



NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**

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Division of Public Health

To: All North Carolina Clinicians
From: Erica Wilson, MD, MPH, Medical Epidemiologist
Subject: 2021-2022 Influenza Season: **Update for NC Clinicians (5 pages)**
Date: October 14, 2021

This memo provides information and guidance to NC clinicians and information regarding updates for the 2021-22 influenza season. As guidance may change during the influenza season, up to date information will be available at flu.nc.gov.

Because of the COVID-19 pandemic, reducing the spread of respiratory illnesses, such as flu, is critical. Flu vaccination will play a key role in reducing the spread of respiratory illness.

CLINICAL MANAGEMENT

- **Decisions regarding treatment for influenza should be based on clinical and epidemiologic information, rather than on test results.** Rapid tests cannot rule out influenza infection, and more time may be required for other test types (e.g., PCR or viral culture). If clinically indicated, treatment should not be delayed while awaiting laboratory confirmation.
- 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. [Guidance for testing and treatment of influenza when a co-infection is suspected can be found here.](#)
- Certain patients are at increased risk for influenza-related complications. These include:
 - Children younger than 5 years of age, especially those under 2 years of age
 - Adults 65 years of age or older
 - Pregnant women and women up to 2 weeks after the end of pregnancy
 - Persons with certain medical conditions including: Asthma; neurological and neurodevelopmental conditions; chronic lung diseases (such as COPD and cystic fibrosis); heart diseases (such as congenital heart disease, congestive heart failure and coronary artery disease); blood disorders (such as sickle cell disease); endocrine disorders (such as diabetes); kidney disorders; liver disorders; metabolic disorders (such as inherited metabolic disorders and mitochondrial disorders); and weakened immune system due to disease or medication (such as people with HIV, cancer, or those on chronic steroids).
 - People younger than 19 years of age who are receiving long-term aspirin therapy
 - People who are morbidly obese (Body Mass Index (BMI) of 40 or greater).
 - People who live in nursing homes or other long-term care facilities
 - People from certain racial and ethnic minority groups are at increased risk for hospitalization with flu, including non-Hispanic Black persons, Hispanic or Latino persons, and American Indian or Alaska Native persons

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LOCATION: 225 North McDowell St., Raleigh, NC 27603
MAILING ADDRESS: 1902 Mail Service Center, Raleigh, NC 27699-1902
www.ncdhhs.gov • TEL: 919-733-7301 • FAX: 919-733-1020

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

- Influenza and COVID-19 have overlapping signs and symptoms. [Testing](#) can help distinguish between influenza virus infection and SARS-CoV-2 infection. However, clinicians should not wait for the results of influenza testing, SARS-CoV-2 testing, or multiplex molecular assays that detect influenza A and B viruses and SARS-CoV-2 to initiate empiric antiviral treatment for influenza in the following groups: a) hospitalized patients with respiratory illness; b) outpatients with severe, complicated, or progressive respiratory illness; and c) outpatients at higher risk for influenza complications who present with any acute respiratory illness symptoms (with or without fever).
- Patients should seek medical attention for any of the following:
 - Difficulty breathing or shortness of breath
 - Pain or pressure in the chest or abdomen
 - Sudden dizziness
 - Confusion
 - Severe or persistent vomiting
 - Flu symptoms that improve but then return with fever and worse cough
 - In babies, bluish gray skin color, lack of responsiveness, or extreme irritation
 - Any other symptom that is severe or concerning
- Clinical judgment is an important factor in treatment decisions. Treatment is recommended as early as possible, including prior to testing, for individuals with suspected or confirmed influenza who have any of the following:
 - Illness requiring hospitalization
 - Progressive, severe, or complicated illness, regardless of previous health status
 - Increased risk for severe disease (e.g., persons with certain chronic medical conditions, persons 65 or older, children younger than 2 years, and pregnant women).

Antiviral treatment can also be considered for any previously healthy, symptomatic outpatient not at high risk with confirmed or suspected influenza based on clinical judgment if treatment can be initiated within 48 hours of illness onset.

