



# Arkansas Department of Health

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4815 West Markham Street • Little Rock, Arkansas 72205-3867 • Telephone (501) 661-2000

**Governor Mike Beebe**

**Nathaniel Smith, MD, MPH, Director and State Health Officer**

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## MEMORANDUM

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TO: All Emergency Medical Services (EMS)

FROM: Greg Brown, EMS Section Chief

SUBJECT: Ebola Virus Disease (EVD) outbreak in West Africa

DATE: August 8<sup>th</sup>, 2014

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The Arkansas Department of Health (ADH) is providing this guidance in an effort to inform health care facilities and workers about the Ebola Virus Disease (EVD) outbreak in West Africa and the best methods to protect fellow health care workers (HCWs) and patients.

*While EVD poses an extremely low risk to Arkansas and our healthcare system, the frequency of international travel demonstrates that everyone should be prepared to respond to the task of treating potential EVD patients.*

You may be the first person to interact with an exposed traveler from the currently affected countries (Guinea, Sierra Leone, Liberia, or Nigeria).

The most critical step to preventing transmission of EVD is identifying those persons that have travelled from those countries by simply inquiring on first contact if a person presenting for health services has traveled from affected countries in the last 21 days. If the answer is affirmative, guidelines for management are presented below.

As additional information is released from CDC or other sources, the ADH will release further iterations of this document to keep you up to date on EVD.

The ADH will be holding a call **Monday, August 11<sup>th</sup>** from 11 AM – 12 PM for interested parties at **1-888-363-4734; passcode: 1017234.**

### **Background –**

The EVD virus is classified as a viral hemorrhagic fever which produces a severe multi-system syndrome. Characteristically, the overall vascular system is damaged, and the

body's ability to regulate itself is impaired. These symptoms are sometimes accompanied by hemorrhage (bleeding). Typically, 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 multi-organ dysfunction, including hepatic damage, renal failure, and central nervous system involvement, leading to shock and death. There are no approved drugs or vaccines for EVD. The current recommended treatment is supportive therapy (IV fluids, blood transfusions, antibiotics to prevent secondary infections, etc.).

## Highlights -

- As of August 7<sup>th</sup>, 2014 there are approximately **1700 identified cases** and **930 deaths** from West African countries which include **Guinea, Sierra Leone, Liberia, and Nigeria**.
- EVD is spread from person-to-person through direct contact with bodily fluids such as **blood, urine, vomit, feces, sweat, semen, and breast milk** or by exposure to contaminated objects with bodily fluids, such as **needles**.
- EVD can be successfully controlled by following established infection prevention practices for **STANDARD, CONTACT, and DROPLET** precautions.
- EVD infected patients become **infectious** when they develop symptoms most notably **fever**.
- Any hospital or healthcare facility with isolation capabilities can **safely** provide supportive care to an EVD patient.
- While EVD poses an **extremely low risk** to Arkansas and our healthcare system, the frequency of international travel demonstrates that everyone should be **prepared** to respond to the task of treating suspected or confirmed patients.

## Screening for potentially exposed EVD patients-

The most critical step to ensure adequate response to EVD is identifying any potentially infected patient. Below is an example of a screening question that can be integrated into your triage process while this outbreak is active. A map has also been included of the current affected areas.

1. Have you traveled from or spent any time in Guinea, Sierra Leone, Liberia, or Nigeria in the past 21 days?
  - **No** – no further actions
  - **Yes** – proceed to CDC's Interim Guidance for Monitoring and Movement of Persons with Ebola Virus Disease Exposure (<http://www.cdc.gov/vhf/ebola/hcp/monitoring-and-movement-of-persons-with-exposure.html>) for guidance on further actions. A copy has been included with this guidance. Public health authority is the ADH and must be reported immediately. Please feel free to contact

ADH should you need assistance using this guidance. We highly encourage reporting to CDC, as well.

2. **If yes**, were you aware of anyone you were in contact with in the previous 21 days who had EVD? Please explain.
  - This information is vital to classifying the patient's risk of exposure and will be requested by public health authorities.

