



To: CAHAN San Diego Participants

Date: September 20, 2022

From: Public Health Services

Health Advisory: Severe Respiratory Illnesses and Acute Flaccid Myelitis Associated with Enterovirus-D68

Key Messages

- Centers for Disease Control and Prevention (CDC) issued a [health advisory](#) on September 9, 2022 that several regions in the United States noted increased pediatric hospitalizations in patients with severe respiratory illness who also tested positive for rhinovirus (RV) and/or enterovirus (EV).
- California Department of Public Health (CDPH) issued a [health advisory](#) on September 15, 2022, requesting healthcare providers and local health departments to be vigilant for acute flaccid myelitis (AFM).
- Clinicians should report any person with onset of acute flaccid limb weakness, regardless of laboratory results, to the County of San Diego (County) Epidemiology Unit.

Situation

In August 2022, CDC received reports of increasing hospitalizations in pediatric patients with severe respiratory illness who also tested positive for rhinovirus (RV) and/or enterovirus (EV). Since RV and EV are indistinguishable both clinically and on multiplex assays, further typing has resulted positive for enterovirus D68 (EV-D68). Although EV-D68 primarily causes respiratory illness, increases in respiratory disease have historically preceded surges in acute flaccid myelitis (AFM), which typically presents with sudden limb weakness in children that can lead to permanent paralysis. Increases in EV and RV have been seen in the County; however, no detections of EV-D68 have been made thus far. The County is working with CDPH to further type several positive EV and/or RV specimens. CDPH tests AFM specimens for multiple pathogens including, EV-D68 and poliovirus, which also can cause limb weakness in children.

Background

RVs are associated with respiratory disease while, EVs might present as respiratory illness, febrile rash, and neurologic illness that includes aseptic meningitis, encephalitis, or AFM. RV and EV, including EV-D68, are part of the *Enterovirus* genus and have clinical and genomic similarities, however, EV-D68 may cause AFM on rare occasions. In 2014, there was a nationwide increase in severe respiratory illness associated with EV-D68, and disproportionately affected those with a [history of asthma or reactive airway disease](#).

Actions Requested

1. If AFM or polio are suspected:
 - a. Immediately hospitalize the patient.
 - b. Monitor the respiratory status of patients with acute flaccid weakness.
 - c. Order an MRI of the spine and brain with the highest Tesla scanner available.
 - d. Consult promptly with specialists in neurology and infectious diseases for diagnosis and management, as signs and symptoms of AFM overlap with other neurologic conditions.
 - e. Follow [CDC's standard, contact, and droplet infection control precautions](#) for suspected or confirmed AFM cases.

2. Laboratory testing for **suspected AFM or polio cases:**
 - a. Collect cerebrospinal fluid (CSF), serum, stool (two, 24 hours apart), and respiratory specimens (nasopharyngeal or oropharyngeal swabs). The County Public Health Laboratory (PHL) will work with clinical labs to transfer specimens to the CDPH VRDL.
 - b. Please complete the [VRDL General Purpose Submittal Form](#) and the [SDPHL Requisition Form](#) when submitting samples.
 - c. Collect specimens as early as possible after onset, preferably on the day of onset of limb weakness.
 - d. Continue testing at the hospital laboratory for specific pathogens as clinically indicated.
 - e. Do not delay transfer of specimens to PHL while awaiting stool specimens, which can take several days to collect.

3. **Report patients of any age suspected to have AFM or polio as soon as possible:**
 - a. Report suspected cases to the San Diego County Epidemiology Unit
 - i. Monday through Friday 8 am to 5 pm: 619-692-8499
 - ii. After hours: 858-565-5255
 - b. Also submit an [AFM Patient Case Summary Form](#), including MRI reports of the brain and spine, neurology consultation notes, and laboratory test results.

Resources

[AFM Clinical Management | CDC](#)

[AFM General Information | CDC](#)

[AFM Infection control | CDC](#)

[Enterovirus D68 | CDC](#)

[Health Alert Network \(HAN00474\) | CDC](#)

[AFM | CDPH](#)

[AFM Patient Case Summary Form](#)

Thank you for your participation.

