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Health and Human Services

Texas Department of State Health Services

VPD Potpourri

Greg Leos, Allison Sierocki, Kelsey Sanders

Lab 101

- Antibody - soluble proteins produced by B cell, they interact with specific antigens
- Antigen - a molecule capable of interacting with components of the immune systems (antibodies or immune cells)
- Five kinds of antibodies
  - IgG, IgM, IgA, IgD, IgE

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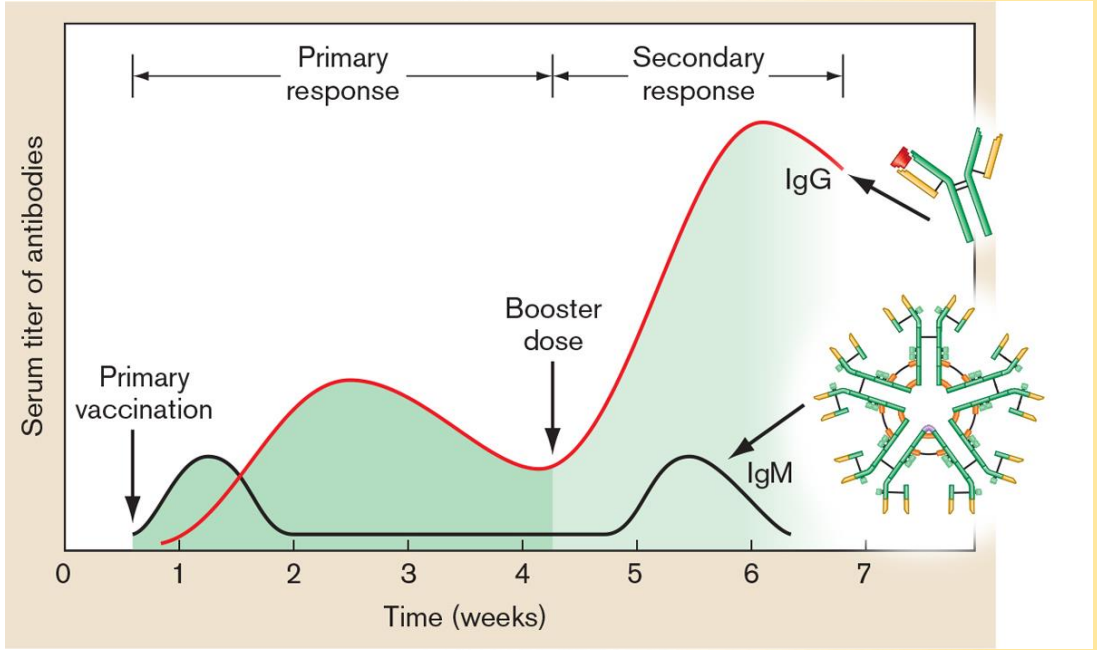
IgM-IgG Humoral Response

1. IgM
   a. produced as a first response to many antigens
   b. levels remain high transiently
2. IgG
   a. produced after IgM
   b. higher levels persist in small amounts throughout life
   c. produced in large amounts during secondary response



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Common Lab Tests

1. Serology tests (IgM, IgG, IgA testing)
   a. Uses serum from blood or CSF
   b. Can take longer to receive results
   c. Tests do not always accurately show an active infection
   d. Measures the level of antibodies your body has mounted during an immune response
2. PCR
   a. Amplifies small amounts of RNA or DNA from a specimen and then compares the sample to unique sequences of known pathogens to see if there is a match
   b. Does not look at the immune response to a pathogen
   c. Quick and cheap
3. Culture
   a. Direct viral or bacterial isolation grown in a medium
   b. Usually considered the gold standard for lab tests
   c. Can be difficult to isolate and grow depending on the pathogen (i.e. pertussis)

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AFM Reporting Steps

1. Call the VPD Team
2. Patient Summary Form (3 pages) → Fax or email to VPD Team
3. Medical Records → Fax or email to VPD Team
4. MRI images on CD → Mail to the CDC
5. Specimens submitted to DSHS
6. Wait for case determination from CDC

