



Acute Flaccid Myelitis Investigation Guideline

Contents

CASE DEFINITION	2
LABORATORY ANALYSIS	3
INVESTIGATOR RESPONSIBILITIES	6
STANDARD CASE INVESTIGATION AND CONTROL METHODS	6
Case Investigation	6
Contact Investigation	6
Isolation, Work and Daycare Restrictions.....	6
Education	6
DATA MANAGEMENT AND REPORTING TO THE KDHE	7
ADDITIONAL INFORMATION / REFERENCES	7
ATTACHMENTS	7
Table 1: Specimens to be collected for hospitalized and discharged patients:	8
Table 2: Specimens collect in the event of a death.....	9
Instructions for Completing the AFM Patient Summary Form	10

Attachments can be accessed through the Adobe Reader's navigation panel for attachments. Throughout this document attachment links are indicated by this symbol ; when the link is activated in Adobe Reader it will open the attachments navigation panel. The link may not work when using PDF readers other than Adobe.

Acute Flaccid Myelitis (AFM)

Disease Management and Investigation Guidelines

CASE DEFINITION

Criteria for Public Health Surveillance:

An illness with onset of acute focal limb weakness AND

- a magnetic resonance image (MRI) showing spinal cord lesion largely restricted to gray matter and spanning one or more spinal segments, OR
- cerebrospinal fluid (CSF) with pleocytosis (white blood cell count >5 cells/mm³)

Notes on MRI and CSF testing:

- *Spinal cord MRI Terms that are consistent with “restricted to gray matter and spanning...” include: “affecting mostly gray matter”, “affecting the anterior horn or anterior horn cells”, “affecting the central cord”, “anterior myelitis” or “poliomyelitis. If a physician is still unsure if the case criterion is met, consider consulting with the neurologist or radiologist directly.*
- *If CSF has red blood cells present, the white blood cell count should be adjusted for the presence by subtracting 1 white blood cell for every 500 red blood cells present.*

Case Classification:

Confirmed:

- An illness with onset of acute focal limb weakness AND
- MRI showing spinal cord lesion largely restricted to gray matter and spanning one or more spinal segments.

Probable:

- An illness with onset of acute focal limb weakness AND
- CSF showing pleocytosis (white blood cell count >5 cells/mm³).

Comments on AFM Surveillance:

- *Purpose: to further understand the impact of AFM including potential causes and how often the illness occurs in the United States.*
- *To accomplish this, specimens, including stool, respiratory and cerebrospinal fluid from the children with AFM, are tested at the Centers for Disease Control and Prevention (CDC) Polio and Picornavirus Laboratory Branch.*
- *The testing that is done at the CDC is for investigational purposes, and it is unlikely that results would be available in a timely fashion to guide the clinical management of the patient.*

NOTIFICATION TO PUBLIC HEALTH AUTHORITIES

- 1) Health care providers and hospitals shall report to KDHE-BEPHI any [confirmed or probable cases](#) by calling 1-877-427-7317 and submitting the [AFM Patient Case Summary Form](#) AND copy of pertinent medical records.

**Kansas Department of Health and Environment (KDHE)
Bureau of Epidemiology and Public Health Informatics (BEPHI)
Phone: 1-877-427-7317
Fax: 1-877-427-7318**

- 2) KDHE-BEPHI must approve the laboratory testing prior to specimen submission and will serve as a consultant providing guidance on specimens to submit for testing at public health laboratories.
- 3) KDHE-BEPHI will contact the Kansas Health and Environmental Laboratories (KHEL) and provide them with a copy of page one of the [AFM Patient Case Summary Form](#).
- 4) KHEL staff will prepare to receive and package the specimens for shipment to CDC and will email the CDC representatives on what is being shipped.

