Nebraska Department of Health and Human Services

Health Alert Network

Alert

November 4, 2022

Respiratory season updates & recommendations

- Respiratory virus transmission is increasing in Nebraska, including RSV, SARS-CoV-2, influenza, parainfluenzaviruses, and adenovirus. Public COVID-19 data can be found on the DHHS dashboard here https://atlas-dhhs.ne.gov/Atlas/Respiratory_Illness. Detailed trends with weekly updates for other respiratory viruses can be found here https://dhhs.ne.gov/Flu%20Documents/Report.pdf.
- The current RSV surge and potentially forthcoming combined (RSV + COVID-19 + influenza) surge underscore the need to *strongly reinforce* available prevention measures (bivalent COVID-19 vaccine, influenza vaccine, stay home when sick), and *diligently pursue* available treatment options (nirmatrelvir-ritonavir [Paxlovid] and oseltamivir [Tamiflu]) for qualifying patients. Unfortunately, no vaccination or specific treatment options are available for RSV.
- The predominant circulating SARS-CoV-2 variant remains BA.5, however, newer variants of concern that have driven surges internationally (including XBB, BQ.1, and BQ.1.1) have been identified in NE (https://dhhs.ne.gov/Documents/COVID-19-Genomics-Data.pdf). Concurrently, wastewater signals are increasing across the state (https://dhhs.ne.gov/Documents/COVID-19-Wastewater-Data.pdf). COVID-19 is still killing 3–10 patients weekly and hospitalizing 80–100 weekly in Nebraska; roughly 5–10 of these weekly hospitalizations are pediatric patients <18 years old, underscoring the importance of COVID-19 vaccines among youth and adolescents. RSV is approaching peak levels from prior RSV seasons and is approaching these levels at an atypical time (October–November instead of December–January). Additionally, recent increases in influenza activity, including an influenza death, mark the beginning of the 2022-2023 influenza season. The predominant influenza A subtype predicted to be detected in Nebraska this year, H3N2, tends to be more virulent and is associated with a higher incidence of concomitant secondary bacterial pneumonias.
- Only 160,000 Nebraskans have received a bivalent COVID-19 booster; no COVID-19-related deaths have been identified 14 days or more since receiving a bivalent booster. Bivalent COVID-19 vaccinations and influenza vaccinations CAN be co-administered, as recommended by the CDC and ACIP (https://www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html#timing-spacing-interchangeability). If a patient is due for both vaccines, healthcare professionals are encouraged to offer both vaccines at the same visit.
- Nirmatrelvir-ritonavir (Paxlovid) is expected to retain effectiveness (>80% relative risk reduction for hospitalization or death) against currently emerging SARS-CoV-2 variants (including XBB, BQ.1, and BQ.1.1) and should be prescribed for outpatients with COVID-19 within 5 days of symptom onset who are A) 65+ years old OR B) 12–64 years old with any number of a broad range of comorbidities (including obesity, diabetes, hypertension, developmental disabilities). Moderate renal disease (GFR<60ml/min) requires a dose adjustment; severe renal disease (GFR<30ml/min) is a contraindication. Few medications are contraindications for nirmatrelvir-ritonavir, others require dose adjustment or holding: https://www.covid19treatmentguidelines.nih.gov/therapies/antiviral-therapy/ritonavir-boosted-nirmatrelvir--paxlovid-/paxlovid-drug-drug-interactions. Specific drug interactions can be investigated here: https://www.covid19-druginteractions.org/checker/. Despite the difficulties navigating drug interactions, effectiveness in preventing severe outcomes is substantial and thus should be prioritized.
- Per CDC, because there were no dramatic changes in antiviral susceptibility patterns during the 2021–2022 flu season, the guidance on the use of influenza antiviral drugs for the 2022–2023 influenza season remains unchanged. Oseltamivir is indicated for outpatients within 2 days of symptom onset, or inpatients at risk of severe complications, and requires a dose adjustment for severe renal disease (GFR<30ml/min).

Additional updates and recommendations

Testing: in absence of local options, NPHL testing is available for RSV, SARS-CoV-2, and influenza
Concomitant RSV, SARS-CoV-2, and influenza testing is encouraged. Testing is available for each through NPHL for healthcare professionals seeing inpatients or outpatients where no other testing option is available. DHHS is encouraging facilities that utilize a molecular influenza test to send specimens to NPHL with a cycle threshold (CT) value of 25 or lower for confirmatory influenza surveillance testing. Additionally, if you believe you might have a false positive or false negative influenza test result, NPHL will confirm up to five specimens per facility. Specimens with low CT values or those suspected of being false negative or false positives are tested on a CDC influenza PCR assay to determine what viruses are currently circulating in Nebraska; viruses tested include influenza A viruses (H3/seasonal, H1, and H1/2009 subtypes) and influenza B viruses (Yamagata or Austria lineage). Subsequently, these specimens are sent to CDC for antigenic characterization, which helps determine future vaccine targets.

