

Access the recorded webinar here:

<https://attendee.gotowebinar.com/recording/8671199879957159681>

Speaker Bios: <https://asprtracie.hhs.gov/documents/playbook-webinar-speaker-bios.pdf>

Q&A: <https://asprtracie.hhs.gov/documents/aspr-tracie-ta-challenges-and-resources-for-provider-protection-qa-508.pdf>



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# EMS & Infectious Diseases: Challenges & Resources for Provider Protection

June 22, 2017



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**Meghan Treber, MS**  
**ICF TRACIE Project Director & Principal, Public**  
**Health Preparedness Practice, ICF**



# Disclaimer

- This webinar is a discussion among healthcare system preparedness personnel and clinicians for informational purposes only and does not represent federal or organizational guidelines, policies, or positions.

# ASPR TRACIE: Three Domains



- Self-service collection of audience-tailored materials
- Subject-specific, SME-reviewed “Topic Collections”
- Unpublished and SME peer-reviewed materials highlighting real-life tools and experiences



- Personalized support and responses to requests for information and technical assistance
- Accessible by toll-free number (1844-5-TRACIE), email (askasprtracie@hhs.gov), or web form (ASPRtracie.hhs.gov)



- Area for password-protected discussion among vetted users in near real-time
- Ability to support chats and the peer-to-peer exchange of user-developed templates, plans, and other materials



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**Richard Hunt, MD**  
**Senior Medical Advisor, NHPP, ASPR**



# Webinar Objectives

- Discuss challenges to the EMS community related to infectious disease
- Introduce ASPR TRACIE's EMS Infectious Disease Playbook
- Improve knowledge of resources available to EMS dispatchers, providers, and physicians

# Webinar Scope

- Designed for EMS responders, supervisors, and physicians
- Intended to help EMS personnel assess potential infectious risks and take steps to prevent disease transmission
- Developed to consolidate and complement other sources of information

# Conversation on EMS and Infectious Disease Challenges and Resources

- John Hick, MD
  - Emergency Physician & Deputy Chief EMS Medical Director, Hennepin County Medical Center & ASPR
- Alexander Isakov, MD, MPH
  - Director, Section of Prehospital & Disaster Medicine, Emory University



What are some challenges that EMS personnel face relative to infection prevention?

What are some usual risks and solutions relative to infectious patients under EMS care?

What were some lessons learned from EVD relative to dispatch and initial response?

What actions should providers take when unexpectedly encountering a possible highly infectious patient?

What are some problems/issues with specialized transport resources for highly infectious patients?

What are some environmental controls that can be implemented?

What are some limitations of current PPE in the EMS environment?

Are there potential solutions on the horizon? What is needed?



# Playbook Background

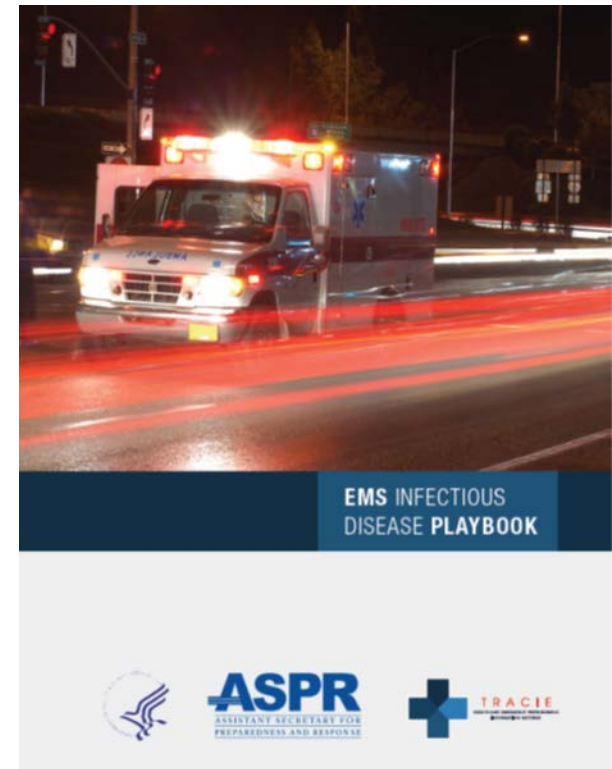
- Need for technical resources on safe care and transport of Ebola patients
- Need for dispatchers and responders to share a common approach
- Integrate multiple sources of information and make more accessible
- Applies to other contagious diseases

