New Weakness Concerning for AFM (Acute Flaccid Myelitis)

PART 1: EMERGENCY ROOM MANAGEMENT

When to Consider AFM:

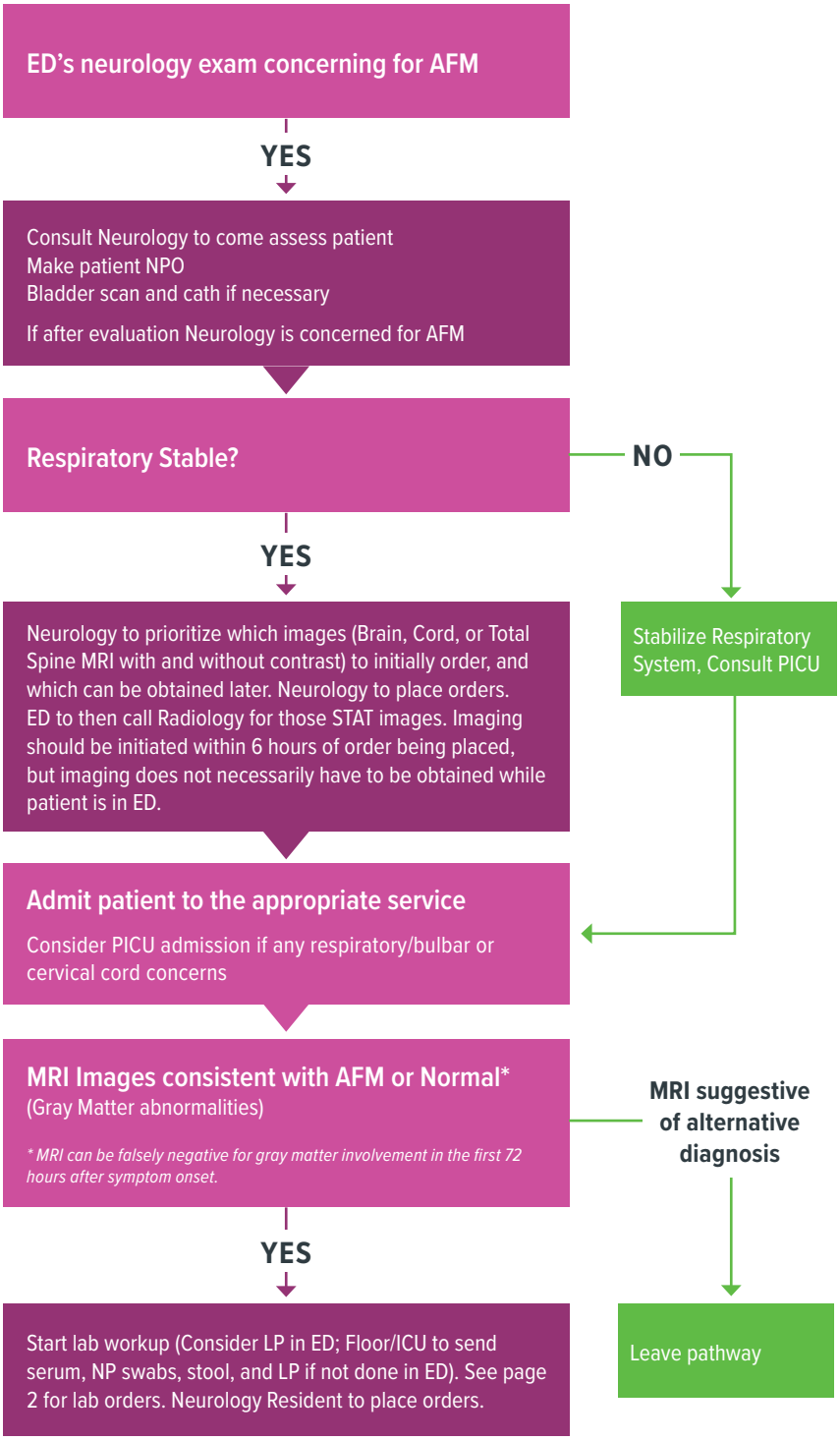
- Sudden onset of weakness, hypotonia, or areflexia in 1 or multiple extremities
- Altered Mental Status
- Facial Weakness, Ptosis, Dysphagia, Dysarthria
- Symptoms typically begin 1 week after viral prodrome with fever

Pitfalls to avoid:

- Don't assume patient has AFM without having broad differential
- Don't ignore bladder symptoms
- Don't miss impending respiratory/bulbar weakness
- Pain CAN be a part of AFM

Differential Diagnosis of AFM:

