WASHOE COUNTY HEALTH DISTRICT
ENHANCING QUALITY OF LIFE

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EPI-NEWS

Public Health

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IN THIS ISSUE: ACUTE FLACCID MYELITIS – UPDATES FOR 2020

Acute Flaccid Myelitis (AFM) – Updates for 2020

Background

Acute flaccid myelitis (AFM) is a serious neurologic condition that affects mostly children and typically presents with sudden limb weakness that can lead to permanent paralysis. AFM surveillance data suggest that enteroviruses, specifically enterovirus D-68 (EV-D68), play a role in AFM. Surveillance for AFM in the U.S. began in 2014 when a large increase in cases was first identified. Since 2014, reported cases of AFM have peaked biennially, with the greatest number of cases occurring during late summer and early fall. **2020 is expected to be another peak year for AFM.** However, it remains to be seen whether the COVID-19 pandemic and social distancing will impact circulation of enteroviruses and trends in AFM. The COVID-19 pandemic has also impacted healthcare-seeking behavior that could provide challenges to the recognition and evaluation of patients with AFM. Therefore, it will be important for clinicians and parents to be aware of the signs and symptoms of AFM to ensure patients receive the appropriate care.

Current Numbers of Confirmed Cases

Since CDC began tracking AFM in August of 2014, there have not been any cases of AFM reported in Washoe County. Nationwide, 633 confirmed cases of AFM have been reported to CDC (Figure 1). Table 1 provides case counts by year.

Figure 1. Number of confirmed U.S. AFM cases reported to CDC by month of onset, August 2014-July 31,2020.

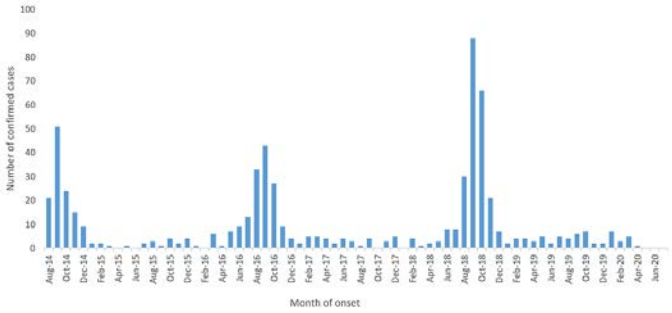

Table 1. Number of confirmed U.S. AFM cases reported to CDC by year, August 2014-July 31,2020.

Year	No. cases	No. States	Note
2020	16	10 + DC	Data for 1/1-7/31
2019	46	18	
2018	238	42	NV had 1 case
2017	38	17	
2016	153	39 + DC	
2015	22	17	
2014	120	34	Data for 8/1-12/31

Recommendation for Clinicians

SUSPECT AFM

Clinicians should strongly suspect AFM in patients with acute flaccid limb weakness, especially after respiratory illness or fever, and between August and November. Recent respiratory illness or fever and the presence of neck or back pain or any neurologic symptom should heighten suspicion of AFM.

HOSPITALIZE IMMEDIATELY

Patients with AFM can progress rapidly to respiratory failure. Clinicians should monitor respiratory status of patients, order MRI of the spine and brain with the highest Tesla scanner available and consult with neurologist and/or infectious disease specialists.

LABORATORY TESTING

Clinicians should collect specimens from patients suspected of having AFM as early as possible in the course of illness (preferably on the day of onset of limb weakness). **The following specimens should be collected: CSF; serum; stool; and a nasopharyngeal (NP) or oropharyngeal (OP) swab.** Coordinate with the Washoe County Health District (WCHD) and the Nevada State Public Health Lab (NSPHL) to send specimens to CDC for AFM testing. Additional instructions regarding specimen collection and shipping can be found at: https://www.cdc.gov/acute-flaccid-myelitis/hcp/specimen-collection.html.

CASE REPORTING

Clinicians should report patients of any age meeting the criteria for AFM to WCHD by phone at 775-328-2447 or fax at 775-328-3764. Criteria for AFM are acute onset of flaccid limb weakness AND MRI showing a spinal cord lesion in at least some gray matter, excluding persons with gray matter lesions in the spinal cord resulting from physician diagnosed malignancy, vascular disease, or anatomic abnormalities. If reporting via fax, please also fax a completed patient summary form (https://www.cdc.gov/acute-flaccid-myelitis/hcp/data-collection.html) along with copies of the spinal cord and brain MRI reports, images, and the neurology consult note. Reports from suspect cases of AFM will be submitted to CDC for determination of case status (i.e., confirmed, probable, not a case).

