

Ebola Response Guidance and Recommendations for First Responders

QUICK FACTS

- Ebola virus disease (EVD) is transmitted by direct contact with blood and body fluids of someone who has symptoms of disease, including fever, headache, body aches, abdominal pain, vomiting, and diarrhea.
- The infection can be spread **only** by someone who has symptoms.
- Those infected may start showing symptoms ranging from 2 to 21 days from when they were infected. The average time for symptoms to begin is 8-10 days.
- EVD is NOT transmitted by food, water, or airborne routes.
- Individuals **MUST** have a history of travel to Guinea, Liberia, or Sierra Leone (no other countries) within the past 21 days OR **MUST** have a history of direct contact with an Ebola patient AND have symptoms to warrant further investigation

PREPAREDNESS

Prior to receiving a dispatch or call, first responders should already discuss and plan response to a suspected or confirmed Ebola patient within the jurisdiction. Discussion should occur in each Indiana IDHS Homeland Security, ISDH Public Health District, and Healthcare Coalition as a unified collaboration.

In each jurisdiction, all partners must meet and discuss the preparedness and planning to include at minimum EMS, Fire, Police, EMA, Hazmat, Public Health, Dispatch, Medical Directors and Hospitals. Each jurisdiction should identify when possible, the appropriate EMS unit(s) and support units capable of responding to a suspected or confirmed Ebola call.

Pre-identification of partners is essential in ensuring safe and proper response. Additionally, jurisdictions must identify the most appropriate place to transport suspected or confirmed Ebola patients for the initial 72 hours of isolation until CDC facilitates a transfer.

RESPONDER ROLES

Emergency medical services (EMS) personnel, along with other emergency services staff, have a vital role in responding to requests for help, triaging patients, and providing emergency treatment to patients. Unlike patient care in the controlled environment of a hospital or other fixed medical facility, EMS patient care is provided in an uncontrolled environment before getting to a hospital.

This setting is often confined to a very small space and frequently requires rapid medical decision-making and interventions with limited information. EMS personnel are frequently unable to determine the patient history before having to administer emergency care.

Coordination among 911 Public Safety Answering Points (PSAPs), EMS providers, healthcare facilities, local public health, and other public safety agencies is important when responding to patients with suspected Ebola.



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RESPONDER SAFETY

Prior to responding to or transporting a suspected or confirmed Ebola patient, all first responders involved in the care of the patient must have received repeated training and have demonstrated competency in performing all Ebola-related infection control practices and procedures, and specifically in donning/doffing proper PPE.

While working in PPE, first responders caring for an Ebola patient should have **NO** skin exposed at any time. Every step of each PPE donning/doffing procedure must be supervised by a trained observer (safety officer) to ensure proper completion of established PPE protocols and utilize a buddy system.

Responders must limit the number of personnel who come into contact with the Ebola patient to only the essential personnel required. It is recommended that no more than two responders come into contact with the patient. No responder should enter a residence or patient area that is suspected or confirmed for Ebola without proper PPE.

Powered Air-Purifying Respirators (PAPR) are the recommended choice of protection. However, responders choosing to utilize Full Face Air-Purifying Respirators (APR) must ensure compliance with all elements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134, including fit testing, medical evaluation, and training of the responder.

All responders, involved in any response, should complete annual OSHA blood borne pathogen training and *always* utilize universal precautions. All responders should be familiar with the department or agency exposure control plans in the event of an unintentional break in procedure.

DISPATCH OR CALL TO SUSPECTED OR CONFIRMED EBOLA PATIENT

Upon receiving a dispatch or call to a suspected or confirmed Ebola patient, review screening criteria with dispatch.

- Patient has traveled to Guinea, Liberia, or Sierra Leone in the past 21 days **or** has had contact with anyone currently being treated for Ebola
- AND-**
- Patient has a fever or other symptoms like headache, body aches, abdominal pain, vomiting, or diarrhea

If confirmed with dispatch the above symptoms, EMS shall request appropriate support personnel and proceed non-emergent to scene. If both screening criteria above are not met, STOP and proceed as normal.

