

October 9, 2014

Instructions for Michigan Clinical Laboratories, Providers, and Local Health Departments Requesting EV-D68 testing for Children with Neurological Presentations

Please use the attached **revised CDC Patient Summary Form for Acute Neurological Illness with Limb Weakness in Children** to collect demographic, epidemiologic, and clinical information on pediatric patients with neurological presentations that you wish to have tested for enterovirus D68 (EV-D68). All specimens must be approved by a subject matter expert (SME) at the Michigan Department of Community Health (MDCH) Communicable Disease Division **1-517-335-8165** (office hours 8:00am -5:00pm) prior to submission of the specimen(s) to the MDCH Bureau of Laboratories (BOL). Currently EV-D68 testing is being performed by the CDC. **The completed CDC Patient Summary Form with intact cover sheet (with patient identifiers below) should be faxed to the MDCH Communicable Disease Division at 1-517-335-8263.**

After approval for testing by a MDCH SME, specimens may be submitted to the MDCH BOL with a completed MDCH BOL and CDC lab requisition forms; they will then be shipped to CDC. Links to the requisition forms are given below.

(This cover sheet with patient identifiers will be removed by MDCH BOL before sending the Patient Summary Form to the CDC.)

Patient Information:

First name _____ Last name _____

Date of birth ____/____/____ Age _____ Sex Female Male

Street address _____ City _____ County _____

Hospital ID number _____ State ID number _____
(MDCH use)

- For MDCH BOL requisition form:
http://www.michigan.gov/documents/DCH-0583TEST_REQUEST_7587_7.pdf
- For CDC lab requisition form:
http://www.michigan.gov/documents/mdch/HUMAN_form-50-34_410210_7.pdf

Additional Resources

- <http://www.cdc.gov/non-polio-enterovirus/about/EV-D68.html>
- <http://www.cdc.gov/ncird/investigation/viral/sep2014.html>

PROVIDERS: DO NOT TEAR OFF THIS COVER SHEET – KEEP ATTACHED TO THE CDC PATIENT SUMMARY FORM when you fax to MDCH Communicable Disease Division at 517-335-8263



[Type text]

CDC ID _____

PART I. Acute Neurological Illness with Limb Weakness in Children: Patient Summary Form

Form to be completed by, or in conjunction with, a physician who provided care to the patient during the neurological illness.

Confirmation of case:	Yes	No	Unknown
a. Neurological findings (upon examination by clinician) include focal limb weakness			
b. MRI of spinal cord demonstrates spinal lesion(s) largely restricted to or predominantly affecting the gray matter. (Terms in the spinal cord MRI report such as “affecting mostly gray matter,” “affecting the anterior horn or anterior horn cells,” “affecting the central cord,” “anterior myelitis,” or “poliomyelitis” would all be consistent with this. If still unsure if this criterion is met, consider asking the radiologist directly.)			
c. Age at onset of limb weakness is 21 years or less			
d. Onset of limb weakness was August 1, 2014 or later			

Answer to ALL 4 criteria must be YES. If yes, continue to Part II on pages 2 - 5.

If you have any questions about whether your patient meets all 4 criteria, please e-mail us at limbweakness@cdc.gov

**Form Approved
OMB No. 0920-0009
Exp Date: 04/30/2016**

Public reporting burden of this collection of information is estimated to average 60 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information including suggestions for reducing this burden to CDC/ATSDR Reports Clearance Officer; 1600 Clifton Road NE, MS D-74 Atlanta, Georgia 30333;

PART II. Acute Neurological Illness with Limb Weakness in Children: Patient Summary Form

Form to be completed by, or in conjunction with, a physician who provided care to the patient during the neurological illness. Once completed, submit to Health Department (HD). HD can also facilitate specimen testing.

1. Today's date ___/___/___ (mm/dd/yyyy) 2. Name of person completing form: _____
3. Affiliation _____ Phone: _____ Email: _____
4. Name of physician who can provide additional clinical/lab information, if needed _____
5. Affiliation _____ Phone: _____ Email: _____
6. Name of main hospital that provided patient's care: _____ 7. State: _____ 8. County: _____
9. Patient ID: _____ 10. State ID: _____ 11. Patient's sex: M F
12. Patient's age: _____ years AND _____ months Patient's residence: 13. State _____ 14. County _____
15. Race: Asian Black or African American Native Hawaiian or Other Pacific Islander American Indian or Alaska Native
 White (check all that apply) 16. Ethnicity: Hispanic Non-Hispanic
17. Date of onset of limb weakness: ___/___/___ (mm/dd/yyyy) 18. Was patient admitted to a hospital? yes no unknown
19. Date of admission to **first** hospital ___/___/___ 20. Date of discharge from **last** hospital ___/___/___ (or still hospitalized)
21. Current clinical status: recovered not recovered, but improved not improved Deceased: 22. Date of death ___/___/___

