

Welcome to a special Emory SCDP ECHO “Identify, Isolate, Inform: Ebola Preparedness from the Field to the ED”

The session will begin soon.



EMORY
UNIVERSITY



Southern Regional Disaster Response System
HHS Region 4



Welcome to a special Emory SCDP ECHO
“Identify, Isolate, Inform: Ebola Preparedness
from the Field to the ED”

The session will begin soon.



EMORY
UNIVERSITY



Southern Regional Disaster Response System
HHS Region 4

For educational and quality improvement purposes, we will be recording this video session. By participating in this clinic you are consenting to be recorded – we appreciate and value your participation.

Project ECHO[®] collects registration, participation, questions/answers, chat comments, and poll responses for some teleECHO[®] programs. Your individual data will be kept confidential. These data may be used for reports, maps, communications, surveys, quality assurance, evaluation, research, and to inform new initiatives.

If you have any questions or concerns about this ECHO program, please email scdp.echo@emory.edu.



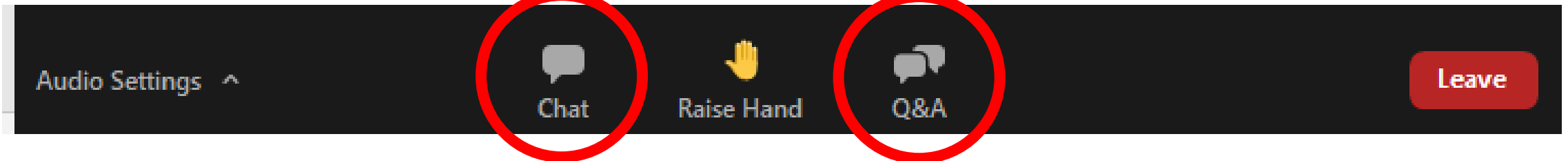
About this ECHO Program

- ECHO stands for “Extension for Community Healthcare Outcomes”
- Telementoring model, in which expert teams lead virtual clinics, amplifying the capacity for providers to deliver best-in-practice care to their own communities
- This ECHO program meets monthly on Thursday and discusses bio-preparedness topics and high consequence infectious diseases (HCIDs)
- Sessions are recorded and published as a podcast-subscribe so you never miss an episode!




Reminders

- Experiencing IT issues? Send a message to IT ECHO in the Zoom chat.
- If you would like to ask a question, type it into the Q&A feature.



Agenda

- Welcome & Introductions
 - Poll Questions
 - Case Presentation
 - Table Talk Discussion
 - Q&A
 - Closing Remarks & Poll Question
- 
- The bottom of the slide features a decorative graphic consisting of several overlapping, semi-transparent geometric shapes. On the left, there is a large blue triangle pointing downwards. In the center, there is a purple triangle pointing upwards. On the right, there is a light blue triangle pointing downwards. These shapes overlap to create a modern, abstract design.

Expert Panelist

Jill Morgan, RN, BSN



- Part of Emory's Serious Communicable Disease Unit team and cared for all five of Emory's viral hemorrhagic fever patients.
- Serves as the site manager for the Emory biocontainment unit, and co-creator of Emory's Healthcare Test Kitchen.
- PPE subject matter expert and co-lead of the PPE Working Group for NETEC, with a subspecialty in Category A waste.
- Member of ASTM, AAMI, ANSI, and APIC. I
- Appointed to the National Academies Committee on Personal Protective Equipment in 2023.
- Over thirty-five years of emergency and critical care nursing experience



Expert Panelist

Alexander Isakov, MD, MPH

- Professor of Emergency Medicine at Emory University School of Medicine
- Chief, Division of Pre-Hospital and Disaster Medicine, and Executive Director for Health Security at Emory University.
- Medical Director for the Emory-Grady EMS Biosafety Transport Program.
- EMS lead for the National Emerging Special Pathogens Training and Education Center (NETEC) and is a designated Subject Matter Expert for ASPR TRACIE, with whom he led the development of the EMS Infectious Disease Playbook.
- Sits on the American College of Emergency Physicians Epidemic Expert Panel.
- Practices clinically in the emergency department of Emory University Hospital in Atlanta, GA.

Expert Panelist

Brooke Brewer, BSN, RN, MS, CIC

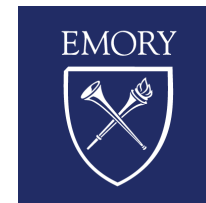
- Program Manager for UNC Hospitals' Special Pathogen Response Center (SPARC) at UNC Health.
- Over her career as a registered nurse, Brooke has built a diverse background spanning critical care, nursing leadership, and infection prevention.
- Passionate about advancing infection prevention practices and strengthening preparedness for high-consequence infectious diseases.