INITIAL ASSESMENT

Upon arrival, first responders should prepare to confirm the screening criteria from outside the residence. EMS should don standard isolation personal protective equipment: gloves, gown, mask, and eye protection.

EMS should make verbal contact with the patient and confirm the screening criteria. **If the patient does not meet screening criteria, proceed as normal.**



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If the screening criterion is met, EMS should assure the patient that additional medical personnel will be arriving shortly. EMS should back away from the residence and request an appropriate EMS unit that has been identified to manage and transport a suspected or confirmed Ebola patient. At no time, should any first responders enter the residence or make contact with patient without donning full PPE as specified below.

SUSPECTED OR CONFIRMED EBOLA PATIENTS PRECAUTIONS

All personnel on scene should fully plan the response. All calls meeting the above screening criteria should implement the Incident Command System and have a designated Incident Commander by another EMS or Fire unit. A safety officer should be designated to oversee all donning of personal protective equipment.

Additional law enforcement or fire should be requested for assistance as needed in restricting access to the scene and security, but should at no time enter the scene without appropriate personal protective equipment.

EMS should identify the appropriate hospital for transport and make phone contact with the hospital. EMS should relay information received from dispatch or call, and confirm with the hospital they are preparing for a suspected or confirmed Ebola patient for immediate isolation. EMS should confirm with the hospital where unit should stage for transfer, i.e. outside ER bay.

Additionally, EMS should contact medical direction for any special instructions. Medical direction may be difficult while wearing full PPE during transport. EMS should confirm procedures, such as limiting all procedures during transport, with the EMS medical director.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Level C non-permeable full body suit with attached hood
- Double gloves (inner and outer glove with extended cuff)
- Shoe Covers
- Powered Air Particle Respirator (PAPR) (Recommended) or Fit-Tested Full-face Air-Purifying Respirator (APR)

A buddy system for both donning and doffing must be utilized at all times and all operations must be under the supervision of a safety officer. PPE should be donned prior to entering any residence or patient area. EMS should consider requesting local Hazardous Materials teams to assist with donning and doffing as appropriate.

EMS personnel should follow the information found in CDCs guidance: [“Guidance on Personal Protective Equipment To Be Used by Healthcare Workers During Management of Patients with Ebola Virus Disease in U.S. Hospitals, Including Procedures for Putting On \(Donning\) and Removing \(Doffing\)”](#).

The use of level C non-permeable full body suits supersedes the CDC guidance and is noted as acceptable. The use of a full face APR exceeds the lowest level of recommendation N-95 mask.



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PATIENT ASSESMENT

After proper donning personal protective equipment under supervision, EMS should approach the residence. Before entering, EMS should make verbal contact with the patient from outside or at the door. EMS should again confirm the preceding screening criteria. **If the patient does not meet screening criteria, proceed as normal.**

EMS should reassure the patient. EMS should give patient the following isolation clothing:

- Patient Gown
- Mask
- Foot coverings

EMS should instruct the patient to change all clothing and put on gown and mask. EMS should refrain from making direct contact with the patient or any visible fluids, and remain at least three feet from patient when possible.

EMS should keep the patient separated from other persons that may be in the residence as much as possible. Caution should be used when approaching a patient with Ebola. Illness may cause delirium, with erratic behavior that can place EMS personnel at risk of infection, e.g. flailing or staggering.

If possible, EMS will instruct the patient to walk to the ambulance. If the patient is unable to walk, the patient may need assistance onto a stretcher. EMS should be extremely careful in any strenuous activities. If the primary two EMS are unable to manage the patient safely, an additional two EMS should be requested to assist after fully donning PPE.

PATIENT TRANSPORT

The EMS driver should remain isolated in the front of the cab, separated from the patient compartment by a closed door. The driver should contact the receiving hospital when en-route. Unless otherwise warranted by patient symptoms or medical protocols, transport should be considered non-emergency and extremely cautious. Transports should avoid any unnecessary abrupt movements that could compromise EMS PPE. EMS should request a law enforcement escort to further ensure safety and security of the crew and patient.

