



Department of Public Health and Human Services

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State of Montana DPHHS EMS and Trauma Systems EMS Guidance for Responding to Ebola Virus Disease (EVD)

The current Ebola outbreak in West Africa has increase the possibility of patients with Ebola traveling from the affected countries to the United States. The likelihood of contracting Ebola is extremely low unless a person has direct unprotected contact with the body fluids of a person (like blood, urine, saliva, feces, vomit, sweat and semen) of a person who is sick with Ebola.

Initial signs and symptoms of Ebola include fever, chills, sore throat, and muscle aches. Diarrhea, nausea, vomiting, and abdominal pain occur after a few days. Other symptoms such as chest pain, shortness of breath, headache, or confusion may also develop. Symptoms often become increasingly sever including mental confusion, bleeding, shock, and multi-organ failure.

Impacts of the Ebola epidemics in West Africa are projected to grow for many more months. This guidance is appropriate for other infectious diseases acquired outside of North America including Middle Eastern respiratory syndrome (MERS), severe acute respiratory syndrome (SARS), and measles; abut the focus of this document is on Ebola.

Emergency medical services (EMS) personnel have a vital role in responding to requests for help, triaging patients, and providing emergency treatment to patients. Whenever patients present with signs and symptoms of an infectious disease, Dispatchers and EMS Personnel should ask about travel history outside of the United States with in the previous 30 days.

Emergency Medical Dispatch Centers

EMD Call Receivers should be alert for patients with any of the following infectious symptoms during the caller interview.

- Fever
- Headache
- Sore throat
- Muscle pain
- Vomiting
- Diarrhea
- Abdominal pain
- Unexplained hemorrhage

When the Call Receiver detects that patient symptoms include any of the above, ask about international travel history: “Have you traveled outside of the United States in the past 30 days?” If possible, then ask about travel to West Africa, specifically Liberia, Guinea, or Sierra Leone.

If the patient has any of the above symptoms and a travel history to West Africa, The Dispatcher should notify responding crews of a potential Ebola virus disease case by sending a message Of “Infectious Circumstance-Travel History-PPE Advised.” This message will trigger the responding EMS personnel to don “High Risk” personal protective equipment (PPE). Otherwise, crews should use standard PPE per local operating policies.

Pre-arrival instructions to callers should include directions to provide scene security, limit number of individuals exposed and reduce the risk of transmitting infection to others:

- Patient to remain on location
- Avoid contact/exposure to other people

If cases of suspected Ebola are discovered in your community, additional questions to determine if the person has had contact with an infected patient may be necessary.

Responders

Degree of Risk	Recommended PPE: Gloves, eyewear
No infectious symptoms	Routine PPE: Gloves, eyewear
Infectious symptoms but NO travel history OR high risk of blood exposure (e.g. trauma)	Routine ID PPE: Gown, gloves, eyewear, N95 mask
Infectious symptoms AND travel to West Africa (Liberia, Guinea, or Sierra Leone).	High Risk ID PPE: Impermeable gown, double gloves, face shield, N95 mask

Unlike care in a hospital, EMS patient care is provided in an uncontrolled environment. This setting is often confined to a very small space and frequently requires rapid medical decision making and interventions using limited information. Due to the increased risk of exposure to blood or other virus containing body fluids, **EMS personnel shall adopt a higher level of PPE protection when there is a high risk of Ebola.**

Standard PPE for infectious diseases including gloves, gown, N95 mask and eye protection is adequate for protection for responders caring for patients with infectious symptoms but no history of travel to West African countries with Ebola virus disease cases, specifically Liberia, Guinea and Sierra Leone.

The **risk of contracting Ebola** for EMS and healthcare workers seems to be **highest when removing (doffing) PPE**. DPHHS EMSTS recommends the following PPE for high-risk situations when Ebola is suspected because of infectious symptoms **and** international travel to West Africa in the previous 30 days.

- **Gloves**
- **N95 or N100 Mask**
- **Full face shield**
- **Tyvek (impermeable) suite**
- **A second set of gloves**

If notified by the Dispatcher of an Infectious Circumstance without a travel history, the responding crew will don regular PPE including gloves, gown, N95 or N100 mask and eye protection and follow standard infection control procedures.

Responding

Unknown Medical Problem with Infectious Symptoms

When responding to unknown medical problems with infectious symptoms but an unknown travel history, crews should adopt a cautious assessment approach.

1. Like a Hazmat Incident, consider a circle with a 6-10 foot diameter. One member in standard PPE will perform an initial assessment from 6-10 feet away. If infectious symptoms are present, then the EMS responders should acquire a travel history.
2. If international travel to West Africa (Liberia, Guinea or Sierra Leone) in the previous 30 days is confirmed, back out and don “High Risk” PPE prior to further patient assessment and care.

Infectious Circumstance with Travel History

If notified by the dispatcher of Infectious Circumstance – Travel History the responding crew **will don “High Risk” PPE** and follow standard infection control procedures. The number of personnel that enter the “Hot Zone” should be limited to those necessary to provide appropriate patient care.

Generally, one member should remain outside the “Hot Zone” to be the designated “decontamination person.” If all members from a crew are necessary for patient care, an additional crew should be requested to provide safe decontamination.

Whenever possible, transport should be provided by a crew that is well –trained in the infection control procedures.

Each agency Medical Director should establish guidelines for the use of ALS skills with high-risk patients.

Decontamination

Special decontamination procedures shall be initiated when there is a high likelihood that Responders had contact with a high-risk Ebola patient. Decontamination of personnel should be managed by specialty personnel and take place at the scene or at a designated location.

Decon Roles

- The “Decon crew member” should set up the decontamination area using an impermeable plastic sheet and assist personnel in safe removal of PPE. The Decon crew member should be in High-risk PPE attire and remain inside the decon zone.
- A Second member should assume the role of Safety Officer to monitor PPE removal using the checklist provided.
- All PPE, including eye protection, should be disposed using hazardous materials guidelines.

Important Note: Decontamination procedures must be completed prior to returning to service.

Exposure

Personnel who are exposed to Ebola need to be monitored for 21 days by twice daily checks for fever and infectious symptoms. They are not considered contagious unless fever develops. Each organization should develop guidelines for the work status and continuous monitoring of exposed personnel.

Training

All EMS personnel should complete a refresher of standard PPE procedures and infection control. In addition EMS personnel should receive additional training in the donning and doffing of “High Risk” PPE. Additional information sheets and videos are available on at www.dphhs.mt.gov/ems.

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