NETEC
NATIONAL EMERGING SPECIAL PATHOGENS TRAINING AND EDUCATION CENTER

NSPS
NATIONAL SPECIAL PATHOGEN SYSTEM

Ebola: Clinical Evaluation, Treatment, and Infection Control

FOR CLINICIANS AND HEALTHCARE STAFF

Overview

NETEC NATIONAL EMERGING SPECIAL PATHOGENS TRAINING AND EDUCATION CENTER | NSPS NATIONAL SPECIAL PATHOGEN SYSTEM

Welcome: Vikram Mukherjee, MD, FRCP (Edin)

- **Overview of Ebola Disease and the Current Outbreak in the Democratic Republic of the Congo (DRC)** Barbara Knust, DVM, MPH
- **Infection Prevention and Control (IPC) for Viral Hemorrhagic Fevers (VHFs) in U.S. Healthcare Settings** Ryan Fagan, MD, MPH&TM, CIC
- **NETEC and the NSPS: A Partnership in Preparedness and Response for the United States** Aneesh Mehta, MD, FIDSA, FAST

Questions and Answers

NETEC Resources: Vikram Mukherjee, MD, FRCP (Edin)

October 24, 2025

Ebola: Clinical Evaluation, Treatment and Infection Control for Clinicians and Healthcare Staff

Overview of Ebola Disease and the current outbreak in the Democratic Republic of the Congo (DRC)

Barbara Knust, DVM, MPH
Captain, US Public Health Service
Senior Scientist, One Health Office
International Epi Team Lead
2025 Ebola Response
National Centers for Emerging & Zoonotic Infectious Diseases
Centers for Disease Control and Prevention

OVERVIEW OF EVD AND THE CURRENT OUTBREAK IN DRC

Content Outline

- Brief update on current outbreak
- Ebola Disease overview
- Diagnosis and other infections that can be confused for Ebola Disease
- Vaccine
- Therapeutics
- Benefit of clinical consultation with CDC

Detection of Ebola Outbreak

- **Aug 14:** Pregnant woman hospitalized in Kasai Province
    - **Aug 19:** Died of multiorgan failure with bleeding from multiple body sites
- **Sept 1:** DRC notified CDC of a suspected viral hemorrhagic fever outbreak
- **Sept 3:** DRC national lab confirmed illness was caused by Ebola virus (formerly known as Ebola Zaire)
- **Sept 4:** Ministry of Health in DRC (DRC MOH) officially declared an outbreak of Ebola in Kasai Province
- **Sept 5:** CDC established an emergency response structure to respond to the outbreak

Current Situation

As of October 22:

- 64 cases
  - 53 confirmed cases
  - 11 probable cases
- 45 deaths among both confirmed and probable
  - Case Fatality Rate: 70%
- All surviving confirmed cases have been discharged
- All identified contacts completed 21 days of follow up
- More than 36,000 healthcare workers and contacts vaccinated

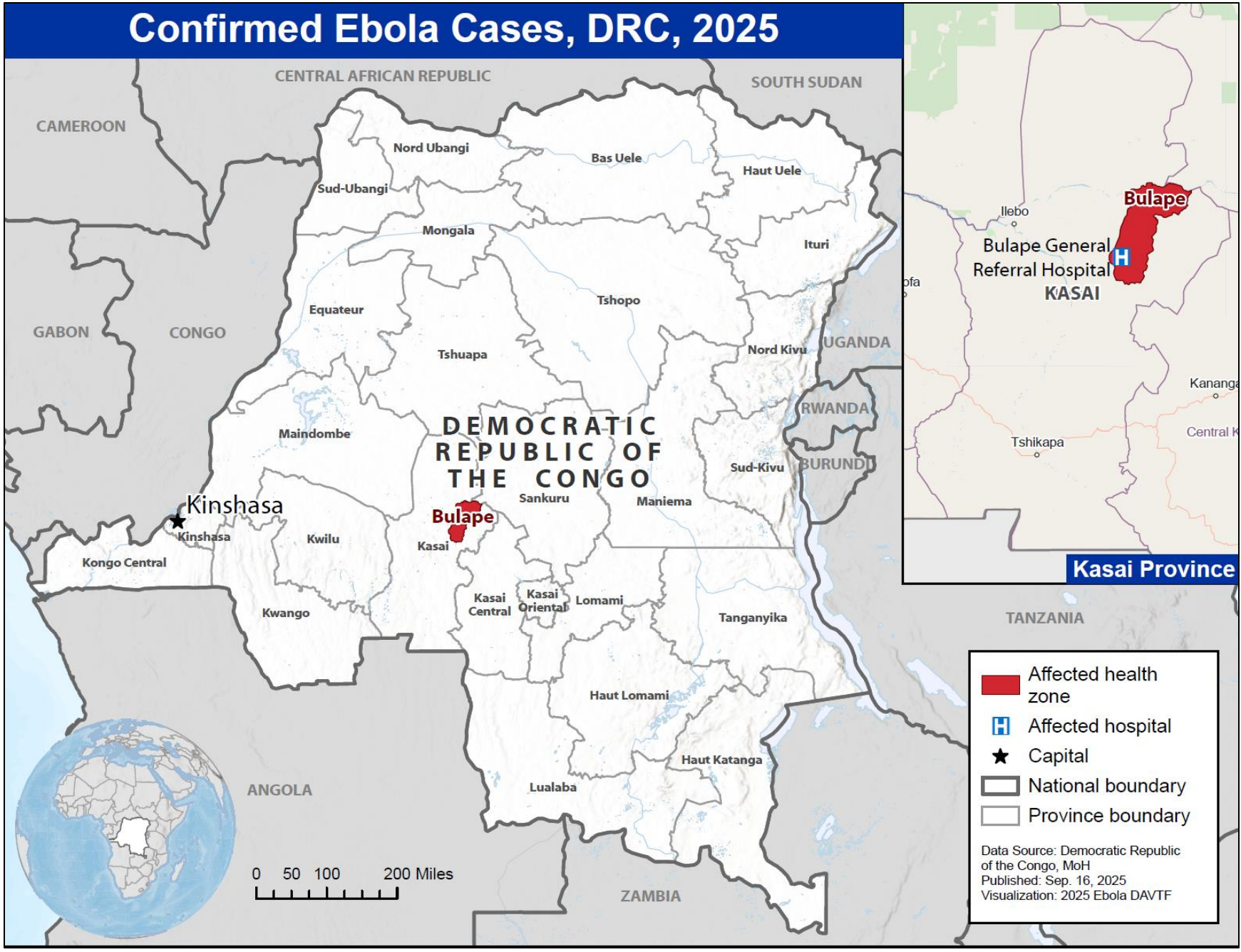
Health center designated for patient care in Bulape

Rural Area of Outbreak Zone

- Affected health zone is rural area with ~350,000 residents
- Risk of spread beyond the province is currently low
  - Remote region with a sparse network of poor-quality roads
  - True outbreak scope likely larger than currently known
- Important to control the outbreak to prevent spread to other areas, including Kinshasa (population ~16 million) and beyond

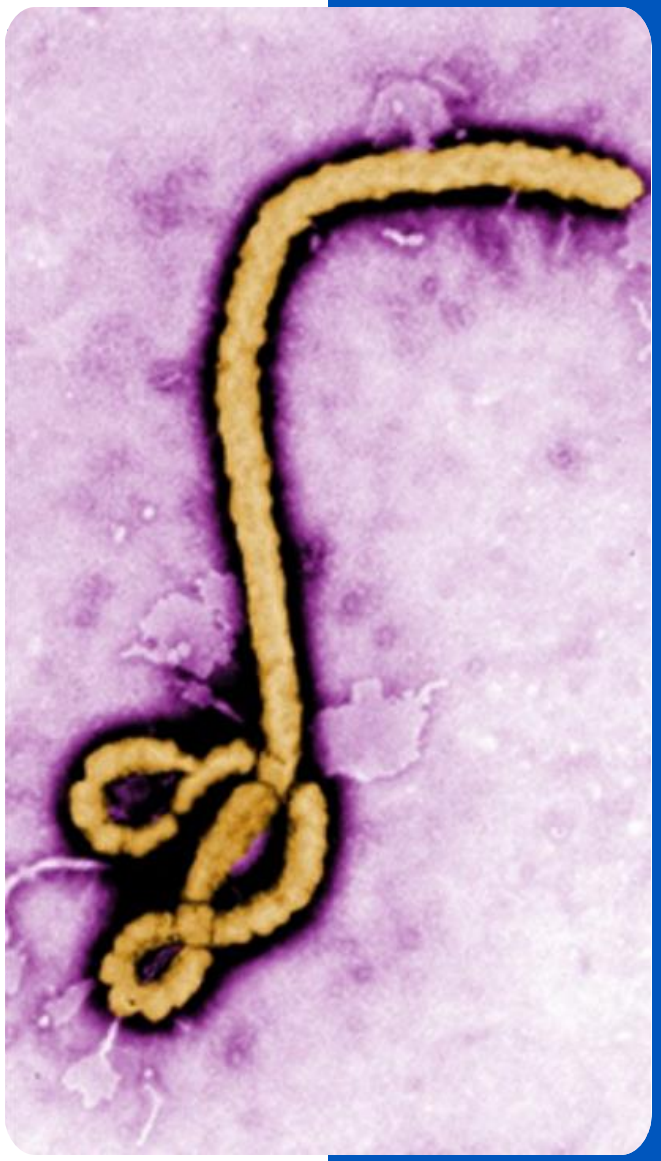
History of Ebola in DRC

- DRC has extensive experience responding to Ebola outbreaks
  - Ebola was first discovered in 1976 in what is now DRC
  - This is DRC's 16th outbreak
- Ebola outbreaks previously reported in Kasai Province in 2007 and 2008



About Ebola Disease

- Ebola Disease is a serious illness and can be fatal
- Without treatment, Ebola kills up to 90% of people infected
- A patient's chance of survival increases if they receive treatment quickly
- Only half of patients may show hemorrhagic symptoms. These include:
  - Bleeding from the skin, nose or mouth
  - Bloody diarrhea
  - Bloody vomit
- Common symptoms include: fever, headache, muscle & joint pain, fatigue, loss of appetite, gastrointestinal symptoms



Ebola and Marburg Viruses

Family *Filoviridae*

Genus *Orthoebolavirus*

Species *Orthoebolavirus zairense (1976)*
virus: **Ebola virus**

Species of Ebola in the 2025 Outbreak in DRC

Species *Orthoebolavirus sudanesnse (1976)*
virus: **Sudan virus**

Species *Orthoebolavirus restonense (1989)*
virus: **Reston virus**

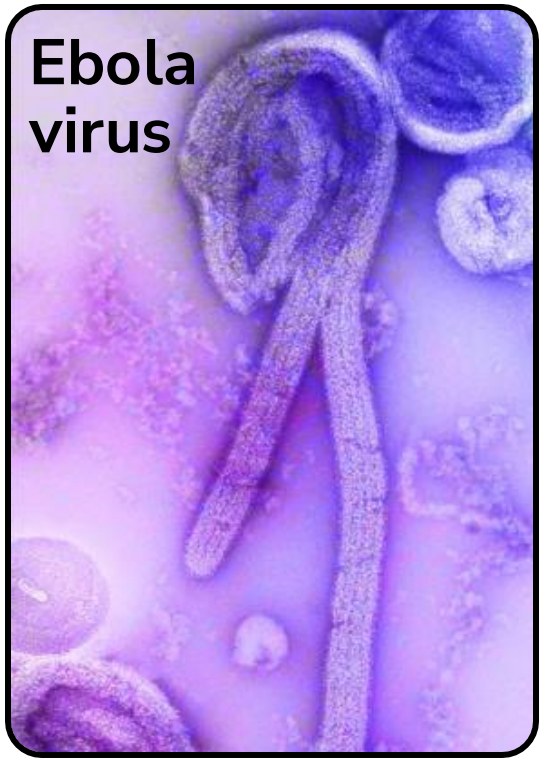
Species *Orthoebolavirus taiense (1994)*
virus: **Tai Forest virus**