To send specimens to NPHL, place a nasopharyngeal swab in a single tube of transport medium. See Collecting, Handling and transport of Influenza Laboratory Specimens at http://www.nphl.org/ for specifics. To order testing through NPHL, use NUlirt (NPHL's Internet-based, electronic lab information system). To access NUlirt, click here (https://nulirt.nebraskamed.com/login) using your existing NUlirt account. If you are a new user, follow the link to register and create a new account. Please complete all the requested data fields included with the Ask On Entry (AOE) questions. A properly completed requisition is required for processing. To order the SARS-CoV-2 + influenza A + influenza B multiplex assay use code NCOVFL. To order the SARS-CoV-2 + influenza A + influenza B + RSV multiplex assay, use code NCOV4. For orders created electronically, submitters should print a completed batch list to accompany the specimen by clicking within the NUlirt system. For issues related to NUlirt access, contact the NUlirt support group via email nulirtsupport@nebraskamed.com or contact client service representatives at 402-559-2440.

Reporting: report pediatric influenza deaths, novel viruses, and outbreaks
Pediatric influenza-associated deaths and influenza viruses unable to be subtyped on a respiratory panel are reportable. Outbreaks of influenza or other respiratory diseases (RSV, hMPV, adenovirus, etc.) are reportable. For congregate living facilities such as long-term care facilities, correctional facilities, or group homes, reporting should occur when there are two or more cases of influenza-like illness (with at least one having laboratory confirmation) within 72 hours. Outbreaks of influenza and other respiratory diseases in schools/daycares are also reportable to public health.

Please contact NE DHHS Office of Epidemiology at 402-471-2937 or dhhs.epi@nebraska.gov, or your local health department (https://dhhs.ne.gov/Pages/Local-Health-Departments.aspx) if you need to report or have questions/unusual situations.

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This is an official

CDC HEALTH ADVISORY

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Increased Respiratory Virus Activity, Especially Among Children, Early in the 2022-2023 Fall and Winter

Summary
The Centers for Disease Control and Prevention (CDC) is issuing this Health Alert Network (HAN) Health Advisory about early, elevated respiratory disease incidence caused by multiple viruses occurring especially among children and placing strain on healthcare systems. Co-circulation of respiratory syncytial virus (RSV), influenza viruses, SARS-CoV-2, and others could place stress on healthcare systems this fall and winter. This early increase in disease incidence highlights the importance of optimizing respiratory virus prevention and treatment measures, including prompt vaccination and antiviral treatment, as outlined below.

Background
Many respiratory viruses with similar clinical presentations circulate year-round in the United States and at higher levels in fall and winter. In the past 2 years, respiratory disease activity has been dominated by SARS-CoV-2, and seasonal circulation of other respiratory viruses has been atypical or lower than pre-COVID-19 pandemic years. Currently, the U.S. is experiencing a surge and co-circulation of respiratory viruses other than SARS-CoV-2. CDC is tracking levels of respiratory syncytial virus (RSV), influenza, and rhinovirus/enterovirus (RV/EV) that are higher than usual for this time of year, especially among children, though RV/EV levels may have plateaued in recent weeks. SARS-CoV-2 also continues to circulate in all U.S. states.

RSV
CDC surveillance has shown an increase in RSV detections and RSV-associated emergency department visits and hospitalizations in all but two U.S. Department of Health and Human Services (HHS) regions (regions 4 and 6), with some regions already near the seasonal peak levels typically observed in December or January. This year, rates of RSV-associated hospitalizations began to increase during late spring and continued to increase through the summer and into early fall. Preliminary data from October 2022 show that weekly rates of RSV-associated hospitalizations among children younger than 18 years old are higher than rates observed during similar weeks in recent years. While RSV activity appears to be plateauing in some places, the timing, intensity, and severity of the current RSV season are uncertain.

Influenza
CDC has been tracking early and increasing influenza activity in recent weeks. The highest levels of influenza activity have been found in the southeast and south-central parts of the country. The most common viruses identified to date have been influenza A(H3N2) viruses, with most infections occurring in children and young adults. Cumulative influenza-associated hospitalization rates for children (age 0–4 years and 5–17 years) and all ages combined are notably higher compared to the same time periods during previous seasons since 2010–2011. Although the timing, intensity, and severity of the 2022–2023 influenza season are uncertain, CDC anticipates continued high-level circulation of influenza viruses this fall and winter.

