



County of Santa Cruz

HEALTH SERVICES AGENCY

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COMMUNICABLE DISEASE UNIT

PUBLIC HEALTH UPDATE **ENTEROVIRUS D68 and ACUTE FLACCID PARALYSIS**

To:	All Healthcare Providers
From:	Lisa B. Hernandez, Health Officer, Santa Cruz County
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CURRENT SITUATION

The Centers for Disease Control and Prevention (CDC) is currently investigating a cluster of pediatric patients hospitalized with acute neurologic illness exhibiting focal limb weakness of undetermined etiology. The illness is characterized by abnormalities of the spinal cord gray matter on MRI. These illnesses occurred in Colorado since August 1, 2014 coincident with an increase of respiratory illnesses among children. The possible linkage of this cluster of neurologic disease to the nationwide outbreak of Enterovirus-D68 (EV-D68) is part of the current CDC investigation.

As of October 2, 2014, we have one confirmed case of EV-D68 in Santa Cruz County. This individual is not hospitalized and did not exhibit neurologic sequelae.

This Public Health Update is to advise providers of this neurologic syndrome with the aim of surveillance and reporting of similar cases to Public Health.

BACKGROUND

- The cases in Colorado were among children aged 1-18 years (median age 10 years).
- Common features included acute focal limb weakness and specific findings on MRI of the spinal cord consisting of non-enhancing brainstem lesions
- None of the children experienced altered mental status or seizures and most had reported a febrile respiratory illness in the two weeks prior to development of neurologic symptoms. Many children experienced significant myalgia prior to the development of acute flaccid paralysis.
- Nasopharyngeal specimens were positive for rhinovirus/enterovirus in six out of eight patients that were tested. Of the six positive specimens, four were typed as EV-D68 and the other two are pending typing results.

- The California Department of Public Health (CDPH) is working with the CDC to conduct enhanced viral testing and surveillance for patients with acute flaccid paralysis.

PATIENTS WITH RESPIRATORY ILLNESS

Consider EV-D68 as a possible cause of acute, unexplained, severe, respiratory illness, even in the absence of fever.

Report cases to the Public Health Department (831-454-4114) who fit the following case definition for respiratory illness:

- Children ≤ 18 years with severe respiratory illness who are hospitalized AND who have tested positive for rhinovirus and/or enterovirus by PCR at a commercial or hospital laboratory.

Since many commercially available PCR tests cannot distinguish enteroviruses from rhinoviruses, patients with enterovirus or rhinovirus positive specimens should be considered for EV-D68 testing through the Public Health laboratory.

PATIENTS WITH NEUROLOGIC SYMPTOMS

Healthcare providers should consider EV-D68 as a possible cause of acute flaccid paralysis, particularly in but not confined to patients aged ≤ 21 years. Criteria for cases to be reported to Public Health (831-454-4114) and submitting specimens to the Public Health Laboratory would include the following:

- Acute flaccid paralysis, including absent or significantly diminished reflexes in one or more limbs AND
- MRI showing grey matter involvement of the spinal cord OR
- EMG showing anterior horn cell disease
- With or without accompanying mental status changes
- Without a confirmed traumatic, neoplastic, arboviral, or vascular etiology

Prior enterovirus/rhinovirus positive result is not required for patients meeting these clinical criteria.

LABORATORY TESTING

To optimize laboratory testing for surveillance purposes, we are requesting the following sample types, collected as close to onset as possible:

- CSF (2-3cc, if available)
- Acute phase serum, collected *prior to treatment* with IVIG (2-3cc in red or tiger top tube)

- Nasopharynx swab (in viral transport media)
- Throat swab (in viral transport media)
- Two stool samples collected ≥ 24 hours apart (quarter-sized amount in sterile wide-mouthed container) and < 14 days after symptom onset. Rectal swab in VTM acceptable if stool is unavailable.

If you have a suspect case, call the Communicable Disease Unit at 831-454-4114 before submitting any specimens.

Neurologic patients: Specimens must be submitted with a two page Neurologic Surveillance and Testing Form case history form at:

<http://www.cdph.ca.gov/programs/vrdl/Documents/NST%20Case%20hx%2011%202012.pdf>

Respiratory patients: Specimens must be submitted with the following form:

<http://www.cdph.ca.gov/programs/vrdl/Documents/Enhanced%20Enterovirus%20EV-D68%20Surveillance%20140929.pdf>

Specimens must be submitted to the Santa Cruz County Public Health Laboratory and will be forwarded to the CDPH Viral and Rickettsial Disease Laboratory.

Health Alert: conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: provides important information for a specific incident or situation; may not require immediate action.

Health Update: provides updated information regarding an incident or situation; unlikely to require immediate action



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