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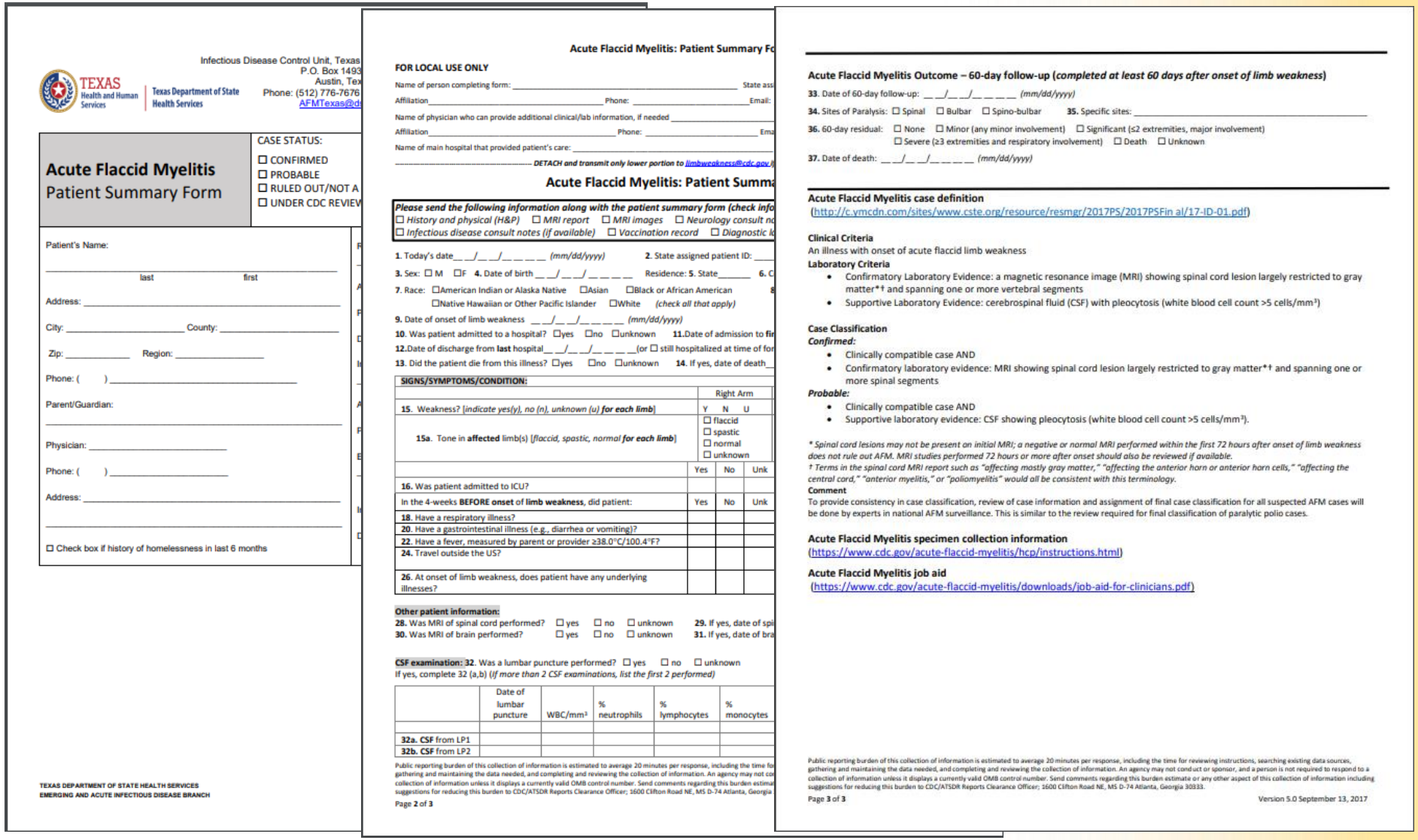
Acute Flaccid Myelitis (AFM) Patient Summary Form



Infectious Disease Control Unit, Texas
P.O. Box 1493
Austin, Tex
Phone: (512) 776-7676
AFMTexas@d

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Acute Flaccid Myelitis
Patient Summary Form

CASE STATUS:
☐ CONFIRMED
☐ PROBABLE
☐ RULED OUT/NOT A
☐ UNDER CDC REVIEW

Patient's Name:
last first
Address:
City: County:
Zip: Region:
Phone: ( )
Parent/Guardian:
Physician:
Phone: ( )
Address:
☐ Check box if history of homelessness in last 6 months

TEXAS DEPARTMENT OF STATE HEALTH SERVICES
EMERGING AND ACUTE INFECTIOUS DISEASE BRANCH

Page 2 of 3

Acute Flaccid Myelitis: Patient Summary Fo

FOR LOCAL USE ONLY

Name of person completing form: State ass
Affiliation Phone: Email:
Name of physician who can provide additional clinical/lab information, if needed
Affiliation Phone: Ema
Name of main hospital that provided patient's care:
DETACH and transmit only lower portion to limbweakness@cdc.gov

