Acute Neurologic Illness of Unknown Etiology in Children

Key Points

- A cluster of focal acute neurologic illnesses was detected by the Colorado Department of Public Health and Environment.
- Illness is characterized by extremity weakness, cranial nerve dysfunction (e.g., diplopia, facial droop, dysphagia, or dysarthria), or both. None of these children experienced altered mental status or seizure.
- Initial nasopharyngeal specimens were collected from eight children. Four were identified as EV-D68.
- CSF testing was negative for EV-D68. Eight patients demonstrated a mild to moderate cerebrospinal fluid (CSF) pleocytosis (>5 white blood cells/µL), predominantly lymphocytic, consistent with an inflammatory or infectious process.
- Seven of eight patients with magnetic resonance imaging of the spinal cord had non-enhancing lesions of the gray matter of the spinal cord spanning multiple levels, and seven of nine with magnetic resonance imaging of the brain had non-enhancing brainstem lesions (most commonly the dorsal pons).

Clinicians should report to their local health department and the Bureau for Public Health all suspected cases in patients aged ≤21 years with:

1) Acute onset of focal limb weakness occurring on or after August 1, 2014, AND
2) Magnetic resonance imaging showing a spinal cord lesion largely restricted to gray matter.

To prevent infections in general:

- Persons should stay home if they are ill
- Wash their hands often with soap and water
- Avoid close contact (such as touching and shaking hands) with those who are ill
- Clean and disinfect frequently touched surfaces

Additional resources can be found on our website at:

For more information, contact your local health department or DIDE at (800)-423-1271, ext. 1 or (304)-558-5358, ext. 1.