Safe Management of Patients with Ebola Virus Disease (EVD) in U.S. Hospitals

Frequently Asked Questions
The recent EVD outbreak in West Africa has increased the possibility of patients traveling from the impacted countries to the United States. Additionally, two American citizens with EVD were medically evacuated to the United States to receive care at Emory University Hospital in Atlanta. The following are answers to frequently asked questions about the safety of this medical evacuation and the necessary infection control procedures to protect patients and healthcare providers in U.S. hospitals.

Are U.S. hospitals ready to care for patients with Ebola virus disease (EVD)?
Yes – any U.S. hospital that is following CDC's infection control recommendations and can isolate a patient in a private room is capable of safely managing a patient with EVD. CDC recommends that U.S. hospitals isolate the patient in a private room and implement standard, contact, and droplet precautions.

What should U.S. hospitals do if they have a patient with suspect EVD?
Early recognition is critical for infection control. Healthcare providers should be alert for and evaluate any patients suspected of having EVD who have (see EVD case definition):

1. A 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;

   AND

2. 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 or nonhuman primates from disease-endemic areas. Malaria diagnostics should also be a part of initial testing because it is the most common cause of febrile illness in persons with a travel history to the affected countries.

When should patients with suspected EVD in U.S. hospitals be tested?
CDC recommends testing for all persons with onset of fever within 21 days of having a high-risk exposure such as (See CDC's laboratory testing guidance):

- percutaneous or mucous membrane exposure or direct skin contact with body fluids of a person with a confirmed or suspected case of EVD without appropriate personal protective equipment (PPE),
- laboratory processing of body fluids of suspected or confirmed EVD cases without appropriate PPE or standard biosafety precautions, or
- participation in funeral rites or other direct exposure to human remains in the geographic area where the outbreak is occurring without appropriate PPE.
For persons with a high-risk exposure but without a fever, testing is recommended only if there are other compatible clinical symptoms present and blood work findings are abnormal (i.e., thrombocytopenia <150,000 cells/µL and/or elevated transaminases).

If a patient in a U.S. hospital is identified to have suspected or confirmed EVD, what infection control precautions should be put into place?

If a patient in a U.S. hospital is suspected or known to have Ebola virus disease, healthcare teams should follow standard, contact, and droplet precautions, including the following recommendations:

- **Isolate the patient:** Patients should be isolated in a single patient room (containing a private bathroom) with the door closed.
- **Wear appropriate PPE:** Healthcare providers entering the patients room should wear: gloves, gown (fluid resistant or impermeable), eye protection (goggles or face shield), and a facemask. Additional protective equipment might be required in certain situations (e.g., copious amounts of blood, other body fluids, vomit, or feces present in the environment), including but not limited to double gloving, disposable shoe covers, and leg coverings.
- **Restrict visitors:** Avoid entry of visitors into the patient's room. Exceptions may be considered on a case by case basis for those who are essential for the patient's wellbeing. A logbook should be kept to document all persons entering the patient's room. See CDC's infection control guidance on procedures for monitoring, managing, and training of visitors.
- **Avoid aerosol-generating procedures:** Avoid aerosol-generating procedures. If performing these procedures, PPE should include respiratory protection (N95 or higher filtering facepiece respirator) and the procedure should be performed in an airborne infection isolation room.
- **Implement environmental infection control measures:** Diligent environmental cleaning and disinfection and safe handling of potentially contaminated materials is of paramount importance, as blood, sweat, vomit, feces, urine and other body secretions represent potentially infectious materials should be done following hospital protocols.

Why do responders in Africa wear so much personal protective equipment (that can include full body suits) for this Ebola outbreak when CDC says hospitals here could safely manage the care of an Ebola patient without a full body suit?

There are important differences between providing care or performing public health tasks in Africa versus in a U.S. hospital.

In field medical settings, additional PPE may be necessary to protect healthcare workers. In some places in Africa, workers may not have the ability to prepare for potential exposures. For example, in some places, care may be provided in clinics with limited resources (e.g., no running water, no climate control, no floors, inadequate medical supplies), and workers could be in those areas for several hours with a number of Ebola infected patients. Additionally, certain job responsibilities and tasks, such as attending to dead bodies, may also require different PPE than what is used when providing care for infected patients in a hospital.

Content source:
- Centers for Disease Control and Prevention
- National Center for Emerging and Zoonotic Infectious Diseases (NCEZID)
- Division of High-Consequence Pathogens and Pathology (DHCPP)
- Viral Special Pathogens Branch (VSPB)