Signs/symptoms/condition at ANY time during the illness:				
	Right Arm	Left Arm	Right Leg	Left Leg
23. Since neurologic illness onset, which limbs have been acutely weak? [indicate yes(y), no (n), unknown (u) for each limb]	Y N U	Y N U	Y N U	Y N U
24. Date of neurologic exam (recorded at worst weakness thus far) (mm/dd/yyyy)	___/___/___			
25. Reflexes in the affected limb(s): (recorded at worst weakness thus far)	<input type="checkbox"/> Areflexic/hyporeflexic (0-1) <input type="checkbox"/> Normal (2) <input type="checkbox"/> Hyperreflexic (3-4+)			
26. Any sensory loss/numbness in the affected limb(s), at any time during the illness? (paresthesias should not be considered here)	Y N U			
27. Any pain or burning in the affected limb(s)? (at any time during illness)	Y N U	Y N U	Y N U	Y N U
			Yes	No
28. Sensory level on the torso (ie, reduced sensation below a certain level of the torso)? (at any time during illness)				Unknown
29. At any time during the illness, please check if the patient had any of the following cranial nerve signs:				
<input type="checkbox"/> Diplopia/double vision (If yes, circle the cranial nerve involved if known: 3 / 4 / 6)				
<input type="checkbox"/> Loss of sensation in face <input type="checkbox"/> Facial droop <input type="checkbox"/> Hearing loss <input type="checkbox"/> Dysphagia <input type="checkbox"/> Dysarthria				
30. Any pain or burning in neck or back? (at any time during illness)				
31. Bowel or bladder incontinence? (at any time during illness)				
32. Cardiovascular instability (e.g, labile blood pressure, alternating tachy/bradycardia)? (at any time during illness)				
33. Change in mental status (e.g, confused, disoriented, encephalopathic)? (at any time during illness)				
34. Seizure(s)? (at any time during illness)				
35. Received care in ICU because of neurological condition? (at any time during illness)				
36. Received invasive ventilatory support (e.g, intubation, tracheostomy) because of neurological condition?				

Other patient information:

Within the 4-week period BEFORE onset of limb weakness, did patient:	Yes	No	Unk	
37. Have a respiratory illness?				38. If yes, date of onset ___/___/_____
39. Have a fever, measured by parent or provider and $\geq 38.0^{\circ}\text{C}/100.4^{\circ}\text{F}$?				40. If yes, date of onset ___/___/_____
41. Receive oral, IM or IV steroids?				
42. Receive any other systemic Immunosuppressant(s)?				43. If yes, list:
44. Travel outside the US?				45. If yes, list country
46. Does patient have any underlying illnesses?				47. If yes, list
48. On the day of onset of limb weakness , did patient have a fever? (see definition above)				

Polio vaccination history:

49. How many doses of inactivated polio vaccine (IPV) are documented to have been received by the patient before the onset of weakness?	_____ doses	<input type="checkbox"/> unknown
50. How many doses of oral polio vaccine (OPV) are documented to have been received by the patient before the onset of weakness?	_____ doses	<input type="checkbox"/> unknown
51. If you do not have documentation of the <i>type</i> of polio vaccine received: a. What is total number of documented polio vaccine doses received before onset of weakness?	_____ doses	<input type="checkbox"/> unknown

Neuroradiographic findings: (*Indicate based on most abnormal study*)

MRI of spinal cord 52. Date of study ___/___/_____ (mm/dd/yyyy)

53. Levels imaged: cervical thoracic lumbosacral unknown

54. Gadolinium used? yes no unknown

55. Location of lesions:	<input type="checkbox"/> cervical cord <input type="checkbox"/> thoracic cord <input type="checkbox"/> conus <input type="checkbox"/> cauda equina <input type="checkbox"/> unknown	Levels of cord affected (if applicable): 56. Cervical: _____ 62. Thoracic: _____
For cervical and thoracic cord lesions	57. What areas of spinal cord were affected?	<input type="checkbox"/> predominantly gray matter <input type="checkbox"/> predominantly white matter <input type="checkbox"/> both equally affected <input type="checkbox"/> unknown
	58. Was there cord edema?	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> unknown
For cervical, thoracic cord or conus lesions	59. Did any lesions enhance with GAD?	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> unknown
For cauda equina lesions	60. Did the ventral nerve roots enhance with GAD?	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> unknown
	61. Did the dorsal nerve roots enhance with GAD?	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> unknown