**Any suspected case of EVD should be reported to the ADH immediately at 501-537-8969 (M-F 8:00 AM – 4:30 PM) or 1-800-554-5738 (After Hours and Weekends) and CDC at 1-770-488-7100.**

## **Guidelines-**

If you identify a patient that may have been potentially exposed to EVD:

Immediately:

- Communicate this information to the receiving facility.
- Once transport has been completed, take the transporting ambulance out of service and do not dispose of any equipment or supplies used. Contact ADH at the number below.
- Wear Personal Protective Equipment (PPE) which includes gloves, gown (fluid resistant or impermeable), eye protection, and a facemask. An N95 respirator is preferred.
- Efforts should be taken to use disposable medical equipment.
- Accurately log all people that had contact with the patient and ensure that PPE is being used appropriately and consistently.
- **Notify the ADH at (501) 537-8969 (M-F 8:00 AM – 4:30 PM) or 1-800-554-5738 (After Hours and Weekends) and CDC at 1-770-488-7100.**

Things to consider and prepare for (additional infection control recommendations can be found at [www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html](http://www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html)) :

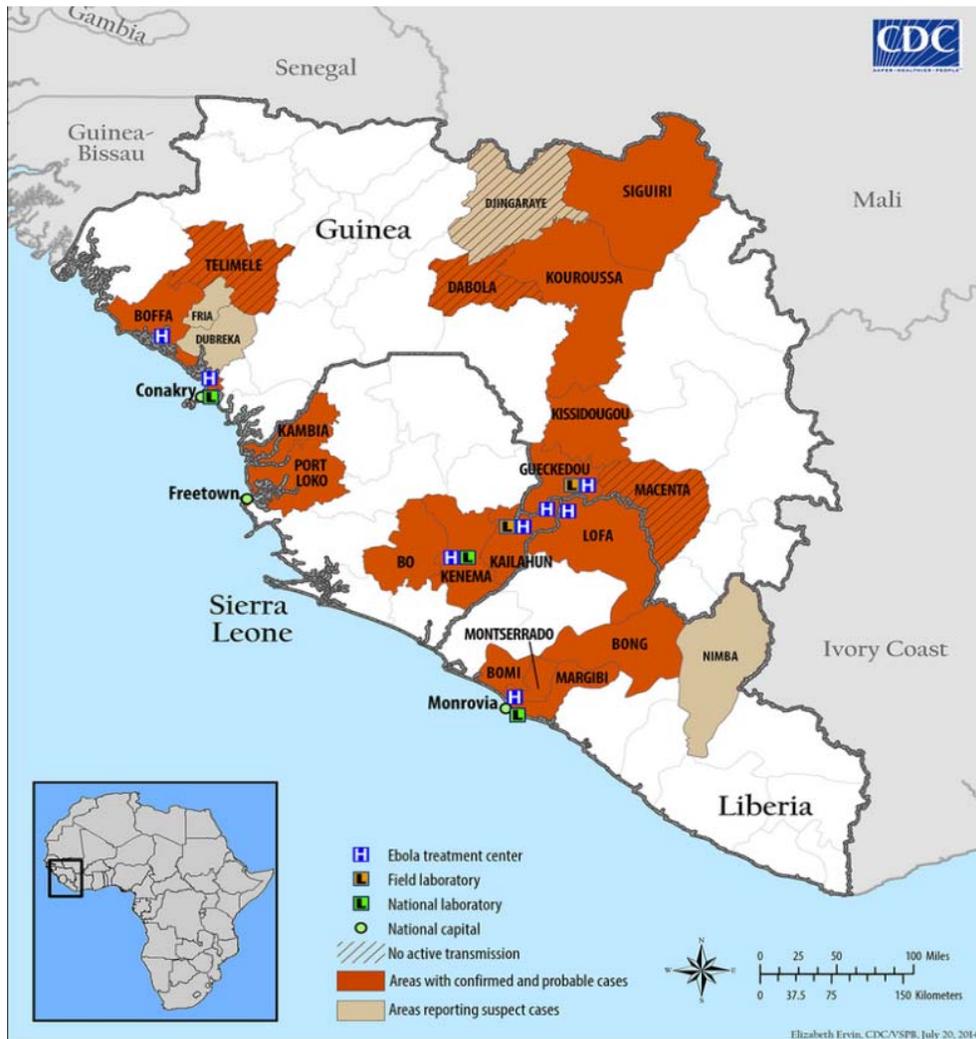
- Make sure adequate PPE is supplied and donned before patient contact and before patient is placed into the ambulance.
- Perform the minimum amount of phlebotomy and diagnostic tests necessary to provide care. This will reduce the amount of potential exposure outside of the ambulance