Acute Flaccid Myelitis: Patient Summa

Please send the following information along with the patient summary form (check info
☐ *History and physical (H&P)* ☐ *MRI report* ☐ *MRI images* ☐ *Neurology consult no*
☐ *Infectious disease consult notes (if available)* ☐ *Vaccination record* ☐ *Diagnostic l*

1. Today's date__ __/__ __/__ __ __ __ *(mm/dd/yyyy)* **2.** State assigned patient ID:
3. Sex: ☐ M ☐F **4.** Date of birth __ __/__ __/__ __ __ __ Residence: **5.** State_____ **6.** C
7. Race: ☐American Indian or Alaska Native ☐Asian ☐Black or African American **8**
☐Native Hawaiian or Other Pacific Islander ☐White *(check all that apply)*
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 **fir**
12. Date of discharge from **last** hospital__ __/__ __/__ __ __ __(or ☐ still hospitalized at time of for
13. Did the patient die from this illness? ☐yes ☐no ☐unknown **14.** If yes, date of death__

SIGNS/SYMPTOMS/CONDITION:

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

	Yes	No	Unk
16. Was patient admitted to ICU?			
In the 4-weeks **BEFORE onset** of **limb weakness**, did patient:	Yes	No	Unk
18. Have a respiratory illness?			
20. Have a gastrointestinal illness (e.g., diarrhea or vomiting)?			
22. Have a fever, measured by parent or provider ≥38.0°C/100.4°F?			
24. Travel outside the US?			
26. At onset of limb weakness, does patient have any underlying illnesses?			

Other patient information:
28. Was MRI of spinal cord performed? ☐ yes ☐ no ☐ unknown **29.** If yes, date of spi
30. Was MRI of brain performed? ☐ yes ☐ no ☐ unknown **31.** If yes, date of bra

CSF examination: 32. Was a lumbar puncture performed? ☐ yes ☐ no ☐ unknown
If yes, complete 32 (a,b) (*if more than 2 CSF examinations, list the first 2 performed*)

	Date of lumbar puncture	WBC/mm³	% neutrophils	% lymphocytes	% monocytes
32a. CSF from LP1					
32b. CSF from LP2					

Public reporting burden of this collection of information is estimated to average 20 minutes per response, including the time fo
gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not co
collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estima
suggestions for reducing this burden to CDC/ATSDR Reports Clearance Officer; 1600 Clifton Road NE, MS D-74 Atlanta, Georgia

Page 2 of 3

Acute Flaccid Myelitis Outcome – 60-day follow-up (*completed at least 60 days after onset of limb weakness*)

33. Date of 60-day follow-up: __ __/__ __/__ __ __ __ *(mm/dd/yyyy)*
34. Sites of Paralysis: ☐ Spinal ☐ Bulbar ☐ Spino-bulbar **35.** Specific sites:
36. 60-day residual: ☐ None ☐ Minor (any minor involvement) ☐ Significant (≤2 extremities, major involvement)
☐ Severe (≥3 extremities and respiratory involvement) ☐ Death ☐ Unknown
37. Date of death: __ __/__ __/__ __ __ __ *(mm/dd/yyyy)*

Acute Flaccid Myelitis case definition
(http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/2017PS/2017PSFin al/17-ID-01.pdf)

Clinical Criteria
An illness with onset of acute flaccid limb weakness
Laboratory Criteria
- Confirmatory Laboratory Evidence: a magnetic resonance image (MRI) showing spinal cord lesion largely restricted to gray matter*† and spanning one or more vertebral segments
- Supportive Laboratory Evidence: cerebrospinal fluid (CSF) with pleocytosis (white blood cell count >5 cells/mm³)

Case Classification
Confirmed:
- Clinically compatible case AND
- Confirmatory laboratory evidence: MRI showing spinal cord lesion largely restricted to gray matter*† and spanning one or more spinal segments

Probable:
- Clinically compatible case AND
- Supportive laboratory evidence: CSF showing pleocytosis (white blood cell count >5 cells/mm³).

** Spinal cord lesions may not be present on initial MRI; a negative or normal MRI performed within the first 72 hours after onset of limb weakness does not rule out AFM. MRI studies performed 72 hours or more after onset should also be reviewed if available.*
† 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 terminology.
Comment
To provide consistency in case classification, review of case information and assignment of final case classification for all suspected AFM cases will be done by experts in national AFM surveillance. This is similar to the review required for final classification of paralytic polio cases.