MRI of brain

62. Date of study ___/___/_____ (mm/dd/yyyy)

63. Gadolinium used? yes no unknown

64. Any supratentorial (i.e, lobe, cortical, subcortical, basal ganglia, or thalamic) lesions	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> unknown	
	65. If yes, indicate location(s)	<input type="checkbox"/> cortex <input type="checkbox"/> subcortex <input type="checkbox"/> basal ganglia <input type="checkbox"/> thalamus <input type="checkbox"/> unknown
	66. If yes, did any lesions enhance with GAD?	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> unknown
67. Any brainstem lesions?	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> unknown	
	68. If yes, indicate location:	<input type="checkbox"/> midbrain <input type="checkbox"/> pons <input type="checkbox"/> medulla <input type="checkbox"/> unknown
	69. If yes, did any lesions enhance with GAD?	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> unknown
70. Any cranial nerve lesions?	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> unknown	
	71. If yes, indicate which CN(s):	CN _____ <input type="checkbox"/> unilateral <input type="checkbox"/> bilateral CN _____ <input type="checkbox"/> unilateral <input type="checkbox"/> bilateral
		CN _____ <input type="checkbox"/> unilateral <input type="checkbox"/> bilateral CN _____ <input type="checkbox"/> unilateral <input type="checkbox"/> bilateral
	72. If yes, did any lesions enhance with GAD?	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> unknown
73. Any lesions affecting the cerebellum ?	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> unknown	

74. Was an EMG done? yes no unknown If yes, date ___/___/_____ (mm/dd/yyyy)

75. If yes, was there evidence of acute motor neuropathy, motor neuronopathy, motor nerve or anterior horn cell involvement?
yes no unknown

CSF examination:

76. Was a lumbar puncture performed? yes no unknown If yes, complete 77 (If more than 2 CSF examinations, list earliest and then most abnormal)

	Date of lumbar puncture	WBC/mm3	% neutrophils	% lymphocytes	% monocytes	% eosinophils	RBC/mm3	Glucose mg/dl	Protein mg/dl
77a. CSF from LP1									
77b. CSF from LP2									

Pathogen testing performed:

78. Was CSF tested for the following pathogens?	Date of specimen collection ___/___/_____ <input type="checkbox"/> Not done
	Enterovirus PCR: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Not done If positive: type: _____ <input type="checkbox"/> Not typed
	West Nile Virus PCR: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Not done If positive, test type: <input type="checkbox"/> IgM <input type="checkbox"/> PCR
	Herpes Simplex Virus PCR: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Not done
	Cytomegalovirus PCR: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Not done
	Varicella Zoster Virus PCR: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Not done
	Other pathogen identified: specify: _____ Type of test: _____

[Type text]

CDC ID _____

79. Was a respiratory tract specimen tested for the following pathogens?	Date of specimen collection ____/____/____ <input type="checkbox"/> Not done
	Enterovirus/rhinovirus PCR: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Not done If positive: type: _____ <input type="checkbox"/> Not typed
	Adenovirus PCR: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Not done If positive: type: _____ <input type="checkbox"/> Not typed
	Influenza virus PCR: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Not done If positive: type: _____ <input type="checkbox"/> Not typed
	Other pathogen identified: specify: _____ Type of test: _____

80. Was a stool specimen tested for the following pathogens?	Date of specimen collection ____/____/____ <input type="checkbox"/> Not done
	Enterovirus PCR: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Not done If positive: type: _____ <input type="checkbox"/> Not typed
	Poliovirus PCR: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Not done
	Poliovirus culture: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Not done
	Other pathogen identified: specify: _____ Type of test: _____

81. Was serum tested for the following pathogens?	Date of specimen collection ____/____/____ <input type="checkbox"/> Not done
	West Nile Virus: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Not done If positive, test type: <input type="checkbox"/> IgM <input type="checkbox"/> PCR
	Other pathogen identified: specify: _____ Type of test: _____

82. Describe any other laboratory finding(s) considered to be significant _____

83. Was/Is a **specific etiology** considered to be the most likely cause for the patient's neurological illness? yes no unknown

84. If yes, please list etiology and reason(s) considered most likely cause _____

Treatment:

85. Were any of these therapies administered for the acute neurologic illness? (as of time of form completion)

	Yes	No	Unknown	
a. Antibiotics				If yes, date first administered: ____/____/____
b. Antivirals				If yes, specify _____; date first administered: ____/____/____
c. Corticosteroids				If yes, date first administered: ____/____/____
d. Intravenous immune globulin (IVIG)				If yes, date first administered: ____/____/____
e. Plasma exchange or Plasmapheresis				If yes, date first administered: ____/____/____
f. Interferon				If yes, specify _____; date first administered: ____/____/____
g. Other immunosuppressive therapy				If yes, specify _____; date first administered: ____/____/____

86. Other information you would like us to know _____

87. Indicate which type(s) of specimens from the patient are **currently stored**, and could be available for possible additional testing at CDC:

- CSF Nasal wash/aspirate BAL spec Tracheal aspirate NP/OP swab Stool Serum Other, list _____
- No specimens stored

[Type text]

This section below for CDC use

CSID (DASH ID) _____

Patient Number (assigned by CDC PPLB Lab) _____

State Specimen ID _____

Other specimen notes _____
