

Acute Flaccid Myelitis v2
Definition Factsheet & Technical Brief

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Definition Description:

This definition is intended to capture visits related to acute flaccid myelitis (AFM). The definition should capture visits with an AFM-related discharge diagnosis code or free-text mention.

New or Revised Definition: Revised

Date Added to ESSENCE: October 2025

Use-Cases for Definition:

Case-finding: Primary

Trend monitoring: Secondary

Early outbreak detection: Not Intended as Use Case

Emergent Condition: Not Intended as Use Case

Justification:

A revised AFM query is needed as the current AFM CCDD categories in ESSENCE are out-of-date and too broad. This updated definition has been adapted from the New York (NY) State AFM/AFP definition to be specific to AFM. It removes the meningitis-related ICD-10/free-text components of the NY AFM/AFP definition, adds some additional inclusion and exclusion criteria, and re-works the definition to be applied to Discharge Diagnosis Parsed and Chief Complaint History with exclusions separately applied to additional fields. This updated definition also adds in the AFM ICD-10 discharge diagnosis code (G04.82) released in October 2021 that is lacking in the existing ESSENCE definitions.

Data Source During Development:

Emergency department visits, restricted to ages < 21 years

Validation Methods:

Query Parameters for Validation:

Start Date: 1/1/2023

End Date: 8/31/2024

Query Filters:

☐ Sex (please specify): NA

☒ Age groups (please specify): Age Range < 21 years

☒ Restrict to patient class (e.g., Emergency Only): HasBeenE = Yes

☒ Others (please specify): Facility Type = Emergency Care

Manual Review Instructions:

1. Pull down Data Details from ESSENCE using your definition syntax and the query parameters outlined above.

- a. (Optional) Instead of pulling from ESSENCE, use Syndrome Evaluation Toolkit ([sara-chronister/syndrome-definition-evaluation: R code for evaluation of NSSP BioSense ESSENCE syndrome definition results using ESSENCE APIs. \(github.com\)](https://github.com/sara-chronister/syndrome-definition-evaluation:R_code_for_evaluation_of_NSSP_BioSense_ESSENCE_syndrome_definition_results_using_ESSENCE_APIs.)) to evaluate definition component performance and select a random sample of visits for manual review.
2. Select a random sample of 100-500 visits from the Data Details for review.
3. Review the chief complaint history, discharge diagnosis parsed, admit reason combo, and triage notes orig for each visit and classify each visit as Probable, Possible, or Ruled Out using the criteria below:

Probable: Visit presents with symptoms consistent with AFM (sudden limb weakness, loss of reflexes, facial droop/weakness, etc.). The visit also mentions current or recent viral symptoms (including but not limited to fever, headache, cough, vomiting, diarrhea, nausea, etc.) or exposure to someone with viral illness and has no other indication that AFM symptoms could be due to injury/trauma.

Possible: Visit presents with symptoms consistent with AFM (sudden limb weakness, loss of reflexes, facial droop/weakness, etc.). The visit does NOT mention current or recent viral symptoms or exposure to someone with viral illness. The visit has no other indication that AFM symptoms could be due to injury/trauma.

Ruled Out: Visit is clearly for a reason non-related to AFM such as injury/trauma, overdose, migraine, etc. Visit presents with generalized weakness rather than extremity weakness.

Validation Results: The query is primarily intended for case finding and aims to capture as many true positives as possible due to the seriousness of AFM, at the expense of including false positives. Overall, the query does a good job at capturing visits suspect for AFM while limiting the number of false positives due to injuries, existing conditions, meningitis, etc. compared to older AFM queries. The positive predictive value (PPV) for capturing *probable and possible* AFM-related visits was 39% in WA, 42% in GA, 9% in MA*, 14% in FL, and 29% in Los Angeles, CA. The PPV for capturing *probable* visits only was 8% in WA, 20% in GA, and 10% in Los Angeles, CA.

**Visits presenting with limb weakness only and little to no other information classified as “ruled out” by MA.*

Limitations: Visits presenting with limb weakness due to injuries or existing conditions and visits presenting with generalized weakness still occur, but the volume is much lower than in previous AFM definitions. These visits are unavoidable given our inclusion of “weak” and “limb” or “arm” or “leg” or “hand” and must be manually ruled out. The free-text “extremity weak” was intentionally not added as an inclusion-criteria as it largely increased the number of false positives due to generalized extremity weakness. “Generalized weakness” and “encephalitis” may be explored as exclusion-criteria in future definition iterations. For the manual review, interpretation of “viral symptoms” was left to the reviewer but generally included respiratory or gastrointestinal symptoms. This definition is primarily intended for case finding and has a low PPV. It is not recommended to be used for time series for public display. This definition will exclude visits with ICD-9 “V codes”. Further, visits with the AFM ICD-10 code may be excluded by free-text negation terms. It is recommended to compare results to CCDD category CDC Acute Flaccid Myelitis DD v1.

Definition Fields and Structure:

The Discharge Diagnosis Parsed Free Text field and Chief Complaint History field are used to query discharge diagnosis codes and free text, respectively, with exclusions separately applied to Chief Complaint History, Triage Notes Orig, and CCDD Parsed, to develop the syndrome definition.

