Chicago Department of Public Health



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Influenza Activity Increasing in Chicago; Provider Reminders November 10, 2021

KEY MESSAGES AND ACTION ITEMS:

- Though NOT yet above epidemic threshold or meeting the definition of a true influenza season, an increase in influenza activity has been noted over the last week in Chicago.
 - No influenza-associated ICU hospitalizations have been reported.
 - The proportion of emergency department and outpatient visits for influenza-like illness (ILI) are below local thresholds for influenza season.
 - The percent of medically-attended outpatient visits attributed to ILI as reported by ILINet facilities in Chicago is 1.7% (below threshold of 2%; but similar level to 2019-2020 season in the same week).
 - The overall current risk remains low but may suggest a change from the inter-seasonal flu activity level Chicago has experienced since April of 2020.
- Given the expected co-circulation of SARS-CoV-2, influenza, and other respiratory viruses such as RSV, clinicians should expand their differential diagnoses to include influenza.
- Clinicians should consider influenza testing in addition to SARS-CoV-2 testing and review guidelines for prescribing anti-viral medications as prophylaxis or empiric treatment as discussed below.

Background: Preliminary data shows current citywide influenza specimen positivity of 1.9%. Though this is far below epidemic thresholds of typical influenza seasons (e.g., the 2019-2020 flu season had a peak of 36% positivity) it is definitely an increase from the same time period last year (0%). Data are updated each Friday during flu season at https://www.chicago.gov/city/en/sites/flu/home/chicago-flu-update.html.

<u>Vaccination</u>: Flu vaccination is the best protection against influenza for everyone 6 months and older. Though we cannot predict the severity of the 2021-2022 flu season, any increase in flu activity is a good reminder to continue recommending flu vaccination. Flu clinics and pharmacy providers can be found at chi.gov/flu: <u>CDPH's Flu website</u>. Following is a list of all the health and age factors that are known to increase a person's risk of getting <u>serious</u> complications from flu (many are similar to groups at high-risk of severe COVID illness):

- Adults 65 years and older
- Children younger than 5 years old (particularly children younger than 2 years old)
- Pregnancy until 2 weeks after delivery
- Asthma
- Neurologic and neurodevelopment conditions
- Residence in a nursing home or other long-term care facilities
- Chronic lung and heart disease including people who have had a stroke
- People who are obese with a body mass index [BMI] of 40 or higher
- People with a weakened immune system

Testing: Influenza and COVID-19 have <u>overlapping signs and symptoms</u>. Testing can help distinguish between influenza virus infection and SARS-CoV-2 infection. However, co-infection with influenza A or B viruses and SARS-CoV-2 can occur and should be considered, particularly in hospitalized patients with severe respiratory disease. Clinicians should be aware that a positive SARS-CoV-2 viral test result does not preclude influenza virus infection.

Clinicians should not wait for the results of influenza testing, SARS-CoV-2 testing, or multiplex molecular assays to initiate empiric antiviral treatment for influenza in the above priority groups.

Clinicians should use clinical judgement given management of SARS-CoV-2 co-infection in the setting of local data on respiratory virus circulation. **Please note** that during periods of community co-circulation of influenza viruses and SARS-CoV-2, testing for both viruses and empiric antiviral treatment of influenza is recommended as soon as possible for the following priority groups:

- Hospitalized patients with respiratory illness;
- Outpatients with severe, complicated, or progressive respiratory illness; and
- Outpatients at higher risk for influenza complications who present with any acute respiratory illness symptoms (with or without fever).

Antiviral Chemoprophylaxis and Treatment Recommendations: Antiviral medications with activity against influenza viruses are an important adjunct to influenza vaccine in the control of influenza. Influenza antiviral prescription drugs can be used to treat influenza, and some can be used to prevent influenza (chemoprophylaxis). Six licensed prescription influenza antiviral drugs are approved in the United States. Four influenza antiviral medications approved by the U.S. Food and Drug Administration (FDA) are recommended for use in the United States during the 2021-2022 influenza season. See page 3 for Table 1. Antiviral Medications Recommended for Treatment and Chemoprophylaxis of Influenza and Table 2. Recommended Dosage and Duration of Influenza Antiviral Medications for Treatment or Chemoprophylaxis.

Antiviral treatment is recommended as early as possible for any patient with confirmed or suspected influenza who:

- is hospitalized;*
- has severe, complicated, or progressive illness;* or
- is at higher risk for influenza complications.
- Antiviral treatment also can be considered for any previously healthy, symptomatic outpatient not at high risk for influenza complications, who is diagnosed with confirmed or suspected influenza, on the basis of clinical judgment, if treatment can be initiated within 48 hours of illness onset.

*Note: Oral oseltamivir is the recommended antiviral for hospitalized patients and patients with severe, complicated, or progressive illness who are not hospitalized.

