Objectives:

Upon completion of the assigned readings, class, and/or credit questions, each participant will independently do the following with at least an 80% degree of accuracy and no critical errors for their scope of practice:

1. Recognize common behaviors displayed be persons with autism
2. Synthesize a plan for response to the patient with autism modeled on available autism history and presentation
3. Appraise and apply alternative assessment tools in pain assessment of pre- and nonverbal peds patients
4. Compare and contrast ABCDE assessment findings of various levels of severity in the pediatric aged patient and their associated implications for intervention
5. Compare and contrast developmental age factors that influence choice of IV site, appropriate methods of insertion, use of distraction, and selection of complexity and timing of instructions to the patient.
6. Correctly calculate and or locate accurate weight-based drug doses for pediatric patients
7. Discuss caveats of consent and refusal for the pediatric aged patient and apply accurately in hypothetical situations
8. Discuss and identify sign/symptoms and pertinent history that may signal possible AMF in the pediatric patient
9. Compare and contrast adult versus pediatric qSOFA criteria
10. Discuss AMF and MIS-C at awareness level for assessment findings and significant history
11. Accurately apply pediatric SOPs to a variety of hypothetical patient care situations

Psychomotor objective

Calculate and cross-check doses of various medications for pediatric-aged patients.

Affective objectives

Value and advocate for unique needs of the pediatric population and provisions of corresponding SOPs.

Support and consistently perform medication dose cross-check when treating a pediatric-aged patient

https://myasdf.org/about-autism/autism-information-for-emergency-personnel/autism-101-for-paramedicsems-

mergency-medical-service/

Autism 101 for Paramedics/EMS (Emergency Medical Service)

Autism Facts To Know

- Individuals with autism cannot be identified by appearance. They look the same as anyone else. They're identified by their behavior. Autism is a spectrum disorder. It presents differently in each individual. What works for one individual with autism may not work for another.
- 50% of individuals with autism are nonverbal throughout their life span; another 20% may present as nonverbal when highly stressed.
- 30 – 40% of individuals with autism will develop epilepsy or some other seizure disorder during adolescence.
- Individuals with autism have a difficult time reading facial expressions. The Wong-Baker Faces Pain Rating Scale will NOT be an accurate measurement for pain.
- You may encounter autism by one of its many other names such as, ASD – Autism Spectrum Disorder, Asperger's Syndrome, PDD – Pervasive Developmental Delay, PDD NOS – Pervasive Developmental Delay Not Otherwise Specified and of course autism.
- Some individuals with autism do not have a normal range of sensations and may not feel the cold, heat or pain in a typical manner. In fact they may fail to acknowledge pain in spite of significant pathology being present. They may show an unusual pain response that could include laughter, humming, singing and removing of clothing.
- Individuals with autism may engage in self stimulatory behavior such as hand flapping, finger flicking, eye blinking, string twirling, rocking, pacing, making repetitive noises or saying repetitive phrases that have no bearing on the topic of conversation. This behavior is calming to the individual, even if it doesn't appear calming. They may repeat something you said or something they heard over and over and over again. This is called echolalia and can be calming to the individual. If these behaviors are NOT presenting as a danger to themselves or others it is in the your best interest not to interfere with it. Allow it to continue as long as they are safe and safe to be around. Trying to stop it will increase their anxiety and may cause the individual to act out aggressively.
- Individuals with autism often have tactile sensory issues. Band-Aids or other adhesive products could increase anxiety and aggression.
- When restraint is necessary, be aware that many individuals with autism have a poorly developed upper trunk area. Positional asphyxiation could occur if steps are not taken to prevent it: frequent change of position, not keeping them face down. Individuals with autism may continue to resist restraint.

Exam Tips

- Move slowly, performing exams distal to proximal. Explain what you plan to do in advance and as you do it. Explain where you are going and what they may see and who might be there. This may avert unnecessary anxiety and/or outbursts or aggressions from the patient.
- Speak simply; give plenty of time for an individual with autism to respond to questions. A 3 – 4 second delay is not uncommon. Repeat your question and wait again. Use a calm voice. Be aware that some autistic persons'

use of “yes” and “no” to answer questions may be random and misleading. Try inverting your questions to validate the patient’s response.