LABORATORY ANALYSIS:

After approval, a full set of specimens (listed under [Specimen Collection](#)) with a completed [Form 50.34](#) should be sent for delivery Monday – Friday to:

Kansas Health and Environmental Laboratories
Attention: Virology/Serology – AFM Testing
6810 SE Dwight Street
Topeka, KS 66620
Telephone Number: 785-296-1644

Handling and Shipping

- 1) Samples should be refrigerated/frozen and shipped as soon as possible.
- 2) Shipment of approved samples should meet the following requirements:
 - Accompanied by a completed CDC [Form 50.34](#).
 - Shipped in an [insulated category B shipper](#) with cold packs for refrigerated samples (or dry ice for frozen samples).
 - Delivery arranged to KHEL for Monday through Friday
- 3) KHEL will freeze samples at -20°C and ship to the CDC on dry ice.
- 4) With each patient's specimen KHEL will submit a hard copy of the following:
 - Page 1 of the completed [Acute Flaccid Myelitis: Patient Summary Form](#).
 - A completed submission [form 50.34](#).
- 5) Further guidance on proper handling of specimens for viral testing can be found at www.kdheks.gov/virosero/Viral_Isolation.html, including:
 - [Viral Culture Rejection Criteria \(.pdf\)](#)
 - [Viral Culture Specimen Collection and Transport Guidelines \(.pdf\)](#)

Specimen Collection

- 1) Collect specimens as early as possible in the course of illness, preferably on the day of onset of limb weakness.
- 2) Specimens should be collected and sent even if testing for any other etiological agent such as EV-D68 occurred and were negative.
- 3) For currently hospitalized patients, collect all the specimens listed below.
 - If they have not been collected or no specimen is remaining, it is requested that repeat specimens be collected.
- 4) For patients discharged from the hospital:
 - If it has been less than 30 days since the hospital admission date, please send any stored specimens from the list below. If any were not collected or no longer available, consider obtaining the specimen from the patient.
 - If it has been more than 30 days since the hospital admission date, please send any stored specimens listed below.
- 5) EACH of the following specimens is requested:
 - CSF (as much sample as available, in sterile collection tube)
 - Upper respiratory tract specimen (ranked by first to last preference), all placed in viral transport media with the exception of the wash/aspirate:
 - Nasopharyngeal swab >> Nasal swab >> Nasal wash/aspirate (no special medium required) >> oropharyngeal swab
 - Serum: 2-3 cc collected in red top or tiger-top tubes prior to treatment with IVIG or plasmapheresis. (If treatment has already occurred, indicate date of therapy on the [Acute Flaccid Myelitis: Patient Summary Form](#)).
 - Acute: Collect as soon as possible.
 - Convalescent: Collected 10-14 days after first serum, or at the time of patient discharge, whichever comes first.
 - Two stools collected 24 hours apart (in patients with a compatible clinical picture) two quarter-sized amounts in sterile wide-mouth container or two rectal swabs in viral transport media.

For additional information, including information on pathology specimens, review [Table 1](#) and [Table 2](#) extracted from the CDC webpage:

www.cdc.gov/acute-flaccid-myelitis/hcp/instructions.html

EPIDEMIOLOGY

AFM is one of a number of conditions that can result in neurologic illness with limb weakness. Such illnesses can result from a variety of causes, including viral infections, environmental toxins, genetic disorders, and Guillain-Barre syndrome. From August 2014 to July 2015, CDC verified reports of 120 children in 34 states who developed AFM. The apparent increase in AFM in 2014 coincided with an outbreak of severe respiratory illness caused by enterovirus D68 (EV-D68). Despite the timing, a cause for the 2014 AFM cases has not been determined.

DISEASE OVERVIEW

A. Agent:

The specific causes of this illness are still under investigation. Additional laboratory testing at the will attempt to determine an etiological agent. The AFM cases are most similar to illnesses caused by viruses, including:

- Enteroviruses (polio and non-polio),
- Adenovirus,
- West Nile virus and similar viruses, and
- Herpesviruses

B. Clinical Description:

The condition affects the nervous system, specifically the spinal cord resulting in a sudden onset of limb weakness and loss of muscle tone and reflexes. Additional developments may include: facial droop/weakness, difficulty moving the eyes, drooping eyelids, or difficulty with swallowing or slurred speech. Numbness or tingling is rare, though some patients may have pain in arms or legs. Some patients may not be able to pass urine, and the most severe symptom is paralysis of the muscles of respiration.

C. Reservoirs:

Dependent upon agent, but may include humans and mosquitos

D. Mode(s) of Transmission:

Dependent upon agent, but may include person-to-person via fecal-oral and/or respiratory secretions, or vector-borne by bite of the arthropod

E. Incubation Period:

Dependent upon agent. For comparison, paralytic polio cases were reported with a range of 3 to possibly 35 days, commonly within 7-14 days.

F. Period of Communicability:

Not well defined, but as long as agent is excreted (body fluids/feces) or present in blood. For enteroviruses, fecal viral shedding can persist for several weeks or months after onset of infection, but respiratory tract shedding usually is limited to 1 to 3 weeks or less. Viral shedding can occur without clinical illness.