- Inclusions based on AFM-related discharge diagnosis codes (applied to Discharge Diagnosis Parsed Free Text also apply to Chief Complaint History):
 - A discharge diagnosis code of Acute Flaccid Myelitis (G04.82), Other specified viral infections of central nervous system (A88.8), Postimmunization acute disseminated encephalitis, myelitis and encephalomyelitis (G04.82), Other myelitis (G04.89), Encephalitis, myelitis, and encephalomyelitis, unspecified (G04.9), Flaccid hemiplegia (G81.0), Paraplegia, unspecified (G82.20), Paraplegia, complete (G82.21), Paraplegia, incomplete (G82.22), Paralytic syndrome, unspecified (G83.9), Weakness and viral infection, unspecified (R53.1 and B34.9)

- Exclusions based on discharge diagnosis codes (applied to CCDD Parsed):
 - Guillain-Barre syndrome (G61.0), Accident/assault/injury related (V/W/X ICD-10 codes), Personal history of other (healed) physical injury and trauma (Z87.828), Brain stem stroke syndrome (G46.3), Cerebellar stroke syndrome (G46.4), National Institutes of Health Stroke Scale (NIHSS) score (R29.7), Cerebral infarction, unspecified (I63.9), Other sequelae of cerebral infarction (I69.39), Multiple sclerosis (G35), Neuromyelitis optica (G36.0), Epilepsy and recurrent seizures (G40), Exposure to other specified electric current (W86), Electrocution (T754)
- Inclusions based on AFM-related free text terms (applied to Discharge Diagnosis Parsed Free Text also apply to Chief Complaint History):
 - "AFM", "ACUTE FLACCID", "ACUTE FLACID", "ACUTE POLIO", "PARALYTIC", "ENCEPHALITIS", "MYELITIS" AND NOT "OSTEOMYELITIS" OR "OSTEMYELITIS", "FLACCID HEMI", "WEAK" OR "SENSATION" AND "LIMB" OR "LEG" OR "ARM" OR "HAND"
- Exclusions based on free text terms (applied to Chief Complaint History and Triage Notes Orig):
 - "ACCIDENT", "TRAUMA", "INJUR", "WOUND", "STROKE", "SEIZ", "MIGRAINE", "NUMB", "SEPSIS", "ULCER", "CELLULITIS", "SCIATIC", "DISC", "NECROTIC", "URINARY TRACT", "UTI", "PHYSICAL THER", "NEOPLASM", "TUMOR", "CLOT", "EMBOLISM", "CATHETER", "CATH CHANGE", "CATH PROBLEM"

Plain Language Description

This definition will return visits with an AFM-related ICD-10 discharge diagnosis code (G04.82, A88.9, G04.98, etc.) or free-text chief-complaint (AFM, Acute Flaccid, weak and leg, etc.). It will exclude visits with an ICD-10 discharge diagnosis code related to non-AFM conditions including injury, stroke, etc. (I63.9, T754, G61.0, etc.) or a free-text term in the chief-complaint history or triage notes indicative of a non-AFM-related reason for visit (trauma, stroke, migraine, UTI, etc.).

Detailed Definition Components

Table 1. Definition inclusion and exclusion terms.

Type	Terms	Description
Inclusions		
Discharge Diagnosis: ICD-10-CM	A88.8	Other specified viral infections of central nervous system
	G04.02	Postimmunization acute disseminated encephalitis, myelitis and encephalomyelitis
	G04.82	Acute flaccid myelitis
	G04.89	Other myelitis
	G04.9	Encephalitis, myelitis, and encephalomyelitis, unspecified
	G81.0	Flaccid hemiplegia
	G82.20	Paraplegia, unspecified
	G82.21	Paraplegia, complete
	G82.22	Paraplegia, incomplete
	G83.9	Paralytic syndrome, unspecified
	R53.1 AND B34.9	Weakness AND Viral infection, unspecified
Chief Complaint	AFM	
	ACUTE FLACCID	
	ACUTE FLACID	
	ACUTE POLIO	
	PARALYTIC	

	ENCEPHALITIS	
	^MYELITIS^,ANDNOT,(,^OSTEOMYELITIS^,OR,^OSTEMYELITIS^,)	
	FLACCID HEMI	
	(,^LIMB^,OR,^LEG^,OR,!ARM!,OR,^[;/]ARM[/;]^,OR,^HAND^,),AND,(,^WEAK^,ANDNOT,^NO WEAK^,),OR,(^SENSATION^,ANDNOT,(,^BURNING^,AND,^SENSATION^,),OR,(^ITCH^,AND,^SENSATION^,)),,))	
Exclusions		
Discharge Diagnosis: ICD-10- CM	G61.0	Guillain-Barre syndrome
	[VWX][0-9][0-9]	Accident/Assault/Injury related
	Y[023678]	Event of undetermined intent; Legal intervention, operations of war, military operations, and terrorism; Misadventures to patients during surgical and medical care; Medical devices associated with adverse incidents in diagnostic and therapeutic use
	Z87.828	Personal history of other (healed) physical injury and trauma
	G46.3	Brain stem stroke syndrome
	G46.4	Cerebellar stroke syndrome
	R29.7	National Institutes of Health Stroke Scale (NIHSS) score
	I63.9	Cerebral infarction, unspecified
	I69.39	Other sequelae of cerebral infarction
	G35	Multiple sclerosis
	G36.0	Neuromyelitis optica
	G40	Epilepsy and recurrent seizures
	W86	Exposure to other specified electric current
	T754	Electrocution
Chief Complaint and/or Triage Notes	^ACCIDENT^,OR,^TRAUMA^,ANDNOT,(,^NO TRAUMA^,OR,^DENIES ANY TRAUMA^,OR,^NO KNOWN TRAUMA^,),OR,^INJUR^,ANDNOT,(,^NO INJUR^,OR,^DENIES INJUR^,OR,^NO KNOWN INJUR^,OR,^DENIES AN INJUR^,OR,^DENIES ANY INJUR^, WOUND	
	STROKE	
	SEIZ	
	MIGRAINE	
	NUMB	
	SEPSIS	
	ULCER	
	CELLULITIS	
	SCIATIC	
	DISC	
	NECROTIC	
	URINARY TRACT	
	UTI	
	PHYSICAL THER	
	NEOPLASM	
	TUMOR	
	CLOT	
	EMBOLISM	
	CATHETER	
	CATH CHANGE	

