NEW YORK STATE OF OPPORTUNITY. Department of Health

KATHY HOCHUL
Governor

MARY T. BASSETT, M.D., M.P.H.
Commissioner
KRISTIN M. PROUD
Acting Executive Deputy Commissioner

NYC Health

NEW YORK CITY DEPARTMENT OF
HEALTH AND MENTAL HYGIENE
Ashwin Vasan, MD, PhD
Commissioner

September 16, 2022

TO: Hospitals, Local Health Departments, Laboratories, Emergency Rooms, Family Medicine, Pediatrics, Adolescent Medicine, Infectious Disease, Neurology, Infection Control practitioners, and Primary Care Providers

FROM: New York State Department of Health (NYSDOH) Bureau of Communicable Disease Control (BCDC), New York City Department of Health and Mental Hygiene

HEALTH ADVISORY: INCREASE IN SEVERE RESPIRATORY ILLNESSES ASSOCIATED WITH RHINOVIRUSES AND/OR ENTEROVIRUSES INCLUDING EV-D68

SUMMARY

- See attached Health Update from the Centers for Disease Control and Prevention (CDC): Severe Respiratory Illnesses Associated with Rhinoviruses and/or Enteroviruses Including EV-D68—Multistate, 2022, dated September 9, 2022.
- An increase in pediatric hospitalizations in patients with severe respiratory illness who also tested positive for rhinovirus (RV) and/or enterovirus (EV) has been reported in several regions of the US; healthcare facilities in New York State and New York City are seeing such pediatric hospitalizations.
- RVs and EVs can have clinically similar presentations and are indistinguishable from one another on multiplex assays often used in clinical settings.
- Upon further typing, some specimens have been positive for enterovirus D68 (EV-D68). Concurrently, pediatric acute respiratory illness sentinel surveillance sites are reporting a higher proportion of EV-D68 positivity in children who are RV/EV positive compared to previous years.
- Although it primarily causes acute respiratory illness, EV-D68 has been associated with acute flaccid myelitis (AFM), a rare but serious neurologic complication involving limb weakness. AFM and paralytic polio can have similar clinical presentations; specimens tested at Wadsworth Center for pathogens that can cause AFM will also be tested for poliovirus.
- Historically, a rise in AFM cases is typically seen about a month after EV-D68-associated respiratory disease is detected in a geographic area.
- For more information on AFM, please refer to the HAN that was distributed in June 2022: https://apps.health.ny.gov/pub/ctrldocs/alrtview/postings/NYSDOH_AFM_Health_Advisory_06242022_FINAL_1656100564923_0.pdf

REPORTING: Severe Respiratory Infections

Healthcare providers should report clusters of severe respiratory illness to their local health department (LHD); this includes reporting clusters of severe respiratory illness in pediatric patients where EV-D68 infection is known or suspected. Reporting should be to the county where the patient resides.

Clusters in New York City residents should be reported to the NYC Health Department Provider Access Line (PAL) at 866-692-3641. Outside of New York City, contact information is available at: https://www.health.ny.gov/contact/contact_information.

If you are unable to reach the LHD where the patient resides, please contact the NYSDOH Bureau of Communicable Disease Control at 518-473-4439 during business hours or 866-881-2809 evenings, weekends, and holidays.

REPORTING: Suspect AFM Cases

While AFM may be related to EV-D68 infection, it may also be indicative of paralytic polio. Specimens tested at Wadsworth Center for pathogens that can cause AFM will also be tested for poliovirus. For more information on the current polio situation in New York State, please see the resources and links here.

Report confirmed or suspected AFM cases among New York City residents to the NYC Health Department PAL at 866-692-3641.

Outside of New York City, report confirmed or suspected AFM cases to NYSDOH at 518-473-4439 during regular business hours or 866-881-2809 evenings weekends, and holidays or via email at AFM@health.ny.gov. Please direct any questions to that same email.