G. Differential Diagnoses:

Other etiologies of childhood acute flaccid paralysis, such as bacterial infections of the central nervous system, Guillain-Barré syndrome, transverse myelitis, or other immune-mediated etiologies should be considered, and if found, appropriate intervention should be rendered.

The following document provides interim considerations for clinical management of “Acute flaccid myelitis” when the alternative diagnosis has been explored and not found:

- [Acute Flaccid Myelitis: Interim Considerations for Clinical Management \(www.cdc.gov/acute-flaccid-myelitis/downloads/acute-flaccid-myelitis.pdf\)](http://www.cdc.gov/acute-flaccid-myelitis/downloads/acute-flaccid-myelitis.pdf)

INVESTIGATOR RESPONSIBILITIES

- 1) [Report](#) all AFM cases to the KDHE-BEPHI.
- 2) Contact medical provider to collect additional information and confirm diagnosis using current [case definition](#).
- 3) Consult with KDHE-BEPHI, to obtain approval for testing at CDC.
 - Forward pertinent medical records and information to KDHE-BEPHI.
 - An EpiTrax record will be created for all approved cases, and the case morbidity report (CMR) number will be used as the “Patient Identification Number” for all forms and specimens sent to CDC.
 - Ensure specimens are [forwarded to KHEL](#) and an [AFM Patient Case Summary Form](#) is completed and [sent to KDHE-BEPHI](#).
- 4) [Record](#) data, collected during the investigation, in the KS EpiTrax system under the data’s associated [\[tab\]](#) in the case morbidity report (CMR).
- 5) If requested, assist with the completion of any additional reporting forms or investigation as directed by KDHE-BEPHI.

STANDARD CASE INVESTIGATION AND CONTROL METHODS

Case Investigation

Standard case investigation will entail completion of the [AFM Patient Case Summary Form](#) utilizing CDC provided instructions and ensuring appropriate specimens are forwarded to the KHEL.

Contact Investigation

No routine contact investigation will be needed for sporadic cases. Further guidance will be provided by KDHE-BEPHI depending upon the situation.

Isolation, Work and Daycare Restrictions

Restrictions are dependent upon the suspected etiological agent. Utilize the following resources:

- [KAR 28-1-6 Requirements for Isolation and Quarantine of Specific Infectious and Contagious Diseases](#)
- [Kansas Classroom Handbook of Communicable Diseases](#)
- [Control of Communicable Diseases Manual](#)

Education

Education measures will be influenced by the suspected etiological agent, but the general prevention messages may include:

- Following recommended vaccination schedules,
- Avoiding mosquitoes bites,
- Promoting respiratory and hand hygiene etiquette,
- Limiting contact of ill individuals with others, and
- Extra cleaning of contact surfaces with disinfectants.

DATA MANAGEMENT AND REPORTING TO THE KDHE

- A. Accept the case assigned to the LHD and record the date the LHD investigation was started on the **[Administrative]** tab.
- B. Organize and collect data, using appropriate data collection tools including:
 - [AFM Patient Case Summary Form](#) (This form may have already been completed and reported to KDHE. If available, it can be found in attachments on **[Notes]** tab.)
- C. Report data collected during the course of the investigation via EpiTrax.
 - Enter any additional information directly into EpiTrax **[Investigation]**, **[Clinical]**, **[Demographics]**, **[Epidemiological]** tabs.
 - Some data that cannot be reported on an EpiTrax **[tab]** may need to be recorded in **[Notes]** or scanned and attached to the record.
 - Paper report forms do not need to be sent to KDHE after the information is recorded and/or attached in EpiTrax. The forms should be handled as directed by local administrative practices.
- D. Once the investigation is completed, the LHD investigator will record the date the investigation was completed on the **[Administrative]** tab and click the “Complete” button. This will trigger an alert to the LHD Administrator so they can review the case before sending to the state.
 - The LHD Administrator will then “Approve” or “Reject” the CMR.
 - Once a case is “Approved” by the LHD Administrator, BEPHI staff will review and close the case after ensuring it is complete and that the case is assigned to the correct event, based on the reported symptoms reported. (Review the [EpiTrax User Guide, Case Routing](#) for further guidance.)