Poll Questions

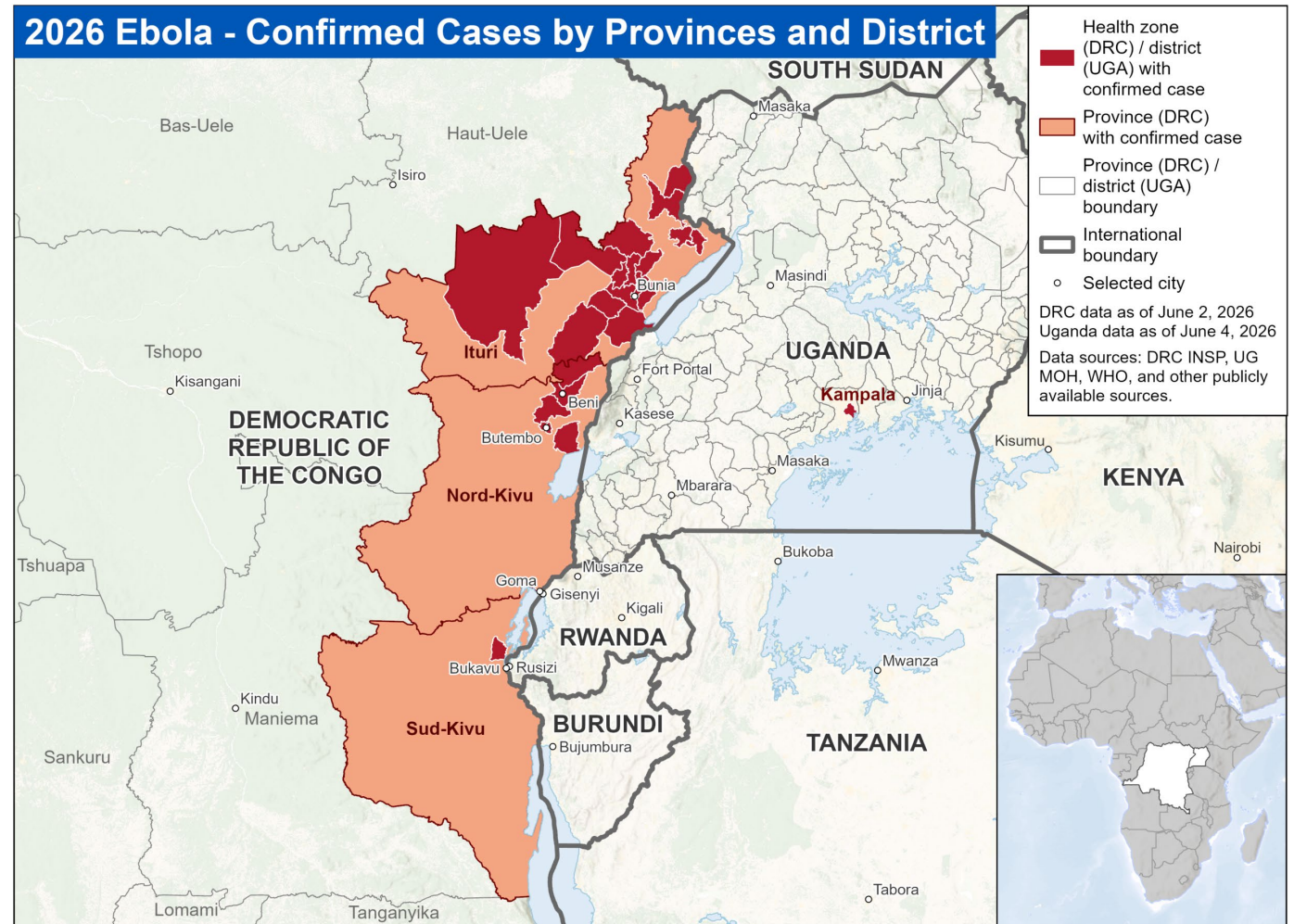


Case Presentation: Setting the Stage



Bundibugyo Virus Disease - Update

- 16 May – WHO declared a public health emergency of international concern
- First major BDBV outbreak in over one decade
- Rapidly evolving situation – case counts continue to change – no positive patients in the US



- 33M, from GA calls 911 following the development of fever to 103.4F, abdominal pain, vomiting and body aches x 3 days
- 10 days prior he had returned to Georgia following a medical missionary trip to Kampala, Uganda. As per CDC guidance he was quarantining at home alone after traveling through Atlanta Hartsfield-Jackson Airport
- In Uganda, he had provided care to many patients from surrounding districts at a city hospital – of note one patient died from presumed sepsis



EMS/transport considerations?

The bottom of the slide features a decorative graphic consisting of several overlapping, semi-transparent geometric shapes. On the left, there is a dark blue triangle pointing downwards. In the center, there is a purple triangle pointing upwards. On the right, there is a light blue triangle pointing downwards. These shapes overlap to create a modern, abstract design.