NYSDOH and NYC Health Department will advise clinicians on the collection of appropriate specimens (e.g., cerebral spinal fluid (CSF), serum, stool, and respiratory samples) for testing at the NYSDOH Wadsworth Center for pathogens that can cause AFM. Wadsworth Center will coordinate the submission of specimens to CDC if needed for further testing. Do not send specimens directly to CDC.

INFECTION CONTROL

The interim recommendation by the CDC for management of patients with EV-D68 and suspect AFM cases is Standard, Contact, and Droplet precautions. Currently, there are no pathogen-specific recommendations. Questions about infection control in healthcare facilities should be directed to the NYSDOH Bureau of Healthcare Associated infections at 518-474-1142 and icp@health.ny.gov.

RESOURCES

- CDC EV-D68: https://www.cdc.gov/non-polio-enterovirus/about/ev-d68.html
- CDC AFM: https://www.cdc.gov/acute-flaccid-myelitis/index.html
- CDC AFM for Providers: https://www.cdc.gov/acute-flaccid-myelitis/hcp/clinicians-health-departments.html
- NYSDOH June 2022 AFM HAN: https://apps.health.ny.gov/pub/ctrldocs/alrtview/postings/NYSDOH_AFM_Health_Advisory_06242022_FINAL_1656100564923_0.pdf
- NYSDOH Wadsworth Virology: https://www.wadsworth.org/programs/id/virology
- 2018-2020 EV-D68 Surveillance summary: https://www.cdc.gov/mmwr/volumes/70/wr/mm7047a1.htm

This is an official

CDC HEALTH ADVISORY

Distributed via the CDC Health Alert Network
September 9, 2022, 1:15 PM ET
CDCHAN-00474

Severe Respiratory Illnesses Associated with Rhinoviruses and/or Enteroviruses Including EV-D68 – Multistate, 2022

Summary
Healthcare providers and hospitals in several regions of the United States notified the Centers for Disease Control and Prevention (CDC) during August 2022 about increases in pediatric hospitalizations in patients with severe respiratory illness who also tested positive for rhinovirus (RV) and/or enterovirus (EV). RVs and EVs can have clinically similar presentations and are indistinguishable from one another on multiplex assays often used in clinical settings. Upon further typing, some specimens have been positive for enterovirus D68 (EV-D68). Concurrently, pediatric acute respiratory illness sentinel surveillance sites are reporting a higher proportion of EV-D68 positivity in children who are RV/EV positive compared to previous years. Although it primarily causes acute respiratory illness, EV-D68 has been associated with acute flaccid myelitis (AFM), a rare but serious neurologic complication involving limb weakness.

The purpose of this Health Alert Network (HAN) Health Advisory is to

1. Notify healthcare providers, laboratories, infection control specialists, and public health departments about recent increases in severe respiratory illness requiring hospitalization in children,
2. Urge healthcare providers to consider EV-D68 as a possible cause of acute, severe respiratory illness (with or without fever) in children,
3. Advise of the potential for an increase in AFM cases in the upcoming weeks, and
4. Provide CDC recommendations to healthcare providers, laboratories, infection preventionists, public health departments, and the public.

Background
RVs and EVs are both part of the *Enterovirus* genus. RVs are typically associated with acute respiratory illness (ARI), including asthma exacerbations. EVs can also cause ARI but are associated with other clinical presentations, such as febrile rash and neurologic illness, including aseptic meningitis, encephalitis, or AFM. EV-D68 has biologic and genomic similarities to RVs; respiratory symptoms are similar in patients infected with RVs and EV-D68. Common symptoms among hospitalized children with EV-D68 include cough, shortness of breath, and wheezing; fever is reported in approximately half of known cases. On rare occasions, EV-D68 may cause AFM. This rare but serious neurologic condition primarily affects children and typically presents with sudden limb weakness. There are no available vaccines or specific treatments for RV or EV, including EV-D68, and clinical care is supportive.

Because of genomic similarities between RVs and EVs, they are indistinguishable from one another on multiplex respiratory assays often used in clinical settings (i.e., assays used in local clinical laboratories and those in commercial reference laboratories). Differentiation between RV and EV and confirmation of a specific RV or EV type requires typing by molecular sequencing or by using an EV-D68-specific real-time reverse transcription-polymerase chain reaction (rRT-PCR) assay.