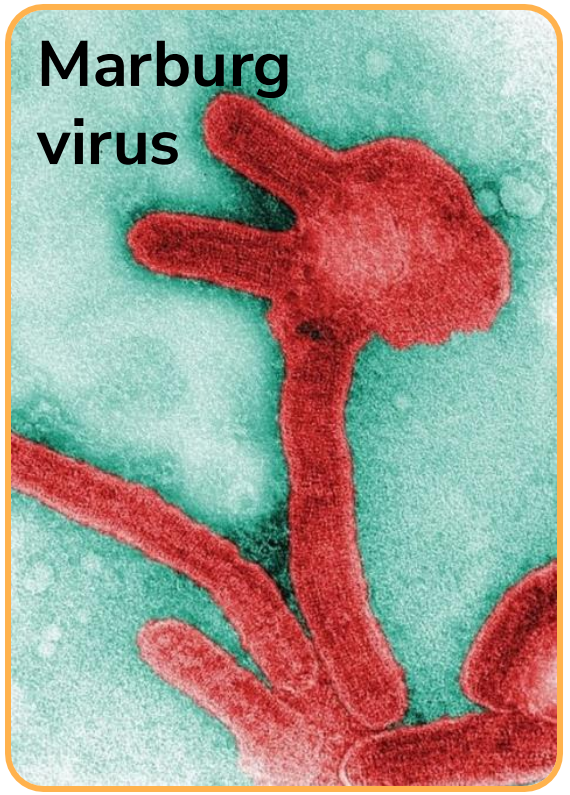
Species *Orthoebolavirus bundibugyoense (2007)*
virus: **Bundibugyo virus**

Species *Orthoebolavirus bombaliense (2018)*
virus: **Bombali virus**

Genus *Orthomarburgvirus*

Species *Orthomarburgvirus marburgense*
virus: **Marburg virus**
virus: **Ravn virus**





Ebola Transmission

- Ebola virus spreads when people have direct contact with:
  - Blood or body fluids including urine, saliva, sweat, feces, vomit, semen, breast milk, etc.
  - Contaminated objects like needles
- Transmission can occur from people who have had past Ebola infections
  - Can occur through relapse of initial infection or contact with body fluids (like semen or breast milk)
- Contact with infected animals like apes, monkeys and bats

Recommendations for Clinicians: Travel History

- Collect **travel history** for ill patients presenting with a clinical picture consistent with Ebola Disease

- Ask about **risk factors** for Ebola Disease
    - Direct contact with an ill person with suspected or confirmed Ebola Disease (alive or dead), or contact with any objects contaminated by their body fluids
    - Experienced a breach in infection prevention and control precautions when providing care for a patient with suspected or confirmed Ebola Disease
    - Contact with semen from a person who has recovered from Ebola Disease
    - Participated in any of the following activities in an area with an active Ebola outbreak or where Ebola virus is endemic:
        - Contact with someone who was sick or died, or their contaminated objects
        - Attended or participated in funeral rituals, including preparing bodies for funeral or burial
        - Visited or worked in a healthcare facility or laboratory
        - Had contact with bats or wild animals
        - Worked or spending time in a mine or cave

https://www.cdc.gov/viral-hemorrhagic-fevers/hcp/diagnosis-testing/index.html

Recommendations for Clinicians: Differential Diagnosis

- Include Ebola Disease in the differential diagnosis for ill traveler who has compatible symptoms, AND one or more risk factors in the 21 days before illness onset

- Malaria is the most common cause of undifferentiated fever after travel to sub-Saharan Africa
  - Nearly all signs and symptoms of Ebola disease can also be seen in malaria
  - Malaria, especially *P. falciparum* can progress rapidly; early diagnosis and treatment is key to survival — Malaria testing **should not** be delayed
  - Ask about malarial prophylaxis and adherence
  - History of taking malaria prophylaxis does not exclude malaria

Test for malaria in any febrile traveler recently arrived from DRC.

Recommendations for Clinicians: Notification

- If you are concerned your patient may have Ebola Disease, first contact your STLT health department and follow jurisdictional protocols for patient assessment
  - Identify points of contact and contact information for your STLT health departments, including on-call information
  - CDC Emergency Operation Center (770-488-7100) can also assist in finding contact information for state and large jurisdictional health departments
- As a resource for public health departments, CDC's Viral Special Pathogens Branch is available 24/7 for consultations by calling CDC Emergency Operations Center (770-488-7100)

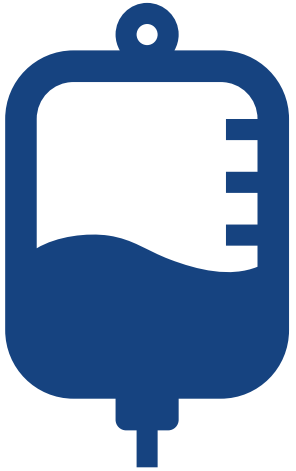
We strongly encourage CDC consultation for patients being considered for Ebola Disease testing.

Ebola Vaccine

- A vaccine is available to help protect people against Ebola Disease
- **rVSVΔG-ZEBOV-GP** (Ervebo®): a single-dose regimen. Only FDA-approved Ebola vaccine
  - Recipients may test positive for ~1 week for the EBOV glycoprotein, a target for certain diagnostic testing
- Vaccines are for prevention, NOT treatment
- Vaccines cannot transmit the virus

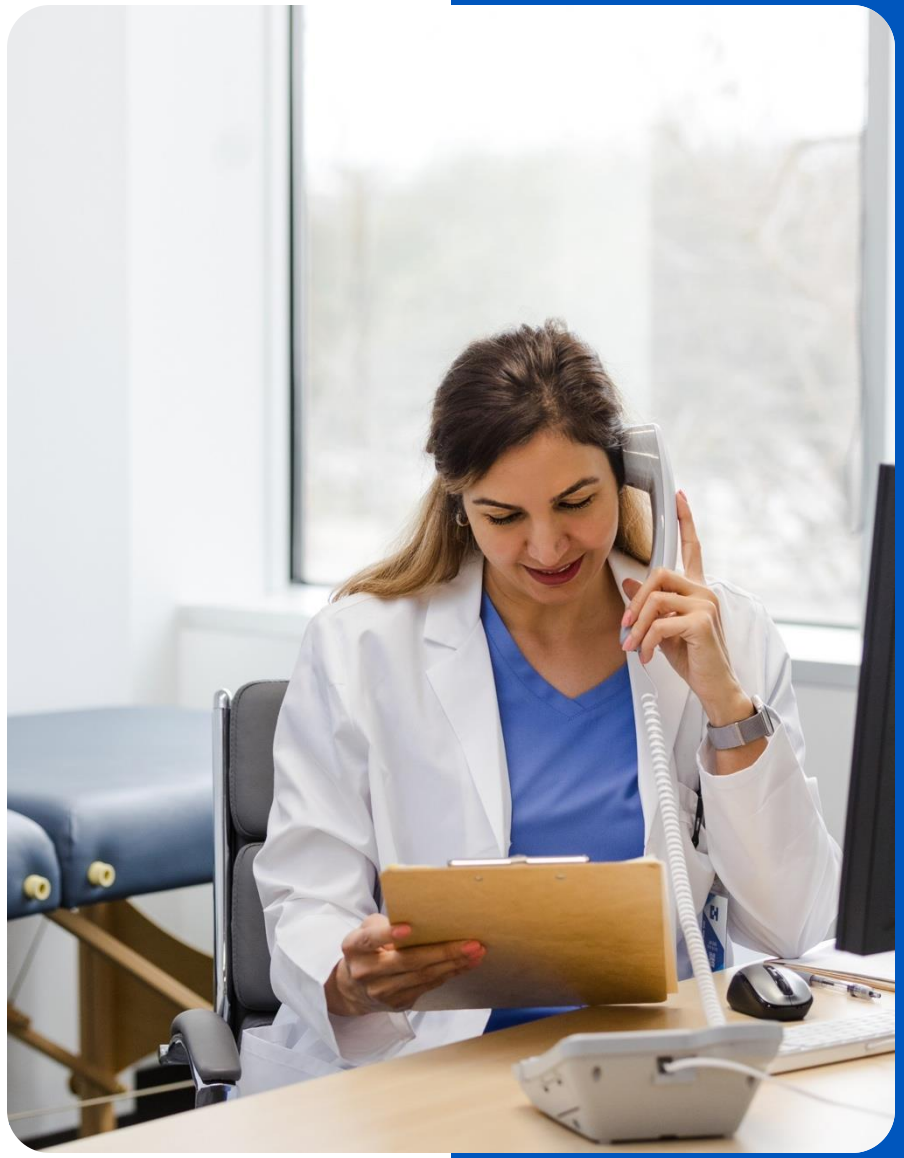
Treatments and Supportive Care for Ebola Disease

- Two FDA-approved treatments are available
  - Inmazeb®: combination of three human monoclonal antibodies
  - Ebanga® : human monoclonal antibody
- Both treatments have proven effective in reducing the number of Ebola deaths during an outbreak.
- Critical to get patients to the treatment center quickly, the sooner the better!
  - Each day a symptomatic person fails to seek treatment, the risk of death for that person increases by 11%
- Supportive care can significantly improve a patient's chances of survival when started early in their illness.