Acute Flaccid Myelitis
Stroke (of brain or spinal cord)
Guillain-Barre Syndrome (GBS)
Miller-Fischer Variant GBS
Transverse Myelitis
Botulism
Infectious Myelitis
Tick Paralysis
Traumatic Spinal Injury
Cord Compression
Brain or Spinal Cord Tumor
Multiple Sclerosis
Post-ictal Todd's Paralysis from Seizure
Functional Weakness



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PART 2: INPATIENT/ICU MANAGEMENT

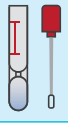
Priorities of care until imaging is obtained and diagnosis is confirmed

- Careful monitoring of respiratory parameters with NIF and FVC
- Q2 hour neuro exams
- Careful monitoring of bladder output, with post-void residual POC bladder scans and cath if necessary

Workup for patients with exam concerning for AFM:

1. Complete remaining images for MRI Brain/Total Spine (versus specific cord segments) w & w/o contrast: AFM will show gray matter lesions (can be absent on MRI's done within first 72 hours of symptom onset)
2. Labs: (see below for CDC minimal quantities) most done in FIRST 24 hours, prior to treatment. CDC samples should be overnighted by Send Out Lab to Ohio Health Department who will send to the CDC
   - Blood: CBC, CMP, arbovirus panel, enterovirus PCR, anti-NMO antibody, anti-MOG Antibody, PLUS 2ml Red top on hold for CCHMC, PLUS 1 ml red top for CDC
     - Consider: Lyme, cat scratch, RMSF
   - CSF: ≥ 9 ml's: cell count, glucose, protein, culture, oligoclonal bands, IgG Index, meningo-encephalitis panel (includes enterovirus), NMO Antibody, Neopterin, CCHMC 2ml hold tube, 1ml in separate hold tube for CDC
     - Consider: West Nile IgM/IgG
   - Respiratory: 2 NP swabs- 1 for respiratory viral panel, 1 for CDC
   - Stool: 3 samples -1 sample for enterovirus PCR testing at CCHMC; PLUS 2 samples 24 hours apart (not rectal swabs) for CDC

Specimens to collect and send to CDC for testing AFM PUIs

SAMPLE	AMOUNT	TUBE TYPE	PROCESSING	STORAGE	SHIPPING
CSF	1mL (collect at same time or within 24 hours of serum)	Cryovial 	Spun and CSF removed to cryovial	Freeze at -70°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 -70°C	Ship on dry ice
Stool	≥1 gram (2 samples collected 24 hours 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

ALL SPECIMENS MAY BE STORED AT -70°C FOR EASE OF SHIPPING.

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FOR NEUROLOGY RESIDENTS' ONENOTE PROTOCOL LIST

If imaging and/or clinic history is felt to be most consistent with AFM:

1. Contact CDC at AFMLab@cdc.gov for pre-approval to send them AFM samples. Email should include a short patient synopsis about why you're worried for AFM.
   - Dr. Marissa Vawter-Lee can coordinate this and Step 2's paperwork.

2. Neurology to fill out pages 1 and 2 of CDC's Acute Flaccid Myelitis Patient Summary Form (available at https://www.cdc.gov/acute-flaccid-myelitis/hcp/data-collection.html) and email the form to IC at infectionpreventionprogram@cchmc.org. IC will send this form to our CCHMC Send-out Lab, who will send the form with our CDC labs to the Ohio Dept of Health who will then send it on to the CDC.

3. Contact Infection Control (NOT ID): they will report to Cincinnati health department, who will then report case to CDC. Infection Control to coordinate form submission.
   - Neurology to double-check all necessary samples (blood, respiratory, CSF, stool) were sent and FYI Send-Out Lab that samples are being sent down to them.
   - For IC: IC to place CDC imaging upload request to ROI@cchmc.org with patient information, AFM Patient Summary Form and test they are requesting to upload.

4. Consult PT, OT, ST, Rehab

5. Determine Treatment plan: Consider treatment with IV methylprednisolone, plasmapheresis, or IVIG, with supervising neurologist guiding treatment determined by severity and treatment response.
   - If plasmapheresis is done, please see PLEX Treatment guidelines in Neurology OneNote

6. Consult BMCP

7. Await classification from CDC (will be reported to local health department), on if case is confirmed, suspected, or excluded. Will take several months

8. Either 3 months after onset of symptoms OR prior to discharge from hospital (whichever comes first so this step is not missed) refer to Brachial Plexus Clinic for outpatient clinic evaluation of nerve transfer, a possibility if patient has incomplete recovery after 4–6 months. When you place the referral send email to Carrie Emhoolah and cc Drs. Ann Schwentker, Roger Cornwall, and Kevin Little.

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