

# IAED Recommendations Regarding Ebola Virus Disease and Travelers Received from West Africa

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**This document outlines current facts and IAED recommendations regarding the recent Ebola Virus Disease outbreak in West Africa for AMPDS users**

## **Background on the current Ebola Virus outbreak**

The Center for Disease Control (CDC) is currently 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 Ebola virus disease (EVD) in West Africa.

**On September 30, 2014 the first imported case of Ebola was diagnosed in Dallas Texas from a patient travelling from West Africa.**

As of October 03, 2014, according to WHO, a total of **7,470** cases and **3,431** deaths (case fatality 55–60%) had been reported. Countries with localized transmission (**Guinea, Liberia and Sierra Leone**) are currently representing the majority (99%) of cases. This is the largest outbreak of EVD ever documented.

**Nigeria** and **Senegal** have had no new cases reported since September 5, 2014 and August 29, 2014 respectively. A single travel –associated case has been documented in the **US** and 2 travel –associated cases have been documented in **Senegal**.

Although the disease is rare, it can spread from **person to person**, especially among health care staff and other people who have **close contact** with an infected person. EVD is spread through **direct contact with blood or body fluids** such as, but not limited to, the sweat, semen, breast milk, saliva, feces or urine of an infected person or animal, or through contact with objects that have been contaminated by these body fluids (e.g., syringes) of an infected person.

## **Symptoms**

The incubation period for EVD (from exposure to when signs or symptoms appear), ranges from **2 to 21 days** (most commonly 8–10 days).

- Early symptoms include **sudden fever, chills, and muscle aches**.
- Around the fifth day, a **skin rash** can occur. **Nausea, vomiting, chest pain, sore throat, abdominal pain, and diarrhea** may follow.

- Symptoms become increasingly severe and may include **jaundice (yellow skin)**, severe **weight loss**, **mental confusion**, **bleeding inside and outside the body**, **shock**, **multi-organ failure** and **death**. The fatality rate can vary from 40 to 90%.

A fever in a person who has traveled to or lived in an area where EVD is present is likely to be caused by a more common infectious disease. However, it is strongly recommended that such a person should be evaluated by a health care provider to rule out an EVD infection.

## Prevention

The prevention of EVD infection includes measures to avoid contact with blood and body fluids of infected individuals.

***IMPORTANT: Alert the crew of any vehicle dispatched to a patient who is symptomatic of EVD to ensure that necessary infection control precautions and policies are followed.***

***All receiving health care facilities should be notified, in advance, when a suspected case of EVD is to be transported to the facility.***

It should be noted that 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.

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

Clinical criteria, which includes **fever** and additional symptoms such as **severe headache, muscle pain, vomiting, diarrhea, abdominal pain, or unexplained hemorrhage**;

AND

Epidemiologic risk factors within the past **3 weeks (21 days)** before the onset of symptoms like 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 (**West Africa**); or direct handling of bats, rodents, or primates from disease-endemic areas.

The CDC recommends testing for all persons with onset of fever within 21 days of having a high-risk exposure. A high-risk exposure includes any of the following:

- 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.

### **The Emerging Infectious Disease Surveillance Tool (SRI/MERS/Ebola)**

On August 25th, 2014, the latest update of the MPDS infectious diseases surveillance tool, previously known as the Severe Respiratory Infection (SRI) tool was released for use in the ProQA software.

All ProQA users have access to the Emerging Infectious Disease Surveillance Tool (EIDS Tool)—developed and approved by the International Academies of Emergency Dispatch (IAED) Chemical, Biological, Radiological, & Nuclear (CBRN) Committee—which has had an update applied to version 12.1 and 12.2 of the MPDS Protocol. This tool covers recent travel and all likely symptoms of Ebola (the last update was in May when the Middle East Respiratory Syndrome "camel flu" scare was active and travel was a concern for that illness). The EIDS Tool can be accessed at any time, in any active ProQA case.

As with our past position, the EIDS Tool can be utilized by any agency that has approval from their Medical Director. Typically, we recommend the call be processed through Case Entry and Key Questions and a Final Code be generated as per standard practice. At that point, if the patient has symptoms consistent with EVD (as approved by local medical control), and the caller has mentioned epidemiologic/travel risk factors (as approved by local medical control), the EMD should select the EIDS Tool to complete the interrogation. For EVD, there are 6 Chief Complaints (that represent the large majority of flu-like symptoms and unexplained bleeding) where use of the EIDS Tool should be considered: Protocol 1 Abdominal Pain, Protocol 6 Breathing Problems, Protocol 10 Chest Pain, Protocol 18 Headache, Protocol 21 Hemorrhage (MEDICAL), and Protocol 26 Sick Person. Use of the EIDS Tool is strongly recommended for Protocol 18 Headache, Protocol 21 Hemorrhage (MEDICAL), and Protocol 26 Sick Person. The remaining 3 Protocols should be used at the discretion of the system medical director.

The use of Protocol 36 is not yet recommended at this early stage of the disease.

This additional interrogation may extend the total calltaking time for those patients presenting initially with related symptoms and risk factors, but will not impact the time it takes to post a call for dispatch, or notify responders, as long as the EIDS Tool is launched after Final Coding is complete. This additional questioning may identify potential EVD patients and allow for appropriate notification to responders and receiving hospitals etc., and for the modification of local response assignment and/or referral policies and procedures. The use of the EIDS Tool also enables the notification of governmental healthcare organizations on a local, national, and/or international level.

**The IAED website link is: [www.emergencydispatch.org](http://www.emergencydispatch.org)**

References:

1. Center for Disease Control (CDC). "Ebola Hemorrhagic Fever." 2014; Aug 12. <http://www.cdc.gov/vhf/ebola/> (accessed August 12, 2014).
2. European Centre for Disease Prevention and Control. "Epidemiological update: outbreak of Ebola virus disease in West Africa." 2014; Aug 8. [http://www.ecdc.europa.eu/en/press/news/\\_layouts/forms/News\\_DispForm.aspx?List=8db7286c-fe2d-476c-9133-18ff4cb1b568&ID=1042](http://www.ecdc.europa.eu/en/press/news/_layouts/forms/News_DispForm.aspx?List=8db7286c-fe2d-476c-9133-18ff4cb1b568&ID=1042) (accessed August 12, 2014).
3. HSC Public Health Agency. "Ebola virus disease." Health Protection United Kingdom. 2014; Aug 8. <http://www.publichealth.hscni.net/news/ebola-virus-disease> (accessed August 12, 2014).
4. World Health Organization. "WHO Director-General, west African presidents to launch intensified Ebola outbreak response plan." 2014; July 31. <http://www.who.int/mediacentre/news/releases/2014/ebola-outbreak-response-plan/en/> (accessed August 12, 2014).