NORTH Dakota | Health & Human Services
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HEALTH ALERT NETWORK | HEALTH ADVISORY | September 13, 2024

Recommendations for Respiratory Infection Season

Correction: The version originally sent out stated that the Arexvy™ RSV vaccine is approved for use in pregnant women, which it is not. **Abrysvo™ is the only RSV vaccine approved for use in pregnant women.**

North Dakota Health and Human Services (HHS) would like to provide recommendations for the coming fall and winter months, considered to be respiratory infection season.

INFLUENZA

Influenza Impact:

- In North Dakota, influenza activity begins to increase in the fall and typically peaks between January and March.
- A total of 12,343 influenza cases were reported to the state for the 2023-2024 season, along with nearly 500 influenza-related hospitalizations and 42 deaths.

Influenza Testing and Treatment

- Influenza testing can inform decisions on use of antiviral treatment, the need for additional testing, isolation recommendations, and infection prevention and control practices.
- Respiratory specimens should be collected as close to illness onset as possible (ideally under three-to-four days).
- **Hospitalized patients with suspected influenza** should be tested with high sensitivity and specificity tests such real-time polymerase chain reaction (RT-PCR) molecular assays since prompt detection is essential to implementing appropriate infection control practices.
    - **Antiviral treatment is recommended as soon as possible for hospitalized patients with suspected influenza.** See guidance on antiviral treatment of influenza recommendations for hospitalized persons and outpatients who are at high-risk for complications or those with progressive illness.

- Influenza is a reportable condition via electronic laboratory reporting. Novel influenza cases and pediatric influenza deaths may be reported electronically via our report card or by calling (701) 328-2378 or (800) 472-2180.

Influenza - Who and when to immunize:

- Influenza vaccination is recommended for **all individuals aged 6 months and older.**
- Due to the unpredictability of influenza season onset and concerns about vaccine-induced immunity waning over the course of a season, flu vaccination is recommended by the end of October.
- However, it can be given throughout influenza season.
- Children 6 months through 8 years old receiving influenza vaccine for the first time require two doses given at least four weeks apart, even if they turn 9 between the first and second dose. Any child who has received two or more doses of influenza vaccine prior to July 1, 2024, or is 9 years or older, needs only one dose of flu vaccine.
- Children 6 months through 8 years who need two doses should receive their first dose as soon as possible after vaccine becomes available, to allow the second dose (which must be administered four or more weeks later) to be received by the end of October.
- Vaccination soon after vaccine becomes available may also be considered for **pregnant women during the third trimester**, as vaccination of pregnant women has been shown to reduce risk of influenza illness of their infants during the first few months of life (a period during which they be too young to receive influenza vaccine).
- For non-pregnant adults, influenza vaccination during July and August should be avoided unless there is concern that later vaccination might not be possible.
- Influenza vaccines **can be administered at the same time as any other recommended vaccines.** For patients who are due for other routine immunizations, providers should follow standard practices for administration and spacing of live vaccines, when the influenza vaccine being administered is the live attenuated influenza vaccine (LAIV) vaccine is given.
- Vaccine will be available from HHS for Vaccines for Children (VFC)-eligible children (American Indian/Alaskan Native, Medicaid-eligible, uninsured, or underinsured) and uninsured or underinsured adults to providers enrolled in our VFC and Vaccines for Adults (VFA) programs. Initial allocations will be weekly, and supply will increase as the season progresses.

Influenza Immunization Considerations:

- **Adults 65 and older** should receive one of the higher dose or adjuvanted influenza vaccines, if available:
    - high dose inactivated influenza vaccine,
    - recombinant influenza vaccine, or

    - adjuvanted inactivated influenza vaccine.
    - **If none of these vaccines is available**, any other age-appropriate influenza vaccine should be used.
- Recommendations for **solid organ transplant patients:**
    - Do not receive live attenuated influenza vaccine.
    - May receive one the higher dose of adjuvanted influenza vaccine products (listed above), according to the American Society of Transplantation as this group may have diminished response due to immunosuppressive regimens.
- Individuals with an **allergy to eggs** may receive any influenza vaccine (egg-based or non-egg-based) that is otherwise appropriate for their age and health status.
    - Additional safety measures beyond those recommended for any vaccine administration site are no longer recommended for people with egg allergies, regardless of the severity of previous reactions to egg.