- Expect the unexpected. Children with autism may ingest something or get into something without their parents realizing it. Look for less obvious causality and inspect carefully for other injuries.
- If possible ask a caregiver what the functional level of the individual with autism is, then treat accordingly. Stickers, stuffed animals and such which are used to calm young children may be helpful even in older patients.
- If a caretaker is present, allowing the caretaker to ask the questions involved in an exam may increase the likelihood of getting information from the person.
- Allow a caretaker to ride with the patient if possible. This will reduce anxiety and make your job less difficult.
- Don’t presume a nonverbal child or adult who seems not to be listening, can’t understand.
- Individuals who present as nonverbal may be able to write or type responses. Provide paper and pen or laptop for the best chance of getting the information that is needed.
- Attempt to perform exams in a quiet spot if at all possible, depending on the severity of injury and safety of the scene. Demonstrating what the exam will consist of on another person first may help the person with autism have a visual knowledge of what your intentions are.
- Emphasize the comfort and reassurance repeatedly.

Other Helpful Information and Ideas

- When possible avoid use of sirens and flashing lights. Sound and light sensitivity is common in autism.
- Alert Emergency Room (ER) personnel to upgrade triage for child or adult with autism even if injuries are relatively minor. Having the person wait for medical attention may cause avoidable disruptions in the ER. Expect the sensory stimulation of the ER room such as equipment, lighting, noises, aromas and commotion to cause a negative escalation of behavior. Upgrading triage will save valuable ER time and resources.
- If possible communicate with receiving hospitals before arrival. Request a quiet isolated area or room for the patient with autism.
- Some autistic persons will be terrified by restraint systems used in ambulance transfers. Ideally, explain and get consent from the patient or guardian before attempting to strap onto a KED or stretcher.
- An individual with autism may not respond to directives, and that can be because they don’t understand what’s being demanded of them, or even just because they’re scared — the fact that they’re scared is the only thing they will be aware of — they may not be able to process language or understand a directive when fearful.
- They may fixate on or stare at an object in the room (or on your body – a badge, earrings, buttons)
- Whenever possible, avoid touching these individuals. Some, but not all, individuals with autism will become more agitated and possibly aggressive when touched. Tell them what you are going to do.
- Identification can often be found on individuals with autism in the form of a Medic Alert Bracelet or a necklace; some families may thread the ID into a shoelace, a belt, or as a zipper pull; or a business card with personal information may be in a pocket or wallet.

Citations:

Information in this section is based on source material drawn from:

“Autism 101 for EMS.” *papremisealert.com*. http://papremisealert.com/us/autism-101-for-ems/.

Policy Title: **REFUSAL OF SERVICE** (Elements of granting & withholding consent)			**No.** **R - 6**
Board approval: 1/11/18	**Effective:** 3/9/18	**Supersedes:** 2/1/18	**Page:** 4 of 11

C. **Refusal contraindications -** Instances when EMS personnel should not accept a refusal from an adult, adolescent, or a surrogate:

1. Patient is homicidal, suicidal, meets one of the criteria above under persons with mental illness, has altered mental status (AMS), drug altering behavior, or is hypoglycemic, hypotensive, or hypoxic.
2. Adolescents may not refuse an assessment to determine if they are ill or injured or care if they are ill or injured.
3. Refusal of care for a minor, adolescent, or non-decisional adult by a parent, guardian, agent, or surrogate is not *necessarily* valid. The welfare of the patient is the EMS System's primary consideration. If EMS personnel believe that the patient's health and welfare could be compromised by the refusal, they must contact OLMC before accepting and executing a refusal of service. Each case must be evaluated on its own merits to determine a proper course of action.

F. **ADOLESCENTS (mature minors)**

1. If called for an adolescent (mature minor), the duty of EMS personnel is to determine the nature of the health problem and institute appropriate care.
2. **In Illinois, a person <18 may not consent to, or refuse, assessment, treatment and/or transport with limited exceptions** as listed below.
   a. Married at the time treatment is rendered,
   b. Pregnant at the time treatment is rendered
   c. Requesting treatment for sexual assault or abuse, a sexually transmittable disease, alcohol or drug abuse or limited out-patient mental health counseling
   d. Member of the United States Armed Services
   e. Emancipated by court order
3. **Parent/guardian (surrogate decision-maker) ON SCENE:** Steadfast refusal by an adolescent with decisional capacity to accept recommended assessment, treatment and/or transportation shall be discussed with a parent or other legally responsible adult, e.g., guardian or caretaker (including school administrators) with authority to act on behalf of the parent while EMS personnel are on the scene.

