired pneumonia guideline) if severe illness at onset or if deterioration after initial improvement.
- Antiviral therapy generally works best when initiated within 48 hours of symptom onset. For the three patient populations described below, oseltamivir therapy may still have a role in improving outcomes like duration of hospitalization when initiated beyond 48 hours of symptoms.

When to Consider Antiviral Treatment

Prescribe oseltamivir as early as possible for patients who:

1. have suspected or test-confirmed severe, complicated, or progressive influenza **OR**
2. are hospitalized with suspected or test-confirmed influenza **OR**
3. have suspected or test-confirmed influenza and are at higher risk of complications, including the age groups, chronic medical conditions, and persons outlined in Table A

Table A. Risk factors for complications of influenza illness in adults[3]

- 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 less than 200) 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)
- 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. The risk of influenza-related hospitalization increases with length of gestation (i.e., it is higher in the third trimester than in the second)
- Obesity with a BMI greater than or equal to 40 or a BMI greater than 3 z-scores above the mean for age and gender
- Indigenous peoples

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Oseltamivir (Tamiflu®) Dosing for Treatment of Influenza

Creatinine Clearance	Oseltamivir Dose (PO/NG/OG)	Notes
Greater than 60 mL/min	75 mg BID	• Recommended to dose based on recent serum creatinine (SCr), i.e., within past 12 months. If recent SCr unavailable, begin therapy without delay and adjust as necessary when bloodwork returns. • For administration via NG or OG: capsules may be opened and contents administered, or if available, suspension may be used • High-dose oseltamivir (150 mg BID) is not recommended
31 – 60 mL/min	30 mg BID	
10 – 30 mL/min	30 mg daily	
Less than 10 mL/min	75 mg x 1 dose	
Peritoneal Dialysis (PD)	30 mg x 1 dose	
Hemodialysis (HD)	75 mg x 1 and after each hemodialysis	

Duration

- Usual duration of therapy: **5 days**
- **Exceptions**
  - Creatinine clearance less than 10 mL/min and PD as above
  - In critically ill and immunocompromised patients, longer courses of up to 10 days may be appropriate.

Prevention

- Review patient vaccine record in provincial all immunizations registry (AIR) to ensure they are up to date with all eligible vaccinations

Additional Information

- Refer to guidance in IWK Firstline for influenza management in pregnancy and pediatrics.
- Prophylaxis in the setting of an outbreak in LTC should be prescribed in consultation with the Chief Public Health Office, Infection Prevention and Control within HPEI or DHW/CPHO. See PEI Guidelines for Viral Respiratory Infections and Outbreak Management in Long-term care and community care facilities
- Prophylaxis in the setting of an outbreak in hospital may be prescribed in consultation with Infection Prevention and Control.
- Zanamavir is available (non-formulary) but not recommended as first-line treatment. Peramavir and baloxavir marboxil are approved in Canada, but no formal recommendation for use has been made and they are non-formulary within Health PEI

These guidelines are an adaptation of Nova Scotia Health Authority's "Seasonal Influenza in Adults" 2023 guideline.

References

1. Nova Scotia Health Authority. "Seasonal Influenza in Adults." *NS Health Library*. 2025. Available at: https://library.nshealth.ca/c.php?g=709478&p=5250029
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4. Aoki FY, et al. 2021–2022 AMMI Canada guidance on the use of antiviral drugs for influenza in the COVID-19 pandemic setting in Canada. Official Journal of the Association of Medical Microbiology and Infectious Disease Canada. 2022;7(1):1-7.
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6. Harrison R, et al. AMMI Canada 2023 update on influenza: Management and emerging issues. Journal of the Association of Medical Microbiology and Infectious Disease Canada. 2023;8(3):176-86.
7. PEI Guidelines for Viral Respiratory Infections and Outbreak Management in Long-term care and community care facilities. Available at: https://www.princeedwardisland.ca/sites/default/files/publications/viral_respiratory_guidelines_and_outbreak_management_for_ltc_and_ccfs_dec2024_0.pdf