



Provider Health & Safety Alert Ebola Virus Disease September 30, 2014

With the announcement of the first confirmed case of Ebola Virus Disease (EVD) in Dallas Texas, there could be interactions with individuals who believe they have been in proximity of this patient and raise concerns and seek emergency medical intervention. As indicated previously, it is the intention of The Office of the Medical Director 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 actually infected with Ebola remains very low. However, suspicion and attentiveness to even the remote possibility is essential given the potential transmissibility of this disease should one have contact with most bodily fluids.

Background

A News release from the Texas Department of State Health Services earlier this evening indicates a Texas hospital patient has tested positive for Ebola, making the patient the first case in the United States. The test was conducted at the state public health laboratory in Austin. The Centers for Disease Control and Prevention confirmed the positive result.

The patient is an adult with a recent history of travel to West Africa. The patient developed symptoms days after returning to Texas from West Africa and was admitted into isolation on Sunday at Texas Health Presbyterian Hospital in Dallas.

The Texas Department of State Health Services is working with the CDC, the local health department and the hospital to investigate the case and help prevent transmission of the disease. The hospital has implemented infection control measures to help ensure the safety of patients and staff.

In reviewing the latest information as well as the Interim Guidance for 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, published by CDC on September 5, 2014 the following guidance is provided.

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) 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;**

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AND

2) DSHS also encourages health care providers to ask patients about recent travel and **consider Ebola in patients with fever and a history of travel to Sierra Leone, Guinea, Liberia, and some parts of Nigeria within 21 days of the onset of symptoms.**

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.**

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.

Recommended PPE should be used by EMS personnel as follows:

- PPE should be worn upon entry into the scene and worn until personnel are no longer in contact with the patient.
- PPE should be carefully removed without contaminating one's eyes, mucous membranes, or clothing with potentially infectious materials.
- PPE should be placed into a medical waste container at the hospital or double bagged and held in a secure location.

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

Pre-hospital resuscitation procedures such as endotracheal intubation, open suctioning of airways, and cardiopulmonary resuscitation frequently result in a large amount of body fluids, such as saliva and vomit. Performing these procedures in a less controlled environment (e.g., moving vehicle) increases risk of exposure for EMS personnel. If conducted, perform these procedures under safer circumstances (e.g., stopped vehicle, hospital destination).

During pre-hospital resuscitation procedures (intubation, open suctioning of airways, cardiopulmonary resuscitation):

- In addition to recommended PPE (above), respiratory protection that is at least as protective as a NIOSH-certified fit-tested N95 filtering facepiece respirator or higher should be worn (instead of a facemask).
- Additional PPE must be considered for these situations due to the potential increased risk for contact with blood and body fluids including, but not limited to, double gloving and disposable shoe covers.

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.

EMS personnel performing environmental cleaning and disinfection should:

- Wear recommended PPE (described above) and consider use of additional barriers (e.g., shoe and leg coverings) if needed.
- Wear face protection (facemask with goggles or face shield) when performing tasks such as liquid waste disposal that can generate splashes.
- Use an EPA-registered hospital disinfectant with a label claim for one of the non-enveloped viruses (e.g., norovirus, rotavirus, adenovirus, poliovirus) to disinfect environmental surfaces. Disinfectant should be available in spray bottles or as commercially prepared wipes for use during transport.
- Spray and wipe clean any surface that becomes potentially contaminated during transport. These surfaces should be immediately sprayed and wiped clean (if using a commercially prepared disinfectant wipe) and the process repeated to limit environmental contamination.

Cleaning EMS Transport Vehicles after Transporting a Patient with Suspected or Confirmed Ebola

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

EMS personnel performing cleaning and disinfection should wear recommended PPE (described above) and consider use of additional barriers (e.g., rubber boots or shoe and leg coverings) if needed. Face protection (facemask with goggles or face shield) should be worn since tasks such as liquid waste disposal can generate splashes.

Patient-care surfaces (including stretchers, railings, medical equipment control panels, and adjacent flooring, walls and work surfaces) are likely to become contaminated and should be cleaned and disinfected after transport.

A blood spill or spill of other body fluid or substance (e.g., feces or vomit) should be managed 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.

An EPA-registered hospital disinfectant with label claims for viruses that share some technical similarities to Ebola (such as, norovirus, rotavirus, adenovirus, poliovirus) 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 above.

Contaminated reusable patient care equipment 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 a regulated medical waste.

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.

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**

Follow-up and/or reporting measures by EMS System personnel after caring for a suspected or confirmed Ebola patient

- EMS System personnel with exposure to blood, bodily fluids, secretions, or excretions from a patient with suspected or confirmed Ebola should immediately:
 - Stop working and wash the affected skin surfaces with soap and water. Mucous membranes (e.g., conjunctiva) should be irrigated with a large amount of water or eyewash solution;
 - Contact supervisor for referral to occupational health for assessment and access to post-exposure management services.
- EMS System personnel who develop sudden onset of fever, intense weakness or muscle pains, vomiting, diarrhea, or any signs of hemorrhage after an unprotected exposure (i.e., not wearing recommended PPE at the time of patient contact or through direct contact to blood or body fluids) to a patient with suspected or confirmed Ebola should:
 - Not report to work or immediately stop working and isolate themselves;
 - Notify their supervisor, who should notify local and state health departments;
 - Contact occupational health/supervisor for assessment and access to post-exposure management services; and
 - Comply with work exclusions until they are deemed no longer infectious to others.

In summary:

- Maintain a heightened awareness to the potential for interface with patients with EVD or believe they have been in contact with the most recently identified patient.
- 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. 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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