Table 2. ESSENCE syntax

Fields	Query
DischargeDiagnosis Parsed FreeText and also apply to ChiefComplaintHistory	<code>^[/]G0482^,or,(^[/]A888^,or,^[/]G0402^,or,^[/]G0489^,or,^[/]G049^,or,^[/]G810^,or,^[/]G8220^,or,^[/]G8221^,or,^[/]G8222^,or,^[/]G839^,or,(^[/]R531^,AND,^[/]B349^),or,!AFM!,or,^[/]AFM[/]^,or,^ACUTE FLACCID^,OR,^ACUTE FLACID^,OR,^ACUTE POLIO^,OR,^PARALYTIC^,OR,^ENCEPHALITIS^,OR,^MYELITIS^,ANDNOT,(^OSTEO MYELITIS^,OR,^OSTEMYELITIS^),OR,^FLACCID HEMI^,OR,(^LIMB^,OR,^LEG^,OR,!ARM!,OR,^[/]ARM[/]^,OR,^HAND^),AND,(^WEAK^,ANDNOT,^NO WEAK^),OR,(^SENSATION^,ANDNOT,(^BURNING^,OR,^ITCH^),),),ANDNOT,(^[/]G610^,OR,^[/]VWX][0-9][0-9]^,OR,^[/]Y[023678]^,OR,^[/]Z87828^,OR,^ACCIDENT^,OR,^TRAUMA^,ANDNOT,(^NO TRAUMA^,OR,^DENIES TRAUMA^,OR,^DENIES ANY TRAUMA^,OR,^NO KNOWN TRAUMA^),OR,^INJUR^,ANDNOT,(^NO INJUR^,OR,^DENIES INJUR^,OR,^NO KNOWN INJUR^,OR,^DENIES AN INJUR^,OR,^DENIES ANY INJUR^),OR,^WOUND^,OR,^STROKE^,OR,^SEIZ^,OR,^MIGRAINE^,OR,^NUMB^,OR,^STROKE^,OR,^SEPSIS^,OR,^ULCER^,OR,^CELLULITIS^,OR,^SCIATIC^,OR,^DISC[/]^,OR,^NECROTIC^,OR,^URINARY TRACT^,OR,!UTI!,OR,^[/]UTI[/]^,OR,^PHYSICAL THER^,OR,^NEOPLASM^,OR,^TUMOR^,OR,^CLOT[ST;/]^,OR,^EMBOLISM^,OR,^CATHETER^,OR,^CATH CHANGE^,OR,^CATH PROBLEM^,OR,^[/]G46[34]^,OR,^[/]R297^,OR,^[/]I639^,OR,^[/]I6939^,OR,^STROKE^,OR,^[/]G35^,OR,^[/]G360^,OR,^[/]G40^,OR,^[/]W86^,OR,^[/]T754^,)</code>
ChiefComplaintHistory	<code>ISNULL,OR,^,ANDNOT,(^ACCIDENT^,OR,^TRAUMA^,ANDNOT,(^NO TRAUMA^,OR,^DENIES TRAUMA^,OR,^DENIES ANY TRAUMA^,OR,^NO KNOWN TRAUMA^),OR,^INJUR^,ANDNOT,(^NO INJUR^,OR,^DENIES INJUR^,OR,^NO KNOWN INJUR^,OR,^DENIES AN INJUR^,OR,^DENIES ANY INJUR^),OR,^WOUND^,OR,^STROKE^,OR,^SEIZ^,OR,^MIGRAINE^,OR,^NUMB^,OR,^STROKE^,OR,^SEPSIS^,OR,^ULCER^,OR,^CELLULITIS^,OR,^SCIATIC^,OR,^DISC[/]^,OR,^NECROTIC^,OR,^URINARY TRACT^,OR,!UTI!,OR,^[/]UTI[/]^,OR,^PHYSICAL THER^,OR,^NEOPLASM^,OR,^TUMOR^,OR,^CLOT[ST;/]^,OR,^EMBOLISM^,OR,^CATHETER^,OR,^CATH CHANGE^,OR,^CATH PROBLEM^,)</code>
Triage Notes Orig	<code>ISNULL,OR,^,ANDNOT,(^ACCIDENT^,OR,^TRAUMA^,ANDNOT,(^NO TRAUMA^,OR,^DENIES TRAUMA^,OR,^DENIES ANY TRAUMA^,OR,^NO KNOWN TRAUMA^),OR,^INJUR^,ANDNOT,(^NO INJUR^,OR,^DENIES INJUR^,OR,^NO KNOWN INJUR^,OR,^DENIES AN INJUR^,OR,^DENIES ANY INJUR^),OR,^WOUND^,OR,^STROKE^,OR,^SEIZ^,OR,^MIGRAINE^,OR,^NUMB^,OR,^STROKE^,OR,^SEPSIS^,OR,^ULCER^,OR,^CELLULITIS^,OR,^SCIATIC^,OR,^DISC[/]^,OR,^NECROTIC^,OR,^URINARY TRACT^,OR,!UTI!,OR,^[/]UTI[/]^,OR,^PHYSICAL THER^,OR,^NEOPLASM^,OR,^TUMOR^,OR,^CLOT[ST;/]^,OR,^EMBOLISM^,OR,^CATHETER^,OR,^CATH CHANGE^,OR,^CATH PROBLEM^,)</code>

CC and DD Parsed Free Text	^[/]G0482^,OR,ISNULL,OR,^,ANDNOT,(^[/]G610^,OR,^[/]VWX][0-9][0-9]^,OR,^[/]Y[023678]^,OR,^[/]Z87828^,OR,^[/]G46[34]^,OR,^[/]R297^,OR,^[/]I639^,OR,^[/]I6939^,OR,^[/]G35^,OR,^[/]G360^,OR,^[/]G40^,OR,^[/]W86^,OR,^[/]T754^,)
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Link https://essence.syndromicsurveillance.org/nssp_essence/servlet/TemporalTimeSeriesViewer?sessionAttributID=5695_23_07_2025_20_12_31_9049 to ESSENCE:

Appendix

Addendum: Modified Syntax

If using a local version of ESSENCE (other than NSSP), please use the appropriate corresponding fields/coding to best match this factsheet. If you are using discharge diagnosis instead of discharge diagnosis parsed, we recommend using the below syntax that expands ICD-10 codes to include both versions with and without decimal points.