In the United States, RVs circulate year-round, with typical peaks in the spring and fall. The typical EV season is late summer and early fall; similarly, EV-D68 is thought to peak in late summer and early fall. In 2014, EV-D68 caused a nationwide outbreak of severe respiratory illness in the United States (1). Since

then, U.S. surveillance has expanded and detected increased EV-D68 activity in the fall of 2016, 2018, and to a lesser degree in 2020. The relatively lower circulation in 2020 may reflect the use of COVID-19 pandemic infection mitigation measures, which are known to have interrupted the circulation of other respiratory viruses (2). Consistent with these annual trends, national numbers of AFM cases also had peaks in the fall of 2014, 2016, and 2018 (3).

In 2018, when EV-D68 most recently circulated at high levels in the United States, the median age of children seeking emergency department or inpatient care for EV-D68-associated respiratory illness was approximately 3 years; however, all ages of children and adolescents can be affected (4). Children with a history of asthma or reactive airway disease may be more likely to require medical care, though children without a known history of asthma can also present with severe illness (1,5). EV-D68 in adults is less understood but is thought to be more commonly detected in patients with underlying conditions (6).

In August 2022, CDC was notified by healthcare providers and hospitals in several regions of the United States of increases in severe respiratory illness in children who also tested positive for RV/EV. Consistent with this, an increase in respiratory specimens positive for RV and/or EV was noted in the National Respiratory and Enteric Virus Surveillance System (NREVSS). In addition, CDC monitors EV-D68 detections across the New Vaccine Surveillance Network (NVSN), a platform of seven U.S. medical centers that perform active, prospective surveillance for pediatric acute respiratory illness. Between April—August 2022, EV-D68 was detected in some children and adolescents with ARI across all seven sites. The number of detections in July—August 2022 was greater than in the same period of the previous three years (2019, 2020, and 2021). As of August 30, 2022, CDC had not received increased reports of AFM cases with onset in 2022. However, increases in EV-D68 respiratory illnesses have typically preceded cases of AFM, indicating that increased vigilance for AFM in the coming weeks will be essential.

Recommendations for Healthcare Providers

- Consider EV-D68 as a possible cause of acute, severe respiratory illness (with or without fever) in children. Adults may also become infected with EV-D68, but it is thought to be more commonly detected in adults with underlying conditions.
- Consider laboratory testing of respiratory specimens for RVs and EVs (typically part of multiplex respiratory assays) when the cause of respiratory infection in severely ill patients is unclear, if not already part of typical diagnostic routine.
- Provide supportive clinical management for RV or EV, including EV-D68. There are no available vaccines or approved antiviral treatments.
- Report clusters of severe respiratory illness to local and state health departments.
- Strongly consider AFM in patients with acute flaccid limb weakness, especially after respiratory illness or fever, and between the months of August and November 2022.
- Collect specimens from multiple sources (cerebrospinal fluid [CSF], serum, stool, and a nasopharyngeal [NP] or oropharyngeal [OP] swab) from patients presenting with possible AFM as early as possible and preferably on the day of onset of limb weakness.
- Coordinate with your state public health laboratory to send AFM specimens to CDC for AFM and polio testing.
- Maintain vigilance and report possible cases of AFM to the state or local health department using the patient summary form.

Recommendations for Laboratories

- Coordinate with your state public health laboratory to submit specimens from possible cases of AFM to CDC for AFM and polio testing.

Note: At this time, CDC does not recommend submitting specimens associated with respiratory illness. However, specific state or local health departments may have additional guidance on specimen submission and testing.