For More Information

- CDC's AFM Clinician page (with links to information on recognizing, diagnosing, and managing AFM patients): https://www.cdc.gov/acute-flaccid-myelitis/hcp/clinicians-health-departments.html
- AFM physician consult and support portal: https://wearesrna.org/living-with-myelitis/resources/afm-physician-support-portal
- CDC's AFM homepage: https://www.cdc.gov/acute-flaccid-myelitis/index.html
- Resources and references for AFM: https://www.cdc.gov/acute-flaccid-myelitis/hcp/references-resources.html

Please share this document with all physicians/staff in your office/facility

FOR LOCAL USE ONLY

Name of person completing form: _____ State assigned patient ID: _____

Affiliation_____ Phone: _____Email: _____

Name of physician who can provide additional clinical/lab information, if needed _____

Affiliation_____ Phone: _____ Email: _____

Name of main hospital that provided patient's care: _____ State: _____ County: _____

----------***DETACH and transmit only lower portion to AFMInfo@cdc.gov if sending to CDC***----------

Acute Flaccid Myelitis: Patient Summary Form

Form Approved
OMB No. 0920-0009
Exp Date: 08/31/2022

Please send the following information along with the patient summary form: ☐ *MRI report* ☐ *MRI images*

1. Today's date__ __/__ __/__ __ __ __ *(mm/dd/yyyy)* **2**. State assigned patient ID: _____

3. Sex: ☐ M ☐F **4.** Date of birth __ __/ __ __/ __ __ __ __ Residence: **5**. State_____ **6.** County_____

7. Race: ☐American Indian or Alaska Native ☐Asian ☐Black or African American ☐Native Hawaiian or Other Pacific Islander ☐White *(check all that apply)*

8. Ethnicity: ☐Hispanic or Latino ☐Not Hispanic or Latino

9. Date of onset of limb weakness __ __/__ __/__ __ __ __ *(mm/dd/yyyy)*

10. Was patient admitted to a hospital? ☐yes ☐no ☐unknown **11.**Date of admission to **first** hospital__ __/__ __/__ __ __ __

12. Date of discharge from **last** hospital__ __/__ __/__ __ __ __(or ☐ still hospitalized at time of form submission)

13. Did the patient die from this illness? ☐yes ☐no ☐unknown **14**. If yes, date of death__ __/__ __/__ __ __

SIGNS/SYMPTOMS/CONDITION:				
	Right Arm	Left Arm	Right Leg	Left Leg
15. Weakness? [*indicate yes(y), no (n), unknown (u)* ***for each limb***]	Y N U	Y N U	Y N U	Y N U
15a. Tone in **affected** limb(s) [*flaccid, spastic, normal* ***for each limb***]	☐ flaccid ☐ spastic ☐ normal ☐ unknown	☐ flaccid ☐ spastic ☐ normal ☐ unknown	☐ flaccid ☐ spastic ☐ normal ☐ unknown	☐ flaccid ☐ spastic ☐ normal ☐ unknown

	Yes	No	Unk	
16. Was patient admitted to ICU?				**17.** If yes, admit date: __ __/__ __/__ __ __ __
In the 4-weeks **BEFORE onset** of **limb weakness**, did patient:	Yes	No	Unk	
18. Have a respiratory illness?				**19**. If yes, onset date __ __/__ __/__ __ __ __
20. Have a gastrointestinal illness (e.g., diarrhea or vomiting)?				**21**. If yes, onset date __ __/__ __/__ __ __ __
22. Have a fever, measured by parent or provider ≥38.0°C/100.4°F?				**23**. If yes, onset date __ __/__ __/__ __ __ __
24. Have pain in neck or back?				**25.** If yes, onset date __ __/__ __/__ __ __ __
26. At onset of limb weakness, does patient have any underlying illnesses?				**27.** If yes, list:

Magnetic Resonance Imaging:

28. Was MRI of spinal cord performed? ☐ yes ☐ no ☐ unknown **29.** If yes, date of spine MRI: __ __/__ __/__ __ __ __

30. Did the spinal MRI show a lesion in at least some spinal cord gray matter? ☐ yes ☐ no ☐ unknown

31. Was MRI of brain performed? ☐ yes ☐ no ☐ unknown **32.** If yes, date of brain MRI: __ __/__ __/__ __ __ __

CSF examination: **33**. Was a lumbar puncture performed? ☐ yes ☐ no ☐ unknown

If yes, complete 33 (a,b) (*If more than 2 CSF examinations, list the first 2 performed)*

	Date of lumbar puncture	WBC/mm^3	% neutrophils	% lymphocytes	% monocytes	% eosinophils	RBC/mm^3	Glucose mg/dl	Protein mg/dl
33a. CSF from LP1									
33b. CSF from LP2									

At time of 60 day follow-up please collect and send the following information:
☐ *Discharge summary* ☐ *History and physical (H&P)* ☐ *Neurology consult notes* ☐ *EMG report (if done)*
☐ *Infectious disease consult notes (if available)* ☐ *Vaccine registry record* ☐ *Diagnostic laboratory reports*

Acute Flaccid Myelitis Outcome – follow-up of confirmed and probable AFM cases (*completed at 60 days, 6 months and 12 months after onset of limb weakness*)