Fields	Query
DischargeDia gnosis and also apply to ChiefComplai ntHistory	^[/]G0482^,or,^[/]G04.82^,or,(^[/]A88.8^,or,^[/]A888^,or,^[/]G04.02^,or,^[/]G0402^,or,^[/]G04.89^,or,^[/]G0489^,or,^[/]G04.9^,or,^[/]G049^,or,^[/]G81.0^,or,^[/]G810^,or,^[/]G82.20^,or,^[/]G8220^,or,^[/]G82.21^,or,^[/]G8221^,or,^[/]G82.22^,or,^[/]G8222^,or,^[/]G83.9^,or,^[/]G839^,or,(^[/]R53.1^,or,^[/]R531^,),AND,(^[/]B34.9^,or,^[/]B349^,),or,!AFM!,or,^[/]AFM[/]^,or,^ACUTE FLACCID^,OR,^ACUTE FLACID^,OR,^ACUTE POLIO^,OR,^PARALYTIC^,OR,^ENCEPHALITIS^,OR,^MYELITIS^,ANDNOT,(^OSTE OMYELITIS^,OR,^OSTEMYELITIS^),OR,^FLACCID HEMI^,OR,(^LIMB^,OR,^LEG^,OR,!ARM!,OR,^[/]ARM[/]^,OR,^HAND^,),AND,(^WEAK^,ANDNOT,^NO WEAK^),OR,(^SENSATION^,ANDNOT,(^BURNING^,OR,^ITCH^,)),),ANDNOT,(^[/]G61.0^,OR,^[/]G610^,OR,^[/]VWX][0-9][0-9]^,OR,^[/]Y[023678]^,OR,^[/]Z87.828^,OR,^[/]Z87828^,OR,^ACCIDENT^,OR,^TRAUMA^,ANDNOT,(^NO TRAUMA^,OR,^DENIES TRAUMA^,OR,^DENIES ANY TRAUMA^,OR,^NO KNOWN TRAUMA^),OR,^INJUR^,ANDNOT,(^NO INJUR^,OR,^DENIES INJUR^,OR,^NO KNOWN INJUR^,OR,^DENIES AN INJUR^,OR,^DENIES ANY INJUR^),OR,^WOUND^,OR,^STROKE^,OR,^SEIZ^,OR,^MIGRAINE^,OR,^NUMB^,OR ,^STROKE^,OR,^SEPSIS^,OR,^ULCER^,OR,^CELLULITIS^,OR,^SCIATIC^,OR,^DISC[/ ;/]^,OR,^NECROTIC^,OR,^URINARY TRACT^,OR,!UTI!,OR,^[/]UTI[/]^,OR,^PHYSICAL THER^,OR,^NEOPLASM^,OR,^TUMOR^,OR,^CLOT[ST[/]^,OR,^EMBOLISM^,OR,^CATHETER^,OR,^CATH CHANGE^,OR,^CATH PROBLEM^,OR,^[/]G46.[34]^,OR,^[/]G46[34]^,OR,^[/]R29.7^,OR,^[/]R297^,OR,^[/]I63.9^,OR,^[/]I639^,OR,^[/]I69.39^,OR,^[/]I6939^,OR,^STROKE^,OR,^[/]G35^,OR,^[/]G36.0^,OR,^[/]G360^,OR,^[/]G40^,OR,^[/]W86^,OR,^[/]T754^,OR,^[/]T75.4^,)
ChiefComplai ntHistory	ISNULL,OR,^,ANDNOT,(^ACCIDENT^,OR,^TRAUMA^,ANDNOT,(^NO TRAUMA^,OR,^DENIES TRAUMA^,OR,^DENIES ANY TRAUMA^,OR,^NO KNOWN

	TRAUMA^,),OR,^INJUR^,ANDNOT,(^NO INJUR^,OR,^DENIES INJUR^,OR,^NO KNOWN INJUR^,OR,^DENIES AN INJUR^,OR,^DENIES ANY INJUR^,),OR,^WOUND^,OR,^STROKE^,OR,^SEIZ^,OR,^MIGRAINE^,OR,^NUMB^,OR,^STROKE^,OR,^SEPSIS^,OR,^ULCER^,OR,^CELLULITIS^,OR,^SCIATIC^,OR,^DISC[;/]^,OR,^NECROTIC^,OR,^URINARY TRACT^,OR,!UTI!,OR,^[;/]UTI[/]^,OR,^PHYSICAL THER^,OR,^NEOPLASM^,OR,^TUMOR^,OR,^CLOT[ST;/]^,OR,^EMBOLISM^,OR,^CATHETER^,OR,^CATH CHANGE^,OR,^CATH PROBLEM^,)
Triage Notes Orig	ISNULL,OR,^,ANDNOT,(^ACCIDENT^,OR,^TRAUMA^,ANDNOT,(^NO TRAUMA^,OR,^DENIES TRAUMA^,OR,^DENIES ANY TRAUMA^,OR,^NO KNOWN TRAUMA^,),OR,^INJUR^,ANDNOT,(^NO INJUR^,OR,^DENIES INJUR^,OR,^NO KNOWN INJUR^,OR,^DENIES AN INJUR^,OR,^DENIES ANY INJUR^,),OR,^WOUND^,OR,^STROKE^,OR,^SEIZ^,OR,^MIGRAINE^,OR,^NUMB^,OR,^STROKE^,OR,^SEPSIS^,OR,^ULCER^,OR,^CELLULITIS^,OR,^SCIATIC^,OR,^DISC[;/]^,OR,^NECROTIC^,OR,^URINARY TRACT^,OR,!UTI!,OR,^[;/]UTI[/]^,OR,^PHYSICAL THER^,OR,^NEOPLASM^,OR,^TUMOR^,OR,^CLOT[ST;/]^,OR,^EMBOLISM^,OR,^CATHETER^,OR,^CATH CHANGE^,OR,^CATH PROBLEM^,)
DischargeDiagnosisHistory	^[;/]G0482^,OR,^[;/]G04.82^,or,ISNULL,OR,^,ANDNOT,(^[;/]G61.0^,OR,^[;/]G610^,OR,^[;/]VWX][0-9][0-9]^,OR,^[;/]Y[023678]^,OR,^[;/]Z87.828^,OR,^[;/]Z87828^,OR,^[;/]G46.[34]^,OR,^[;/]G46[34]^,OR,^[;/]R29.7^,OR,^[;/]R297^,OR,^[;/]I63.9^,OR,^[;/]I639^,OR,^[;/]I69.[39]^,OR,^[;/]I6939^,OR,^[;/]G35^,OR,^[;/]G36.0^,OR,^[;/]G360^,OR,^[;/]G40^,OR,^[;/]W86^,OR,^[;/]T754^,OR,^[;/]T75.4^,)