# Collaboration & Review

- ASPR TRACIE Team, including:
  - Lead Editor, John Hick, MD
  - Project Director, Shayne Brannman
  - ICF TRACIE Project Manager, Meghan Treber
- Alex Isakov, MD, MPH
- Reviewers
  - Federal Agencies: ASPR, CDC/NIOSH, DOT NHTSA EMS Office, DHS
  - Professional Organizations: ACEP, NASEMSO, NAEMT, NAEMSP, IAFF
  - SMEs: NETEC, ACEP Epidemic Expert Panel, EMS Biosafety Consortium, state public health and public safety agencies, private EMS agencies

# EMS Infectious Disease Playbook

- One-stop, easy to use reference for infectious disease patient transport.
- Planning resource to be incorporated into EMS agency procedures.
- Not novel guidance or official policy.



# Content

- Contents page
- Sections
  - Dispatch/Responder Actions
  - Types of Precautions
  - Resources/Special Considerations
- Interactive to guide users to content

## Contents

»	1	DISPATCH/RESPONDER ACTIONS
»	11	STANDARD PRECAUTIONS
»	15	CONTACT PRECAUTIONS
»	21	DROPLET PRECAUTIONS
»	27	AIRBORNE PRECAUTIONS
»	33	SPECIAL RESPIRATORY PRECAUTIONS
»	42	EVD-VHF PRECAUTIONS
»	65	RESOURCES/SPECIAL CONSIDERATIONS

EMS INFECTIOUS DISEASE PLAYBOOK



# Interactive Features

- Navigable contents page
- Section tabs across the top of each page
- Back to contents at the bottom of each page
- Hyperlinks to sources



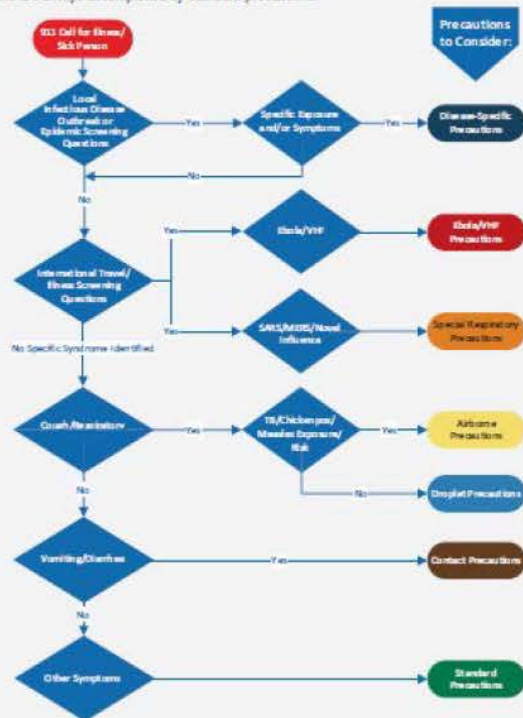
# Dispatch/Responder Actions

- General principles
- Dispatch screening and on-scene assessment algorithms
- Targeted information for both ambulance and first responders

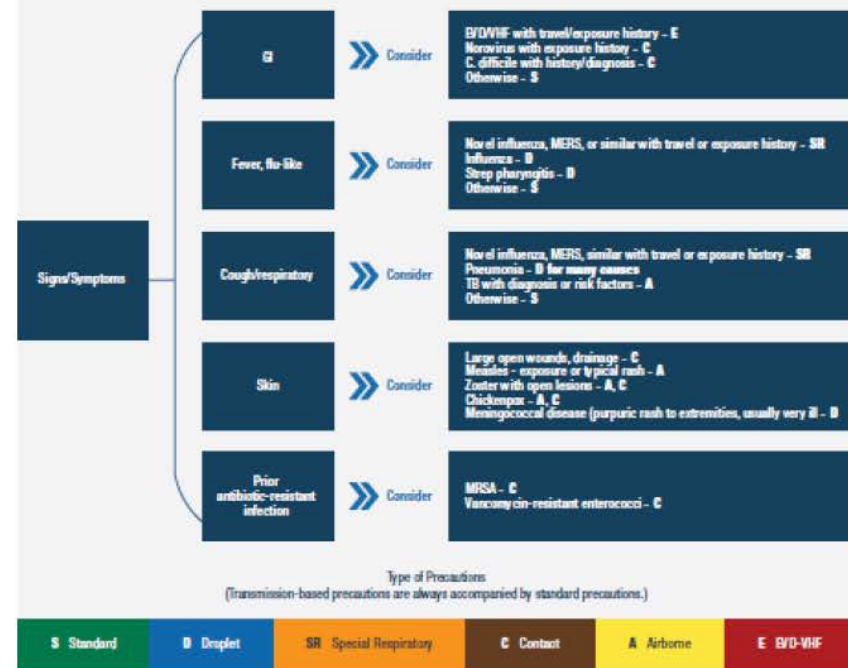
# Algorithms

## DISPATCH SCREENING ALGORITHM\*

\*Dispatch screening is designed to suggest the highest potential level of precautions that may be required. On-scene evaluation is required to adjust precautions according to history and exam. Transmission based precautions are always accompanied by standard precautions.