- Until further recommendations are available from the CDC, ADH recommends that all laboratory samples drawn by EMS should be tracked and accounted for at all times. EMS personnel should be made aware of the highly infectious nature of bodily fluids from that patient so appropriate steps can be taken to protect those workers. CDC has recommended that personnel performing laboratory testing should wear a full face shield or goggles, masks to cover all of the nose and mouth, gloves, fluid resistant or impermeable gowns.
- When cleaning the ambulance EMS providers should wear the same PPE as described earlier to prevent transmission. In the case where large amounts of bodily fluids are present, additional PPE can be added, such as shoe and leg coverings, etc.
- It is critical that all EMS Personnel review how to remove PPE and dispose of it in a secure location within the hospital without self-contamination.
- Usual EPA-registered hospital-grade disinfectants are adequate to clean hard, non-porous surfaces. Additional guidance from CDC is expected regarding laundry. For now ADH recommends bagging and identifying.
- All EMS personnel cleaning the ambulance should be diligent in identifying, separating, and properly disposing of hazardous waste (any items that could be contaminated with blood, urine, sweat, vomit, feces, or other bodily fluids) from the ambulance. Additional guidance from CDC is expected on this topic.
- Feces and urine can be flushed into normal sewer lines.
- EMS Services should develop a plan in the event a HCW has an unprotected exposure to EVD – that includes immediate actions such as: washing the affected skin with soap and water, location of eye-wash stations should there be a body fluid splash, non-punitive sick leave for up to 21 days, documenting and monitoring of fever and other symptoms for 21 days, etc.

## Resources –

- **Additional infection control guidelines for EVD:**  
[www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html](http://www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html).
- **General information about EVD:** [www.cdc.gov/vhf/ebola/about.html](http://www.cdc.gov/vhf/ebola/about.html).
- **Frequently asked questions regarding EVD:**  
<http://www.cdc.gov/vhf/ebola/outbreaks/guinea/qa.html>.
- **General guidelines and in-depth instructions for infection control and isolation including instructions on how to put on and wear personal protective equipment (PPE):**  
[http://www.cdc.gov/hicpac/2007IP/2007ip\\_part2.html#e](http://www.cdc.gov/hicpac/2007IP/2007ip_part2.html#e).

- **Interim Guidance for Specimen Collection, Transport, Testing, and Submission for Patients with Suspected Infection with Ebola Virus Disease:** <http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-specimen-collection-submission-patients-suspected-infection-ebola.html>.