Definition Evolution During Development

In summary, we began with the definition created by NY (NY AFM/AFP) and gradually modified it to reduce inclusion criteria and increase exclusion criteria to narrow down results.

Original: NY AFM/AFP (developed by NY)

CCDD or Discharge Diagnosis also apply to Chief Complaint History:

(^[;/]A87.0^,or,^[;/]A870^,or,^[;/]A87.9^,or,^[;/]A879^,or,^[;/]A88.8^,or,^[;/]A888^,or,^[;/]G03.0^,or,^[;/]G030^,or,^[;/]G03.9^,or,^[;/]G039^,or,^[;/]G04.02^,or,^[;/]G0402^,or,^[;/]G04.82^,or,^[;/]G0482^,or,^[;/]G04.89^,or,^[;/]G0489^,or,^[;/]G04.9^,or,^[;/]G049^,or,^[;/]G81.0^,or,^[;/]G810^,or,^[;/]G82.20^,or,^[;/]G8220^,or,^[;/]G82.21^,or,^[;/]G8221^,or,^[;/]G82.22^,or,^[;/]G8222^,or,^[;/]G83.9^,or,^[;/]G839^,or,(^[;/]R20.2^,or,^[;/]R202^,),AND,(^[;/]B34.9^,or,^[;/]B349^,or,^[;/]J02.9^,or,^[;/]J029^,),,or,!AFM!,or,^ACUTE FLACCID^,OR,^ACUTE FLACID^,OR,^ACUTE POLIO^,OR,^PARALYTIC^,OR,^PARESTHESIA^,OR,^MENINGITIS^,OR,^ENCEPHALITIS^,OR,^MYELITIS^,ANDNOT,(^OSTEOMYELITIS^,OR,^OSTEMYELITIS^,),OR,^FLACCID HEMI^,OR,(^LIMB^,OR,^LEG^,OR,^ARM^,OR,^HAND^,),AND,(^WEAK^,OR,^SENSATION^,),ANDNOT,(^NO WEAK^,),),ANDNOT,(^[;/]G61.0^,OR,^[;/]G610^,OR,^[;/]G8[0123]^,OR,^[;/]VWX][0-9][0-

9]^,OR,^[/]Y[023678]^,OR,^[/]Z87.828^,OR,^[/]Z87828^,OR,^ACCIDENT^,OR,^TRAUMA^,OR,^FALL^,OR,^INJUR^,OR,^WOUND^,OR,^[/]G46.[34]^,OR,^[/]G46[34]^,OR,^[/]R29.7^,OR,^[/]R297^,OR,^[/]I63.9^,OR,^[/]I639^,OR,^[/]I69.[39^,OR,^[/]I6939^,OR,^STROKE^,OR,^[/]G35^,OR,^[/]G36.0^,OR,^[/]G360^,OR,^[/]G40^,)

Version 2: Added exclusion criteria for accidents, falls, injuries, electrocutions, etc. and cleaned up inclusion syntax (paralysis related ICD-10 codes were present in both inclusions and exclusions). Separately applied exclusion terms due to ESSENCE query logic.

