



## **Provider Health & Safety Alert Ebola and other Hemorrhagic Fever Diseases April 25, 2014**

Recent information and advisories from the Centers for Disease Control and Prevention once again highlights the increasing risk for encounters with another category of infectious diseases, Viral Hemorrhagic Fevers, with special emphasis on the Ebola virus.

Recent reports indicate an ongoing epidemic of Ebola in the western portion of Africa, specifically in the country of Guinea. Additionally, the opportunity for the introduction for other viral hemorrhagic fevers remains as there continues to be outbreaks in other regions of Africa, Central and South America and the Caribbean. Overall, the chance of seeing such patients remains very low. However, suspicion and attentiveness to even the remote possibility is essential given the high transmissibility of these diseases once present in a community and the high mortality associated with infections.

As Austin has become a more international city, these organisms 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.

Fortunately, even with the emergence of these new threats, 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.** Given that many 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](#)

Furthermore, Providers should consider the following steps on all patient interactions:

- Maintain a heightened awareness to the potential for interface with patients with these, 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.

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- Avoid open contact with the patient's bodily fluids.
- Wear the appropriate level of PPE based on the mode of transmission of the suspect agent.
- 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.
- 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.

Attached are FAQ regarding Ebola and associated actions that should be considered if presented with suspicious signs and symptoms.

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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## **Frequently Asked Questions (FAQs) for Health Care Providers about Ebola Virus Disease**

### **1. Why is Ebola Virus Disease so concerning?**

Ebola is a filovirus that can be transmitted by contact with infected body fluids, has no recognized treatment other than supportive care, and has a very high mortality rate (60-90%). Of note, less than 50% of patients have hemorrhage, especially early in the illness. Healthcare providers in Africa sometimes become infected because of exposure to the patient prior to diagnosis, or the inability to protect themselves through appropriate polices and personal protective equipment.

### **2. How extensive is the Ebola outbreak in Guinea and Liberia?**

Compared with the other Ebola outbreaks in Africa since 1976, this outbreak is more geographically widespread involving 6 districts (five rural) and 20 patients in one major city (Conarky, the capital of Guinea). See color map of outbreak zones at: <http://www.afro.who.int/en/clusters-a-programmes/dpc/epidemic-a-pandemic-alert-and-response/outbreak-news/4087-ebola-virus-disease-west-africa-7-april-2014.html>. As of 7 April, a cumulative total of 151 clinically compatible cases, including 95 deaths had officially been reported from Guinea. 14 of the cases including 8 deaths are health workers (11 are laboratory confirmed cases). Medical observation is continuing for 535 contacts. Liberia has reported a cumulative total of 5 laboratory confirmed cases and 16 suspected and probable cases of Ebola virus disease (EVD), including 10 deaths. Three cases have occurred in health-care workers, all of whom have died. See updates on the WHO website at: <http://www.who.int/csr/don/en/>

### **3. What is the strain of Ebola causing this outbreak?**

Zaire strain (98% match), the most lethal strain of Ebola. (approximately 60% of patients in the current outbreak and higher in prior Zaire strain outbreaks in Africa) There is little or no clinical experience with Ebola patients being treated in modern ICUs, thus mortality here may be lower.

### **4. What is the incubation period?**

From 2-21 days after exposure. CDC states that 8-10 days is most common

### **5. Is the virus contagious before illness onset?**

No. It is contagious only after illness onset (e.g., fever)

### **6. How is the virus transmitted from person-to-person?**

By contact with infected body fluids, especially blood (including via needles) but also urine, vomitus, stool, and soiled linen. Patients in Africa often have had exposures to several such body fluids. Thus, it is sometimes difficult to be certain how infection occurred.

### **7. What should we look for in a suspect case in the USA?**

- (1) Travel from Guinea or Liberia outbreak areas within 21 days of illness onset.
- (2) Contact with suspected or confirmed Ebola Virus Disease (EVD) patient within 21 days of illness onset.

### **8. What are the symptoms and signs to look for?**

The CDC Ebola fact sheet lists 2 sets of signs & symptoms:

- (1) Symptoms "typically include: Fever, headache, vomiting, stomach pain, and lack of appetite".
- (2) "Some patients may experience: A rash, red eyes, hiccups, cough, sore throat, chest pain, difficulty breathing, difficulty swallowing, bleeding inside and outside the body."

**9. What patient should I suspect of having Ebola virus (& initiate reporting to local public health)\*?** Patients with a travel and/or exposure history AND a clinical presentation consistent with the above CDC description. \*When more specific CDC or local Health Department guidance is given, then it should be adopted.

Note CDC document for airlines: "Interim Guidance about Ebola Virus Infection for Airline Flight Crews, Cargo and Cleaning Personnel, and Personnel Interacting with Arriving Passengers" <http://www.cdc.gov/vhf/abroad/airline-workers.html>

**10. During this outbreak have any suspected patients been reported in North America?** One patient traveling to Canada was reported March 25<sup>th</sup> to have tested negative for Ebola virus. One patient traveling from West Africa was hospitalized March 31 in Minneapolis and reported to be infected with Lassa fever virus (not Ebola). Statistically, the risk of a traveler to the USA having Ebola virus is very low. The risk of a traveler being suspected of having Ebola in the differential diagnosis is higher, however, and warrants enhanced Ebola preparedness.

**11. Is there an FDA-licensed prophylaxis, or a treatment?** No, only investigational ones (none of which include efficacy data in humans to our knowledge)

**12. What initial actions should be taken, and what personal protective equipment should be worn?**

1. Immediately place any suspected patient into an isolation room. Until the disease process is defined, an airborne isolation (AIIR) room is recommended. Patients with respiratory symptoms should wear a simple mask.
2. Adopt strict contact precautions and pay particular attention to safe doffing, or removal of PPE. Use of a simple mask and faceshield is appropriate although providers may opt for N95 mask until the pathogen is confirmed.
3. Contact Infection Prevention and Control and Infectious Disease on-call immediately and assure that the local/state health department is involved as well for appropriate sample acquisition and tracking
4. Minimize the number of caregivers and invasive procedures to decrease exposure opportunities.
5. Assure special precautions for handling laboratory samples and for personnel performing testing (including notification of lab personnel, special labeling, handling, and containers, etc.)

Note that once Ebola is confirmed, infection control precautions move to strict contact precautions and private, but not respiratory isolation rooms. See the current online CDC "Prevention" guidance for Ebola <http://www.cdc.gov/vhf/ebola/prevention/index.html> for further information on PPE, disinfection / sterilization of equipment and spaces, and isolation procedures.

Also, see the detailed 4-page most recent (2005) CDC information on "Infection Control Precautions" and PPE contained in the document titled "Interim Guidance for Managing patients with Suspected Viral Hemorrhagic Fever in U.S. Hospitals" at: <http://www.cdc.gov/vhf/ebola/vhf-interim-guidance.pdf>. This guidance includes more detailed information on infection prevention and control as well as laboratory handling and addresses special circumstances and options for PPE.

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Please contact Dr. Daniel Lucey ([DRL23@Georgetown.edu](mailto:DRL23@Georgetown.edu)) for any factual or contextual errors in this FAQ

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