ADDITIONAL INFORMATION / REFERENCES

- A. **Treatment / Differential Diagnosis:** Red Book: 2015 Report of the Committee on Infectious Diseases. 30th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2015.
- B. **Epidemiology, Investigation and Control:** Heymann. D., ed., Control of Communicable Diseases Manual (CCDM), 20th Edition. Washington, DC, American Public Health Association, 2015.
- C. **Case Definitions:** CDC Division of Public Health Surveillance and Informatics, Available at: wwwn.cdc.gov/nndss/
- D. **Kansas Regulations/Statutes Related to Infectious Disease:** www.kdheks.gov/epi/regulations.htm
- E. **Additional Information (CDC):** www.cdc.gov/acute-flaccid-myelitis/index.html

ATTACHMENTS

To view attachments in the electronic version:

1. Go to <View>; <Navigation Pane>; <Attachments> – OR – Click on the “Paper Clip”  icon at the left.
2. Double click on the document to open.

Table 1: Specimens to be collected for hospitalized and discharged patients:

Specimen type	Optimal timing for collection	Collection specifications	Minimum amount	
Cerebrospinal fluid (CSF)	As early in illness as possible, preferably at time of first evaluation/admission	Collect in sterile container, no special medium required.	Please send as much sample as available, since multiple tests may be performed at CDC.	
Upper respiratory tract specimen	Ranked below by first to last preference			
	1. Nasopharyngeal swab (see figure below) [§]	As early in illness as possible, preferably at time of first evaluation/admission	Store in viral transport medium	1ml
	2. Nasal swab	As early in illness as possible, preferably at time of first evaluation/admission	Store in viral transport medium	1ml
	3. Nasopharyngeal wash or aspirate	As early in illness as possible, preferably at time of first evaluation/admission	Collect in sterile container, no special medium required	1ml
	4. Oropharyngeal swab	As early in illness as possible, preferably at time of first evaluation/admission	Store in viral transport medium	1ml
Blood	1. Serum	Paired acute and convalescent* specimens are optimal. Single serum specimens are acceptable.		Please send as much sample as available (Ideally 0.8 – 2 ml), since multiple tests will be performed at CDC.
	2. Whole blood	Acute specimens are optimal.	Prefer specimens with no anticoagulants (EDTA, heparin, or citrate)	≥1 ml
Stool	Ranked below by first to last preference			
	1. Whole stool	Two samples total, collected at least 24 hours apart, both collected as early in illness as possible and ideally within 14 days of illness onset	Collect in sterile container, no special medium required	≥1gram
	2. Rectal swab [§]	Two samples total, collected at least 24 hours apart, both collected as early in illness as possible and ideally within 14 days of illness onset	Store in viral transport medium	≥1gram

^PFor nasopharyngeal (NP)/ oropharyngeal (OP) or rectal swabs please use only sterile dacron or rayon swabs with plastic shafts or if available, flocked swabs. DO NOT use calcium alginate swabs or swabs with wooden sticks, as they may contain substances that inactivate some viruses and inhibit some molecular assays. Place the NP/OP swabs immediately into a sterile vial containing 2 ml of viral transport media without antibiotics aseptically, cut or break applicator stick off near the tip to permit tightening of the cap. Sterile PBS or Hank’s balanced salt solution (HBSS) (no antibiotics) can be used in lieu of viral transport medium.

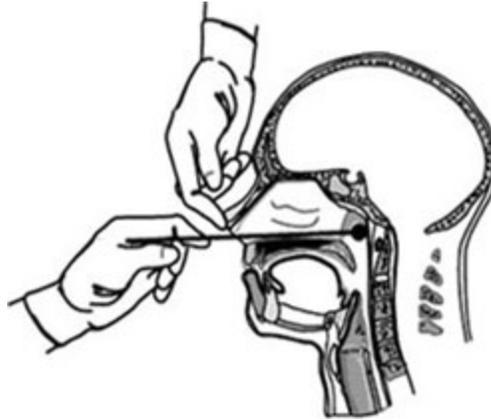


Figure. Technique for collection of a nasopharyngeal swab. For more information on the proper technique, see the videos at [Pertussis \(Whooping Cough\) Specimen Collection](#).

Image: Manual for the Surveillance of Vaccine-Preventable Diseases, 4th ed, 2008

*Convalescent sera should be collected 10-14 days after the first serum specimen, or at time of patient discharge, whichever comes first.

