



Ebola Virus Disease (EVD) Guidance for Emergency Medical Services

The New Jersey Department of Health, Office of Emergency Medical Services has received inquiries regarding precautions that should be taken by EMS personnel when treating and transporting patients with suspected Ebola Virus Disease.

Ebola Virus Disease (EVD), also known as Ebola hemorrhagic fever or simply Ebola, is a type of viral hemorrhagic fever (VHF). VHFs are severe multisystem syndromes, meaning multiple organ systems in the body can be affected in infected individuals.

Ebola is endemic to several West African and Equatorial African countries. Ebola was first discovered in 1976 near the Ebola River in what is now the Democratic Republic of the Congo (DRC). Since then, outbreaks of Ebola among humans have appeared sporadically throughout the globe. On September 20, 2022, the Ministry of Health of Uganda officially declared an outbreak of EVD caused by the Sudan ebolavirus.

You should suspect Ebola Virus Disease (EVD) if your patient:

- Has lived in or traveled to a country with an ongoing Ebola outbreak, **or**
- Had contact with an individual with confirmed EVD within the previous 21 days.

Signs and Symptoms of the Ebola Virus

- An illness with acute onset of a
 - Fever $>38^{\circ}\text{C}/100.4^{\circ}\text{F}$, **AND**
 - One or more of the following clinical findings:
 - Severe headache;
 - Muscle pain;
 - Vomiting/Diarrhea;
 - Abdominal pain; and/or
 - Bleeding not related to an injury.

Transmission

- Ebola can spread through:
 - Contact with blood or body fluids (urine, saliva, sweat, feces, sputum, vomit, breast milk, tears, semen).
 - Contaminated objects (such as clothes, bedding, needles, and medical equipment) of a person who is sick with or has died from EVD.

Protective Equipment and Procedure

Standard precautions should be utilized by all EMS providers during every patient encounter. EVD is a highly contagious viral infection spread through direct contact, droplet, and airborne.

To minimize the risk of transmission, the following is recommended:

- EMS personnel should wear PPE, including a NIOSH-approved particulate respirator equipped with N95 filters or higher, a gown, gloves, and eye protection (i.e., a face shield that covers the front and sides of the face or goggles).
- Limit the number of EMS personnel making patient contact with a suspected or known EVD patient.

- Use PPE checklists for donning and doffing, ideally with a trained observer.
- Apply a well-fitting surgical mask to the patient and cover any exposed skin lesions or rash, if present on the patient, with an impervious sheet or gown.
- Avoid activities that could resuspend dried material from lesions (e.g., use of portable fans, dry dusting, sweeping, vacuuming).
- Use an EPA-registered hospital-grade disinfectant, per manufacturer's instructions, with a label claim against the emerging Ebola virus to clean and disinfect all surfaces of the ambulance and equipment. A list of disinfectants for use against the Ebola virus can be found on [EPA's List L](#).
- In situations where a patient must be carried, and multiple personnel are required to don PPE, EMS clinicians having had contact with the patient must remain in the back of the ambulance and should not serve as the driver.

Exercise caution when performing aerosol-generating procedures (Ex: endotracheal intubation, airway suctioning, CPAP/BiPAP, CPR). Only perform these procedures if medically necessary and cannot be postponed.

Notification to Receiving Facility

If your patient has or is suspected to have contracted EVD, the receiving facility must be notified **PRIOR** to arrival to facilitate the implementation of appropriate infection prevention procedures. In hospital and healthcare settings, patients should be placed in a single-person room; special air handling is not required unless procedures that are likely to spread oral secretions are being performed, in which case an airborne infection isolation room is recommended. Additional infection prevention and control recommendations for hospitalized patients under investigation (PUI) for EVD information can be found at: [cdc.gov/vhf/ebola/clinicians/evd/infection-control.html](https://www.cdc.gov/vhf/ebola/clinicians/evd/infection-control.html)

Transportation

- Separate the driver compartment from the patient compartment.
- The provider driving the ambulance should wear a NIOSH-approved particulate respirator equipped with N95 filters or higher if isolation of the driver compartment is not verified.
- Apply a well-fitting surgical mask to the patient and cover any exposed skin lesions or rash, if present on the patient, with an impervious sheet or gown.
- Turn the exhaust fan on high and adjust air handling to introduce fresh air in both compartments.

Documentation of Patient Care

- Documentation of patient care should be done after EMS clinicians have completed their personal cleaning and decontamination of equipment and the vehicle. Any written documentation should match the verbal communication given to the healthcare professionals in the Emergency Department at the time of patient transfer.
- EMS documentation should include a listing of public safety providers involved in the response and level of contact with the patient (e.g., no contact with the patient; provided direct patient care). This documentation may need to be shared with local public health authorities.

Follow-up and/or Reporting Measures by EMS Clinicians After Caring for a PUI for EVD

- All EMS personnel should self-monitor for a period of 21 days after the last known contact with a patient suspected to have contracted or been diagnosed with EVD. They

should immediately report fever or any other signs or symptoms consistent with EVD to their occupational health supervisor or designated infection control officer.

- EMS personnel with exposure to blood, urine, saliva, sweat, feces, vomit, breast milk, amniotic fluid, semen, or diarrhea should immediately:
 - **STOP** working and wash the affected skin surfaces with a cleansing or antiseptic solution, and mucous membranes (such as the conjunctiva of the eye) should be irrigated with a large amount of water or eyewash solution. All wipes and solutions should be placed in a biohazard bag.
 - Receive medical evaluation and follow-up care, based on EMS agency policy and consultation with state and federal public health authorities. Additional monitoring and restrictions may be imposed by public health authorities for personnel with unprotected exposure to a patient with EVD.

Resources

CDC Interim Guidance for EMS Systems & 9-1-1 Answering Points:

[cdc.gov/vhf/ebola/clinicians/emergency-services/ems-systems.html](https://www.cdc.gov/vhf/ebola/clinicians/emergency-services/ems-systems.html)

New Jersey Department of Health Resources:

nj.gov/health/cd/topics/vhf.shtml

nj.gov/health/cd/documents/chapters/ebola_ch.pdf

NETEC – EMS Strategies for Ebola:

netec.org/2022/10/19/ems-strategies-for-ebola

US EPA List of Disinfectants for Use Against Ebola Virus:

[epa.gov/pesticide-registration/list-l-disinfectants-use-against-ebola-virus](https://www.epa.gov/pesticide-registration/list-l-disinfectants-use-against-ebola-virus)