What do you do if this patient presents to your Emergency Department?



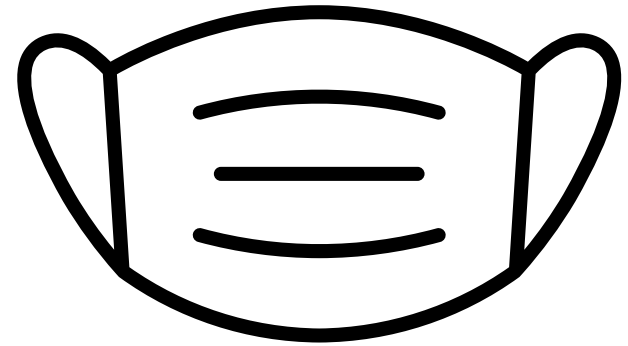
Identify

- Do you have the following symptoms:
 - Bruising or bleeding
 - Vomiting and/or diarrhea
 - Fever
 - Joint and/or muscle pain
 - Rash
 - Weakness
 - Severe headache
- Have you traveled internationally in the last 3 weeks?




Isolate

- Place a mask on the patient
- Place patients in a private room with door closed
- Perform hand hygiene...a lot!
- Wear appropriate PPE



What PPE should EMS consider?
what PPE should acute care
clinicians don?

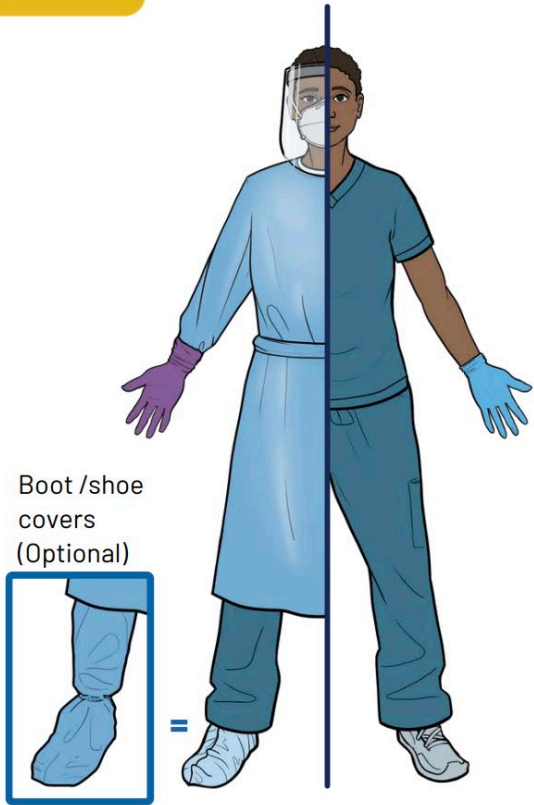


DRY AND SUSPECT

Viral
Hemorrhagic
Fever (VHF)

WET OR CONFIRMED

Viral
Hemorrhagic
Fever (VHF)



Boot / shoe
covers
(Optional)



Pathogen & Illness

1.Symptoms (in addition to fever, headache, N/V/D) 2.Epidemiological Risks (in addition to ill contacts)

<p>Ebola Virus Disease (EVD) 4 species cause disease in humans: EBOV (Zaire), SUDV (Sudan), BDBV (Bundibugyo), TAFV (Tai Forest) Incubation period: 2–21 days</p>	<p>1.Myalgia, hiccups 2.Travel to central or sub-Saharan Africa; exposure to bats, bushmeat, funeral care *Vaccine currently available for EBOV only</p>
<p>Marburg Virus Disease (MVD) Incubation period: 2–21 days</p>	<p>1.Altered mental status, rash 2.Travel to central or sub-Saharan Africa; exposure to caves, fruit bats, funeral care</p>
<p>Lassa fever Incubation period: 2–21 days</p>	<p>1.Sore throat, facial swelling w/o peripheral edema 2.Travel to West Africa; exposure to rodents, rodent droppings, cleaning, farms, food stores; endemic in Nigeria, Sierra Leone, Liberia, Guinea</p>
<p>Crimean-Congo Hemorrhagic Fever (CCHF) Incubation period: 1–14 days</p>	<p>1.Sudden onset of fever, joint pain, photophobia, petechial rash 2.Travel to Europe, Mediterranean, Middle East, Africa, India, China; exposure to ticks, livestock, farms, slaughterhouses</p>
<p>South American Hemorrhagic Fevers (SAHF) Incubation periods: Junin (6–14 days), Sabia (6–21 days), Machupo (3–16 days), Guanarito (3–19 days)</p>	<p>1.Malaise 2.Travel to South America; exposure to rodents, rodent droppings, cleaning, farms, food stores</p>
<p>Andes Hantavirus (ANDV) is currently the only Hantavirus with known PTP spread Incubation period: 9–40 days</p>	<p>1.Rapid progression to high fever, respiratory distress 2.Travel to South America, especially Argentina, Chile; exposure to rodents, rodent droppings *Dry VHF PPE with respiratory protection sufficient for Suspect and Confirmed patients</p>
<p>Nipah virus (NiV) Incubation period: 5–14 days</p>	<p>1.May rapidly progress to respiratory distress or encephalitis 2.Travel to Asia, Bangladesh, India, Malaysia; exposure to fruit bats, pigs, date palm sap, or juice</p>

Transmission Risks:

Body fluid exposure, either direct or indirect, as from contaminated materials, fomites.
Risk of infectious aerosols when wet.
Strict isolation
AIIR when available.