Initial CDC Consultation

- Connect with subject matter experts (SMEs) in viral hemorrhagic fevers at CDC
- Discuss the patient's travel history, epidemiologic risk factors, clinical course, diagnostic tests performed, infection control measures in place
- Make a collective decision as to whether testing is recommended
- Final decision to proceed with testing for Ebola Disease rests with the treating physician
- Work with the hospital/state health department to arrange for shipment and testing of the specimen



Benefits of Clinical Consultation — Clinician/Jurisdiction

- CDC has the most up-to-date information on the outbreak
- Provide context to your patient's epidemiologic risk factors
  - No sign or symptom is pathognomonic for Ebola disease; decision to test for Ebola is primarily driven by assessing epidemiologic risk factors
  - CDC has resources in country that may be able to provide context for your patient's travel and activities
- Facilitate and coordinate testing and shipment of specimens
- In the event the healthcare facility does not have the capacity to care for the suspect Ebola patient, CDC can facilitate discussions to potentially arrange transport to an alternate healthcare facility

Infection Prevention and Control (IPC) for Viral Hemorrhagic Fevers (VHFs) in U.S. Healthcare Settings

Ryan Fagan, MD
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Domestic Healthcare Infection Prevention and Control
2025 Ebola Response
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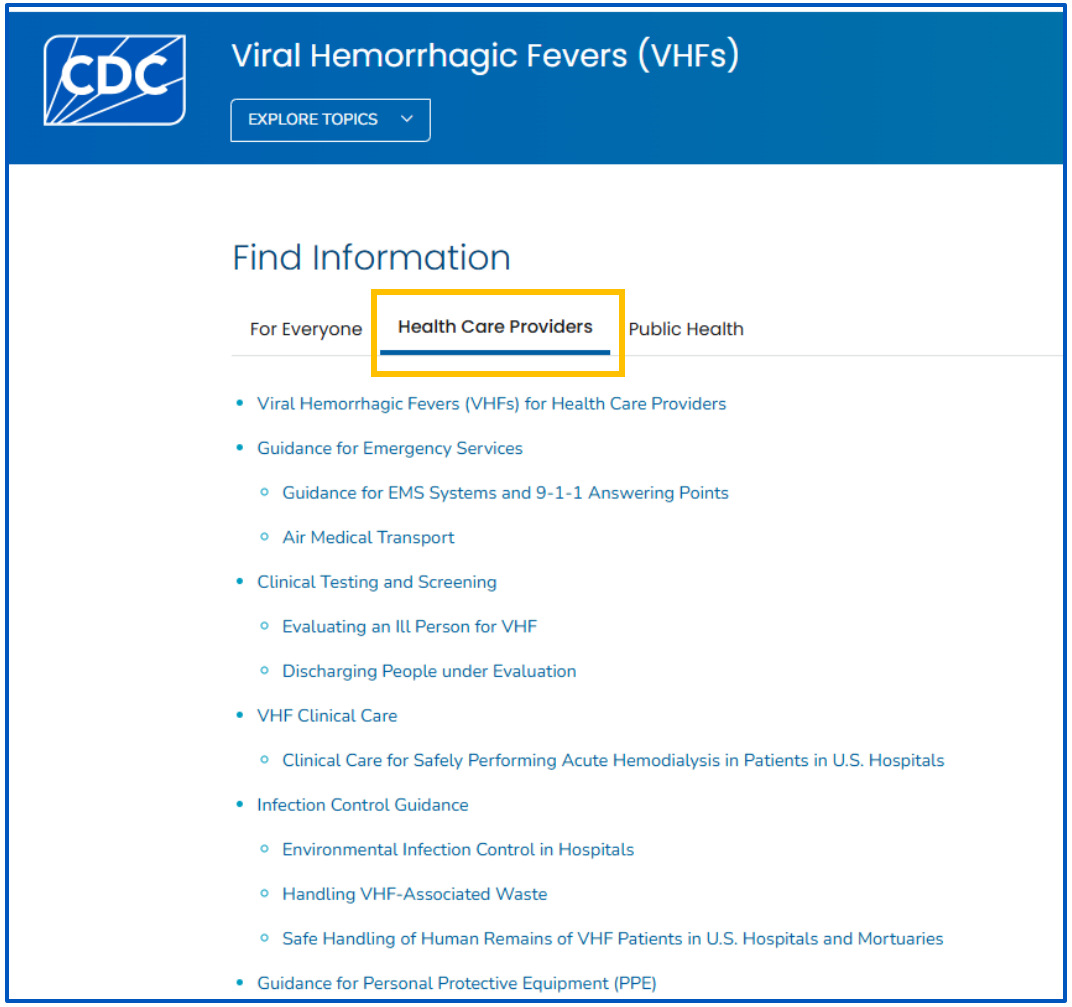
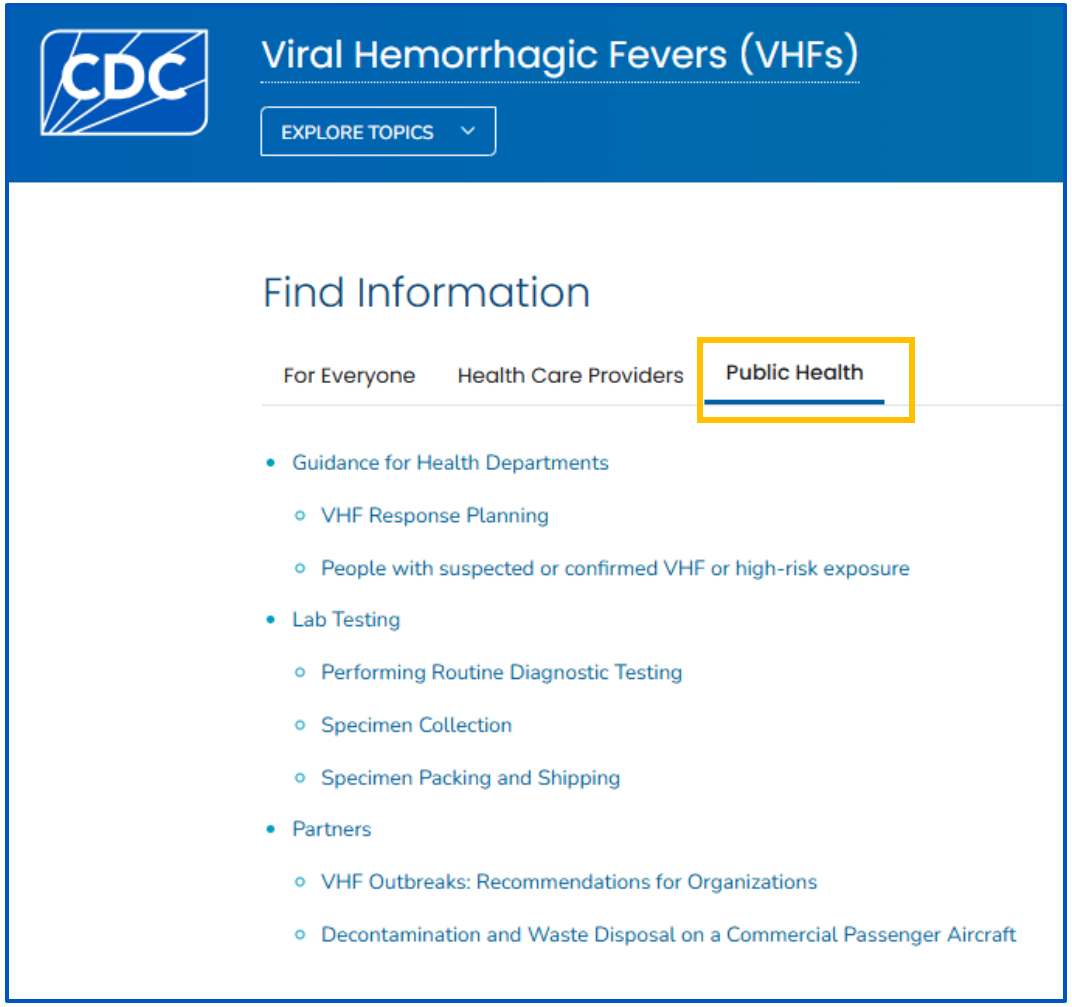
INFECTION PREVENTION AND CONTROL FOR VHFS IN U.S. HEALTHCARE SETTINGS

Content Outline

- Overview of current IPC guidance and other resources
- Identify, Isolate, Inform
  - Symptom and travel screens
  - Initial patient placement
  - Verify notification and consultation contact information to facility IPC program, health department, CDC EOC, other regional partners as appropriate
- PPE and Additional IPC Considerations
- Listserv for US Health Organizations who might have personnel working overseas
- Healthcare worker risk exposure and monitoring, current CDC tool and recent experience

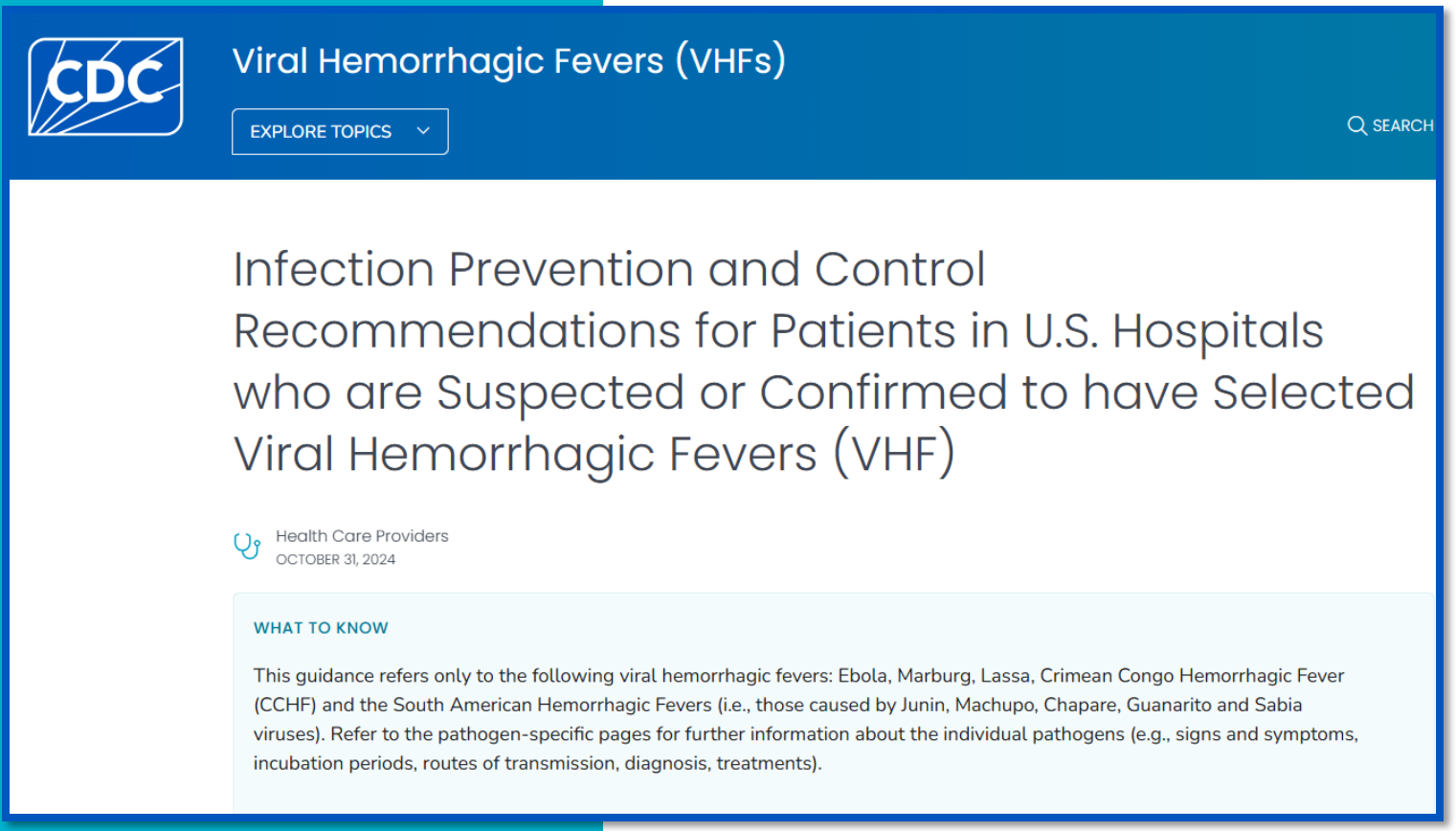
CDC Main VHF Resource Directory





HTTPS://WWW.CDC.GOV/VIRAL-HEMORRHAGIC-FEVERS/SITE.HTML#HCP

IPC Guidance for VHFs



https://www.cdc.gov/viral-hemorrhagic-fevers/hcp/infection-control/index.html

- Similar to guidance developed during the 2014-2016 Ebola response
- Now framed as VHF guidance and extended to Marburg, Lassa, and several other specified viruses
  - Approved by HICPAC and posted to Fed Register before finalizing
- For healthcare personnel (HCP) including EMS any healthcare setting, though focus is hospitals
- Main index re-organized and includes groupings for Health Care Providers and Public Health audiences