Recommendations for Infection Control in Healthcare Settings

- Place patients with respiratory symptoms who test positive with RV or EV in a single-person room and use recommended personal protective equipment depending on the suspected pathogen. If EV-D68 is suspected, gowns, gloves, and a mask are recommended. Eye protection should be used if the risk for splashes and sprays exists (e.g., near a coughing patient).
- Use hospital-grade disinfectant with an EPA label claim against EV-D68 or any of several other non-enveloped viruses (e.g., norovirus, poliovirus, rhinovirus) to disinfect surfaces in healthcare settings. Follow the manufacturer's instructions for non-enveloped viruses. Use disinfectant products following the manufacturer's instructions for the specific label claim and in a manner consistent with environmental infection control recommendations.
- During periods of high respiratory illness activity, consider requiring visitors to wear well-fitting masks at all times in the facility; visitors with respiratory symptoms or underlying respiratory conditions should delay in-person visitation.

Recommendations for Public Health Departments

- Report cases of AFM to CDC per normal surveillance routines using the patient summary form.
- Encourage all individuals to stay home when sick and practice personal hygiene to reduce transmission.
- Consider the benefits of masking based on this advisory and other known respiratory viruses circulating.

Recommendations for the Public

- Help protect yourself from getting and spreading respiratory viruses, like rhinoviruses or EV-D68, by following these steps:
    - Wash your hands often with soap and water for 20 seconds.
    - Avoid touching your eyes, nose, and mouth with unwashed hands.
    - Avoid close contact such as kissing, hugging, and sharing cups or eating utensils with people who are sick, and when you are sick.
    - Cover your coughs and sneezes with a tissue or your upper shirt sleeve, not your hands.
    - Clean and disinfect frequently touched surfaces, such as toys and doorknobs, especially if someone is sick.
    - Stay home when you are sick.
- Consider wearing a mask around other people if you have respiratory symptoms.
- Contact a healthcare provider immediately if you or your child has trouble breathing or has a sudden onset of limb weakness.
- Ensure you or your child are following an up-to-date asthma action plan if you or your child have asthma.
- Stay up-to-date with all recommended vaccines.

For More Information

- Enterovirus D68 (EV-D68) | CDC
- Acute Flaccid Myelitis (AFM) | CDC
- About Non-Polio Enteroviruses | CDC
- Personal Hygiene | CDC
- Common Colds: Protect Yourself and Others | Features | CDC
- AFM Specimen Collection Instructions | CDC

References

1 Midgley CM, et al. Severe Respiratory Illness Associated with a Nationwide Outbreak of Enterovirus D68 in the USA (2014): A Descriptive Epidemiologic Investigation. Lancet Resp Med 2015; 3:879-887. https://doi.org/10.1016/S2213-2600(15)00335-5.

2 Olson SJ, et al. Changes in Influenza and Other Respiratory Virus Activity during the COVID-19 Pandemic—United States, 2020-2021. *MMWR* Morb Mort Wkly Rep 2021;70:1013-1019. https://dx.doi.org/10.15585/mmwr.mm7029a1.

3 CDC Acute Flaccid Myelitis: AFM Cases and Outbreaks | CDC.

4 Shah MM, et al: Enterovirus D68-Associated Acute Respiratory Illness — New Vaccine Surveillance Network, United States, July–November 2018–2020. *MMWR* Morb Mort Wkly Rep 2021;70:1623-1628. http://dx.doi.org/10.15585/mmwr.mm7047a1.

5 Biggs HM, et al: Enterovirus D68 Infection Among Children with Medically Attended Acute Respiratory Illness, Cincinnati, Ohio, July-October 2014. Clin Infect Dis 2017; 65(2): 315-323. https://doi.org/10.1093/cid/cix314.

6 Kramer R, et al. Molecular Diversity and Biennial Circulation of Enterovirus D68: A Systematic Screening Study in Lyon, France 2010-2016. Euro Surveill. 2018; 23(37): 1700711. https://doi.org/10.2807/1560-7917.ES.2018.23.37.1700711.

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.
Health Advisory	Requires immediate action. Provides important information about a public health event.
Health Update	May require immediate action. Provides updated information about a public health event.
HAN Info Service	Does not require immediate action. Provides general information about a public health event.

##This message was distributed to state and local health officers, state and local epidemiologists, state and local laboratory directors, public information officers, HAN coordinators, and clinician organizations##