EMS Focus

A Collaborative Federal Webinar Series

NHTSA's Office of EMS Wednesday, October 2, 2024 at 1pm ET

Navigating Mpox: Latest Updates and Strategies for EMS Clinicians

911.gov



VARIETY OF TOPICS

Provides the EMS community with a unique opportunity to learn more about Federal EMS efforts and programs.

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NHTSA Office of EMS

Mission



Reduce death & disability



Provide leadership & coordination to the EMS community



Assess, plan, develop, & promote comprehensive, evidence-based emergency medical services & 911 systems

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Safe System Approach

- Safer People
- Safer Roads
- Safer Vehicles
- Safer Speeds
- Post-Crash Care







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Today's Topic

Navigating Mpox: Latest Updates and Strategies for EMS Clinicians

- Clary Mole, Emergency Medical Services Specialist, Office of EMS, NHTSA (moderator)
- Alexander Isakov, MD, MPH, FACEP, FAEMS, Professor of Emergency Medicine, Director, Section of Prehospital and Disaster Medicine, Emory University, Chair, EMS Biosafety Transport Consortium and Workgroup, National Emerging Special Pathogens Training and Education Center
- **Bryan E. Christensen,** PhD, MEPC, CIH, REHS/RS, Associate Director for Preparedness and Response, Division of High Consequence Pathogens and Pathology, National Center for Emerging and Zoonotic Infectious Diseases; Centers for Disease Control and Prevention

 Bryan E. Christensen, PhD, MEPC, CIH, REHS/RS, Associate Director for Preparedness and Response, Division of High Consequence Pathogens and Pathology, National Center for Emerging and Zoonotic Infectious Diseases; Centers for Disease Control and Prevention

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 Alexander Isakov, MD, MPH, FACEP, FAEMS, Professor of Emergency Medicine, Director, Section of Prehospital and Disaster Medicine, Emory University, Chair, EMS Biosafety Transport Consortium and Workgroup, National Emerging Special Pathogens Training and Education Center



EMS Ready for Mpox Identify, Isolate, and Inform

Alexander Isakov, MD, MPH, FACEP, FAEMS Professor of Emergency Medicine Director, Section of Prehospital and Disaster Medicine Emory University

Chair, EMS Biosafety Transport Consortium and Workgroup National Emerging Special Pathogens Training and Education Center



W.H.O. Declares Global Emergency Over New Mpox Outbreak

The epidemic is concentrated in the Democratic Republic of Congo, but the virus has now appeared in a dozen other African countries.

NYTimes

8-14-2024

17,500 presumed and confirmed mpox cases in 13 countries

Mpox Case in Sweden Sets Off Concerns of Wider Spread in Europe

NYTimes 8-16-2024

Identify, Isolate and Inform

- Assess for risk
- Implement measures to protect personnel and manage the patient safely
- Communicate with system partners

> West J Emerg Med. 2015 Sep;16(5):619-24. doi: 10.5811/westjem.2015.7.27915. Epub 2015 Oct 20.

Identify-Isolate-Inform: A Modified Tool for Initial Detection and Management of Middle East Respiratory Syndrome Patients in the Emergency Department

Kristi L Koenig ¹

Monkeypox 2022 Identify-Isolate-Inform: A 3I Tool for frontline clinicians for a zoonosis with escalating human community transmission

Kristi L. Koenig^{a, b} ^A [⊠], Christian K. Beÿ^a, Aileen M. Marty^c



Identify

Risk assessment:

- •What is the likelihood that this patient has Mpox?
 - Signs and symptoms
 - Exposure history
 - Travel history

Mpox - Identify

- Incubation period
 - Typically 7-14 days(range 5-21 days)
- Signs and symptoms
 - Prodrome of fever, malaise, headache, muscle aches, lymphadenopathy
 - After 1-3 days of prodrome a generalized rash appears typically on the face and then spreads to other parts of the body
 - Macules, papules, vesicles, pustules
 - Rash lasts 2-4 weeks
- Clades and virulence
 - Clade 1 (Central African) up to 10%
 - Clade 1b approx. 5%
 - Clade 2 (West African) up to 1%
 - Clade 2b very low



Child affected with monkeypox.





Mpox: Identify – Clade 2b



Photo Credit: NHS England High Consequence Infectious Diseases Network

- link to endemic countries not required
- genital and perianal lesions and pain when swallowing
- not all patients have fever, swollen lymph nodes
- rash may develop in the perianal or genital region and not spread to other areas of the body



Mpox - Isolate

- Transmission
 - Direct or indirect contact with infectious body fluids and respiratory droplets – some risk of transmission via suspended droplet nuclei
 - Potentially infectious 5 days prior to rash onset
 - Infectious until crusting of skin lesions
- •PPE
 - Standard + contact + airborne + eye protection



<u> Mpox - Isolate</u>

- Hierarchy of controls for EMS
 - Source control
 - apply surgical mask to patient
 - apply barrier sheets as tolerated
 - Personnel in appropriate PPE (gloves, gown, N-95 respirator, face shield/goggles)
 - Limit number of personnel making contact
 - Caution with aerosol generating procedures
 - Adjust air handling to introduce fresh air in both compartments
 - Turn exhaust fan on high in the patient compartment if so equipped



Mpox: Isolate

- Cleaning, disinfection, waste management
 - EPA registered hospital grade disinfectant
 - Product claims
 - Contact time
 - Expiration date
 - Classification of waste Category B

Mpox: Inform



- Other responding personnel
- Local and state public health authorities who may initiate special pathogen transport protocols
- Supervisory personnel
- Receiving facility, so that space is made available to properly isolate the patient on arrival (airborne isolation room if available) and that receiving healthcare personnel are in appropriate PPE



Mpox - Medical therapy

- Supportive care
- Antivirals used to treat smallpox: e.g., Tecovirimat
- Vaccine PEP and PrEP
 - JYNNEOS (Imvanex)
 - Licensed to prevent monkeypox and smallpox
 - ACAM 2000
 - Licensed to prevent smallpox











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Mpox Update for EMS Personnel

April 12, 2024





In summary...

- Be alert for suspicious rash
- Identify, Isolate and Inform
- Gown, gloves, N-95 respirator, face shield/eye protection
- PEP and PrEP with public health guidance





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THANK YOU!