Identify, Isolate, Inform

- Minimize potential exposures in healthcare settings
  - Healthcare facilities should have a process to identify potentially infectious persons at initial points of encounter
  - https://www.cdc.gov/infection-control/hcp/core-practices/index.html
- VHFs are rarely encountered in the U.S. and early symptoms are similar to other febrile illnesses https://www.cdc.gov/viral-hemorrhagic-fevers/hcp/diagnosis-testing/index.html
- Standard screening process can help identify persons potentially infected with VHFs or other high consequence pathogens
  - For example, Joint Commission (Standard IC.07.01.01, EP1) requires hospitals to have procedures for screening for **respiratory symptoms, fever, rash and travel history** https://www.jointcommission.org/en-us/standards/r3-report/r3-report-41
  - Helps guide when additional precautions and further consultation are needed

HTTPS://WWW.CDC.GOV/VIRAL-HEMORRHAGIC-FEVERS/HCP/DIAGNOSIS-TESTING/INDEX.HTML

Identify, **Isolate,** Inform

- Isolate when potential VHF is suspected based on clinical presentation and travel history or other epidemiologic risk factor
- Recommended patient placement consists of
  - Single patient room with the door closed
  - Private bathroom or covered bedside commode
  - Adequate space for putting on and taking off PPE

https://www.cdc.gov/viral-hemorrhagic-fevers/hcp/diagnosis-testing/index.html

Identify, Isolate, **Inform**

- Notify facility's IPC Program and other key personnel
- Immediate public health consultation
  - CSTE 'Epi On Call' for healthcare providers to contact their health department https://libraries.cste.org/after-hours-contact/
  - CDC Emergency Operations Center 24/7 **770-488-7100** and request on-call Viral Special Pathogens epidemiologist
- Recent Health Alert Network summary includes CDC contact info and other helpful links https://www.cdc.gov/han/php/notices/han00524.html

Ebola Outbreak in the Democratic Republic of the Congo

Public Health
SEPT. 18, 2025

AT A GLANCE

Distributed via the CDC Health Alert Network

September 18, 2025, 12:00 PM ET

CDCHAN-00524

This is an official CDC HEALTH ADVISORY

Summary

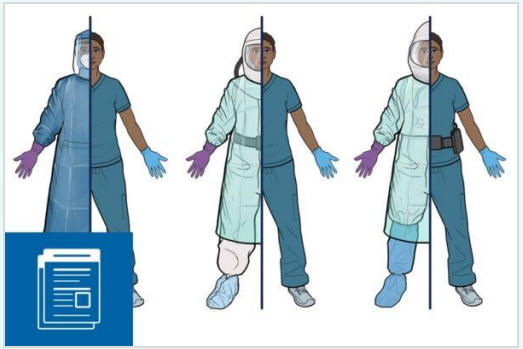
ON THIS PAGE

Summary

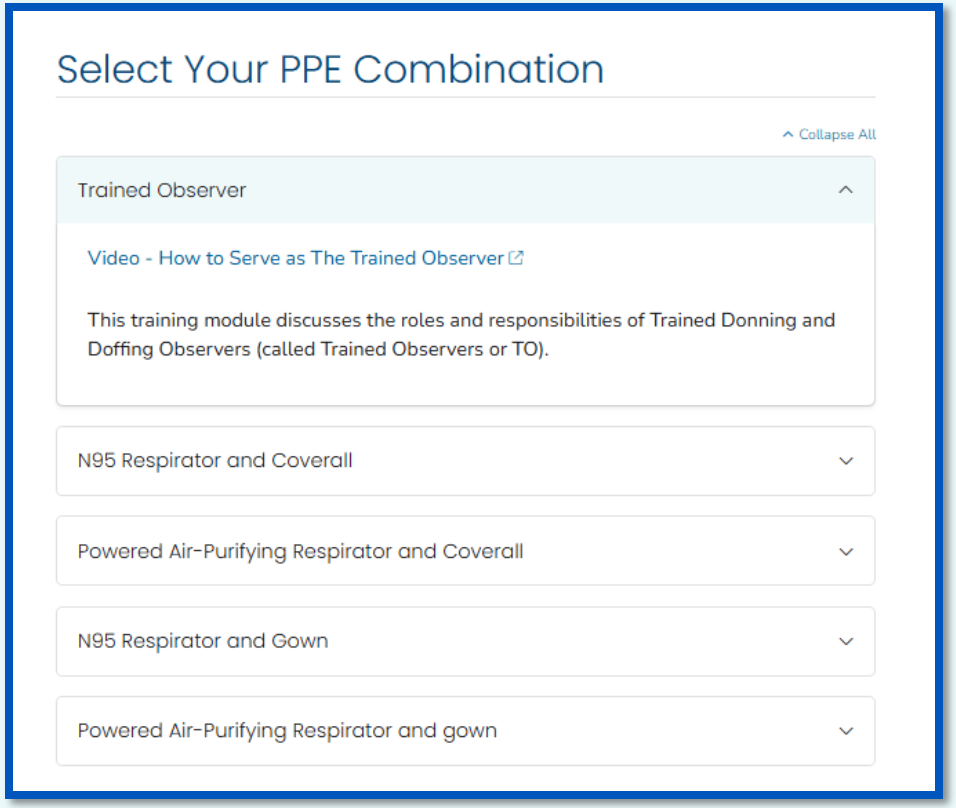
The Centers for Disease Control and Prevention (CDC) is issuing this Health Alert Network (HAN) Health Advisory about a new outbreak of Ebola virus disease (EVD) in the

Personal Protective Equipment for VHFs

- Current PPE Guidance
  - PPE: Confirmed Patients and Clinically Unstable Patients Suspected to have VHF
  - PPE: Clinically Stable Patients Suspected to have VHF
  - PPE FAQs
- NETEC PPE Resources
  https://netec.org/education-training/personal-protective-equipment-ppe-featured-resources/

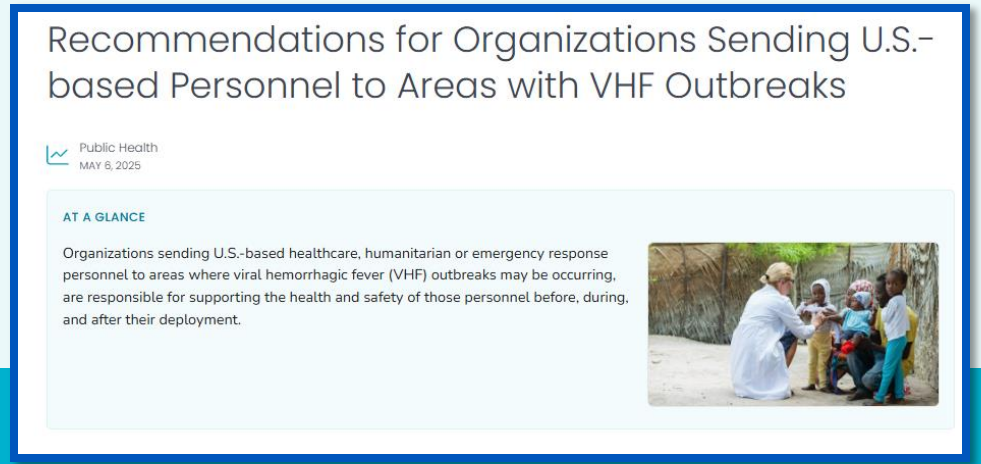


- CDC collaboration videos (2014)
  https://www.cdc.gov/viral-hemorrhagic-fevers/hcp/guidance/index.html



New CDC Listserv for U.S. Organizations Sending Personnel to VHF Outbreak-Prone Areas

- Personnel can include trainees, students, volunteers
- CDC will use listserv to quickly communicate with organizations when new outbreaks occur
- Listserve includes link to recommendations for pre-, during, and post-deployment to support health and safety of personnel
- To sign up for the CDC VHF Healthcare Listserv, visit this subscription link, enter your email, and click Register: https://tools.cdc.gov/campaignproxyservice/subscriptions.aspx?topic_id=USCDC_2299



VHF Exposure Assessment and Monitoring in U.S. Healthcare Settings

- Of particular concern are unprotected healthcare exposures, which can occur when VHF is not yet recognized
- For HCP potentially exposed to VHFs in U.S. healthcare settings, it is urgent to
  - Assess risk and need for postexposure prophylaxis
  - Determine need for work restrictions
  - Monitor and manage those who become symptomatic
- Assessment and monitoring efforts can
  - Be challenging technically and logistically
  - Involve high numbers (>100) of potentially exposed HCP
- Public health support to healthcare occupational health authorities is often needed

Healthcare Exposure Risk Assessment and Monitoring Tool

- Some states developed monitoring tools during prior VHF and other responses
- CDC/DHQP worked with several State health departments to adapt an updated REDCap VHF template to support exposure assessment and monitoring of HCP
  - Instructions and template files shared with State Healthcare Associated Infections programs
  - Adapted for 2024 Iowa HHS response to a travel-associated case of Lassa fever https://www.cdc.gov/mmwr/volumes/74/wr/mm7411a3.htm
- CDC Ebola Response currently expanding tool to include laboratory personnel and community exposures

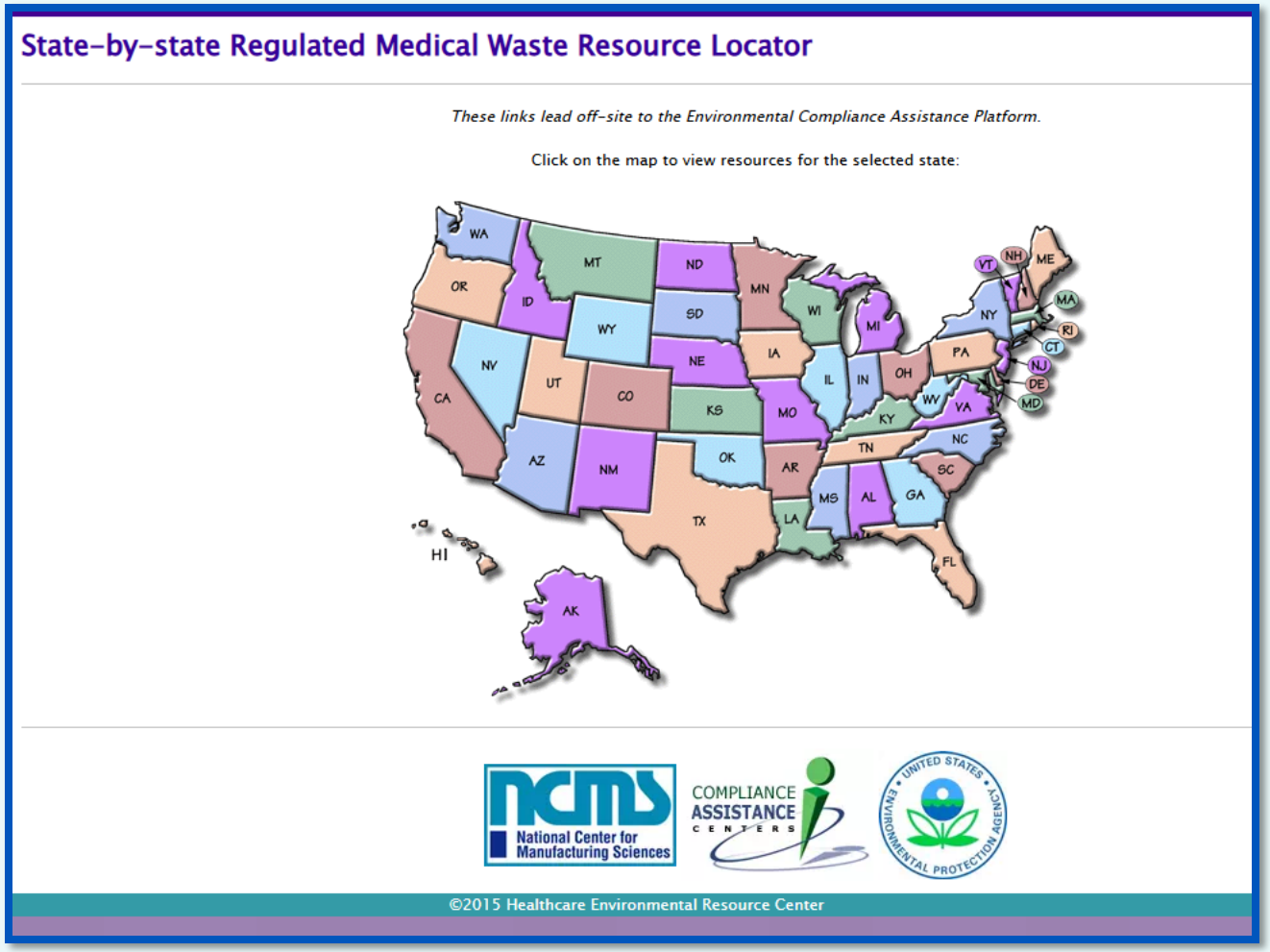
Environmental Infection Control for VHFs