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

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

Public reporting burden of this collection of information is estimated to average 20 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.

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10/25/2018

Patient Summary Form – Page 1

Infectious Disease Control Unit, Texas Department of State Health Services
P.O. Box 149347, MC 1960
Austin, Texas 78714
Phone: (512) 776-7676 Fax: (512) 776-7616
AFMTexas@dshs.texas.gov

TEXAS Health and Human Services | Texas Department of State Health Services

Acute Flaccid Myelitis
Patient Summary Form

CASE STATUS:
- ☐ CONFIRMED
- ☐ PROBABLE
- ☐ RULED OUT/NOT A CASE
- ☐ UNDER CDC REVIEW

NBS PATIENT ID#: _____

NBS CASE INVESTIGATION ID#: _____

Patient's Name:
_____
last first

Address: _____

City: _____ County: _____

Zip: _____ Region: _____

Phone: ( ) _____

Parent/Guardian:
_____

Physician: _____

Phone: ( ) _____

Address: _____
_____

☐ Check box if history of homelessness in last 6 months

Reported by:
_____

Agency: _____

Phone: ( ) _____

Date reported: ____/____/____

Investigated by:
_____

Agency: _____

Phone: ( ) _____

Email:
_____

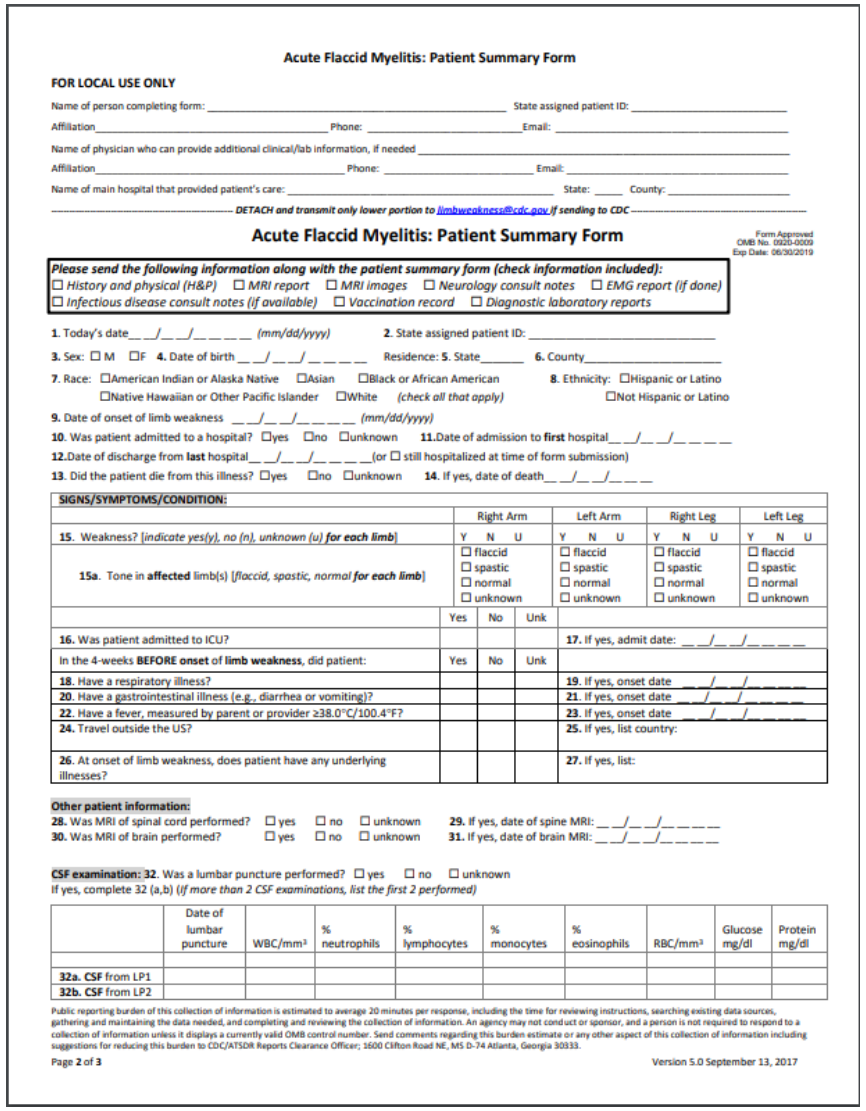
Investigation start date: ____/____/____