Table 2: Pathology specimens to be collected in the event of a death.

Specimen type	Handling	Storage	Shipping	Comments
Fresh-frozen tissue	Place directly on dry ice or liquid nitrogen	Freeze at -70°C	Ship on dry ice	Representative sections from various organs are requested, but particularly from brain/spinal cord (including gray and white matter), heart, lung, liver, kidney, and other organs as available.
Formalin-fixed or formalin-fixed, paraffin-embedded tissue	Avoid prolonged fixation—tissues should have been fixed in formalin for 3 days, then transferred to 100% ethanol	Room temperature	Ship at room temperature with paraffin blocks in carriers to prevent breakage	See comment above regarding frozen tissue.

Instructions for Completing the AFM Patient Summary Form

GENERAL. Clinicians should report all patients who meet the case definition (as specified on page 4) for AFM to their state or local health department using this *Patient Summary Form*.

- a. Clinicians should report patients who meet the case definition regardless of any laboratory results.
- b. This form should be completed by, or in conjunction with, a clinician who provided care to the patient during the neurologic illness.
- c. So that cases can be monitored in as real time as possible, this form should be submitted to the state or local health department as soon as possible after case identification.

CDC requests that state health departments also submit the *Patient Summary Form* to CDC to help monitor these cases at the national level. A form that is largely complete but has some information pending (e.g., hospital or health department laboratory results) or under investigation (e.g., polio vaccination history) should still be submitted as soon as possible, and the pending results can then be provided to CDC when they become available.

Demographics

1. **TODAY'S DATE.** Date that clinician is initiating completing the patient summary form.
2. **STATE ASSIGNED ID.** Alpha/numeric
3. **SEX.** Indicated whether the case-patient is male or female.
4. **DATE OF BIRTH.** Case-patient birth date.
5. **RESIDENCE.** State in which case-patient resides.
6. **COUNTY.** County in which case-patient resides.
7. **RACE.** Self-reported race of case-patient; more than one option may be reported.
8. **ETHNICITY.** Self-reported ethnicity of case-patient.
9. **DATE OF ONSET OF LIMB WEAKNESS.** Limb weakness onset date of case-patients.
10. **HOSPITALIZED?** Was case-patient hospitalized?
11. **DATE HOSPITALIZED.** Date case-patient FIRST hospitalized.
12. **DATE DISCHARGED.** Date case-patient discharged from LAST hospital (indicate if still hospitalized).
13. **DIED?** Did case-patient die from this illness?
14. **DATE OF DEATH.** Case-patient's date of death.

Signs/symptoms/condition at ANY time during the illness

If the answer to a question is truly UNKNOWN or no information is recorded in the medical record (NOT RECORDED or NR) then check the UNK/NR box, otherwise, leave answer blank.

15. **WHICH LIMBS HAVE BEEN ACUTELY WEAK?** Specify any/all limbs (arms and or legs) for which there was noted acute onset of focal weakness.
16. **DATE OF NEUROLOGIC EXAM.** The neurologic examination date recorded at most severe weakness to that point.

17. **REFLEXES IN THE AFFECTED LIMB(S).** Numeric value assigned to reflexes in affected limb(s) recorded at the most severe weakness to that point.
18. **SENSORY LOSS/NUMBNESS?** Has case-patient experienced any sensory loss or numbness in the affected limb(s) at any time during the illness?
19. **BURNING PAIN?** Has case-patient experienced any burning pain in the affected limb(s) at any time during the illness?
20. **SENSORY LEVEL ON THE TORSO?** Has case-patient experienced reduced sensation below a certain level below the torso at any time during the illness?
21. **CRANIAL NERVE FEATURES.** Did case-patient have any cranial nerve features? If YES, indicate the type experienced by the case-patient.
22. **BOWEL OR BLADDER INCONTINENCE?** Has case-patient experienced at any time during the illness bowel or bladder incontinence?
23. **CHANGE IN MENTAL STATUS?** Has case-patient experienced at any time during the illness a change in mental status?
24. **SEIZURES?** Has case-patient experienced any seizures at any time during the illness?
25. **RECEIPT OF POSITIVE PRESSURE VENTILATION?** Has case-patient received positive pressure ventilation, including invasive or non-invasive ventilation and BiPAP or CPAP?