- Ensure that environmental services or other HCP designated to clean and disinfect areas and equipment are trained, protected and monitored
- See lists of disinfectants appropriate for VHFs at EPA website: https://www.epa.gov/pesticide-registration/disinfectants-emerging-viral-pathogens-evps-list-q
- Avoid contamination of reusable porous surfaces that cannot be made single use
- Discard contaminated linens and other textiles; should coordinate with waste management company

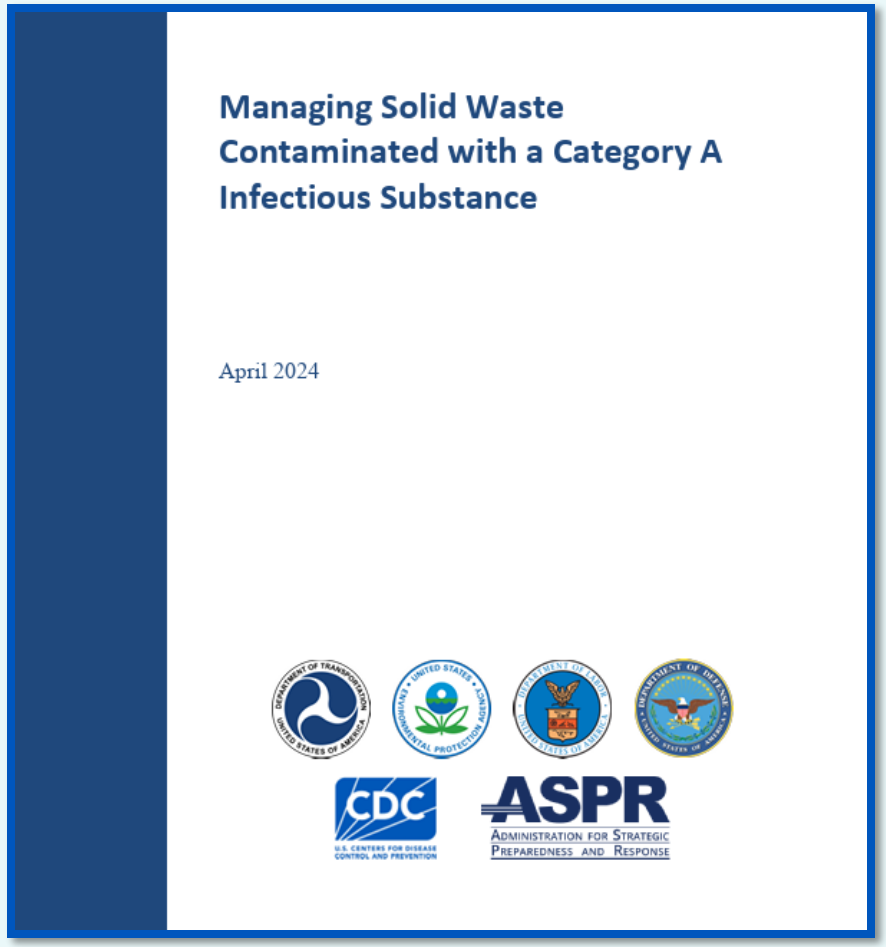
VHF-associated Waste Management

- Healthcare facilities must comply with federal, state and local regulations for handling, storage, treatment and disposal of VHF-associated waste
  - State regulator locator https://www.hercenter.org/rmw/rmwlocator.php
  - DOT/PHMSA Cat A Solid Waste https://www.phmsa.dot.gov/transporting-infectious-substances/planning-guidance-handling-category-solid-waste
  - Proactively discuss with your waste management company
- Solid waste generated during Ebola patient care is Category A waste and requires a special DOT permit (SP16279) to transport
  - Considerations about holding waste in secure location during VHF rule out period
- CDC guidance states that sanitary sewers may be used for safe disposal of liquid waste but some state or local regulations require pretreatment
- https://www.cdc.gov/viral-hemorrhagic-fevers/hcp/infection-control/handling-vhf-associated-waste.html

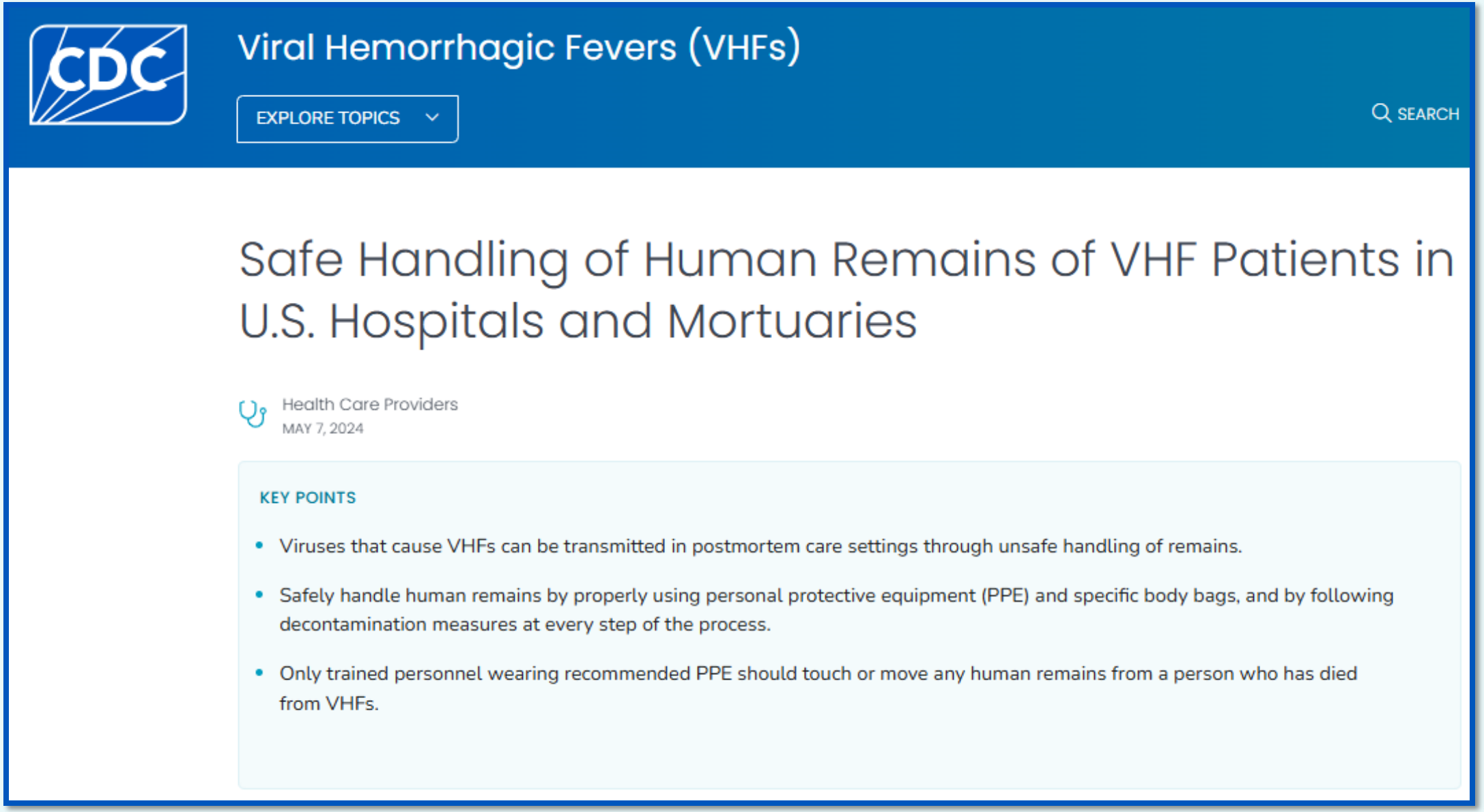
VHF-associated Waste Management Resources



[State-by-state Regulated Medical Waste Resource Locator]



[Appendix F-1. Ebola and Marburg]


Viral Hemorrhagic Fevers (VHFs)
EXPLORE TOPICS
SEARCH
Safe Handling of Human Remains of VHF Patients in U.S. Hospitals and Mortuaries
Health Care Providers
MAY 7, 2024
KEY POINTS
Viruses that cause VHFs can be transmitted in postmortem care settings through unsafe handling of remains.
Safely handle human remains by properly using personal protective equipment (PPE) and specific body bags, and by following decontamination measures at every step of the process.
Only trained personnel wearing recommended PPE should touch or move any human remains from a person who has died from VHFs.

CDC VHF Guidance and Resource Summary of Key Links

- **Patient Placement** https://www.cdc.gov/viral-hemorrhagic-fevers/hcp/infection-control/index.html
- **PPE** (including training videos link) https://www.cdc.gov/viral-hemorrhagic-fevers/hcp/guidance/index.html Environmental infection control https://www.cdc.gov/viral-hemorrhagic-fevers/hcp/infection-control/environmental-infection-control-hospitals.html
- **Guidance for Emergency Services** (Ground, Air, 9-1-1) https://www.cdc.gov/viral-hemorrhagic-fevers/hcp/emergency-guidance/index.html
- **Waste management**
  - https://www.cdc.gov/viral-hemorrhagic-fevers/hcp/infection-control/handling-vhf-associated-waste.html
  - State regulator locator https://www.hercenter.org/rmw/rmwlocator.php
  - DOT/PHMSA Cat A Solid Waste https://www.phmsa.dot.gov/transporting-infectious-substances/planning-guidance-handling-category-solid-waste
- **Monitoring and management of HCP**
  - Including exposure risk https://www.cdc.gov/viral-hemorrhagic-fevers/php/public-health-strategy/people-with-suspected-or-confirmed-vhf-or-high-risk.html
- **Recommendations for Organizations** Sending U.S.-based Personnel to Areas with VHF Outbreaks https://www.cdc.gov/viral-hemorrhagic-fevers/php/partners/recommendations-for-vhf-outbreaks.html
- **Safe handling of human remains** https://www.cdc.gov/viral-hemorrhagic-fevers/hcp/infection-control/guidance-for-safe-handling-of-human-remains-of-vhf-patients-in-u-s-hospitals-and-mortuaries.html

Thank you.