Date investigation completed: ____/____/____

The CDC determines case status

You fill out this part

Patient Summary Form – Page 2



Acute Flaccid Myelitis: Patient Summary Form

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 limbweakness@cdc.gov if sending to CDC* ----------

Acute Flaccid Myelitis: Patient Summary Form

Form Approved
OMB No. 0920-0009
Exp Date: 06/30/2019

Please send the following information along with the patient summary form (check information included):
☐ *History and physical (H&P)* ☐ *MRI report* ☐ *MRI images* ☐ *Neurology consult notes* ☐ *EMG report (if done)*
☐ *Infectious disease consult notes (if available)* ☐ *Vaccination record* ☐ *Diagnostic laboratory reports*

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. Travel outside the US?				**25.** If yes, list country:
26. At onset of limb weakness, does patient have any underlying illnesses?				**27.** If yes, list:

Other patient information:
28. Was MRI of spinal cord performed? ☐ yes ☐ no ☐ unknown **29.** If yes, date of spine MRI: __ __/__ __/__ __ __ __
30. Was MRI of brain performed? ☐ yes ☐ no ☐ unknown **31.** If yes, date of brain MRI: __ __/__ __/__ __ __ __

CSF examination: 32. Was a lumbar puncture performed? ☐ yes ☐ no ☐ unknown
If yes, complete 32 (a,b) (*if more than 2 CSF examinations, list the first 2 performed)*

	Date of lumbar puncture	WBC/mm³	% neutrophils	% lymphocytes	% monocytes	% eosinophils	RBC/mm³	Glucose mg/dl	Protein mg/dl
32a. CSF from LP1									
32b. CSF from LP2									

Public reporting burden of this collection of information is estimated to average 20 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.

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Neurologist/Physician fills in this information

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Patient Summary Form – Page 2

Please make sure physician name and contact information is legible so you can reach out after case determination is made.

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Acute Flaccid Myelitis: Patient Summary Form

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*** AFMTexas@dshs.texas.gov ----------

Acute Flaccid Myelitis: Patient Summary Form

Form Approved
OMB No. 0920-0009
Exp Date: 06/30/2019

Please send the following information along with the patient summary form (check information included):

☐ *History and physical (H&P)* ☐ *MRI report* ☐ *MRI images* ☐ *Neurology consult notes* ☐ *EMG report (if done)*

☐ *Infectious disease consult notes (if available)* ☐ *Vaccination record* ☐ *Diagnostic laboratory reports*

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

Patient Summary Form – Page 3

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Acute Flaccid Myelitis Outcome – 60-day follow-up (*completed at least 60 days after onset of limb weakness*)

33. Date of 60-day follow-up: __ __/__ __/__ __ __ __ *(mm/dd/yyyy)*

34. Sites of Paralysis: ☐ Spinal ☐ Bulbar ☐ Spino-bulbar **35.** Specific sites: _____

36. 60-day residual: ☐ None ☐ Minor (any minor involvement) ☐ Significant (≤2 extremities, major involvement)
☐ Severe (≥3 extremities and respiratory involvement) ☐ Death ☐ Unknown

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

Acute Flaccid Myelitis case definition
(http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/2017PS/2017PSFin al/17-ID-01.pdf)

Clinical Criteria
An illness with onset of acute flaccid limb weakness

Laboratory Criteria

- Confirmatory Laboratory Evidence: a magnetic resonance image (MRI) showing spinal cord lesion largely restricted to gray matter*† and spanning one or more vertebral segments
- Supportive Laboratory Evidence: cerebrospinal fluid (CSF) with pleocytosis (white blood cell count >5 cells/mm^3)

Case Classification
Confirmed:

Send MRI CD here:

Adriana Lopez
Centers for Disease Control and Prevention
1600 Clifton Road, NE; Mailstop A-34
Building 24, room 5222.3
Atlanta, GA 30329

Send all MRIs performed at the hospital during their hospitalization(s) for AFM, not just one MRI.