Other patient information

26. **RESPIRATORY ILLNESS?** Did case-patient have a respiratory illness within the 4-week period before onset of limb weakness?
27. **RESPIRATORY ILLNESS ONSET DATE.** Case-patient's respiratory onset date.
28. **GASTROINTESTINAL ILLNESS?** Did case-patient have a gastrointestinal illness (e.g., diarrhea or vomiting) within the 4-week period before onset of limb weakness?
29. **GASTROINTESTINAL ILLNESS ONSET DATE.** Case-patient's gastrointestinal illness onset date.
30. **RASH?** Did case-patient have a new onset rash within the 4-week period before onset of limb weakness?
31. **RASH ONSET DATE.** Case-patient's rash onset date.
32. **FEVER?** Did case-patient have a fever ($\geq 38^{\circ}\text{C}/100.4^{\circ}\text{F}$), measured by parent or provider, within the 4-week period before onset of limb weakness?
33. **FEVER ONSET DATE.** Case-patient's fever onset date.
34. **IMMUNOSUPPRESSING AGENTS?** Did case-patient receive any immuno-suppressing agents within the 4-week period before onset of limb weakness?
35. **IF YES, LIST.** If any, list the date medication first administered, name of medication, how administered, and the dosage, duration, and overall amount received by case-patient.
36. **TRAVEL OUTSIDE U.S.?** Did case-patient travel outside the U.S. within the 4-week period before onset of limb weakness?
37. **IF YES, LIST.** If any, list the country(s) visited by the case-patient.
38. **UNDERLYING ILLNESSES?** Does the case-patient have any underlying illnesses?
39. **IF YES, LIST.** List the case-patient's underlying illness(es).
40. **FEVER ON DAY OF LIMB WEAKNESS ONSET?** Did the case-patient experience a fever (see definition in 32.) on the day of onset of limb(s) weakness?

Polio vaccination history

41. **IPV DOSES?** Indicate, if known, the number of documented inactivated polio vaccine doses received by the case-patient before the onset of limb weakness.
42. **OPV DOSES?** Indicate, if known, the number of documented oral polio vaccine doses received by the case-patient before the onset of limb weakness.
43. **DOCUMENTED POLIO VACCINE DOSES IF TYPE UNKNOWN?** If type of vaccine not known, indicate the total number of documented polio vaccine doses received by case-patient before the onset of weakness.

Neuroradiographic findings

44. **MRI OF SPINAL CORD PERFORMED?** Indicate whether case-patient had an MRI of the spinal cord performed.
45. **IF YES, NUMBER OF SPINAL MRIs PERFORMED.** If case-patient had spinal MRI performed, indicate the number of documented spinal MRIs performed.
For questions 46-71, complete based on results from the most abnormal MRI.
46. **DATE OF STUDY.** Date of the most abnormal MRI of the case-patient's spinal cord.
47. **LEVELS IMAGED.** Indicate the spinal cord levels imaged by MRI.
48. **LOCATION OF LESIONS.** Indicate the location of spinal cord lesions.
49. **CERVICAL CORD LEVEL.** Indicate whether the cervical level was affected.
50. **THORACIC CORD LEVEL.** Indicate whether the thoracic level was affected.
51. **AREAS OF SPINAL CORD AFFECTED.** For cervical and thoracic levels, indicate what spinal cord areas were affected.
52. **CORD EDEMA.** Was there cord edema?
53. **GADOLINIUM USED?** Was gadolinium used with the spinal cord MRI? *If NO, skip to question 59.*
54. **GRAY MATTER LESIONS.** For cervical/thoracic cord or conus lesions if gadolinium used, was there enhancement of any gray matter lesions?
55. **WHITE MATTER LESIONS.** For cervical/thoracic cord or conus lesions if gadolinium used, was there enhancement of any white matter lesions?
56. **CERVICAL/THORACIC NERVE ROOTS.** For cervical/thoracic cord or conus lesions if gadolinium used, was there enhancement of any cervical/thoracic nerve roots?
57. **VENTRAL NERVE ROOTS.** For cauda equina lesions if gadolinium used, was there enhancement of the ventral nerve roots?
58. **DORSAL NERVE ROOTS.** For cauda equina lesions if gadolinium used, was there enhancement of the dorsal nerve roots?
59. **BRAIN MRI PERFORMED.** Indicate whether case-patient had a brain/brainstem/cerebellum MRI performed.
If NO, skip to question 72.
60. **DATE OF STUDY.** Date of the MRI of the case-patient's brain.
61. **SUPRATENTORIAL LESIONS.** Were there any supratentorial lesions identified with the brain MRI?
62. **IF YES, INDICATE LOCATION.** Indicate location of supratentorial lesions identified with the brain MRI.
63. **BRAINSTEM LESIONS.** Were there any brainstem lesions identified with the brain MRI?
64. **IF YES, INDICATE LOCATION.** Indicate location of brainstem lesions identified with the brain MRI.