## ON-SCENE ASSESSMENT ALGORITHM



# Six Types of Precautions

- Standard
- Contact
- Droplet
- Airborne
- Special Respiratory
- Ebola/Viral Hemorrhagic Fever



## Standard Precautions



### EXAMPLE DISEASES

Acquired Immune deficiency syndrome (AIDS)/human Immunodeficiency virus (HIV) • anthrax (cutaneous or pulmonary) • botulism • cellulitis • dengue • minor wound infections including abscess • nonspecific upper respiratory infections



### GOAL OF PRECAUTIONS

Apply a standard set of protections based on the patient's symptoms and the clinical care rather than a specific suspected organism. The goal is to apply PPE as needed to prevent exposure to bodily fluids and PPE is based on how the disease is transmitted. Examples include routine use of hand hygiene, gloves, and adding eye protection and mask for patients with respiratory symptoms and during airway interventions, or gown for potential splash exposures.



### DISPATCH ACTIONS

- Resource assignment – usual assignment of first responders and appropriate basic life support (BLS)/advanced (ALS) response
- Patient instructions – usual pre-arrival instructions (porch light, control animals, gather medications, etc.)
- Crew instructions: Advise responding crew of patient illness/symptoms.

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EMS INFECTIOUS DISEASE PLAYBOOK



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# Section Contents

- Example diseases
- Goal of precautions
- Dispatch actions
- Arriving EMS actions/considerations
- PPE
- Patient care considerations
- Transport considerations
- Ambulance decontamination

# Special Considerations & Resources

- Hand hygiene
- Pandemic influenza
- Pediatric issues
- Aeromedical transport
- Occupational health/exposures
- References and resources
- Index of abbreviations



## Resources/Special Considerations

### PEDIATRIC ISSUES

- Children may be very fearful of caregivers in high-level PPE. Assure the ability to communicate with the child and explain what is happening and why in an age-appropriate manner.
- Caregivers who follow infectious precautions may be kept with the child if they wear appropriate PPE and have been providing care for the child during the current illness and there is no substantial risk of body fluid exposure during transport.
- Pediatric intravenous access can be difficult and the need for access must be balanced against the potential risk for needlesticks in the setting of potential blood-borne pathogens.
- Appropriate sizes of surgical masks should be available for children.
- Consider nasal/oral routes for analgesia and anxiolysis if intravenous access is not obtained.
- Assure that comfort objects (blanket, stuffed animal, etc.) can accompany the patient during transport.
- Do not avoid indicated procedures and medications for children simply because of a perceived risk of distress.
- Children are able to compensate for hypovolemia much better than adults by increasing their heart rate. However, hypotension and cardiovascular collapse can occur with little warning. Elevated heart rates can also be seen with fever, anxiety, and pain, making a determination of origin difficult. Assess perfusion, history, and other signs before assuming tachycardia is not related to early shock/sepsis.
- When possible, specialized EVD/VHF transport units should include agencies that routinely provide pediatric critical care interfacility transport.
- EVD commonly induces miscarriage. Providers should be aware of this issue and potential exposures and complications.
- Portable pediatric isolation transport units are available, but should only be used by personnel trained in their operation and limitations. The use of these units may significantly increase the patient's anxiety during transport.



### RESOURCES

- + Q&A's About the Transport of Pediatric Patients (<18 years of age) Under Investigation or with Confirmed Ebola

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EMS INFECTIOUS DISEASE PLAYBOOK



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# Demonstration

# Resources



- EMS Infectious Disease Playbook
  - Available today at [ASPRtracie.hhs.gov](https://asprtracie.hhs.gov)
- ASPR TRACIE Information Exchange
- Save the Date!
  - Highly Pathogenic Infectious Disease Exercise Planning for Regional Transport Webinar
  - August 23 at 2 PM Eastern

# Question & Answer



# Contact Us



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