



Provider Health & Safety Alert Ebola Virus Disease August 8, 2014

Given recent reports indicate the ongoing epidemic of Ebola Virus Disease (EVD) in the western portion of Africa and the increasingly larger worldwide public health event, The Office of the Medical Director believes it is helpful to provide the most up-to-date information regarding this disease and the appropriate precautions to take in the event of suspected interaction with such patients.

As indicated previously, the overall chance of seeing patients infected with Ebola remains very low. However, suspicion and attentiveness to even the remote possibility is essential given the high transmissibility of this disease once present in a community and the high mortality associated with infections.

As Austin has become a more international city, such organisms as EVD are provided access into the community via our robust educational, business, and entertainment sectors, as well as a citizen community that avails itself of the myriad travel opportunities to many far off locales.

Based on the most recent CDC Health Advisory, Guidelines for Evaluation of US Patients Suspected of Having Ebola Virus Disease, August 1, 2014, the following information regarding evaluation and infection protection measures is provided for EMS providers.

Background

CDC is working with the World Health Organization (WHO), the ministries of health of Guinea, Liberia, and Sierra Leone, and other international organizations in response to an outbreak of EVD in West Africa, which was first reported in late March 2014. As of July 27, 2014, according to WHO, a total of 1,323 cases and 729 deaths (case fatality 55-60%) had been reported across the three affected countries. This is the largest outbreak of EVD ever documented and the first recorded in West Africa.

EVD is characterized by sudden onset of fever and malaise, accompanied by other nonspecific signs and symptoms, such as myalgia, headache, vomiting, and diarrhea. Patients with severe forms of the disease may develop hemorrhagic symptoms and multi-organ dysfunction, including hepatic damage, renal failure, and central nervous system involvement, leading to shock and death. The fatality rate can vary from 40-90%.

In outbreak settings, Ebola virus is typically first spread to humans after contact with infected wildlife and is then spread person-to-person through direct contact with bodily fluids such as, but not limited to, blood, urine, sweat, semen, and breast milk. The incubation period is usually 8–10 days (ranges from 2–21 days). Patients can transmit the virus while febrile and through later stages of disease, as well as postmortem, when persons touch the body during funeral preparations.

Patient Evaluation Recommendations to Healthcare Providers

System providers should be alert for and evaluate suspected patients for EVD infection who have **both consistent symptoms and risk factors as follows:**

- 1) **Epidemiologic risk factors within the past 3 weeks** before the onset of symptoms, such as **contact with blood or other body fluids of a patient known to have or suspected to have EVD; residence in—or travel to—an area where EVD transmission is active; or direct handling of bats, rodents, or primates from disease-endemic areas.**

AND

- 2) Clinical criteria, which includes **fever of greater than 38.6 degrees Celsius or 101.5 degrees Fahrenheit**, and additional symptoms such as **severe headache, muscle pain, vomiting, diarrhea, abdominal pain, or unexplained hemorrhage;**

Recommended infection control measures

EMS providers can safely manage a patient with EVD by following recommended isolation and infection control procedures, including standard, contact, and droplet precautions. **Early recognition and identification of patients with potential EVD is critical**

Recommendations include the following:

Provider protection: Providers should wear: gloves, gown (fluid resistant or impermeable), eye protection (goggles or face shield), and a facemask.

Aerosol-generating procedures: Avoid aerosol-generating procedures. If performing these procedures, PPE should include respiratory protection (N95 filtering facepiece respirator)

Environmental infection control: Diligent environmental cleaning and disinfection and safe handling of potentially contaminated materials is paramount, as blood, sweat, emesis, feces and other body secretions represent potentially infectious materials. Appropriate disinfectants for Ebola virus and other filoviruses include 10% sodium hypochlorite (bleach) solution, or hospital- grade quaternary ammonium or phenolic products. Healthcare providers performing environmental cleaning and disinfection should wear recommended PPE (described above). Face protection (face shield or facemask with goggles) should be worn when performing tasks such as liquid waste disposal that can generate splashes. Follow standard procedures, per agency policy and manufacturers' instructions, for cleaning and/or disinfection of environmental surfaces and equipment.

Once again, the current isolation precautions outlined in the System COGs remain effective in providing protection to patients, providers, and the community. **These Precautions offer practical and effective measures for isolating the disease organism whatever it is.** It is important **not to develop tunnel vision to EVD.** Given that several illnesses present with the same signs and symptoms, it is important to continue to follow our infectious disease plan even when the underlying disease organism is unknown. Should there be an occasion for changes in the precautions; prompt notification will be distributed to system providers.

Providers are encouraged to review and be confident in the System Clinical Procedures and Disease Precautions, specifically:

[CP 60 - Standard Precautions](#)

[CP 56 - Respiratory Precautions](#)

[CP 16 - Contact Precautions](#)

In summary:

- Maintain a heightened awareness to the potential for interface with patients with this and other new, and resistant organisms.
- Obtain a thorough travel history that covers the past month.
- Conduct active surveillance for infected sores, ulcers, lesions, and drainage that may or not be contained by dressings.
- Cover any openings exuding or secreting drainage.
- Avoid open contact with the patient's bodily fluids.
- Place a surgical mask on the patient if tolerated.
- Wear the appropriate level of PPE based on the mode of transmission of the suspect agent.
- Consider the use of contact precautions (eyewear, mask, and gown) if there is evidence of mild hemorrhagic manifestations such as bleeding of nose or gums, petechiae, or easy bruising,
- Where respiratory vectors are considered, employ PPE in accordance with the Respiratory Precautions Clinical Procedure
- Ensure the patient is "wrapped" prior to being moved to minimize environmental contamination.
- Confirm the hospital or other receiving facilities have been notified of the possibility of an infectious disease.
- Ensure such patients are directed to appropriate isolation areas to reduce possible transmission to other individuals
- Perform thorough cleaning of all equipment that had contact with the patient or the environmental surfaces of the patient's room.
- Understand the need for diligence in hand hygiene.
- Should you have a suspicion that a patient may have these or other emerging organisms, notify the Infection Preventionist so the Austin / Travis County Health Department can be notified and undertake the necessary surveillance as soon as possible.

It is vital that any control measures used are implemented quickly and sustained in order to prevent additional transmission. EMS providers have been instrumental in assisting in identifying previous possible infectious outbreaks in the past. For additional guidance on implementing control measures and to report unusual incidents occurring during any of your agency's responses, contact the System Infection Preventionist.

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