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AFM Specimens

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Texas Department of State Health Services

Job Aid for Clinicians | How to send information about a suspected AFM case to the health department

Specimens to collect and send to CDC for testing for suspected AFM cases

SAMPLE	AMOUNT	TUBE TYPE	PROCESSING	STORAGE	SHIPPING
CSF	1mL (collect at same time or within 24hrs of serum)	Cryovial 	Spun and CSF removed to cryovial	Freeze at -20°C	Ship on dry ice
Serum	≥0.4mL (collect at same time or within 24 hours of CSF)	Tiger/red top 	Spun and serum removed to tiger/red top.	Freeze at -20°C	Ship on dry ice
Stool	≥1 gram (2 samples collected 24hrs apart)	Sterile container 	n/a	Freeze at -20°C	Ship on dry ice. Rectal swabs should not be sent in place of stool.
Respiratory (NP)/ Oropharyngeal (OP) swab	1ml (minimum amount)	n/a 	Store in viral transport medium	Freeze at -20°C	Ship on dry ice

TEXAS Department of State Health Services
Specimen Acquisition: (512) 776-7598

G-2V Virology Specimen Submission Form (Sept 2017)
CAP# 3024401 CLIA #45D0660644
Laboratory Services Section, MC-1947
P. O. Box 149347, Austin, Texas 78714-9347
Courier: 1100 W. 49th Street, Austin, Texas 78756
(888) 963-7111 x7318 or (512) 776-7318
http://www.dshs.texas.gov/lab

Medicaid, Medicare, private insurance, or DSHS Program.

☐ Medicaid (2) ☐ Medicare (8)

Medicaid/Medicare #: _____

☐ Submitter (3) ☐ Private Insurance (4)
☐ BIDS (1720) ☐ TB Elimination (1619)
☐ BT Grant (1719) ☐ Title X (12)
☐ HIV / STD (1608) ☐ Title XX (13)
☒ IDEAS (1610) ☐ TX CLPPP (9)
☐ Immunizations (1609) ☐ Zoonosis (1620)
☐ Other: _____

HMO / Managed Care / Insurance Company Name *

Section 3. SPECIMEN SOURCE OR TYPE

☐ Abscess (site) _____
☒ Blood
☐ Bone marrow
☐ Bronchial washings
☐ Buccal swab
☐ CSF
☐ Eye
☐ Feces/stool
☐ Lesion (site)_____
☐ Lymph node (site)_____
☐ Nasopharyngeal: ☐wash ☐swab ☐aspirate
☐ Nasal Swab
☐ Nasal Wash
☐ Oral fluid
☐ Rectal swab
☐ Serum:
Acute date: ___/___/___
Conval. date: ___/___/___
☐ Sputum: Induced
☐ Sputum: Natural
☐ Throat swab
☐ Tissue (site) _____
☐ Urethral
☐ Urine
☐ Vaginal
☐ Wound (site) _____
☐ Other: _____

Section 4. VIROLOGY

☐ Electron Microscopy

☐ Influenza surveillance {Influenza real-time RT-PCR}
Vaccine received: ☐ Yes ☐ No
Date vaccine received: _____
Travel history (if known): _____

☐ Measles, real-time RT-PCR

☐ Mumps, real-time RT-PCR

☐ MERS Coronavirus (Novel coronavirus)
++++ *Prior authorization required.* ++++
Call Infectious Disease (512) 776-7676 for authorization

☒ Other: Enterovirus (AFM testing)

NOTES: All dates must be entered in mm/dd/yyyy format.
▲ = Document **date & time specimens were INCUBATED or** if stored in an appliance prior to shipping, document **date & time specimens were removed from FREEZER / REFRIGERATOR** in the bottom box.
Please see the form's instructions for details on how to complete this form. Visit: http://www.dshs.texas.gov/lab/.

FOR LABORATORY USE ONLY

SAMPLE

REMINDER:

If submitting specimens, you must have a G-2V form per specimen.

If you have 3 stool specimens, you must have 3 separate G-2V forms.

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AFM Case Determinations

Our neurologists were able to review the remaining suspect AFM cases reported from Texas. The classifications are as follows:

1) NTX0070 Classified as not a case – the patient did not have MRI abnormalities (lesions in gray matter) or pleocytosis so not considered AFM.

2) NTX0071 Classified as a confirmed case of AFM

3) NTX0072 Classified as a confirmed case of AFM

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Streptococcus pneumoniae State Plan

House Bill 970

- State plan for prevention and treatment of diseases caused by *Streptococcus pneumoniae*

- Education and prevention strategies to increase awareness, knowledge, and understanding of *S. pneumoniae*

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Streptococcus pneumoniae State Plan

Targeted demographic groups:

- Elderly,
- Children under 2 years of age,
- Persons living in long term care facilities,
- Persons with chronic heart or lung disease,
- Smokers, and
- Persons with asplenia.

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Streptococcus pneumoniae State Plan

How are you affected?

- NBS required fields changes
- Updated case track requirements
- Educational trainings to enhance data collected

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VPD Administrative Updates

- New Varicella reporting form
- Updated webpages and investigation forms

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