Influenza Vaccine Composition:

- The 2024-2025 influenza vaccine composition has been updated to better match strains anticipated to be prevalent. All vaccines this season will be trivalent. The B/Yamagata virus strain is no longer being included as it has not circulated in the population since March 2020.
    - The egg-based vaccines contain an A/Victoria/4897/2022 (H1N1) pdm09-like virus; an A/Thailand/8/2022 (H3N2)-like virus; and (Updated), and a B/Austria/1359417/2021 (B/Victoria lineage)-like virus.
    - The cell- or recombinant-based vaccines contain an A/Wisconsin/67/2022 (H1N1) pdm09-like virus, an A/Massachusetts/18/2022 (H3N2)-like virus and (Updated) a B/Austria/1359417/2021 (B/Victoria lineage)-like virus.

Influenza - Why Immunize:

- Influenza vaccination of individuals 6 months and older is recommended to reduce the prevalence of illness caused by influenza and severe outcomes, including hospitalization and death.
- During the 2023-2024 influenza season, there were 195 pediatric deaths in the United States due to influenza. Historically, most pediatric deaths due to influenza are in unvaccinated children.
- Influenza vaccination will alleviate stress on the health care system because prevention of, and reduction in, the severity of influenza illness will reduce outpatient visits, hospitalizations, and intensive care unit admissions.
- Influenza vaccination is highly recommended by every major medical organization, especially for children (American Academy of Pediatrics or AAP), pregnant women (the

American College of Obstetricians and Gynecologists or ACOG), and the elderly (American Association of Family Physicians or AAFP).

Influenza Resources

- For additional information, please see ACIP Recommendations: Influenza (Flu) Vaccine | ACIP Recommendations | CDC
- The NDHHS influenza website is updated weekly.

RESPIRATORY SYNCYTIAL VIRUS (RSV):

- In North Dakota, RSV typically circulates during the months of October through March.

RSV Impact:

- RSV is one of the most common causes of childhood respiratory illness and results in annual outbreaks of respiratory illnesses in all age groups.
- An estimated 58,000-80,000 infants and children under 5 are hospitalized each year nationwide due to RSV infection, with some requiring oxygen, intravenous (IV) fluids, or mechanical ventilation.
- Each year in the United States, an estimated 100-300 children under 5 die due to RSV.
- RSV is the leading cause of hospitalizations for infants and older babies at higher risk, and this new immunization is an important tool for saving lives.
- American Indian and Alaska Native children have RSV-associated hospitalization rates 4 to 10 times greater than the average rates for U.S. children ages 12-23 months.
- RSV causes 177,000 hospitalizations and 14,000 deaths of adults 65 and older each year in the United States.

RSV Testing and Treatment:

- Clinical symptoms of RSV are nonspecific and can overlap with other viral respiratory infections, such as COVID-19 and influenza, as well as some bacterial infections.
- Several types of laboratory tests are available for confirming RSV infection.
- These tests may be performed on upper and lower respiratory specimens and include RT-PCR and antigen testing (which may be more sensitive in children but less sensitive in adults).
- Antiviral medication is not routinely recommended to fight RSV infection and most infections go away on their own in a week or two.
- RSV is a reportable condition via electronic laboratory reporting. Pediatric RSV deaths may be reported electronically via our report card or by calling (701) 328-2378 or (800) 472-2180.

RSV Immunization Who and When:

- This fall, immunizations are available for age groups at high risk for RSV.
    - Nirsevimab (Beyfortus™) is available to protect infants from the impacts of RSV.
    - **Abrysvo™ is available for pregnant women to protect infants from the impacts of RSV. Arexvy™ should not be used in pregnancy.**
    - Three vaccine products, Arexvy™, Abrysvo™ and mRESVIA™ are available to protect older adults from the impacts of RSV.

<u>Infant protection</u>

- Nirsevimab:
    - CDC recommends one dose of nirsevimab for all **infants under 8 months of age** born during RSV season (October through March).
    - CDC recommends one dose of nirsevimab for all infants under 8 months of age who are entering their first RSV season.
    - Newborns should receive nirsevimab 50mg/0.5mL if under 5kg and 100mg/1mL if 5kg or greater within the first week of life, ideally prior to birthing hospital discharge.

