Yukon

PEDIATRIC (Infant, child or youth < 18yrs old)
YUKON RAPID GUIDE TO ASSESSMENT AND MANAGEMENT OF SEASONAL INFLUENZA or INFLUENZA LIKE ILLNESS (ILI)

Clinical evidence of seasonal ILI: Does the patient have signs and symptoms consistent with ILI?

ILI is characterized by: acute onset of respiratory illness with fever and cough and with one or more of the following: sore throat, arthralgia, myalgia or prostration that could be due to influenza virus. ***In older children may be characterized by typical signs and symptoms. In children ≤ 10 years of age clinical features may be atypical. In children < 5 years of age gastrointestinal symptoms may also be present and fever may not be prominent[1].***

Illness associated with novel influenza viruses may present with other symptoms. ***Always*** *ask a travel history in patients presenting with a febrile illness*

Considerations in selecting treatment include: severity of illness, the presence of risk factors or co-morbidities, the interval between onset of illness and diagnosis, and local influenza epidemiology

Mild or uncomplicated illness

No risk factors other than age

Initiate lab testing

< 1 year of age: Antivirals not approved: use on case-by-case basis[3]

1 to < 5 years of age: If within 48 hours of symptom onset, antiviral therapy may be considered but is not routinely required

≥ 5 years of age: No routine antiviral therapy

With risk factors for severe influenza

(see Table 2)

Initiate lab testing

< 1 year of age: Antivirals not approved: use on case-by-case basis[3]

Age 1 year or older if within 48 hours: Treat with oseltamivir or, when age appropriate (≥7), inhaled zanamivir.

Age 1 year or older beyond 48 hours: Treatment considered on a case by case basis. When age appropriate,(≥7), inhaled zanamivir may be used instead of oseltamivir.

Moderate or progressive, severe or complicated illness

May include ILI signs and symptoms **AND/OR** those suggesting more than mild illness

Clinical signs indicating the need for urgent medical attention in pediatric patients with suspected or confirmed influenza are outlined in ***Table 1***

Provide instructions regarding indications for reassessment

Pediatric patients with moderate, progressive, severe or complicated illness

Initiate lab testing

Initiate antiviral therapy immediately even if the interval between symptom onset and initiation of therapy is longer than 48 hours

- Consider hospitalization
- Consider admission to intensive care unit
- Consider possibility of acute primary bacterial pneumonia
- Pediatric specialist consultation is advised for severe or complicated illness

Table 1

Clinical signs warranting medical attention

Infants and toddlers (< 1 yr and 1-3 yrs of age)
Rapid breathing and difficulty breathing, bluish skin color or change in skin color, not drinking enough, not waking up or interacting, so irritable does not want to be held, flu like symptoms improve but then return with fever and worse cough, fever with rash, seizures.

Children and youth (< 3yrs -12yrs & 12 -18yrs) Rapid breathing and difficulty breathing, bluish skin color bloody or colored sputum, flu like symptoms improve bit then return with fever and worse cough, confusion, listlessness, altered consciousness severe persistent vomiting, fever with rash, severe chest pain or abdominal pain, seizures.

PLEASE NOTE: THIS ALGORITHM DOES NOT REPLACE CLINICAL JUDGEMENT

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Table 2

Risk factors for severe influenza in children[2]

- 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 × 106/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*
- 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
- Obesity with a BMI 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

* Among healthy children aged younger than 5 years, the risk of hospitalization is further increased among those aged younger than 2 years

Health care providers may consider remote and isolated communities as an additional high risk group. Remote and isolated communities are those that:

- do not have scheduled flights; OR
- do not have year round access by land/water routes that are functional in all weather conditions; OR
- are over 350 km from a hospital

Pediatric Antiviral Treatment Dosing[3]

Children ≥ 12 months and < 7 years with mild or uncomplicated illness[4] OR with moderate, progressive, severe or complicated illness[4]					
Drug	Weight	Dosage	Frequency	Route	Duration of Therapy*
Oseltamivir (Tamiflu®)	>40 kg	75 mg	Twice Daily	Oral	5 days
Oseltamivir (Tamiflu®)	>23 - 40 kg	60 mg	Twice Daily	Oral	5 days
Oseltamivir (Tamiflu®)	>15 - 23 kg	45 mg	Twice Daily	Oral	5 days
Oseltamivir (Tamiflu®)	< 15 kg	30 mg	Twice Daily	Oral	5 days

Children ≥ 7 years or older with mild or uncomplicated illness OR with moderate, progressive severe or complicated illness					
	Weight	Dosage	Frequency	Route	Duration of Therapy*
Oseltamivir (Tamiflu®)	>40 kg	75 mg	Twice Daily	Oral	5 days
Oseltamivir (Tamiflu®)	>23 - 40 kg	60 mg	Twice Daily	Oral	5 days
Oseltamivir (Tamiflu®)	>15 - 23 kg	45 mg	Twice Daily	Oral	5 days
Oseltamivir (Tamiflu®)	≤ 15 kg	30 mg	Twice Daily	Oral	5 days
Zanamivir (Relenza®)	N/A	10mg (two 5 mg inhalations)	Twice daily	Inhalation	5 days

Note: Zanamivir *should be considered for those not responding to Oseltamivir or those with illness despite Oseltamivir prophylaxis or where influenza B is confirmed or strongly suspected.* It is not recommended for treatment or prophylaxis of influenza in individuals with underlying airway disease (such as asthma or chronic obstructive pulmonary disease).

1 Public Health Association of Canada, *Case definitions for Communicable Diseases under National Surveillance*-2009, Laboratory –Confirmed Influenza

2 Association of Medical Microbiology and Infectious Disease Canada, 2021-2022 AMMI Canada guidance on the use of antiviral drugs for influenza in the COVID19 pandemic setting in Canada, 7.1, 2022. doi: 10.3138/jammi-2022-01-31

3 Association of Medical Microbiology and Infectious Disease Canada, Use of antiviral drugs for seasonal influenza: Foundation document for practitioners - Update 2019, 4.2, 2019. doi: 10.3138/jammi.2019.02.08

4 In Canada, antivirals are not authorized for infants < 1 year of age but should be considered on a case by case basis. Pediatric consultation is recommended. See Use of antiviral drugs for seasonal influenza: Foundation document for practitioners - Update 2019 (doi: 10.3138/jammi.2019.02.08) for further discussion.

For more direction on treatment of influenza (including recommendation for those under 1), see: AMMI, Use of antiviral drugs for seasonal influenza: Foundation document for practitioners - Update 2019, available at: https://www.ammi.ca/guidelines/ *Duration of therapy may be continued longer than 5 days if clinically indicated, after review with pediatrics or infectious diseases.

Note: Oseltamivir and Zanamivir are schedule II drugs.

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