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 https://www.cdc.gov/
Follow us on social **@CDCgov**

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the U. S. Centers for Disease Control and Prevention.

NETEC and the NSPS: A Partnership in Preparedness and Response for the United States

Aneesh Mehta, MD, FIDSA, FAST

NETEC

Funded by ASPR since 2015 to
Set the **gold standard for special pathogen preparedness and response** across health systems in the United States

Emory University

University of Nebraska Medical Center / Nebraska Medicine

NYC Health + Hospitals / Bellevue

H.R.2617 - Consolidated Appropriations Act, 2023 *"directs NETEC to serve as the NSPS coordinating body… [responsible for] establishing a robust NSPS and integrating NSPS with other health care delivery systems of care for emergencies..."*

NETEC Areas of Focus

Education & Training

Preparing health care workers for special pathogen events through specialized education, training, and resources

Consultation & Assessment

Assessing and advancing special pathogens readiness with free, expert consulting

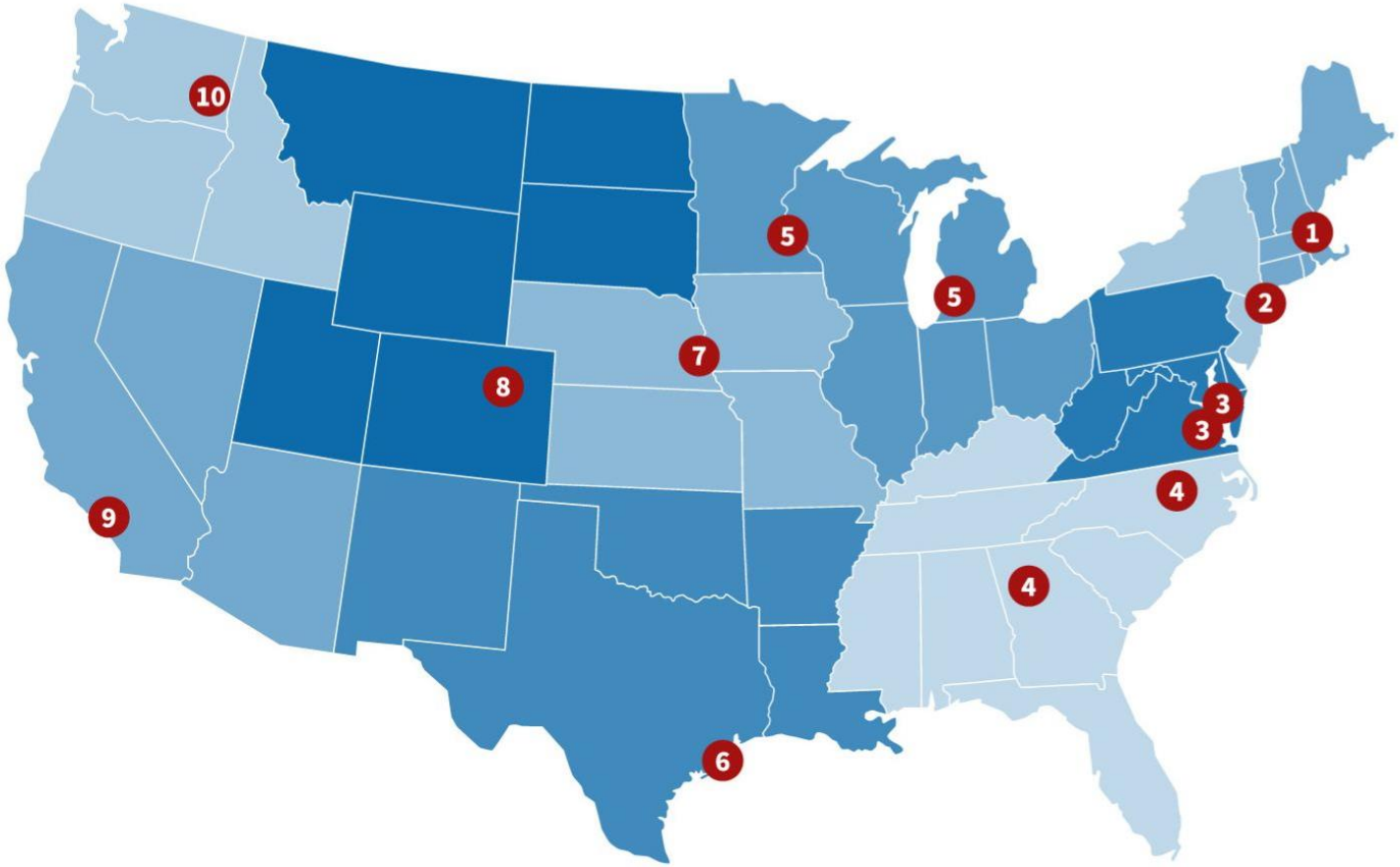
Special Pathogens Research Network

Creating an infrastructure to improve readiness for conducting rapid clinical research related to special pathogens in the U.S.

International Partnerships & Programs

Strengthening collaboration and knowledge-sharing among international special pathogens programs

NSPS Level 1: Regional Emerging Special Pathogens Treatment Centers (RESPTC)



1. **CT, ME, MA, NH, RI, VT**
   Massachusetts General Hospital
2. **NJ, NY, PR, VI**
   NYC Health + Hospitals / Bellevue
3. **DC, DE, MD, PA, VA, WV**
   Johns Hopkins Hospital
   Medstar Washington Hospital Center / Children's National
4. **AL, FL, GA, KY, MS, NC, SC, TN**
   Emory University / Children's Healthcare of Atlanta
   University of North Carolina at Chapel Hill
5. **IL, IN, MI, MN, OH, WI**
   University of Minnesota Medical Center
   Corewell Health System
6. **AR, LA, NM, OK, TX**
   University of Texas Medical Branch
7. **IA, KS, MO, NE**
   University of Nebraska Medical Center / Nebraska Medicine
8. **CO, MT, ND, SD, UT, WY**
   Denver Health & Hospital Authority
9. **AZ, CA, HI, NV, AS, MP, FM, GU, MH, PW**
   Cedars-Sinai Medical Center
10. **AK, ID, OR, WA**
    Providence Sacred Heart Medical Center & Children's Hospital

NSPS Overview

What is the NSPS?

The National Special Pathogen System (NSPS) is a tiered System of Care with four facility levels (e.g., Level 1, Level 2, Level 3, Level 4) that have increasing capabilities to care for suspected or confirmed patients with High Consequence Infectious Diseases (HCIDs).

NSPS Mission, Vision, & Goals

Mission

To develop a coordinated network of high-quality special pathogen care dedicated to protecting patients, communities, and the health care workforce in the United States.

Vision

To save lives and protect the health care workforce through an agile and comprehensive special pathogen system of care.

ASPIRATIONAL GOALS

Zero

Preventable Deaths

after special pathogen infection

2 hours

Network Mobilization

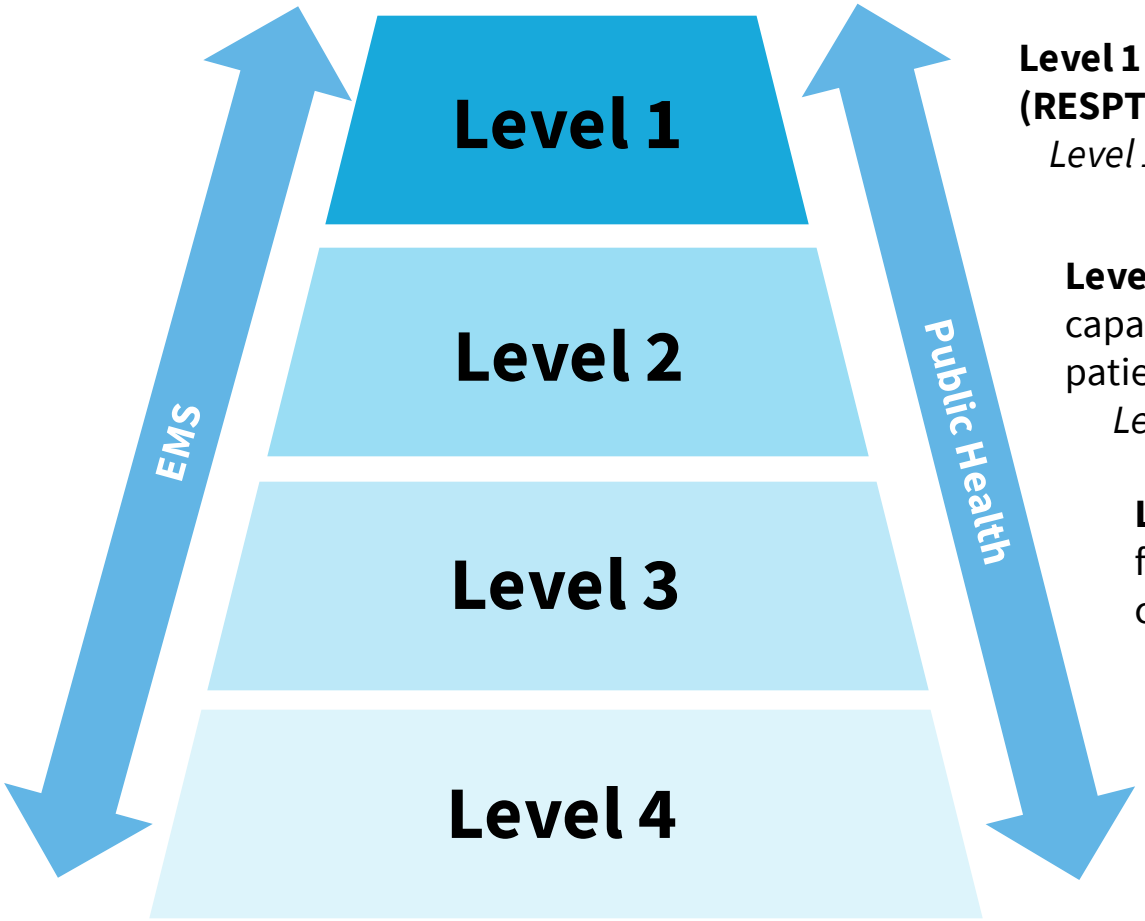
after suspected special pathogen infection

100%

Have Access

to high-quality special pathogen care for all of the U.S. population

The Tiered System of Care



Level 1 facilities, or Regional Emerging Special Pathogen Treatment Centers (RESPTCs), are regional resources hubs which provide highly specialized care.
Level 1s care for patients for their duration of illness.

Level 2 facilities, or Special Pathogen Treatment Centers (SPTCs), have the capacity to deliver specialized care to clusters of patients and serve as primary patient care delivery centers.
Level 2s can care for patients for their duration of illness.

Level 3 facilities, or Assessment Centers, are widely accessible care delivery facilities, able to conduct limited basic laboratory testing, stabilize patients, and coordinate rapid patient transfer.
Level 3s can care for patients for 12-36 hours.

Level 4 facilities, or All Other Healthcare Facilities, can identify, isolate, inform, & initiate stabilizing medical care; protect staff; and arrange timely patient transport to minimize impact to normal facility operations.

