The Delaware Division of Public Health (DPH) is issuing this advisory on increasing cases of enteroviruses including EV-D68, prompting heightened awareness for acute flaccid myelitis (AFM) cases in the United States.

Summary

In August 2022, the Centers For Disease Control and Prevention (CDC) was notified of an increase in pediatric hospitalizations in patients with severe respiratory disease associated with rhinovirus (RV) and/or enterovirus (EV). Upon further typing, some specimens have been positive for enterovirus D68 (EV-D68). Although EV-D68 primarily causes acute respiratory illness, it has previously been associated with acute flaccid myelitis (AFM), a rare but serious neurologic complication involving limb weakness. The CDC is recommending that health care providers consider EV-D68 as a possible cause of acute, severe respiratory illness (with or without fever) in children and 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.

Background

CDC was notified in August 2022 that health care providers and hospitals in several regions of the United States are experiencing increases in severe respiratory illness in children who also tested positive for RV/EV. 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. 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. There are no available vaccines or specific treatments for RV or EV, including EV-D68, and clinical care is supportive.

Increases in cases of AFM have occurred between August and November in the United States in 2014, 2016, and 2018. These spikes in cases have been attributed/correlated to enterovirus outbreaks, particularly EV-D68. The biennial pattern was interrupted in 2020, likely due to the nonpharmaceutical interventions implemented to prevent the spread of COVID-19. While AFM primarily affects young children, there have been documented cases among adolescents and adults. AFM can lead to long-term complications, including paralysis, and in rare cases, death. The most common symptoms of AFM are

sudden onset of arm or leg weakness, loss of muscle tone, and loss of reflexes.

AFM has been described as a “polio-like” illness due to their similar clinical presentations, but it is important to note that poliovirus has not been detected in any specimens from patients with AFM. In cases with sudden onset of arm or leg weakness, polio may be considered in the differential, however it should not eliminate the consideration of AFM.

Early detection and medical support are critical to improve long-term health outcomes of children with AFM. Delays in recognition can put children at risk of developing long-term complications.

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

- 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 DPH.
- 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.
- Maintain vigilance and report possible cases of AFM to DPH (see reporting section below).

Reporting

All Delaware physicians, laboratories and other health care providers are required by regulations to report patients with AFM, either based on clinical diagnosis or laboratory confirmation or if there is a strong suspicion for AFM, to the Office of Infectious Disease Epidemiology (OIDE) as listed at Reportable Diseases in Delaware - Delaware Health and Social Services - State of Delaware. Reporting enables appropriate public health follow-up for your patients, helps identify outbreaks, and provides a better understanding of disease trends in Delaware.

Cases can be reported to the DPH Office of Infectious Disease Epidemiology (OIDE) by calling 302-744-4990 (normal business hours) or 1-888-295-5156 (outside of normal business hours). You may also complete a Notifiable Disease Report PDF Form and mail the form as directed, fax the form to DPH at 302-622-4149 or email to mailto:reportdisease@delaware.gvThe form can be found online at https://dhss.delaware.gov/dhss/dph/dpc/rptdisease.html.

For More Information

- CDC Health Alert Network Advisory
    - Severe Respiratory Illnesses Associated with Rhinoviruses and/or Enteroviruses Including EV-D68 – Multistate, 2022
- CDC AFM Pages
    - Acute Flaccid Myelitis
    - Causes of Acute Flaccid Myelitis
    - AFM Information for Clinicians and Health Departments
    - AFM Clinical Guidance
    - AFM Specimen Collection Instructions
- CDC Polio Page

- CDC Global Health - Polio

- America Academy of Pediatrics
  - AFM Overview

References

1. American Academy of Pediatrics. (2022). ***Acute flaccid myelitis.*** Retrieved 09/16, 2022, from https://www.aap.org/en/patient-care/acute-flaccid-myelitis/

2. Centers for Disease Control and Prevention. (2022). ***Causes of acute flaccid myelitis (AFM)***. Retrieved 09/16, 2022, from https://www.cdc.gov/acute-flaccid-myelitis/causes.html

3. Centers for Disease Control and Prevention. (2022). ***How to recognize AFM***. Retrieved 09/16, 2022, from https://www.cdc.gov/acute-flaccid-myelitis/hcp/clinicians-health-departments/clinical-presentation.html

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