Fields	Query
DischargeDia gnosis and also apply to ChiefComplai ntHistory	(,^[/]A87.0^,or,^[/]A870^,or,^[/]A87.9^,or,^[/]A879^,or,^[/]A88.8^,or,^[/]A888^,or,^[/]G03.0^,or,^[/]G030^,or,^[/]G03.9^,or,^[/]G039^,or,^[/]G04.02^,or,^[/]G0402^,or,^[/]G04.82^,or,^[/]G0482^,or,^[/]G04.89^,or,^[/]G0489^,or,^[/]G04.9^,or,^[/]G049^,or,^[/]G81.0^,or,^[/]G810^,or,^[/]G82.20^,or,^[/]G8220^,or,^[/]G82.21^,or,^[/]G8221^,or,^[/]G82.22^,or,^[/]G8222^,or,^[/]G83.9^,or,^[/]G839^,or,^(,^[/]R20.2^,or,^[/]R202^),AND,(^[/]B34.9^,or,^[/]B349^,or,^[/]J02.9^,or,^[/]J029^),),or,!AFM!,or,^ACUTE FLACCID^,OR,^ACUTE FLACID^,OR,^ACUTE POLIO^,OR,^PARALYTIC^,OR,^PARESTHESIA^,OR,^MENINGITIS^,OR,^ENCEPHALITIS^,OR,^MYELITIS^,ANDNOT,(^OSTEOMYELITIS^,OR,^OSTEMYELITIS^),OR,^FLACCID HEMI^,OR,^(^LIMB^,OR,^LEG^,OR,!ARM!,OR,^[/]^,or,^HAND^),AND,(^WEAK^,OR,^SENSATION^),ANDNOT,(^NO WEAK^),),ANDNOT,(^[/]G61.0^,OR,^[/]G610^,OR,^[/][VWX][0-9][0-9]^,OR,^[/]Y[023678]^,OR,^[/]Z87.828^,OR,^[/]Z87828^,OR,^ACCIDENT^,OR,^TRAUMA^,OR,^FALL^,OR,^INJUR^,OR,^WOUND^,OR,^STROKE^,OR,^SEIZ^,OR,^MIGRAINE^,OR,^NUMB^,OR,^[/]G46.[34]^,OR,^[/]G46[34]^,OR,^[/]R29.7^,OR,^[/]R297^,OR,^[/]I63.9^,OR,^[/]I639^,OR,^[/]I69.39^,OR,^[/]I6939^,OR,^STROKE^,OR,^[/]G35^,OR,^[/]G36.0^,OR,^[/]G360^,OR,^[/]G40^,OR,^[/]W86^,OR,^[/]T754^,OR,^[/]T75.4^,)
ChiefComplai ntHistory	^,ANDNOT,(^ACCIDENT^,OR,^TRAUMA^,OR,^FALL^,OR,^INJUR^,OR,^WOUND^,OR,^STROKE^,OR,^SEIZ^,OR,^MIGRAINE^,OR,^NUMB^,)
DischargeDia gnosisHistory	^,ANDNOT,(^[/]G61.0^,OR,^[/]G610^,OR,^[/][VWX][0-9][0-9]^,OR,^[/]Y[023678]^,OR,^[/]Z87.828^,OR,^[/]Z87828^,OR,^[/]G46.[34]^,OR,^[/]G46[34]^,OR,^[/]R29.7^,OR,^[/]R297^,OR,^[/]I63.9^,OR,^[/]I639^,OR,^[/]I69.[39^,OR,^[/]I6939^,OR,^[/]G35^,OR,^[/]G36.0^,OR,^[/]G360^,OR,^[/]G40^,OR,^[/]W86^,OR,^[/]T754^,OR,^[/]T75.4^,)

Version 3: Same as version 2, but also require visit meet “ILI” syndrome bin. Resulted in definition being too narrow.

Fields	Query
DischargeDia gnosis and also apply to ChiefComplai ntHistory	(,^[/]A87.0^,or,^[/]A870^,or,^[/]A87.9^,or,^[/]A879^,or,^[/]A88.8^,or,^[/]A888^,or,^[/]G03.0^,or,^[/]G030^,or,^[/]G03.9^,or,^[/]G039^,or,^[/]G04.02^,or,^[/]G0402^,or,^[/]G04.82^,or,^[/]G0482^,or,^[/]G04.89^,or,^[/]G0489^,or,^[/]G04.9^,or,^[/]G049^,or,^[/]G81.0^,or,^[/]G810^,or,^[/]G82.20^,or,^[/]G8220^,or,^[/]G82.21^,or,^[/]G8221^,or,^[/]G82.22^,or,^[/]G8222^,or,^[/]G83.9^,or,^[/]G839^,or,^(,^[/]R20.2^,or,^[/]R202^),AND,(^[/]B34.9^,or,^[/]B349^,or,^[/]J02.9^,or,^[/]J029^),),or,!AFM!,or,^ACUTE FLACCID^,OR,^ACUTE FLACID^,OR,^ACUTE POLIO^,OR,^PARALYTIC^,OR,^PARESTHESIA^,OR,^MENINGITIS^,OR,^ENCEPHALITIS^,OR,^MYELITIS^,ANDNOT,(^OSTEOMYELITIS^,OR,^OSTEMYELITIS^),OR,^FLACCID HEMI^,OR,^(^LIMB^,OR,^LEG^,OR,!ARM!,OR,^[/]^,or,^HAND^),AND,(^WEAK^,OR,^SENSATION^),ANDNOT,(^NO

	WEAK^,),),ANDNOT,(^[/]G61.0^,OR,^[;/]G610^,OR,^[;/][[VWX][0-9][0-9]^,OR,^[;/]Y[023678]^,OR,^[;/]Z87.828^,OR,^[;/]Z87828^,OR,^ACCIDENT^,OR,^TRAUMA^,OR,^FALL^,OR,^INJUR^,OR,^WOUND^,OR,^STROKE^,OR,^SEIZ^,OR,^MIGRAINE^,OR,^NUMB^,OR,^[;/]G46.[34]^,OR,^[;/]G46[34]^,OR,^[;/]R29.7^,OR,^[;/]R297^,OR,^[;/]I63.9^,OR,^[;/]I639^,OR,^[;/]I69.39^,OR,^[;/]I6939^,OR,^STROKE^,OR,^[;/]G35^,OR,^[;/]G36.0^,OR,^[;/]G360^,OR,^[;/]G40^,OR,^[;/]W86^,OR,^[;/]T754^,OR,^[;/]T75.4^,)
ChiefComplaintHistory	^,ANDNOT,(^ACCIDENT^,OR,^TRAUMA^,OR,^FALL^,OR,^INJUR^,OR,^WOUND^,OR,^STROKE^,OR,^SEIZ^,OR,^MIGRAINE^,OR,^NUMB^,)
DischargeDiagnosisHistory	^,ANDNOT,(^[/]G61.0^,OR,^[;/]G610^,OR,^[;/][[VWX][0-9][0-9]^,OR,^[;/]Y[023678]^,OR,^[;/]Z87.828^,OR,^[;/]Z87828^,OR,^[;/]G46.[34]^,OR,^[;/]G46[34]^,OR,^[;/]R29.7^,OR,^[;/]R297^,OR,^[;/]I63.9^,OR,^[;/]I639^,OR,^[;/]I69.39^,OR,^[;/]I6939^,OR,^STROKE^,OR,^[;/]G35^,OR,^[;/]G36.0^,OR,^[;/]G360^,OR,^[;/]G40^,OR,^[;/]W86^,OR,^[;/]T754^,OR,^[;/]T75.4^,)
Syndrome	ILI

