



Nebraska Department of Health and Human Services
HEALTH ALERT NETWORK
Advisory



TO: Nebraska Healthcare Providers & Laboratories
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RE: 2019-2020 Influenza Vaccination and Testing Guidelines
DATE: November 4, 2019

Influenza has arrived ahead of schedule in Nebraska. Typically during September and October we receive positive lab reports in the single digits, many of which are false-positives. This past September and October, laboratories have reported weekly positive influenza lab tests ranging between 1 and 24, with confirmatory PCR testing on selected samples. The positive tests have split evenly between influenza A and influenza B, and are accompanied by reports of increased levels of influenza-like illness (ILI) from outpatient clinics and emergency departments from multiple communities across the state. While experts discourage predicting influenza trends, the numbers seen to date raise the prospect of an early influenza season, and underscore the importance of an accelerated influenza vaccination campaign, especially in high risk patients.

Along with influenza vaccination of all persons aged ≥ 6 months without contraindications, health-care providers should encourage basic infection control methods such as covering your cough, staying away from people who are sick (“social distancing”) and handwashing to prevent the spread of influenza and other respiratory viruses. Flu vaccine is life-saving in children ([Pediatrics, April 2017](#)), reduces the risk of flu-associated hospitalizations in adults by about 40% ([J Infect, Nov 2017](#)), and reduced influenza-related adult admissions to an intensive care unit (ICU) by 82 % ([Vaccine, Sep 2018](#)).

Because of their increased risk of occupation-related exposure, along with their work-related interactions with high-risk groups (pregnant women, older adults, persons with disabilities, and persons with chronic medical conditions) health care personnel are a high priority target group for influenza vaccine. Preventing influenza among health care personnel can help reduce the spread of influenza in long-term care populations (<http://www.cdc.gov/flu/toolkit/long-term-care/index.htm>), reinforcing the importance of aggressive flu vaccine campaigns in both staff and residents of long-term care (LTC) facilities.

Influenza Vaccine Formulations for 2019-2020 Flu Season

[‘Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States, 2019–20 Influenza Season’](#) has been published.

All 2019-20 influenza trivalent (three-component, standard and high dose) vaccines are made to protect against the following three viruses:

- A/Brisbane/02/2018 (H1N1)pdm09–like virus
- A/Kansas/14/2017 (H3N2)–like virus
- B/Colorado/06/2017–like virus (Victoria lineage).

Quadrivalent (four-component, standard dose) influenza vaccines include all of the trivalent components PLUS B/Phuket/3073/2013-like virus (B/Yamagata lineage).

The annual evolution of circulating flu strains and the flu vaccines from 1990 to the present can be found here: [History of Flu Vaccine and Circulating Strains](#).

Antiviral Drug Use

Four FDA-approved influenza antiviral drugs are recommended for use in the United States during the 2019-2020 influenza season: oral oseltamivir (Tamiflu®), inhaled zanamivir (Relenza®), and peramivir (Rapivab®). The fourth is oral baloxavir (Xofluza®). More information about antiviral drugs and antiviral drug resistance can be found at <https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm> and <http://www.cdc.gov/flu/about/qa/antiviralresistance.htm>.

Special Considerations for Institutional Settings

Use of antiviral chemoprophylaxis to control outbreaks among high risk people in institutional settings, such as long term care facilities, is recommended.

- An influenza outbreak is likely when at least two residents are ill within 72 hours, and at least one has laboratory confirmed influenza. When influenza viruses are circulating in the community, even one positive laboratory result in conjunction with other compatible illnesses on the unit suffices to establish that an outbreak of influenza is occurring.
- When influenza is identified as a cause of a respiratory disease outbreak among nursing home residents, use of antiviral medications for chemoprophylaxis is recommended for all non-ill residents (regardless of whether they have received influenza vaccination). Antiviral chemoprophylaxis is meant for residents who are not exhibiting influenza-like illness but who may be exposed or who may have been exposed to an ill person with influenza, to prevent transmission.
- For unvaccinated health care personnel, antiviral chemoprophylaxis can be offered. For newly-vaccinated staff, antiviral chemoprophylaxis can be offered for up to two weeks (the time needed for antibody development) following influenza vaccination. Chemoprophylaxis can also be offered for all employees, regardless of their influenza vaccination status.
- For institutional outbreak management, antiviral chemoprophylaxis should be administered for a minimum of two weeks, and continue for at least seven days after the last known case was identified.