CAHAN San Diego

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GAVIN NEWSOM
Governor

Health Advisory: Vigilance for Acute Flaccid Myelitis (AFM) Warranted - Recent Detections of Enterovirus D68 and Poliovirus in the United States September 15, 2022

The California Department of Public Health (CDPH) requests healthcare providers and local health departments to be vigilant for acute flaccid myelitis (AFM), which typically presents with sudden limb weakness in children that can lead to permanent paralysis. Clinicians should consider the diagnosis of AFM in patients with acute onset of flaccid weakness to ensure optimal care.

During periodic surges in AFM before the COVID-19 pandemic, enterovirus D68 (EV-D68) was the most common enterovirus detected among AFM cases, typically in late summer and early fall when enteroviruses tend to circulate. Historically, increases in EV-D68 respiratory disease, including severe disease requiring hospitalization especially in children, have preceded these surges in AFM by several weeks. In August 2022, a similar increase in EV-D68 respiratory disease was detected in sentinel surveillance sites in the United States, including California, thereby warranting increased vigilance for AFM. From January 1, 2022 through September 14, 2022, CDPH has received 11 reports of suspected AFM in persons from California; six have been classified by the Centers for Disease Control and Prevention (CDC) as confirmed cases of AFM. Please see CDC's [recent HAN "Severe Respiratory Illnesses Associated with Rhinoviruses and/or Enteroviruses Including EVD68"](#) for more information.

Importantly, with the identification of a paralytic polio case in an unvaccinated person in New York in July 2022, clinicians should consider polio in patients with suspected AFM who are not fully vaccinated against polio AND have either traveled to or had contact with travelers from areas where polio is circulating.

Action steps when suspecting AFM or polio

Hospitalize the patient immediately:

- Monitor the respiratory status of patients with acute flaccid weakness, which in AFM can progress rapidly to respiratory failure.
- Order an MRI of the spine and brain with the highest Tesla scanner available.
- Consult promptly with specialists in neurology and infectious diseases for diagnosis and management, as signs and symptoms of AFM overlap with other neurologic conditions.
- Follow [CDC's standard, contact and droplet infection control precautions](#) for suspected or confirmed AFM cases.

Report patients of any age suspected to have AFM or polio as soon as possible:

- [Contact the local health department \(LHD\)](#) as soon as possible if AFM is suspected. If polio is suspected, contact the LHD immediately by phone.
- Submit an [AFM Patient Case Summary Form](#), including MRI reports of the brain and spine, neurology consultation notes, and laboratory test results.

Laboratory testing to maximize detection of possible etiologic agents:

- Please collect cerebrospinal fluid (CSF), serum, stool (x2), and respiratory specimens (nasopharyngeal or oropharyngeal swabs). The LHD will work with the clinical lab to transfer specimens to the CDPH VRDL.
- Collect specimens as early as possible after onset, preferably on the day of onset of limb weakness.
- Continue testing at the hospital laboratory for specific pathogens as clinically indicated.
- Please do not delay shipping other specimen types to VRDL while awaiting stool specimens, which can take several days to collect.
- The [CDPH AFM Quicksheet](#) contains additional instructions on specimen submittal and shipping, including completion of VRDL [General Purpose Specimen Submittal Forms](#).

For AFM cases, the CDPH VRDL regularly tests cases for SARS-CoV-2, enterovirus (including typing to identify poliovirus), rhinovirus and adenovirus and conditionally for West Nile, St. Louis encephalitis, Zika, dengue, and chikungunya viruses. The timing of results typically precludes their guiding clinical management.

For questions about shipping specimens to the VRDL, call 510-307-8585. For AFM assistance or consultation, call CDPH Immunization Branch at 510-620-3737 or email AFM@cdph.ca.gov.

For more information

- [AFM information for clinicians and health departments \(CDC\)](#)
- [AFM information for clinicians and health departments \(CDPH\)](#)
- [AFM case definition \(CSTE\)](#)
- [AFM references and resources \(CDC\)](#)
- [AFM considerations for clinical management \(CDC\)](#)
- [AFM CDC Infection control \(CDC\)](#)
- [Poliomyelitis: For Healthcare Providers \(CDC\)](#)
- [Polio Fact sheet \(CDC\)](#)
- [Polio vaccine ACIP recommendation \(CDC\)](#)