Version 4: Removed Codes/Terms: A87.0, A87.9, G03.0, G03.9, R20.2, J02.9, meningitis, paresthesia. Removal of meningitis terms/codes led to largest reduction in visit volume.

Fields	Query
DischargeDiagnosis and also apply to ChiefComplaint History	(,^[;/]A88.8^,or,^[;/]A888^,or,^[;/]G04.02^,or,^[;/]G0402^,or,^[;/]G04.82^,or,^[;/]G0482^,or,^[;/]G04.89^,or,^[;/]G0489^,or,^[;/]G04.9^,or,^[;/]G049^,or,^[;/]G81.0^,or,^[;/]G810^,or,^[;/]G82.20^,or,^[;/]G8220^,or,^[;/]G82.21^,or,^[;/]G8221^,or,^[;/]G82.22^,or,^[;/]G8222^,or,^[;/]G83.9^,or,^[;/]G839^,or,(,^[;/]R53.1^,or,^[;/]R531^,),AND,(^[;/]B34.9^,or,^[;/]B349^,)),or,!AFM!,or,!ACUTE FLACCID^,OR,^ACUTE FLACID^,OR,^ACUTE POLIO^,OR,^PARALYTIC^,OR,^ENCEPHALITIS^,OR,^MYELITIS^,ANDNOT,(^OSTEOMYELITIS^,OR,^OSTEMYELITIS^,),OR,^FLACCID HEMI^,OR,(^LIMB^,OR,^LEG^,OR,!ARM!,OR,^[;/],.].ARM[;/],.].^,OR,^HAND^,),AND,(,^WEAK^,OR,^SENSATION^,),ANDNOT,(^NO WEAK^,)),),ANDNOT,(^[/]G61.0^,OR,^[;/]G610^,OR,^[;/][[VWX][0-9][0-9]^,OR,^[;/]Y[023678]^,OR,^[;/]Z87.828^,OR,^[;/]Z87828^,OR,^ACCIDENT^,OR,^TRAUMA^,OR,^FALL^,OR,^INJUR^,OR,^WOUND^,OR,^STROKE^,OR,^SEIZ^,OR,^MIGRAINE^,OR,^NUMB^,OR,^[;/]G46.[34]^,OR,^[;/]G46[34]^,OR,^[;/]R29.7^,OR,^[;/]R297^,OR,^[;/]I63.9^,OR,^[;/]I639^,OR,^[;/]I69.39^,OR,^[;/]I6939^,OR,^STROKE^,OR,^[;/]G35^,OR,^[;/]G36.0^,OR,^[;/]G360^,OR,^[;/]G40^,OR,^[;/]W86^,OR,^[;/]T754^,OR,^[;/]T75.4^,)
ChiefComplaint History	^,ANDNOT,(^ACCIDENT^,OR,^TRAUMA^,OR,^FALL^,OR,^INJUR^,OR,^WOUND^,OR,^STROKE^,OR,^SEIZ^,OR,^MIGRAINE^,OR,^NUMB^,)
DischargeDiagnosisHistory	^,ANDNOT,(^[/]G61.0^,OR,^[;/]G610^,OR,^[;/][[VWX][0-9][0-9]^,OR,^[;/]Y[023678]^,OR,^[;/]Z87.828^,OR,^[;/]Z87828^,OR,^[;/]G46.[34]^,OR,^[;/]G46[34]^,OR,^[;/]R29.7^,OR,^[;/]R297^,OR,^[;/]I63.9^,OR,^[;/]I639^,OR,^[;/]I69.39^,OR,^[;/]I6939^,OR,^[;/]G35^,OR,^[;/]G36.0^,OR,^[;/]G360^,OR,^[;/]G40^,OR,^[;/]W86^,OR,^[;/]T754^,OR,^[;/]T75.4^,)

Version 5: Added additional inclusions for injury/fall/trauma (no known injury, denies any injury, etc.); added additional exclusion free-text commonly found in false positives; added exclusions around “sensation” (burning and itching). Applied exclusions to Triage Notes Orig.