65. **CRANIAL NERVE LESIONS.** Were there any cranial nerve lesions identified with the brain MRI?
66. **IF YES, INDICATE CRANIAL NERVES.** Indicate in which cranial nerve(s) lesions were detected with the brain MRI.
67. **CEREBELLUM LESIONS.** Were there any lesions detected in the cerebellum?
68. **GADOLINIUM USED?** Was gadolinium used with the brain MRI? *If NO, skip to question 72.*
69. **SUPRATENTORIAL LESIONS.** If gadolinium used, was there enhancement of any supratentorial lesions?
70. **BRAINSTEM LESIONS.** If gadolinium used, was there enhancement of any brainstem lesions?
71. **CRANIAL NERVE LESIONS.** If gadolinium used, was there enhancement of any cranial nerve lesions?
72. **EMG DONE?** Indicate if an EMG was performed and if so, indicate the date.
73. **IF YES, ACUTE MOTOR NEUROPATHY?** If yes an EMG was done, was there evidence of acute motor neuropathy, motor neuropathy, motor nerve or anterior horn cell involvement?
74. **LUMBAR PUNCTURE PERFORMED?** Indicate if there was a CSF examination done (option for up to two. If more than 2 CSF examinations performed, list the first 2 performed).
 - 67a. **CSF from LP1.** Complete findings for lumbar puncture 1.
 - 67b. **CSF from LP2.** Complete findings for lumbar puncture 1.
75. **WAS CSF TESTED?** Complete information for CSF specimen testing for any of the pathogens listed, test type, test results, whether specimen was typed, and type if known. Provide information for the EARLIEST specimen collected if more than one CSF specimen collected and tested.
76. **WAS A RESPIRATORY TRACT SPECIMEN TESTED?** Complete information for respiratory tract specimen testing for any of the pathogens listed, test type, test results, whether specimen was typed, and type if known. Provide information for the EARLIEST specimen collected if more than one respiratory specimen collected and tested.
77. **WAS A STOOL SPECIMEN TESTED?** Complete information for stool specimen testing for any of the pathogens listed, test type, test results, whether specimen was typed, and type if known. Provide information for the EARLIEST specimen collected if more than one stool specimen collected and tested.
78. **WAS SERUM TESTED?** Complete information for serum specimen testing for any of the pathogens listed, test type, and test results. Provide information for the EARLIEST specimen collected if more than one serum specimen collected and tested.
79. **SPECIFIC ETIOLOGY?** Was/Is a specific etiology considered to be the most likely cause for the patient's neurological illness?
80. **IF YES, LIST.** List the etiology determined and reason(s) for considering it the most likely cause for the case-patient's neurological illness.
81. **SPECIMENS TO CDC.** If case-patient classified as confirmed or probable, will clinical specimens be sent to CDC for testing?
82. **SPECIMEN TYPES TO CDC.** If yes, indicate the specimen type(s) that will be sent to CDC.

Case Definition

In June 2015, the Council of State and Territorial Epidemiologists (CSTE) adopted a [standardized case definition for acute flaccid myelitis\[6 pages\]](#). As of August 1, 2015, a patient must meet the CSTE clinical criteria below to be considered either a confirmed or probable case of acute flaccid myelitis:

Acute Flaccid Myelitis case definition:

(<http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/2015PS/2015PSFinal/15-ID-01.pdf>)

Clinical Criteria

An illness with onset of acute focal limb weakness AND

- a magnetic resonance image (MRI) showing spinal cord lesion largely restricted to gray matter and spanning one or more spinal segments, OR
- cerebrospinal fluid (CSF) with pleocytosis (white blood cell count >5 cells/mm³)

Case Classification***Confirmed:***

- An illness with onset of acute focal limb weakness AND
- MRI showing spinal cord lesion largely restricted to gray matter and spanning one or more spinal segments

Probable:

- An illness with onset of acute focal limb weakness AND
- CSF showing pleocytosis (white blood cell count >5 cells/mm³).