Treatment is most effective when started within 48 hours of illness onset. However, treatment of persons with prolonged or severe illness can reduce mortality and duration of hospitalization even when started more than 48 hours after onset of illness.

For outpatients with acute uncomplicated influenza, if antiviral treatment is prescribed, a neuraminidase inhibitor (oseltamivir, zanamivir, or peramivir) or baloxavir should be used. Information regarding currently circulating flu strains is available at flu.nc.gov. Detailed antiviral use- including testing and treatment for suspected oseltamivir-resistant influenza- is available at <http://www.cdc.gov/flu/professionals/antivirals/index.htm>.

None of these antiviral medicals are FDA approved for treatment of COVID-19. For treatment of confirmed or suspected COVID-19 please follow COVID-19 treatment guidelines which can be found here <https://www.covid19treatmentguidelines.nih.gov>.

TESTING

- 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. Information on SARS-CoV-2 testing can be found [here](#).

- Rapid influenza diagnostic test (RIDT) sensitivities are approximately 50–70% when compared with viral culture or reverse transcription polymerase chain reaction (RT-PCR). Therefore, a negative RIDT does NOT rule out infection and should not be used for treatment or infection control decisions during periods when influenza is known to be circulating. When available, rapid molecular assays are preferred over RIDTs because of increased sensitivity (90-95%) and specificity. Additional information is available at <http://www.cdc.gov/flu/professionals/diagnosis>.
- Testing to detect influenza and SARS-CoV-2 is available through a variety of commercial laboratories, health system laboratories, and the North Carolina State Laboratory of Public Health (NCSLPH). Testing through commercial and health system labs should be conducted according to their protocols. All specimens submitted to SLPH for influenza testing, and all specimens submitted for SARS-CoV-2 testing from symptomatic patients, will be tested for both influenza and SARS-CoV-2.
- Confirmatory influenza testing at the North Carolina State Laboratory of Public Health (SLPH) is primarily intended for virologic surveillance, rather than diagnostic purposes. This testing will focus on the following groups:
 1. A sample of patients with influenza-like illness seen at facilities participating in the Influenza-Like Illness Network (ILINet).
 2. Patients critically ill with influenza-like illness but have no laboratory evidence of influenza or SARS-CoV-2 infection.
 3. Patients who die with influenza-like illness but have no laboratory evidence of influenza or SARS-CoV-2 infection; however, specimens from living patients are preferred.

Testing at the SLPH should also be considered for other patients in the following circumstances: outbreaks in institutional settings, patients with recent swine or poultry exposure, and clusters of severe or unusual respiratory illness. Please consult the local health department or Communicable Disease Branch epidemiologist on call with questions about whether such testing is appropriate.

INFECTION CONTROL

- During periods of SARS-CoV-2 circulation, clinicians should follow [CDC infection prevention guidance for COVID-19](#) in all clinical settings.

PREVENTION AND CONTROL MEASURES

- Annual vaccination against influenza is the best way to prevent infection and is recommended for everyone ≥ 6 months of age who does not have a medical contraindication to vaccination. Flu vaccine can be co-administrated with COVID-19 vaccine. It's especially important for:
 - People who are at high risk of developing serious complications like pneumonia if they get sick with the flu, and
 - People who live with or care for others who are high risk of developing serious complications, including health care providers
- Flu vaccination should begin soon after vaccine becomes available. Vaccine should continue to be offered throughout the flu season, but ideally, everyone should be vaccinated by the end of October. Evidence from some clinical trials indicates that protection against viruses that are antigenically similar to those contained in the vaccine extends at least for 6–8 months, particularly in nonelderly populations.