SARS-CoV-2
CDC data are available to monitor COVID-19 community levels, which are based on hospitalization and case data and can be used to track SARS-CoV-2 activity. SARS-CoV-2 activity is expected to increase in the winter as has been observed in previous years. Rates of COVID-19-associated hospitalizations

among all age groups including children have decreased since August, but rates in infants younger than 6 months remain higher than in other pediatric age groups and higher than in all adult age groups except those 65 years and older. CDC expects continued high-level circulation of SARS-CoV-2 this fall and winter.

Recommendations for Healthcare Providers
CDC recommends that healthcare providers offer prompt vaccination against influenza and COVID-19 to all eligible people aged 6 months and older who are not up to date. Vaccination can prevent hospitalization and death associated with influenza and SARS-CoV-2 viruses.

Influenza vaccines have been updated for the current season (1). Of influenza A(H3N2) viruses that have been analyzed in the United States since May 2022, most A(H3N2) viruses are genetically and antigenically closely related to the updated A(H3N2) vaccine component. These data suggest influenza vaccination this season should offer protection against the predominant A(H3N2) viruses to date.

Currently approved SARS-CoV-2 bivalent mRNA booster doses for use in patients 5 years of age and older offer protection against both the ancestral SARS-CoV-2 virus and the currently predominant Omicron BA.4 and BA.5 subvariants that cause COVID-19. Emerging evidence suggests that COVID-19 vaccination provides some protection against multisystem inflammatory syndrome in children (MIS-C) and against post-COVID-19 conditions, and that vaccination among persons with post–COVID-19 conditions might help reduce their symptoms (2).

To prevent RSV-associated hospitalizations, eligible high-risk children should receive palivizumab treatment in accordance with AAP guidelines. In brief, children eligible for palivizumab include infants prematurely born at less than 29 weeks gestation, children younger than 2 years of age with chronic lung disease or hemodynamically significant congenital heart disease, and children with suppressed immune systems or neuromuscular disorders.

While vaccination is the primary means for preventing influenza and COVID-19, antiviral medications are important adjuncts used to treat illness in persons with severe illness and those at increased risk for complications. Both influenza and COVID-19 antiviral medications are most effective in reducing complications when treatment is started as early as possible after symptom onset.

Specific Considerations for Healthcare Providers

1. Recommend and offer vaccinations against influenza and COVID-19 for all eligible persons aged 6 months or older

Anyone who has not received an influenza vaccine this season or who is not up to date with COVID-19 vaccination should be vaccinated now. Influenza and COVID-19 vaccines can be administered at the same visit. Vaccination is the best way to reduce the chance of illness and complications, including those resulting in hospitalization and death, from influenza and COVID-19. For the 2022-2023 influenza season, CDC recommends influenza vaccination with a licensed age-appropriate influenza vaccine for all people months and older (3). For COVID-19, CDC recommends that everyone 6 months and older complete a primary series of COVID-19 vaccines (4). In addition, CDC recommends that people 5 years and older receive one updated (bivalent) booster, if it has been at least 2 months since their last COVID-19 vaccine dose, whether that was a primary series or original (monovalent) booster (4). This recommendation includes people who have received more than one original (monovalent) booster. To date, uptake of both the current seasonal influenza vaccine and COVID-19 booster vaccines remains suboptimal (5, 6, 7).

For COVID-19, preexposure prophylaxis with EVUSHELD™, a monoclonal antibody, may help prevent COVID-19 in persons 12 years and older who are moderately to severely immunocompromised who might not mount an adequate immune response after COVID-19 vaccination, as well as persons for whom COVID-19 vaccination is not recommended because of their personal risk for severe adverse

reactions. These guidelines may be updated based on circulation of variants with reduced susceptibility to monoclonal antibodies.

2. Use diagnostic testing to guide treatment and clinical management

With multiple co-circulating respiratory viruses, particularly influenza and SARS-CoV-2, for which there are antiviral options recommended for specific groups, diagnostic testing can guide treatment and management to improve patients' clinical course and outcomes. Diagnostic testing should be considered for patients with suspected respiratory virus infections, particularly among hospitalized patients, those with factors placing persons at high risk for severe outcomes from flu and COVID-19, and those with severe or progressive illness. Molecular assays are recommended when testing for RSV, influenza, SARS-CoV-2, and other respiratory viruses in hospitalized patients with suspected respiratory virus infections, and multiplex respiratory testing should be considered since multiple respiratory viruses may cause severe illness. Information to assist clinicians about when to consider respiratory virus testing is available at Information for Clinicians on Influenza Virus Testing, Respiratory Syncytial Virus for Healthcare Professionals, and COVID-19 Testing: What You Need to Know. Information on RV/EV, EV-D68 testing was described in detail in a HAN Health Advisory released on September 9, 2022.