    - For **children between 8-19 months who are at increased risk of severe RSV disease**, a dose of 200mg (two 100mg/1mL injections for one dose) is recommended prior to their second RSV season. These children include:
        - children who have severe immunocompromise,
        - **American Indian** and Alaskan Native children,
        - children with chronic lung disease of prematurity who required medical support any time during the six-month period before the start of the second RSV season,
        - children with cystic fibrosis who have manifestations of severe lung disease (previous hospitalization for pulmonary exacerbation in the first year of life or abnormalities on chest imaging that persist when stable) or weight-for-length <10th percentile.
    - Health care providers are encouraged to conduct reminder/recall of children under 8 months of age and those who are at increased risk between 8-19 months of age.
    - While there were challenges with the nirsevimab supply last season, that is not anticipated for the 2024-2025 season. However, nirsevimab will be allocated to providers participating in the Vaccines For Children (VFC) Program.
- Maternal RSV Vaccine:

- **Abrysvo™ is approved for use in pregnant individuals** to prevent lower respiratory tract disease (LRTD) and severe LRTD caused by RSV in infants through 6 months.
- **Arexvy™ should not be used in pregnancy.**
- May be given at 32-36 weeks of pregnancy.
- For use during the months of September-January.
- If the pregnant woman receives the maternal RSV vaccine at least 14 days prior to delivery, the infant typically will not need to receive nirsevimab.
- If the pregnant woman received the maternal RSV vaccine during a prior pregnancy, she should not receive it again. The infant should be immunized with nirsevimab within 7 days of birth.

Older adults

- Adults ages 75 and older are recommended to receive one dose of Arexvy™, Abrysvo™ or mResvia™.
- Adults ages 60-74 years who are at increased risk of severe RSV disease due to certain comorbidities are recommended to receive a dose of one of the three available RSV vaccines.
- Residents of long-term care facilities and nursing homes are at high risk of severe RSV disease and should get vaccinated.
- At this time, only one lifetime dose of any of the three RSV immunizations is recommended.

RSV Immunization Considerations:

- Nirsevimab is a monoclonal antibody. Monoclonal antibodies are man-made proteins that mimic the antibodies that our bodies naturally produce and are a form of passive immunization to provide immediate infection prevention for a period of time.
- AAP recommends that nirsevimab be given at the same time as other age-appropriate immunizations.
- ACOG recommends that the maternal RSV vaccine be given at the same time as other immunizations recommended in pregnancy.
- ACIP recommends that eligible older adults receive a RSV vaccine dose at the same time as other recommended immunizations.
- ACIP voted to include both nirsevimab and the maternal RSV vaccine in the Vaccines For Children (VFC) program, which provides recommended vaccines and immunizations at no cost to children 18 and under who are American Indian/Alaska Native, Medicaid-eligible, uninsured or under insured. Initial allocations will be every other week, and supply sill increase as the season progresses.

RSV – Why Immunize:

- In clinical trials, efficacy of nirsevimab was 79% against medically attended lower respiratory tract infection (LRTI), as well as 80.6% against RSV LRTI hospitalization. Real world data from last season showed nirsevimab to be **91-98% effective at preventing RSV hospitalization** in infants and young children.
- Arexvy™, Abrysvo™ and mResvia™ have all been shown in clinical trials to have at least 80% efficacy against RSV lower respiratory tract disease in older adults.

RSV Resources:

- Learn more at https://www.cdc.gov/rsv/index.html
- Additional guidance and educational materials are available at Respiratory Syncytial Virus (RSV) | Health and Human Services North Dakota..

COVID-19

COVID-19 Impact:

- COVID-19 continues to circulate in our community, with 93 COVID-19 associated deaths in North Dakota in the last year.
- Nationwide, COVID-19 cases and hospitalizations have been trending upwards in the United States. It is expected that the updated 2024-2025 COVID-19 vaccine will be effective at reducing severe disease and hospitalization.
- More than half of children hospitalized for COVID-19 in the United States do not have a comorbidity. Behind adults ages 75 and older, infants younger than six months had the highest rate of COVID-19 hospitalization.

COVID-19 Testing and Treatment:

- Treatments for COVID-19 are available for individuals early in the course of their illness and can reduce the risk of hospitalization or death following infection.
- Based on current information, existing tests used to detect, and medications used to treat COVID-19 continue to be recommended with the new variants.
- ND HHS Laboratory Services offers several respiratory illness diagnostic tests free of charge or fee-for-service.
    - SARS-CoV-2 RT-PCR is offered at no charge on NP swabs in VTM.
    - Results are available within two days after receipt at the lab.
- Influenza, COVID-19, and RSV are reportable conditions and cases may be reported electronically via our report card or by calling (701) 328-2378 or (800) 472-2180.

COVID-19 Immunization Composition:

- Updated mRNA 2024-2025 (KP.2) COVID-19 vaccines have been recommended for use by the CDC.
- With the U.S. FDA authorization and approval of the 2024-2025 COVID-19 vaccines, the 2023-2024 COVID-19 vaccines have been de-authorized for use in the United States and health care providers should stop using these products immediately and dispose of them.
- The U.S. FDA has authorized an updated 2024-2025 Novavax vaccine for ages 12 years and older. As a result, the 2023-2024 Novavax vaccine should no longer be used. ACIP is expected to discuss the 2024-2025 Novavax vaccine in October and provide additional guidance.