- It is especially important for high-risk patients to get the flu vaccine this year. Many people who are at high risk from flu are also at an increased risk of COVID-19. Preventing the flu can help keep high risk patients out of physicians' offices, urgent care centers, and hospitals.
- Flu vaccination should be deferred for people with suspected or confirmed COVID-19, whether or not they have symptoms, until they have met the [criteria](#) to discontinue their isolation.
- Post-exposure chemoprophylaxis with either oseltamivir or zanamivir could also be considered for close contacts of cases (confirmed or suspected) who are at high risk for complications of influenza, including pregnant women if antivirals can be started within 48 hours of the most recent exposure. CDC does not recommend widespread or routine use of antiviral medications for chemoprophylaxis to limit the potential emergence of antiviral resistant viruses. An emphasis on close monitoring and early initiation of antiviral treatment if fever and/or respiratory symptoms develop is an alternative to chemoprophylaxis after a suspected exposure for some persons.
- Chemoprophylactic use of antiviral medications is recommended to control outbreaks among high-risk persons in institutional settings.
- Detailed guidance regarding antiviral chemoprophylaxis is available at <http://www.cdc.gov/flu/professionals/antivirals/index.htm>.
- Please use every opportunity to educate patients regarding the importance of wearing a mask, social distancing, good respiratory hygiene, hand washing, and other basic protective measures. Measures that protect against COVID-19 also protect against the flu. Also, please check that pneumococcal vaccine has been administered to all patients for whom it is indicated, including those 65 or older. Pneumococcal vaccine can be administered at the same time as COVID-19 vaccine. Household contacts should be instructed to monitor themselves closely for illness. If they develop illness, they should stay at home and follow the guidance on home respiratory isolation.

SURVEILLANCE AND TRACKING

- **In North Carolina, all influenza-associated deaths (adult and pediatric), are reportable to the Local Health Department.** An influenza-associated death is defined for surveillance purposes as a death resulting from a clinically compatible illness that was confirmed to be influenza (any strain) by an appropriate laboratory or rapid diagnostic test. There should be no period of complete recovery between the illness and death. A death should *not* be reported if:
 1. There is no laboratory or rapid test confirmation of influenza virus infection,
 2. The influenza illness is followed by full recovery to baseline health status prior to death, or
 3. After review and consultation, there is an alternative agreed upon cause of death.
- The North Carolina Division of Public Health conducts intensive surveillance for influenza using several systems. In addition to reporting of all influenza-associated deaths, surveillance is conducted of all visits to emergency departments across the state, as well as surveillance and laboratory testing of patients seen by clinicians in our Influenza-Like Illness Network (ILINet). Please consider joining ILINet if you have not done so. State and regional [respiratory surveillance summary data](#) are updated weekly.
- Please contact your local health department to report influenza-like illness in patients with recent swine/poultry exposure or any outbreaks of influenza-like illness (i.e., fever plus cough or sore throat), particularly among young children, and residents of Long-Term Care Facilities.

NOVEL INFLUENZA VIRUSES

- Highly Pathogenic Avian Influenza (HPAI) A H5 viruses were first identified in birds in the United States in December 2014, but no human or animal infections with these viruses have been detected. However, similar avian influenza viruses have infected people in other countries. Some of these human infections have been severe or even fatal.
- Influenza A H3N2 variant viruses (also known as “H3N2v”) with the matrix (M) gene from the 2009 H1N1 pandemic virus were first detected in people in July 2011. Two cases were identified in the U.S. during the 2020-21 flu season. Investigations into H3N2v cases indicate that the main risk factor for infection is prolonged exposure to pigs, mostly in fair settings, especially for people at high risk of serious flu complications.
- For other avian influenza viruses (e.g., H5N1, H7N9) information is available at <http://www.cdc.gov/flu/avianflu/h5>. For additional influenza A H3N2v virus information is available at <http://www.cdc.gov/flu/swineflu/h3n2v-cases.htm>

Updates about novel influenza will be available at flu.nc.gov. Clinicians should contact their Local Health Departments or the Communicable Disease Branch epidemiologist on-call 24/7 number (919-733-3419) for questions about influenza.

cc: Dr. Jean-Marie Maillard, Communicable Disease Branch Medical Director
Evelyn Foust, Branch Head, Communicable Disease Branch
Dr. Zack Moore, State Epidemiologist