3. Treat patients with suspected or confirmed influenza who meet clinical criteria with influenza antivirals

CDC recommends influenza antiviral treatment as early as possible for any patient with confirmed or suspected influenza who is: a) hospitalized; b) an outpatient at higher risk for influenza complications; or c) an outpatient with severe, complicated, or progressive illness. Treatment with influenza antivirals has been shown to be safe and have clinical and public health benefit for both children and adults. Evidence from observational studies, randomized controlled trials, and meta-analyses of randomized controlled trials shows influenza antivirals reduce illness and severe outcomes of influenza (8, 9, 10, 11, 12). Clinical benefit is greatest when antiviral treatment is administered as early as possible after illness onset (ideally within 48 hours), although antiviral treatment initiated later than 48 hours after illness onset can still be beneficial for some patients (e.g., outpatients at increased risk for complications and hospitalized patients). Clinicians should not wait for laboratory confirmation to decide when to start influenza antiviral treatment in patients with suspected influenza.

Oral oseltamivir (generic formulation or Tamiflu®) is the recommended antiviral for outpatients with severe, complicated, or progressive illness and for hospitalized influenza patients. Oral baloxavir marboxil (Xofluza®) is approved by the U.S. Food and Drug Administration (FDA) for treating acute uncomplicated influenza in people 5 years and older who are otherwise healthy or in people 12 years and older who are at high risk of developing influenza-related complications. Oseltamivir is available as both an oral suspension and as capsules, whereas baloxavir is available only as tablets in the United States this fall and winter. Inhaled zanamivir and intravenous peramivir are less commonly used influenza antiviral medications. There is additional information on influenza antiviral medications for clinicians on the CDC website.

4. Treat outpatients and hospitalized patients with confirmed SARS-CoV-2 infection who are at increased risk for severe illness and meet age- and weight-eligibility requirements

COVID-19 antiviral agents reduce risk for hospitalization and death when administered soon after diagnosis. The antiviral medications nirmatrelvir and ritonavir (Paxlovid) or remdesivir (Veklury) are the preferred treatment options for COVID-19 in patients with mild to moderate illness who are at increased risk for severe illness, including older adults, unvaccinated persons, and those with certain medical conditions (14). The antiviral medication molnupiravir (Lagevrio) and monoclonal antibody bebtelovimab are alternative treatment options when Paxlovid and Veklury are contraindicated or not available. Additional information is available about treatment options for hospitalized adults and children and

outpatient adults and children. Guidelines may be updated based on information about susceptibility of circulating SARS-CoV-2 variants.

5. Resources for patient education

In addition to practicing everyday prevention methods, like avoiding close contact with people who are sick, staying home when sick, covering coughs and sneezes, and hand washing, there are additional considerations for patients to help control the spread of and treat influenza, RSV, and COVID-19.

For patients and the general public who would like to know more about RSV, and clinicians who would like to learn about the impact of RSV infections among older adults, see Older Adults are at High Risk for Severe RSV Infection. Materials describing RSV prevention information in English and Spanish are also available.

Only about half of the U.S. population receives an annual influenza vaccine for various reasons, including misinformation about vaccination. Patient education materials are available at the Seasonal Flu Partner Resources Center. In addition, results from unpublished CDC qualitative research shows that many people are not aware that there are drugs to treat influenza illness. A fact sheet for patients is available.

Symptoms of COVID-19, options when experiencing symptoms (including getting tested for COVID-19 and isolation guidance), when to seek emergency medical attention, and differences between influenza and COVID-19 are described here: Symptoms of COVID-19 | CDC. CDC also provides easy-to-read COVID-19 materials.

For More Information

RSV

- RSV Information for Healthcare Providers
- RSV Trends and Surveillance
- RSV Symptoms and Care

Influenza

- Summary of Influenza Antiviral Treatment Recommendations for Clinicians
- Information for Clinicians on Influenza Virus Testing
- Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities
- Influenza Preventive Steps

COVID-19

- CDC COVID-19 Data Tracker
- NIH COVID-19 Treatment Guidelines
- COVID-19: People with Certain Medical Conditions
- COVID-19: Test to Treat Locator
- Indicators for Monitoring COVID-19 Community Levels and Making Public Health Recommendations

Rhinovirus/Enterovirus

- Severe Respiratory Illnesses Associated with Rhinoviruses and/or Enteroviruses Including EV-D68 – Multistate, 2022
- Increase in Acute Respiratory Illnesses Among Children and Adolescents Associated with Rhinoviruses and Enteroviruses, Including Enterovirus D68 — United States, July–September 2022

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The Centers for Disease Control and Prevention (CDC) protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national, and international organizations.

Categories of Health Alert Network messages

Health Alert	Requires immediate action or attention. Conveys the highest level of importance about a public health event.
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HAN Info Service	Does not require immediate action. Provides general information about a public health event.

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