COVID-19 – Who and When to Immunize:

- Everyone 6 months and older is recommended to receive at least one updated 2024-2025 COVID-19 vaccine.
- **Individuals 5 years of age and older regardless of previous vaccination** are eligible to receive a single dose of an updated mRNA COVID19 vaccine at least **2 months** after the last dose of any COVID-19 vaccine.
- **Children ages 6 months–4 years** should complete a multi-dose initial series (2 doses of Moderna or 3 doses of Pfizer-BioNTech mRNA COVID-19 vaccine) with at least one dose of the 2023–2024 COVID-19 vaccine.
- **People who are moderately or severely immunocompromised** should complete a 3 dose initial series with at least one dose of the 2024–2025 COVID-19 vaccine and may receive 1 or more 2024–2025 COVID-19 vaccine doses.
- Individuals 5 years of age and older are eligible to receive any updated mRNA COVID-19 vaccine. They do not need to receive the same brand as previously administered doses.
- Children 6 months-4 years should complete their COVID-19 vaccine series using the same brand as they've previously received.
- Analysis of data from the multistate VISION Network demonstrated that the 2023-2024 COVID-19 vaccine efficacy was 66% in children 9 months – 4 years, 71% in children 5-17 years, 53% in adults 18-64 years, and 47% in adults 65 years and older between the months of September 2023 and May 2024 when the dose was received 7-59 days earlier.
- The benefits of COVID-19 vaccination continue to outweigh the risks.

COVID-19 Immunization Considerations:

- COVID-19 vaccines are available through the commercial market.
    - This means that vaccine will be available through traditional routes.

    - Providers must order private COVID-19 vaccine stock to vaccinate all privately insured children and adults.
- Vaccine will be available from HHS for Vaccines for Children (VFC)-eligible children (American Indian/Alaskan Native, Medicaid-eligible, uninsured, or underinsured) and uninsured or underinsured adults to providers enrolled in our VFC and Vaccines for Adults (VFA) programs. Initial allocations will be weekly, and supply will increase as the season progresses.
- An online vaccine-finder tool will be available for the state of North Dakota.

COVID-19 Why Immunize:

- COVID-19 variants continue to circulate, and hospitalizations are trending upward nationwide.
- The updated COVID-19 vaccines will likely reduce severe illness and hospitalization.

COVID-19 Resources:

- For additional information on COVID-19, including vaccine, testing, treatment, and current disease trends, please visit our COVID-19 website.

SUMMARY

Influenza, RSV, COVID-19, and other respiratory pathogens are expected to circulate this fall and winter. NDHHS reminds clinicians to consider influenza, RSV, COVID-19, and other possible pathogens when evaluating patients with respiratory illness. As many of these pathogens may share similar symptoms, respiratory testing can be used to inform decisions on use of antiviral treatment, the need for additional testing, isolation recommendations, and infection prevention and control practices.

Respiratory Immunizations	Options	Eligible People	Effectiveness	When to get it
Influenza (Flu)	Vaccine targeting 3 strains of flu, updated annually	Ages 6 months+	Reduces risk of hospitalization and health care visits by 40-60%	Available throughout season, ideal to get by end of October
COVID-19	Updated as needed to match dominant strain - Pfizer(mRNA) - Moderna (mRNA) - Novavax	Ages 6 months+	Reduces risk of severe illness by 40-60%	Available any time, discuss timing with your provider
RSV (Older Adults)	GSK Pfizer Moderna (mRNA)	Ages 75 years+ and ages 60-74 years at high risk	Reduces risk of severe illness by 82-86%	Anytime (summer or fall may be best), discuss with your provider
RSV (Pregnancy)	Pfizer	Pregnant people who have not received a dose during a previous pregnancy (protection will pass to baby for first 6 months of life)	Reduces risk of severe illness in first 3 months of life by 82%	September - January, during 32-36 weeks gestation
RSV Antibody (if mother did not get vaccine while pregnant)	Nirsevimab (Sanofi)	- Infants born during RSV season within first 7 days of life - Infants ages <8 months entering their first RSV season - Children ages 8-19 months entering second RSV season at higher risk, including all American Indian children	91-98% effective against hospitalization during the 2023-2024 RSV season	October - March

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Last updated Aug. 26, 2024. Adapted from Your Local Epidemiologist (Drs. K. Jetelina & C. Rivers)

For more information, call ND HHS Disease Control and Forensic Pathology at (701) 328-2378 or (800) 472-2180.

Categories of Health Alert Network messages:
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