34. Date of follow-up: __ __/__ __/__ __ __ __ *(mm/dd/yyyy)*

35. Impairment: ☐ None ☐ Minor (any minor involvement) ☐ Significant (≤2 extremities, major involvement)
☐ Severe (≥3 extremities and respiratory involvement) ☐ Death ☐ Unknown

35a. Date of death: __ __/__ __/__ __ __ __ *(mm/dd/yyyy)*

36. Physical condition (includes cardiovascular, gastrointestinal, urologic, endocrine as well as neurologic disorders):

i. Medical problems sufficiently stable that medical or nursing monitoring is not required more often than 3-month intervals
ii. Medical or nurse monitoring is needed more often than 3-month intervals but not each week.
iii. Medical problems are sufficiently unstable as to require medical and/or nursing attention at least weekly.
iv. Medical problems require intensive medical and/or nursing attention at least daily (excluding personal care assistance)

37. Upper limb functions: Self-care activities (drink/feed, dress upper/lower, brace/prosthesis, groom, wash, perineal care) dependent mainly upon upper limb function:

i. Age-appropriate independence in self-care without impairment of upper limbs
ii. Age-appropriate independence in self-care with some impairment of upper limbs
iii. Dependent upon assistance in self-care with or without impairment of upper limbs.
iv. Dependent totally in self-care with marked impairment of upper limbs.

38. Lower limb functions: Mobility (walk, stairs, wheelchair, transfer chair/toilet/tub or shower) dependent mainly upon lower limb function:

i. Independent in mobility without impairment of lower limbs
ii. Independent of mobility with some impairment of lower limbs, such as needing ambulatory aids, a brace or prosthesis
iii. Dependent upon assistance or supervision in mobility with or without impairment of lower limbs.
iv. Dependant totally in mobility with marked impairment of lower limbs.

39. Sensory components: Relating to communication (speech and hearing) and vision:

i. Age-appropriate independence in communication and vision without impairment
ii. Age-appropriate independence in communication and vision with some impairment such as mild dysarthria, mild aphasia or need for eyeglasses or hearing aid.
iii. Dependent upon assistance, an interpreter, or supervision in communication or vision
iv. Dependent totally in communication or vision

40. Excretory functions (bladder and bowel control, age-appropriate):

i. Complete voluntary control of bladder and bowel sphincters
ii. Control of sphincters allows normal social activities despite urgency or need for catheter, appliance, suppositories, etc.
iii. Dependent upon assistance in sphincter management
iv. Frequent wetting or soiling from bowel or bladder incontinence

41. Support factors:

i. Able to fulfil usual age-appropriate roles and perform customary tasks
ii. Must make some modifications in usual age-appropriate roles and performance of customary tasks
iii. Dependent upon assistance, supervision, and encouragement from an adult due to any of the above considerations
iv. Dependent upon long-term institutional care (chronic hospitalization, residential rehabilitation, etc. Excluding time-limited hospitalization for specific evaluation or treatment)

Acute Flaccid Myelitis case definition (https://cdn.ymaws.com/www.cste.org/resource/resmgr/2019ps/final/19-ID-05_AFM_final_7.31.19.pdf)

Clinical Criteria

- An illness with onset of acute flaccid limb weakness AND

Laboratory/imaging Criteria

- A magnetic resonance image (MRI) showing spinal cord lesion in at least some gray matter and spanning one or more spinal segments, AND
- Excluding persons with gray matter lesions in the spinal cord resulting from physician diagnosed malignancy, vascular disease, or anatomic abnormalities.

Case Classification

Confirmed:

- An illness with onset of acute flaccid limb weakness AND
- MRI showing spinal cord lesion largely restricted to gray matter and spanning one or more spinal segments
    - Excluding persons with gray matter lesions in the spinal cord resulting from physician diagnosed malignancy, vascular disease, or anatomic abnormalities AND
- Absence of a clear alternative diagnosis attributable to a nationally notifiable condition.

Probable:

- An illness with onset of acute flaccid limb weakness AND
- MRI showing spinal cord lesion where gray matter involvement is present but predominance cannot be determined,
    - Excluding persons with gray matter lesions in the spinal cord resulting from physician diagnosed malignancy, vascular disease, or anatomic abnormalities AND
- Absence of a clear alternative diagnosis attributable to a nationally notifiable condition.

Suspect:

- An illness with onset of acute flaccid limb weakness AND
- MRI showing spinal cord lesion in at least some gray matter and spanning one or more spinal segments,
    - Excluding persons with gray matter lesions in the spinal cord resulting from physician diagnosed malignancy, vascular disease, or anatomic abnormalities AND
    - Available information is insufficient to classify case as probable or confirmed AND
- Absence of a clear alternative diagnosis attributable to a nationally notifiable condition.

Acute Flaccid Myelitis specimen collection information
(https://www.cdc.gov/acute-flaccid-myelitis/hcp/specimen-collection.html)

Acute Flaccid Myelitis job aid
(https://www.cdc.gov/acute-flaccid-myelitis/downloads/job-aid-for-clinicians-508.pdf)