Additional partners, such as EMS and public health, are essential for the coordination of the System

NETEC and RESPTC Support Domains

Treatment & Care

Training

Personnel Management

Emergency Management

Decedent Management

Waste Management

Personal Protective Equipment

Physical Infrastructure

Laboratory

Research

Infection Prevention & Control

NETEC and NSPS in the Current Response

PREPARE. PROTECT. RESPOND.

NETEC Responding to DRC Ebola 2025

- September 2, NETEC leadership was informed by public health partners in the U.S. and DRC of possible cases of Ebola in the DRC
- Informed ASPR and CDC liaisons to confirm they were hearing similar concerns
- Informed our Level 1 RESPTC partners of the need to prepared for Ebola cases
- Started to gather data
  - Assessing readiness of Level 1 RESPTCs facilities and any support needs
  - Working with public health partners to understand where returning travelers from DRC typically enter U.S. and final destinations
- Worked with Epic EMR to update the travel screen

NSPS Level 1s in Action

EMORY MEDICINE | Serious Communicable Diseases Unit

== SCDU ADVISORY 09.04.25 ==	
BIOTHREAT: **Zaire Ebola Virus Disease – DRC**	
RISK ASSESSMENT	
COUNTRY/REGIONAL RISK (Index Case)	HIGH
GLOBAL RISK	LOW
REGION IV THREAT LEVEL (RTL)	LOW
TWO WEEK SCDU ACTICATION LIKELIHOOD (SAL)	LOW
SITUATION	An outbreak of Zaire Ebola Virus Disease (EBOV) was declared today in the Democratic Republic of Congo (DRC) in the central province of Kasai, village of Bulape. The DRC Ministry of Health has reported at least 10 suspect cases including 6 confirmed deaths. The index case was a 34-year-old pregnant person who died with multiorgan failure. Initial reports are that two health care workers have unfortunately died treating the index case, and teams of experts are en route to the village.
BACKGROUND	The Kasai region in DRC has been affected by several Ebola outbreaks in the past (2007,2008,2011), and there is quite robust surveillance that occurs. The index case reported above was admitted to a hospital in Bulape on 20 Aug with sudden fever, hemorrhage from multiple sites including bloody vomiting, and marked fatigue. She died on 25 Aug with multiorgan dysfunction syndrome. She thus was quite advanced in her course of illness at time of presentation, and it is likely that community spread is already occurring. EBOV, responsible for the 2014 West African Outbreak, a viral hemorrhagic fever, is spread through close contact with bodily fluids of infected individuals or through contaminated surfaces. Classic symptoms include high fever, myalgias, diarrhea, vomiting, hemorrhage and severe dehydration. Early, optimized critical care is essential to improving survival; there are licensed vaccines and therapeutics available, and in DRC. The SCDU lab also has capability to perform rapid testing.
RECOMMENDATIONS	The SCDU team is monitoring the situation and is in contact with local, regional, national and our international partners on the ground in the DRC. We do expect in-country case counts to rise in the coming days. Additional notifications will be sent as more information becomes available. Healthcare workers at EHC are advised to remain vigilant and to acquire appropriate symptom and exposure history (including travel) when evaluating patients. If you are on clinical or laboratory SCDU teams and you are not up to date on your PPE training or OHS screening, please do so as soon as possible. Thank you for all that you do.

Activating NETEC Services

- **NETEC is continually assessing and updating our online resources on Ebola for NSPS, hospitals, and healthcare workers**

Education & Training

Preparing health care workers for special pathogen events through specialized education, training, and resources

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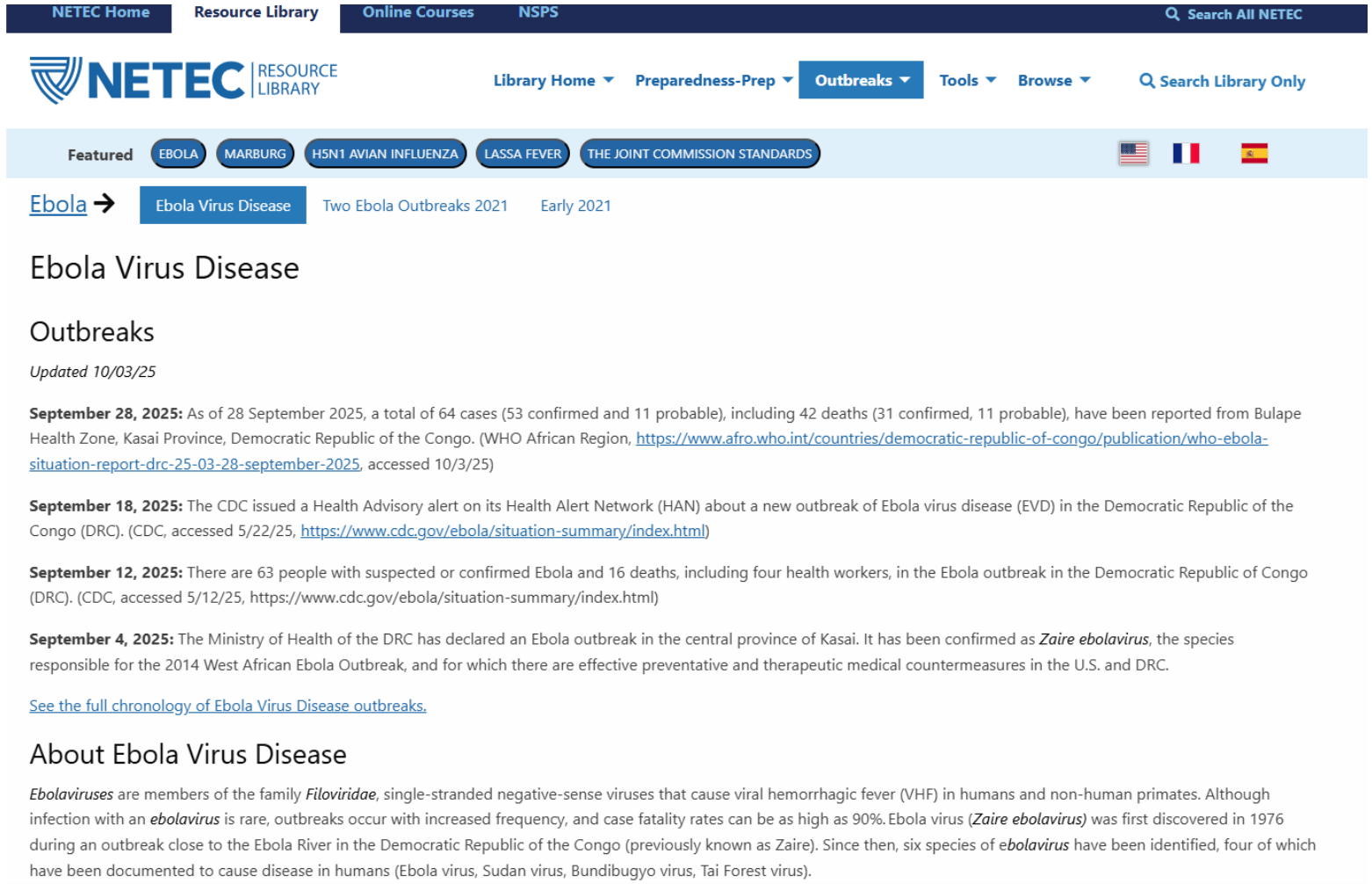

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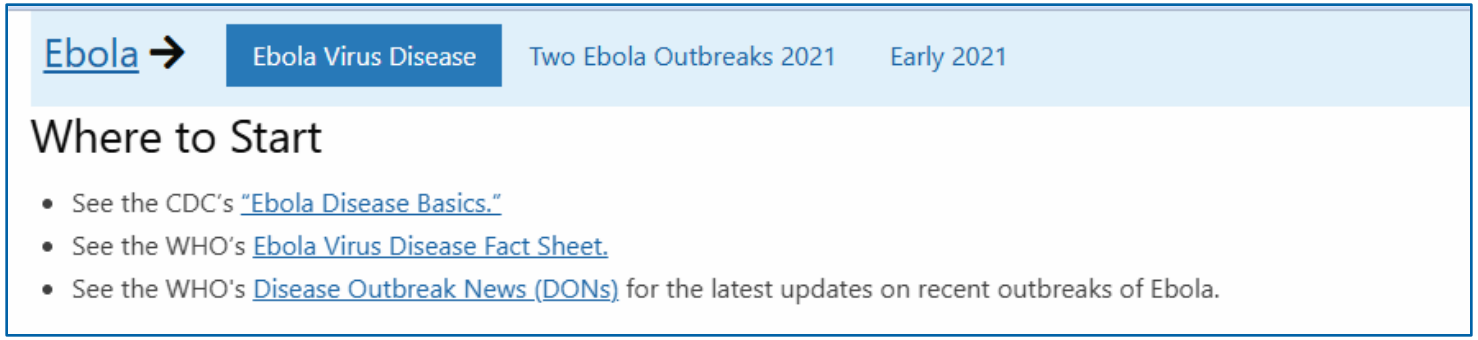

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Health Care Facility Viral Hemorrhagic Fever (VHF) Preparedness Checklist

https://repository.netecweb.org/items/show/1724

NETEC

Health Care Facility Viral Hemorrhagic Fever (VHF) Preparedness Checklist

Viral Hemorrhagic Fevers (VHF) are a group of high consequence infectious diseases caused by several families of viruses. The term VHF refers to an illness that can affect multiple organ systems and can be accompanied by fever, headache, vomiting, abdominal pain, diarrhea, and hemorrhage. VHFs addressed in this document include **Crimean-Congo Hemorrhagic Fever (CCHF)**, **Ebola Virus Disease (EVD)**, **Lassa Fever**, and **Marburg Virus Disease (MVD)**.

Health care facility preparedness to care for patients with a viral hemorrhagic fever (VHF) is essential to prevent transmission to staff, other patients and our communities. In July 2024, the Joint Commission updated the infection control chapter to include standard IC 07.01.01 which addresses an organization process to manage high consequence infectious diseases. To assist healthcare facilities, assess and advance their VHF preparedness, the National Emerging Special Pathogens Training and Education Center (NETEC) developed the Health Care Facility Viral Hemorrhagic Fever Preparedness Checklist as a VHF planning tool. This tool will help health care facilities assess their readiness to identify, isolate, inform, and provide initial treatment for patients suspected or confirmed to have a VHF.

This checklist is intended to guide facilities through a review of their immediate care capabilities and provide resources to assist in the resolution of preparedness gaps it reveals. If any gaps in preparedness are identified through the completion of this checklist NETEC is available to provide targeted support services to offer expert advice. Please contact us via email using info@netec.org or ask our experts a question using our online form Ask Our Experts | NETEC.

For a more in-depth assessment of your special pathogen program, we recommend you complete the NETEC Special Pathogen Operational Readiness Self-Assessment (SPORSA). Visit Ask Our Experts | NETEC for more information.

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IDENTIFY

The first step in the VHF response framework for health care facilities is to quickly recognize and safely manage patients with a suspected or confirmed VHF to reduce transmission risk. Screening all patients upon entry to a facility for signs, symptoms, and epidemiological risk factors for VHFs will facilitate early identification of a patient at risk for having the disease.