During transport, it is recommended that no procedures are performed on the patient unless life saving measures or as directed by medical direction. Both EMT's should remain seated with appropriate restraint devices. All PPE must be worn for the entire duration of transport.

Upon arrival, EMS should stage at pre-identified location, i.e. outside ER bay. Hospital staff will meet EMS and transfer patient care.



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DECONTAMINATION

First responders should consider requesting decontamination support from local Hazardous Materials Teams. Decontamination should be taken with the same high level of care and precaution as with patient contact.

The following are general guidelines for cleaning or maintaining EMS transport vehicles and equipment after transporting a patient with suspected or confirmed Ebola:

- An EPA-registered hospital disinfectant with label claims for viruses that share some technical similarities to Ebola (such as, norovirus, rotavirus, adenovirus, poliovirus)⁴ and instructions for cleaning and decontaminating surfaces or objects soiled with blood or body fluids should be used according to those instructions. After the bulk waste is wiped up, the surface should be disinfected as described below.
- EMS personnel performing cleaning and disinfection should follow the [“Guidance on Personal Protective Equipment To Be Used by Healthcare Workers During Management of Patients with Ebola Virus Disease in U.S. Hospitals, Including Procedures for Putting On \(Donning\) and Removing \(Doffing\)”](#). There should be the same careful attention to the safety of the EMS personnel during the cleaning and disinfection of the transport vehicle as there is during the care of the patient.
- Patient-care surfaces (including stretchers, railings, medical equipment control panels, and adjacent flooring, walls and work surfaces), as well as stretcher wheels, brackets, and other areas are likely to become contaminated and should be cleaned and disinfected after each transport.
- A blood spill or spill of other body fluid or substance (e.g., feces or vomit) should be managed by trained personnel wearing correct PPE, through removal of bulk spill matter, cleaning the site, and then disinfecting the site. For large spills, a chemical disinfectant with sufficient potency is needed to overcome the tendency of proteins in blood and other body substances to neutralize the disinfectant’s active ingredient. Contaminated reusable patient care equipment (e.g., glucometer, blood pressure cuff) should be placed in biohazard bags and labeled for cleaning and disinfection according to agency policies. Reusable equipment should be cleaned and disinfected according to manufacturer's instructions by trained personnel wearing correct PPE. Avoid contamination of reusable porous surfaces that cannot be made single use.
- Use only a mattress and pillow with plastic or other covering that fluids cannot get through. To reduce exposure among staff to potentially contaminated textiles (cloth products) while laundering, discard all linens, non-fluid-impermeable pillows or mattresses as appropriate.



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WASTE MANAGEMENT

The Ebola virus is a Category A infectious substance regulated by the U.S. Department of Transportation's (DOT) Hazardous Materials Regulations (HMR, 49 C.F.R., Parts 171-180). Any item transported for disposal that is contaminated or suspected of being contaminated with a Category A infectious substance must be packaged and transported in accordance with the HMR. This includes medical equipment, sharps, linens, and used health care products (such as soiled absorbent pads or dressings, kidney-shaped emesis pans, portable toilets, used PPE, [e.g., gowns, masks, gloves, goggles, face shields, respirators, booties] or byproducts of cleaning) contaminated or suspected of being contaminated with a Category A infectious substance.

Any waste generated should be bagged at the receiving hospital for proper disposal.

ADDITIONAL INFORMATION

The recommendations for Ebola Response Guidance for First Responders has been developed based upon the guidance and best practices identified by the CDC. The following links contain further information:

Guidance on Personal Protective Equipment To Be Used by Healthcare Workers During Management of Patients with Ebola Virus Disease in U.S. Hospitals, Including Procedures for Putting On (Donning) and Removing (Doffing)

<http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html>

Emergency Medical Services (EMS) Systems and 9-1-1 Public Safety Answering Points (PSAPs) for Management of Patients with Known or Suspected Ebola Virus Disease in the United States

<http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-emergency-medical-services-systems-911-public-safety-answering-points-management-patients-known-suspected-united-states.html>