Precautions:

All waste is Category A, except Andes Hanta
For lab, many are Select Agents.

After identifying and isolating,
what should healthcare workers
do next?



Inform

- Notify the appropriate officials at your organization
- Inform jurisdictional public health officials (in Georgia: 1-866-PUBHLTH)
- Ensure the team you are working with have situational awareness so there are no inadvertent exposures – proper signage, etc.
- Keep the patient informed



While informing appropriate officials, what is happening with the patient?



Additional Clinical Information


- Initial examination reveals an acutely ill man with tachycardia, tachypnea, hypotension with leukopenia, thrombocytopenia, hypokalemia, hypomagnesemia, acute kidney injury, and elevated transaminases



If a transfer to the closest special pathogen treatment center is warranted, how do you prepare for that?




Considerations for Transport

- Call public health to determine if special transport capability is available
 - Communication with sending and receiving facility
 - Patient condition, patient prep, point of patient transfer
 - Implement a hierarchy of controls for ambulance transport
 - Engineering, work practices, PPE
 - Checklists, trained observers/supervisory personnel
 - Clinical considerations
 - Special precautions, resuscitation, clinical deterioration
 - Operational considerations
 - Mechanical failure, PPE breach, Biohazard spill, Provider down
 - Cleaning, disinfection, waste management
 - Post-mission health surveillance
- 

What do you do with the waste generated by a patient with a suspected or confirmed special pathogen?




What resources are available for
frontline facilities?

The bottom of the slide features a decorative graphic consisting of several overlapping, semi-transparent geometric shapes. On the left, there is a large blue triangle pointing downwards. In the center, there is a purple triangle pointing upwards. On the right, there is a light blue triangle pointing downwards. These shapes overlap to create a modern, abstract design.

Resources

- Georgia Department of Public Health:
<https://dph.georgia.gov/TravelClinicalAssistant>
- Serious Communicable Diseases Program:
<https://scdp.emory.edu/resources/ebola/index.html>
- National Emerging Special Pathogens Training and Education Center:
<https://repository.netecweb.org/exhibits/show/ebola2021/ebola>
- NETEC Frontline Preparedness Checklist:
<https://repository.netecweb.org/items/show/1724>
- NETEC Exercise Templates for frontline facilities:
<https://repository.netecweb.org/items/show/172>

Resources

- CDC: <https://www.cdc.gov/ebola/index.html>
 - EMS Infectious Disease Playbook: <https://repository.netecweb.org/items/show/16>
 - Frontline Hospital Planning Guide for Special Pathogens: <https://repository.netecweb.org/items/show/499>
 - Department of Transportation Solid Waste Contaminated with Category A Infectious Substance: <https://www.phmsa.dot.gov/transporting-infectious-substances/planning-guidance-handling-category-solid-waste>
 - Region IV Concept of Operations (CONOPS): <https://netec.org/about-netec/partners-regional-contacts/#regional-contacts>
- 

Resources

- Know Your PPE: <https://repository.netecweb.org/items/show/1930>
- New HCID PPE Matrix:
<https://repository.netecweb.org/items/show/1693>

Resources

Interim Guidance for Emergency Medical Services (EMS) Systems and 9-1-1 Emergency Communications Centers/Public Safety Answering Points (ECC/PSAPs) for Management of Patients Under Investigation (PUIs) for Ebola Virus Disease (EVD) in the United States



Guidance for Developing a Plan for Interfacility Transport of Persons Under Investigation or Confirmed Patients with Ebola Virus Disease in the United States



EMS Infectious Disease Playbook



Q&A Discussion



Poll Question



Thank you for participating in today's session!

Please take a moment to provide us feedback on this ECHO session by completing our brief survey – please use the link provided in the chat.





Access Resources & Subscribe to the Podcast

- Podcast version of this session, slide deck, and other resources will be available next week on our website.
 - <https://scdp.emory.edu/programs/echo-program/resources.html>
- Never miss a session! Subscribe to the **SCDP ECHO Podcast** on Apple, Spotify, Google Podcast, Amazon Music, and other major platforms <https://scdp-echo-podcasts.simplecast.com/>



Thank you!