   If treatment appears necessary, the responsible adult should be informed and consent for treatment solicited from them. An adolescent cannot refuse care and/or transportation that is consented to by the parent/guardian/surrogate unless they are emancipated as listed above.

   If assessment/treatment/transportation appears unnecessary, the adult may sign the refusal form on behalf of the adolescent.

4. **Parent/guardian/surrogate NOT on scene:** If the parent or a responsible adult is not present, EMS personnel must attempt to contact them by phone from the scene BEFORE treatment is begun (unless emergency doctrine applies) or the adolescent is released.

   a. **If phone contact is established and treatment appears necessary**, the responsible adult should be informed about the adolescent's condition and verbal consent for treatment solicited from them.

   b. **If phone contact is established and treatment/transportation appears unnecessary,** the adult may give verbal authorization for refusal of service on behalf of the adolescent. This refusal of service must be thoroughly documented on the ePCR and the refusal confirmed with OLMC.

   c. **If unable to establish contact from the scene,** and an adolescent appears to be exhibiting rational behavior with decisional capacity, and based on the EMS assessment there is **no apparent illness or injury**, and EMS believes that no foreseeable harm will come to the adolescent as a result of not receiving immediate care and/or transportation, EMS shall seek OLMC authorization to honor the adolescent's refusal of service and release them to the circumstances in which EMS personnel found him or her, unless releasing the individual would place them at risk of harm.

      (1) EMS must contact an ED OLMC physician at the nearest System Hospital from the scene BEFORE the adolescent is released. Describe the situation and determine a course of action.

      (2) OLMC shall consider allowing the adolescent to be released on their own signature. The circumstances of the call must be thoroughly documented on the patient care report (PCR) and Communications Log, and must be verified by witnesses.

      (3) EMS shall **attempt to contact the parent/guardian again, as soon as possible after return to the ambulance quarters.**

      (4) **Follow up notice**: If no contact can be made with a parent or guardian during that shift, a follow-up letter, on a form created by the NWC EMSS, must be sent to the parent/guardian immediately thereafter, describing the circumstances of the call, the nature of the evaluation, including any other information that the scene personnel deem significant so the parent/guardian is aware of an EMS response for their adolescent. A copy of this letter should be scanned and added as an attachment to the electronic PCR.

G. **MINORS**

1. Having been called to administer care to a minor, the duty of EMS personnel is to determine the nature of the health problem and institute appropriate treatment.

2. **Minors age 11 or less may not give nor withhold consent for EMS assessments or care.** Consent must be obtained from a parent, legal guardian, or surrogate decision maker (school administrator) unless the emergency doctrine applies and treatment is rendered under implied consent.

3. **See points 3 & 4 above for direction.**

CDC Vitalsigns™

#vitalsigns
AUG 2020

Acute Flaccid Myelitis (AFM)

Recognize symptoms. Hospitalize immediately.

Want to learn more?
www.cdc.gov/vitalsigns/afm2020

2 in 3 Most patients first sought care at an emergency department.

98% Most patients with AFM were hospitalized.

54% Over half were admitted to the ICU. 1 in 4 hospitalized patients required a ventilator.

Overview

Acute flaccid myelitis (AFM) is an uncommon, but life-threatening neurologic condition that affects mostly children and can lead to permanent paralysis. Enteroviruses, particularly EV-D68, are likely responsible for the increase in cases every two years since 2014. AFM is a medical emergency and patients must be hospitalized and monitored in case they progress to respiratory failure. Prompt recognition and immediate action by pediatricians, and emergency department and urgent care providers are critical to achieving the best possible outcomes.

- AFM typically presents with sudden limb weakness. Most patients had respiratory illness or fever before AFM onset.
- Patient health can decline quickly, resulting in paralysis or the need for a ventilator. AFM can lead to permanent disability.
- Patients who tested positive for EV-D68 typically had more severe AFM illness, requiring hospitalized intensive care and ventilation.
- Most cases occur between August and November.

Centers for Disease Control and Prevention
National Center for Immunization and Respiratory Diseases

PROBLEM

Delays in recognition can put patients at risk

A third of patients were hospitalized two or more days after limb weakness.