Map of 2014 West African countries with epidemic of EVD

Exposure Level	Clinical Presentation	Public Health Actions
<b>High Risk</b> <ul style="list-style-type: none"> <li>• Percutaneous (e.g., needle stick) or mucous membrane exposure to body fluids of EVD patient</li> <li>• Direct care of an EVD patient or exposure to body fluids without appropriate personal protective equipment (PPE)</li> <li>• Laboratory worker processing body fluids of confirmed EVD patients without appropriate PPE or standard biosafety precautions</li> <li>• Participation in funeral rites which include direct exposure to human remains in the geographic area where outbreak is occurring without appropriate PPE</li> </ul>	Fever <sup>1</sup> or other symptoms <sup>2</sup> without fever	<ul style="list-style-type: none"> <li>• Medical evaluation using infection control precautions<sup>†</sup> for suspected EVD, consultation<sup>6</sup>, and testing if indicated</li> <li>• If transport is clinically appropriate and indicated, air medical transport only (no public or commercial conveyances permitted)</li> <li>• If infection control precautions<sup>†</sup> are determined not to be indicated: conditional release<sup>3</sup> and controlled movement<sup>4</sup> until 21 days after last known exposure</li> </ul>
	Asymptomatic	<ul style="list-style-type: none"> <li>• Conditional release<sup>3</sup> and controlled movement<sup>4</sup> until 21 days after last known exposure</li> </ul>
<b>Low Risk</b> <ul style="list-style-type: none"> <li>• Household member or other casual contact with an EVD patient</li> <li>• Providing patient care or casual contact without high-risk exposure with EVD patients in health care facilities in outbreak-affected countries*</li> </ul>	Fever <sup>1</sup> with or without other symptoms <sup>2</sup>	<ul style="list-style-type: none"> <li>• Medical evaluation using initial infection control precautions<sup>†</sup> for suspected EVD, consultation<sup>6</sup>, and testing if indicated</li> <li>• If transport is clinically appropriate and indicated, air medical transport only (no public or commercial conveyances permitted)</li> <li>• If infection control precautions<sup>†</sup> are determined not to be indicated: conditional release<sup>3</sup> and controlled movement<sup>4</sup> until 21 days after last known exposure</li> </ul>
	Asymptomatic	<ul style="list-style-type: none"> <li>• Conditional release<sup>3</sup> and controlled movement<sup>4</sup> until 21 days after last known exposure</li> </ul>
<b>No Known Exposure</b> <ul style="list-style-type: none"> <li>• In affected country</li> <li>• No low-risk or high-risk exposures</li> </ul>	Fever <sup>1</sup> with other symptoms <sup>2</sup>	<ul style="list-style-type: none"> <li>• Medical evaluation and optional consultation<sup>6</sup> to determine if movement restrictions and infection control precautions are indicated</li> <li>• If movement restrictions and infection control precautions are determined not to be indicated: travel by commercial conveyance allowed; self-monitor<sup>5</sup> until 21 days after leaving country</li> </ul>
	Asymptomatic	<ul style="list-style-type: none"> <li>• No movement restrictions</li> <li>• Travel by commercial conveyance allowed</li> <li>• Self-monitor<sup>5</sup> until 21 days after leaving</li> </ul>

Exposure Level	Clinical Presentation	Public Health Actions
		country

\* Outbreak-affected countries include Guinea, Liberia, Nigeria and Sierra Leone as of August 4, 2014

<sup>1</sup> **Fever:** measured temperature  $\geq 38.6^{\circ}\text{C}$ /  $101.5^{\circ}\text{F}$  or subjective history of fever

<sup>2</sup> **Other symptoms:** includes headache, joint and muscle aches, abdominal pain, weakness, diarrhea, vomiting, stomach pain, lack of appetite, rash, red eyes, hiccups, cough, chest pain, difficulty breathing, difficulty swallowing, bleeding inside and outside of the body. Laboratory abnormalities include thrombocytopenia ( $\leq 150,000 /\mu\text{L}$ ) and elevated transaminases.

<sup>3</sup> **Conditional release:** Monitoring by public health authority; twice-daily self-monitoring for fever; notify public health authority if fever or other symptoms develop

<sup>4</sup> **Controlled movement:** Notification of public health authority; no travel by commercial conveyances (airplane, ship, train, bus, taxi); timely access to appropriate medical care if symptoms develop

<sup>5</sup> **Self-monitor:** Check temperature and monitor for other symptoms

<sup>6</sup> **Consultation:** Evaluation of patient's travel history, symptoms, and clinical signs in conjunction with public health authority

<sup>†</sup> Please see [www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html](http://www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html) for specific recommendations

J. Gary Wheeler, MD  
 Medical Director, Infectious Disease Branch

Dirk Haselow, MD  
 State Epidemiologist