Fields	Query
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DischargeDiagnosis and also apply to ChiefComplaintHistory	(,^[/]A88.8^,or,^[/]A888^,or,^[/]G04.02^,or,^[/]G0402^,or,^[/]G04.82^,or,^[/]G0482^,or,^[/]G04.89^,or,^[/]G0489^,or,^[/]G04.9^,or,^[/]G049^,or,^[/]G81.0^,or,^[/]G810^,or,^[/]G82.20^,or,^[/]G8220^,or,^[/]G82.21^,or,^[/]G8221^,or,^[/]G82.22^,or,^[/]G8222^,or,^[/]G83.9^,or,^[/]G839^,or,(,^[/]R53.1^,or,^[/]R531^,),AND,(^[/]B34.9^,or,^[/]B349^,),or,!AFM!,or,^ACUTE FLACCID^,OR,^ACUTE FLACID^,OR,^ACUTE POLIO^,OR,^PARALYTIC^,OR,^ENCEPHALITIS^,OR,^MYELITIS^,ANDNOT,(^OSTEOMYELITIS^,OR,^OSTEMYELITIS^,),OR,^FLACCID HEMI^,OR,(^LIMB^,OR,^LEG^,OR,!ARM!,OR,^[/]ARM[/]^,OR,^HAND^,),AND,(,^WEAK^,ANDNOT,^NO WEAK^,),OR,(^SENSATION^,ANDNOT,(,^BURNING^,AND,^SENSATION^,),OR,(^ITCH^,AND,^SENSATION^,)),),),ANDNOT,(^[/]G61.0^,OR,^[/]G610^,OR,^[/][VWX][0-9][0-9]^,OR,^[/]Y[023678]^,OR,^[/]Z87.828^,OR,^[/]Z87828^,OR,^ACCIDENT^,OR,^TRAUMA^,ANDNOT,(^NO TRAUMA^,OR,^DENIES TRAUMA^,OR,^DENIES ANY TRAUMA^,OR,^NO KNOWN TRAUMA^,),OR,^FALL^,ANDNOT,(^FALL RISK^,OR,^NO FALL^,OR,^NO KNOWN FALL^,),OR,^INJUR^,ANDNOT,(^NO INJUR^,OR,^DENIES INJUR^,OR,^NO KNOWN INJUR^,OR,^DENIES AN INJUR^,OR,^DENIES ANY INJUR^,),OR,^WOUND^,OR,^STROKE^,OR,^SEIZ^,OR,^MIGRAINE^,OR,^NUMB^,OR,^STROKE^,OR,^SEPSIS^,OR,^ULCER^,OR,^CELLULITIS^,OR,^SCIATIC^,OR,^DISC[/]^,OR,^NECROTIC^,OR,^URINARY TRACT^,OR,^UTI^,OR,^PHYSICAL THER^,OR,^NEOPLASM^,OR,^TUMOR^,OR,^CLOT^,OR,^EMBOLISM^,OR,^CATHETER^,OR,^CATH CHANGE^,OR,^CATH PROBLEM^,OR,^[/]G46.[34]^,OR,^[/]G46[34]^,OR,^[/]R29.7^,OR,^[/]R297^,OR,^[/]I63.9^,OR,^[/]I639^,OR,^[/]I69.39^,OR,^[/]I6939^,OR,^STROKE^,OR,^[/]G35^,OR,^[/]G36.0^,OR,^[/]G360^,OR,^[/]G40^,OR,^[/]W86^,OR,^[/]T754^,OR,^[/]T75.4^,)
ChiefComplaintHistory	ISNULL,OR,^,ANDNOT,(^ACCIDENT^,OR,^TRAUMA^,ANDNOT,(^NO TRAUMA^,OR,^DENIES TRAUMA^,OR,^DENIES ANY TRAUMA^,OR,^NO KNOWN TRAUMA^,),OR,^FALL^,ANDNOT,(^FALL RISK^,OR,^NO FALL^,OR,^NO KNOWN FALL^,),OR,^INJUR^,ANDNOT,(^NO INJUR^,OR,^DENIES INJUR^,OR,^NO KNOWN INJUR^,OR,^DENIES AN INJUR^,OR,^DENIES ANY INJUR^,),OR,^WOUND^,OR,^STROKE^,OR,^SEIZ^,OR,^MIGRAINE^,OR,^NUMB^,OR,^STROKE^,OR,^SEPSIS^,OR,^ULCER^,OR,^CELLULITIS^,OR,^SCIATIC^,OR,^DISC[/]^,OR,^NECROTIC^,OR,^URINARY TRACT^,OR,^UTI^,OR,^PHYSICAL THER^,OR,^NEOPLASM^,OR,^TUMOR^,OR,^CLOT^,OR,^EMBOLISM^,OR,^CATHETER^,OR,^CATH CHANGE^,OR,^CATH PROBLEM^,)
Triage Notes Orig	ISNULL,OR,^,ANDNOT,(^ACCIDENT^,OR,^TRAUMA^,ANDNOT,(^NO TRAUMA^,OR,^DENIES TRAUMA^,OR,^DENIES ANY TRAUMA^,OR,^NO KNOWN TRAUMA^,),OR,^FALL^,ANDNOT,(^FALL RISK^,OR,^NO FALL^,OR,^NO KNOWN FALL^,),OR,^INJUR^,ANDNOT,(^NO INJUR^,OR,^DENIES INJUR^,OR,^NO KNOWN INJUR^,OR,^DENIES AN INJUR^,OR,^DENIES ANY INJUR^,),OR,^WOUND^,OR,^STROKE^,OR,^SEIZ^,OR,^MIGRAINE^,OR,^NUMB^,OR,^STROKE^,OR,^SEPSIS^,OR,^ULCER^,OR,^CELLULITIS^,OR,^SCIATIC^,OR,^DISC[/]^,OR,^NECROTIC^,OR,^URINARY TRACT^,OR,^UTI^,OR,^PHYSICAL THER^,OR,^NEOPLASM^,OR,^TUMOR^,OR,^CLOT^,OR,^EMBOLISM^,OR,^CATHETER^,OR,^CATH CHANGE^,OR,^CATH PROBLEM^,)
DischargeDiagnosisHistory	ISNULL,OR,^,ANDNOT,(^[/]G61.0^,OR,^[/]G610^,OR,^[/][VWX][0-9][0-9]^,OR,^[/]Y[023678]^,OR,^[/]Z87.828^,OR,^[/]Z87828^,OR,^[/]G46.[34]^,OR,^[/]G46[34]^,OR,^[/]R29.7^,OR,^[/]R297^,OR,^[/]I63.9^,OR,^[/]I639^,OR,^[/]I69.[39]^,OR,^[/]I6939^,OR,^[/]G35^,OR,^[/]G36.0^,OR,^[/]G360^,OR,^[/]G40^,OR,^[/]W86^,OR,^[/]T754^,OR,^[/]T75.4^,)