Identify Readiness Items

#	Item	Status Yes or No	Notes
1.	There is an established process to complete periodic review of countries where VHFs are endemic or are currently experiencing VHF outbreaks.	Yes ☐ No ☑	
2.	Screening for symptoms and travel history occurs at all points of patient entry to the facility including those arriving by EMS.	Yes ☐ No ☑	
3.	Signage is present at all points of entry into the health system to enable patients to self-identify if their symptoms are consistent with a VHF and what the next steps are (e.g., mask and notify staff).	Yes ☐ No ☑	
4.	Staff who will complete patient screening have received training on the VHF "Identify" process.	Yes ☐ No ☑	

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ISOLATE

The second step of the VHF response framework for health care facilities is to safely isolate and manage patients with a suspected or confirmed VHF to reduce transmission risk. Rapid isolation allows infection prevention and control measures to be implemented to reduce exposure to staff, visitors, and other patients.

Isolate Readiness Items

#	Item	Status Yes or No	Notes
1.	Masks are available at all points of entry for patients entering the facility to quickly apply if indicated.	Yes ☑ No ☐	
2.	An isolation space has been identified and:	Yes ☐ No ☑	
2a.	Staff are oriented to its location, use, and limitations.	Yes ☑ No ☐	
2b.	The process for using the space has been developed and assessed (e.g., moving out other patients or extra equipment, initiating and validating negative pressure).	Yes ☑ No ☐	
2c.	A written checklist has been developed to direct the preparation of the isolation space(s) and staff know where and how to access it.	Yes ☑ No ☐	
2d.	There is a private restroom or bedside commode available for the patient to use in accordance with facility and jurisdictional regulations for human waste management.	Yes ☑ No ☐	
2e.	The isolation space is an airborne infection isolation room (AIIR) or can accommodate a portable negative pressure unit if needed and available. **	Yes ☑ No ☐	
2f.	There is a process for communication to occur into and out of the room, while maintaining isolation precautions (e.g., white boards, speaker phones, call light system).	Yes ☑ No ☐	

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INFORM

The third step of the VHF response framework for health care facilities is to promptly notify key partners to reduce transmission risk. Timely and efficient communication processes are essential to be able to alert internal and external stakeholders of the identification of a patient suspected to have a VHF. External stakeholders, such as a Department of Public Health, may also be needed to determine if a patient meets VHF suspect case criteria.

Inform Readiness Items

#	Item	Status Yes or No	Notes
1.	Key personnel internal (e.g., Infection preventionists, health care administrator, etc.) to your facility who will provide support and/or be involved in the care of a suspect case have been identified.	Yes ☐ No ☑	
2.	Key partners both internal and external to your facility, such as county and state public health partners and Laboratory Response Network (LRN) partners, have been identified and staff know who to inform.	Yes ☐ No ☑	
3.	Contact information for internal and external key personnel is readily accessible.	Yes ☐ No ☑	
4.	Staff who will inform key personnel are knowledgeable on the process, including what information to provide.	Yes ☐ No ☑	

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PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE ensembles worn during the care of patients suspected or confirmed to have a VHF must provide enhanced contact and droplet protection and should consider both the condition of the patient and the risk of exposure to blood and other potentially infectious materials posed by care tasks. Confirmed cases or suspect cases considered to be "wet" may require additional precaution measures including airborne isolation. Complex and infrequently used PPE ensembles require additional training to ensure staff safety and may require additional personnel to assist in doffing. The use of a trained observer is recommended to ensure correct donning and safe doffing practices to reduce self-contamination.

PPE Readiness Items

#	Item	Status Yes or No	Notes
1.	The PPE ensemble has been selected based on pathogen transmission and patient condition and includes consideration to elevate based on presumptive positive test results.	Yes ☐ No ☑	
2.	Staff have received training on VHF PPE donning and doffing protocols.	Yes ☐ No ☑	
3.	There is a clean space to don PPE and a separate safe space to doff PPE.	Yes ☐ No ☑	
4.	There are PPE donning and doffing checklists to guide staff utilizing PPE ensembles.	Yes ☐ No ☑	
5.	There is an adequate amount of appropriate PPE available to provide care for at least 1 patient for 24-48 hours. See DASH tool HERE for guidance on determining facility PPE supply needs.	Yes ☐ No ☑	
6.	A trained observer is utilized to monitor activities in the isolation room and during donning and doffing of PPE.	Yes ☑ No ☐	

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TREATMENT & CARE

The goal of caring for patients suspected or confirmed to have a VHF is to provide safe, effective, high-quality patient care while maintaining the safety of all personnel.

Treatment and Care Readiness Items

#	Item	Status Yes or No	Notes
1.	If a patient suspected to have a VHF arrives at your facility, personnel are familiar with internal processes and have access to resources for just-in-time-training.	Yes ☐ No ☐	
2.	The care interventions that can be safely provided for patients suspected or confirmed to have VHF have been discussed and clinicians are aware of how to safely offer care including expansion of duties to reduce the number of staff (clinical and non-clinical) in the patient's room (e.g., diagnostic imaging, invasive procedures, specimen collection).	Yes ☐ No ☐	
3.	There is a written plan to collaborate with employee health and/or public health to monitor personnel involved in the care of a patient with a confirmed diagnosis (including laboratory personnel who may have handled biospecimens or EVS who may have managed environmental cleaning and disinfection).	Yes ☐ No ☑	
4.	Diagnostic testing for presumptive and confirmatory pathogen identification will be conducted in coordination with the public health department.	Yes ☐ No ☑	
5.	If routine clinical laboratory testing is required, either dedicated point of care devices will be used, or a risk assessment of the main clinical laboratory completed to determine what tests can be safely performed.	Yes ☐ No ☑	
6.	The facility has access to resources for guidance on packaging and shipment of presumed category A specimens.	Yes ☐ No ☑	
7.	The facility is aware of and has identified available resources for decedent management and will seek support from their RESPTC or public health department to conduct the process if needed.	Yes ☐ No ☑	

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WASTE MANAGEMENT AND CLEANING & DISINFECTION

Waste generated in the care of suspected or confirmed to have a viral hemorrhagic fever (VHF) is subject to procedures set forth by local, state, and federal regulations. Basic principles for spills of blood and other potentially infectious materials are outlined in the U.S. Occupational Safety and Health Administration (OSHA). Waste contaminated (or suspected to be contaminated) with certain VHFs is a Category A infectious substance regulated by the U.S. Department of Transportation Hazardous Materials Regulations (HMR; 49 CFR, Parts 171-180). Requirements in the HMR apply to any material DOT determines is capable of posing an unreasonable risk to health, safety, and property when transported in commerce. The EPA maintains lists of registered disinfectants that should be used to destroy certain pathogens. For a list of disinfectants that are effective against the VHF and analogous pathogens visit https://www.epa.gov/pesticide-registration/list-l-disinfectants-use-against-ebola-virus#check.

Waste Management and Cleaning and disinfection Items			
#	Item	Status Yes or No	Notes
1.	There is a written plan for the management of waste generated during the care of a person suspected or confirmed to have a pathogen, and it includes the following:	Yes ☐ No ☑	
1a.	A designated secured waste holding area where waste can be separated from the department and facility's normal waste holding area.	Yes ☐ No ☑	
1b.	Staff training on high-risk biohazard waste management process including proper handling of human biological waste, used and unused medical equipment, used and unused disposable supplies, patient linen and clothing, and terminal cleaning of patient room.	Yes ☐ No ☑	
1c.	Secure packaging/ containment of waste to include proper closure of biohazard bags and approved hard sided transport containers.	Yes ☐ No ☑	
1d.	If required, a vendor licensed to transport category A infectious substance will transport the waste for off-site inactivation.	Yes ☐ No ☑	

Clinician to Clinician Consultations

Consultation & Assessment

Assessing and advancing special pathogens readiness with free, expert consulting

- SMEs drawn from Level 1 RESPTCs, domestic and international partners
  - **Nurses**/Physicians/Providers (Emergency Medicine, Pediatrics, Infectious Diseases, Critical Care, Hospital Medicine)
  - Emergency Medical Services
  - Infection Control Professionals/Healthcare Epi
  - Laboratory Technologists/Pathologists
  - Respiratory Therapists, Spiritual Care, Life Care, Healthcare Administrators, etc
- In coordination with designated RESPTC, ASPR, CDC, and local public health, NETEC will
  - Hold coordinating calls with HCWs and facilities in the response
  - Facilitate connections between HCWs and SMEs with those who do this work regularly

If you call NETEC, we will always ask that you have connected with local Infection Control and Public Health authorities

Activating NETEC Services

Special Pathogens Research Network

Creating an infrastructure to improve readiness for conducting rapid clinical research related to special pathogens in the U.S.

- Working with CDC, NIH, FDA, and BARDA ensure NETEC's landscape assessments of available Medical Countermeasures (MCM) are up to date
- Ensuring the NETEC's MCM protocols and NETEC's single IRB are ready for rapid deployment of MCMs at Level 1 RESPTCs, if needed
- Updating education and assessing Level 1 RESPTCs ability to provide Ervebo (rVSV-ZEBOV) to those deploying to DRC, EMS and frontline HCWs at risk in U.S., and possible HLIU HCWs

Summary

- NETEC and RESPTCs work together in a special pathogen response to available guidance and data to the context of individual healthcare facilities in the U.S.
- NETEC and RESPTCs provides just-in-time training and assessment tools to quickly prepare facilities to response
- NETEC provides a cadre of healthcare workers with experience in care of patients with high consequence infectious diseases to support healthcare workers to safely care for patients
- Working together with public health and EMS partners, the NETEC is coordinating the NSPS, an agile and comprehensive special pathogen system of care network dedicated to protecting patients, communities, and the health care workforce in the United States

Joining the Response

NSPS Level 2 Special Pathogen Treatment and Network Development (STAND) Award

NETEC
PARTNERS IN PREPAREDNESS WITH NSPS

Special Pathogen Treatment and Network Development

Expanding the National Special Pathogen System (NSPS) Level 2 Facility Network

WHY PARTICIPATE

- Strengthen institutional & regional preparedness
- Gain national recognition as a preparedness leader
- Access NETEC training & technical support
- Join a national Community of Practice

ROLE OF LEVEL 2 FACILITIES

- Care for patients with high-consequence infectious diseases
- Accept patients & serve as surge resources regionally and nationally
- Partner with Level 1 facilities and Community of Practice

FUNDING AT A GLANCE

$500,000 per facility

Up to 75 facilities

Total funding $37.5M

Application deadline Dec. 2, 2025

Now Accepting Applications »

SCAN HERE

Learn More

Explore the NSPS Website

Learn more about the NSPS history, mission, vision, and strategy through the NSPS website, found here.

Contact Your RESPTC

As the Regional leaders, the RESPTCs can help get you involved in the NSPS in your Region.

RESPTC contact information found here.

Reach Out to NETEC

As the Coordinating Body of the NSPS, NETEC can help you get involved in the NSPS nationally.

Reach out to info@netec.org

NETEC
NATIONAL EMERGING SPECIAL PATHOGENS TRAINING AND EDUCATION CENTER

NSPS
NATIONAL SPECIAL PATHOGEN SYSTEM

Questions and Answers

NETEC Resources

NETEC
NATIONAL EMERGING SPECIAL PATHOGENS TRAINING AND EDUCATION CENTER

NETEC IS HERE TO HELP

NETEC will continue to build resources, develop online education, and deliver technical training to meet the needs of our partners

ASK FOR HELP!

- Send questions to **info@netec.org** - they will be answered by NETEC SMEs
- Submit a Technical Assistance request at **NETEC.org**

Contact

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courses.netec.org	"Transmission Interrupted" (On all major podcast players)	youtube.com/thenetec

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