When clinicians recognize AFM early, they can quickly

- Hospitalize patients and provide optimal medical management and rehabilitation.
- Collect clinical specimens and order a brain and spinal cord MRI. Done early, these help detect the cause and distinguish AFM from other conditions with limb weakness.

Look out for AFM signs and symptoms

Limb weakness and paralysis

The most common symptom of AFM

Some people may experience

Recent or current respiratory illness

Fever

Pain or numbness in the limb(s)

Gait difficulty

Headache

Back or neck pain

Difficulty talking or swallowing

Neck or facial weakness

SOURCE: *MMWR*, August 2020.

Evaluation checklist for possible AFM

Age-appropriate neurological exam

- ☐ Muscle strength in all four limbs (What is their strength? Can they move the limb against gravity with resistance?)
- ☐ Muscle tone (Is it loose/floppy?)
- ☐ Reflexes (Are they hypo-, hyper-, or absent?)
- ☐ Cranial nerve assessment (Are there any cranial nerve deficits?)

THE WAY FORWARD

HEALTHCARE PROVIDERS CAN:

- Suspect AFM in patients with sudden limb weakness, especially between August and November.
- Collect clinical specimens immediately and report cases to the state health department.
- Request specialty consultations such as infectious disease and neurology.

HEALTH DEPARTMENTS CAN:

- Communicate information about AFM to healthcare providers.
- Work with CDC to collect medical information, specimens, MRI images, and classify cases.

PARENTS CAN:

- Seek medical care immediately if a child develops sudden arm or leg weakness.
- Seek support from other parents and families affected by AFM.
- Visit CDC's AFM parent webpage: www.cdc.gov/acute-flaccid-myelitis/parents/index.html

CONTACT AFM SPECIALISTS through the AFM Physician Consult and Support Portal: https://bit.ly/2Y2U3VR

For more information
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 | Web: www.cdc.gov

Centers for Disease Control and Prevention
1600 Clifton Road NE, Atlanta, GA 30333
Publication date: August 4, 2020

CS316699A

Reporting Multisystem Inflammatory Syndrome in Children (MIS-C)

Accessible version: https://www.cdc.gov/mis-c/hcp/index.html

Clinical Presentation

Patients with MIS-C have presented with a persistent fever, fatigue, and a variety of signs and symptoms, including multiorgan (e.g., cardiac, gastrointestinal, renal, hematologic, dermatologic, neurologic) involvement and elevated inflammatory markers. Not all children will have the same signs and symptoms, and some children may have symptoms not listed here.

MIS-C may present weeks after a child is infected with SARS-CoV-2. The child may have been infected from an asymptomatic contact and, in some cases, the child and their caregivers may not even know they had been infected.

Report possible cases of MIS-C to your local, state, or territorial health department.

Visit cdc.gov/mis-c/hcp for more information and a case report form.

Questions? Contact CDC's 24-hour Emergency Operations Center at 770-488-7100.

Case Definition

- An individual aged <21 years presenting with fever*, laboratory evidence of inflammation**, and evidence of clinically severe illness requiring hospitalization, with multisystem (>2) organ involvement (cardiac, renal, respiratory, hematologic, gastrointestinal, dermatologic or neurological); AND
- No alternative plausible diagnoses; AND
- Positive for current or recent SARS-CoV-2 infection by RT-PCR, serology, or antigen test; or exposure to a suspected or confirmed COVID-19 case within the 4 weeks prior to the onset of symptoms

*Fever >38.0°C for ≥24 hours, or report of subjective fever lasting ≥24 hours

**Including, but not limited to, one or more of the following: an elevated C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), fibrinogen, procalcitonin, d-dimer, ferritin, lactic acid dehydrogenase (LDH), or interleukin 6 (IL-6), elevated neutrophils, reduced lymphocytes and low albumin

Additional comments:

- Some individuals may fulfill full or partial criteria for Kawasaki disease but should be reported if they meet the case definition for MIS-C.
- Consider MIS-C in any pediatric death with evidence of SARS-CoV-2 infection.

Visit Information for Healthcare Providers about Multisystem Inflammatory Syndrome in Children (MIS-C) for more information about MIS-C.

CS 000000-X 06/09/2020