References:

- 1. CDC Influenza Antiviral Medications: Summary for Clinicians https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm#Table1
- Grohskopf LA, Alyanak E, Ferdinands JM, et al. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices, United States, 2021–22 Influenza Season. MMWR Recomm Rep 2021;70(No. RR-5):1–28. <u>https://www.cdc.gov/mmwr/volumes/70/rr/rr7005a1.htm</u> Summary: <u>https://www.cdc.gov/flu/pdf/professionals/acip/acip-2020-21-summary-of-recommendations.pdf</u>
- Uyeki et al. Clinical Practice Guidelines by the Infectious Diseases Society of America: 2018 Update on Diagnosis, Treatment, Chemoprophylaxis, and Institutional Outbreak Management of Seasonal Influenza. Clin Infect Dis. 2019 Mar 5;68(6):895-902. doi: 10.1093/cid/ciy874. PMID: 30834445; PMCID: PMC6769232. https://pubmed.ncbi.nlm.nih.gov/30834445/

Table 1. Antiviral Medications Recommended for Treatment and Chemoprophylaxis of Influenza

Adapted from CDC Influenza Antiviral Medications: Summary for Clinicians

Antiviral Agent	Activity Against	Use	Recommended For	Not Recommended for Use in	Adverse Events	
Oral Oseltamivir	Influenza A and B	Treatment	Any age ¹	N/A	Adverse events: nausea, vomiting, headache. Post marketing reports of serious skin reactions and sporadic, transient neuropsychiatric events ²	
		Chemo- prophylaxis	3 months and older ¹	N/A		
Inhaled Zanamivir	Influenza A and B	Treatment	7 yrs and older ³	people with underlying respiratory disease (e.g., asthma, COPD) ³	Adverse events: risk of bronchospasm, especially in the setting of underlying airways disease; sinusitis, and dizziness. Post marketing reports of serious skin reactions and sporadic, transient neuropsychiatric events ²	
		Chemo- prophylaxis	5 yrs and older ³	people with underlying respiratory disease (e.g., asthma, COPD) ³		
Intravenous Peramivir	Influenza A and B ⁴	Treatment	2 yrs and older ⁴	N/A	Adverse events: diarrhea. Post marketing reports of serious skin reactions and sporadic, transient neuropsychiatric events ²	
		Chemo- prophylaxis⁵	Not recommended	N/A		
Oral Baloxavir	Influenza A and B ⁶	Treatment	12 yrs and older ⁶	N/A	Adverse events: none more common than placebo in clinical trials	
		Chemo- prophylaxis⁵	Approved for post- exposure prophylaxis in persons 12 yrs and older ⁵			

1 Oral oseltamivir phosphate is approved by the FDA for treatment of acute uncomplicated influenza within 2 days of illness onset in people 14 days and older, and for chemoprophylaxis in people 1 year and older. Although not part of the FDA-approved indications, use of oral oseltamivir for treatment of influenza in infants less than 14 days old, and for chemoprophylaxis in infants 3 months to 1 year, is recommended by the CDC and the American Academy of Pediatrics. If a child is younger than 3 months old, use of oseltamivir for chemoprophylaxis is not recommended unless the situation is judged critical due to limited data in this age group. 2 For additional footnotes, see https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm#Table1

Table 2. Recommended Dosage and Duration of Influenza Antiviral Medications for Treatment or Chemoprophylaxis

Antiviral Agent	Use	Children	Adults
Oral Oseltamivir	Treatment (5 days) ¹	If younger than 1 yr old ² : 3 mg/kg/dose twice daily ^{3,4} If 1 yr or older, dose varies by child's weight: 15 kg or less, the dose is 30 mg twice a day >15 to 23 kg, the dose is 45 mg twice a day >23 to 40 kg, the dose is 60 mg twice a day >40 kg, the dose is 75 mg twice a day	75 mg twice daily
	Chemo- prophylaxis (7 days) ⁵	If child is younger than 3 months old, use of oseltamivir for chemoprophylaxis is not recommended unless situation is judged critical due to limited data in this age group. If child is 3 months or older and younger than 1 yr old ² 3 mg/kg/dose once daily ³ If 1 yr or older, dose varies by child's weight: 15 kg or less, the dose is 30 mg once a day >15 to 23 kg, the dose is 45 mg once a day >23 to 40 kg, the dose is 60 mg once a day >40 kg, the dose is 75 mg once a day	75 mg once daily
Inhaled Zanamivir ⁶	Treatment (5 days)	10 mg (two 5-mg inhalations) twice daily (FDA approved and recommended for use in children 7 yrs or older)	10 mg (two 5-mg inhalations) twice daily
	Chemo- prophylaxis (7 days)⁵	10 mg (two 5-mg inhalations) once daily (FDA approved for and recommended for use in children 5 yrs or older)	10 mg (two 5-mg inhalations) once daily
Intravenous Peramivir ⁷	Treatment (1 day) ¹	(2 to 12 yrs of age) One 12 mg/kg dose, up to 600 mg maximum, via intravenous infusion for a minimum of 15 minutes (FDA approved and recommended for use in children 2 yrs or older)	(13 yrs and older) One 600 mg dose, via intravenous infusion for a minimum of 15 minutes
	Chemo- prophylaxis ⁸	Not recommended	N/A
Oral Baloxavir⁰	Treatment (1 day) ¹	FDA approved and recommended for use in children 12 yrs or older. See adult dosage.	(12 yrs and older) weight <80 kg: One 40 mg dose; weight \geq 80 kg: One 80 mg dose ⁹
	Chemo- prophylaxis ⁸	FDA-approved for post-exposure prophylaxis for persons aged 12 years and older. See adult dosage."	(12 yrs and older) weight <80 kg: One 40 mg dose; weight ≥80 kg: One 80 mg dose ⁸

For footnotes, see https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm#Table1