For more information on the control of institutional outbreaks, please see CDC's [Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities](#) and the [IDSA guidelines](#).

Recommendations on Laboratory Testing

Once influenza activity and sustained spread has been documented in a community or geographic area, most ambulatory patients with an uncomplicated illness consistent with influenza can be diagnosed clinically. This can be done using established definitions of influenza-like illness (ILI) and does not require influenza testing for clinical management, including antiviral treatment decisions. Influenza testing of patients who are not severely ill is a clinical decision. When interpreting the test results, clinicians should consider the following factors:

- Patient's period of illness (influenza diagnostic tests more likely to be positive when the specimen is obtained during the first three days of illness when viral shedding is highest)
- State and local influenza surveillance data regarding circulating influenza and other respiratory viruses that can cause ILI. Website updated weekly during flu season: <http://www.dhhs.ne.gov/flu> - [Weekly Flu Report](#)

- Sensitivity and specificity of the rapid influenza diagnostic tests (RIDT) **during periods of high influenza activity:**
 - A negative test result does not rule out influenza virus infection. The RIDTs are less sensitive than rRT-PCR
 - A positive RIDT result has a high positive predictive value
 - RIDTs do not provide information on the influenza A subtype (e.g., 2009 H1N1 vs. H3N2). Since most circulating influenza A viruses have similar antiviral susceptibilities, subtype information is not needed to inform clinical care.
 - A positive RIDT test for influenza A virus can be assumed to be the reported circulating subtype, and does not require confirmatory typing.
- In certain situations, public health authorities will request identification of the influenza virus type with an RT-PCR assay.
 - Any laboratory can send positive RIDT specimens to the Nebraska Public Health Laboratory (NPHL) **until one positive test is confirmed** out of that laboratory. Collection materials will not be provided.
 - Any hospital can send specimens from a positive RIDT for a **hospitalized patient** with ILI to NPHL for confirmatory testing. Collection materials will not be provided.
 - ILINet sentinel providers and sentinel laboratories are to send specimens on patients with ILI according to DHHS guidelines using shipping materials provided.
 - Contact DHHS or your Local Public Health Department for guidance in the event of an influenza outbreak, <http://dhhs.ne.gov/lhd>.

For specific clinical laboratory questions please contact NPHL client services at 1-866-290-1406 or visit the NPHL website at <http://www.nphl.org/>. To submit an influenza specimen to NPHL for testing at public health expense, specimens must be ordered in **NUIrt** (<https://nulirt.nebraskamed.com/login>). For individuals who need access to become users of NUIrt, please visit: <http://www.nphl.org/phlip.cfm> for instructions on how to obtain credentials to become a user of the NUIrt system.

Collection and shipping guidance for routine clinical specimens (non-sentinel sites) is located here: <http://dhhs.ne.gov/Flu%20Documents/Flu%20Collection%20Transport.pdf>.

Category B (<https://emergency.cdc.gov/agent/agentlist-category.asp>) specimens can be transported via NPHL courier: contact NPHL client services at (866) 290-1406 to make arrangements.

1. Place specimens in bio-hazard bag (with absorbent material) and seal.
2. Shipping boxes provided by NPHL are not required for influenza specimens.
3. Courier should maintain specimen at 2-8C (refrigerated).
4. If using a reference laboratory within Nebraska, Category B may be forwarded by their courier, as typically routine NPHL courier pickups occur at these locations.

There will be an influenza webinar on Monday, November 4th, 2019 12-1 PM CST (11-12 MT)
To join the meeting via video: <https://nphl.adobeconnect.com/novflutrain2019/>
Conference Number: +1(800) 832-0736 Conference Room Number: 2045008

Influenza Training 2019-20 Season:

- **Review of collection devices**
- **Demonstration of NP collection**
- **NUIrt test order methods**
- **Packaging/Shipping of Influenza specimens**
- **Differences between influenza sentinel sites vs clinical sites**