



September 10, 2014

**LACDPH Health Update:  
Update on Ebola Virus Disease (EVD) in West Africa**

*This message is intended for primary care, urgent care, emergency medicine, internal medicine, travel medicine and infectious disease providers. Please distribute as appropriate.*

**Key communication**

- There have been no confirmed cases of Ebola virus disease (EVD) diagnosed in the US.
- The EVD outbreak area has expanded and now includes Port Harcourt, Nigeria and Dakar, Senegal in addition to Guinea, Liberia, Sierra Leone, and Lagos, Nigeria. There is a separate EVD outbreak in the Democratic Republic of Congo (DRC).
- Healthcare providers should obtain a travel history for all persons presenting with fever; persons who have been in an outbreak area during the prior 21 days should be isolated with standard, contact and droplet precautions while further evaluation is done.
- All Persons under Investigation (PUI)\* should be reported immediately to the Acute Communicable Disease Control Program (ACDC) at 213-240-7941 (nights/weekends: 213-974-1234). An ACDC physician will provide consultation and guidance on management and whether Ebola testing is needed.
- The LA County Public Health Laboratory has the capability to test for Ebola using a PCR assay. Testing will be done only after consultation with an ACDC physician.

**Situation**

The EVD epidemic in West Africa has continued to spread. Recent cases in Port Harcourt, Nigeria, and Dakar, Senegal, have led to an expanded definition of the outbreak area to include these cities in addition to Guinea, Liberia, Sierra Leone, and Lagos, Nigeria. A separate Ebola outbreak also is ongoing in a remote area of the Democratic Republic of Congo.

Over 70 suspect cases have been evaluated to date at U.S. hospitals. Fewer than 10 were tested for Ebola and no confirmed cases have been identified. In Los Angeles County (LAC) to date, 3 patients have been assessed: none had identified exposure to a person with Ebola; and all had alternative diagnoses (malaria [2], URI [1]). None required Ebola testing.

While the likelihood of imported EVD cases in the U.S. still is considered low, knowing the right approach to evaluation, reporting, and management of persons with potential EVD is critical to reduce the risk of transmission and to provide optimal care.

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\* A PUI is defined as someone with a positive travel history, plus fever with other compatible signs and/or with confirmed/suspect exposure to a person with EVD or the remains of someone who died from EVD.

## **Actions requested of providers**

- ✓ Ensure that persons with fever who present for care are asked about recent travel to Ebola outbreak areas. As the outbreak will likely continue to spread, periodically check for updates on the CDC Website at: <http://www.cdc.gov/vhf/ebola/outbreaks/guinea/index.html>.
- ✓ Review the updated Assessment and Management of Persons with Potential EVD algorithm (attached). This algorithm and associated tables provide guidance on the assessment, work-up, management, and reporting of suspect EVD cases in LAC. Key actions include:
  - Consider EVD in any patient who presents within 21 days of working or traveling in the epidemic area.
  - Report all PUI immediately to the LAC DPH ACDC Program.
  - Keep PUI in a single room with the door closed; limit entry and maintain a log of people who enter the room; use standard, contact and droplet precautions.
  - Conduct diagnostic laboratory testing, as needed, to establish an alternative diagnosis for a PUI. This can be done safely using precautions designed for pathogens spread in the blood. CDC guidance for safe specimen handling is at: <http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-specimen-collection-submission-patients-suspected-infection-ebola.html>.

## **Reporting potential EVD cases in LAC:**

- Weekdays 8:00 am-5:00 pm call (213) 240-7941
- Non-business hours (before 8:00 am, after 5:00 pm, or weekends) call (213) 974-1234

*Reporting suspect cases in the cities of Long Beach or Pasadena, contact the local health department at the following numbers 24 hours/day:*

- Long Beach HD: (562) 435-6711
- Pasadena HD: ( 626) 744-6043

## **Additional Resources**

- LAC DPH webpage: <http://www.lapublichealth.com/acd/diseases/Ebola.htm>
- Centers for Disease Control and Prevention (CDC) webpages:
  - Information about the epidemic: <http://www.cdc.gov/vhf/ebola/index.html>.
  - Information for healthcare providers: <http://www.cdc.gov/vhf/ebola/hcp/index.html>.
  - Information for laboratories: <http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-specimen-collection-submission-patients-suspected-infection-ebola.html>.

This Health Update was sent by Dr. Laurene Mascola, Chief, Acute Communicable Disease Control Program, Los Angeles County Department of Public Health.

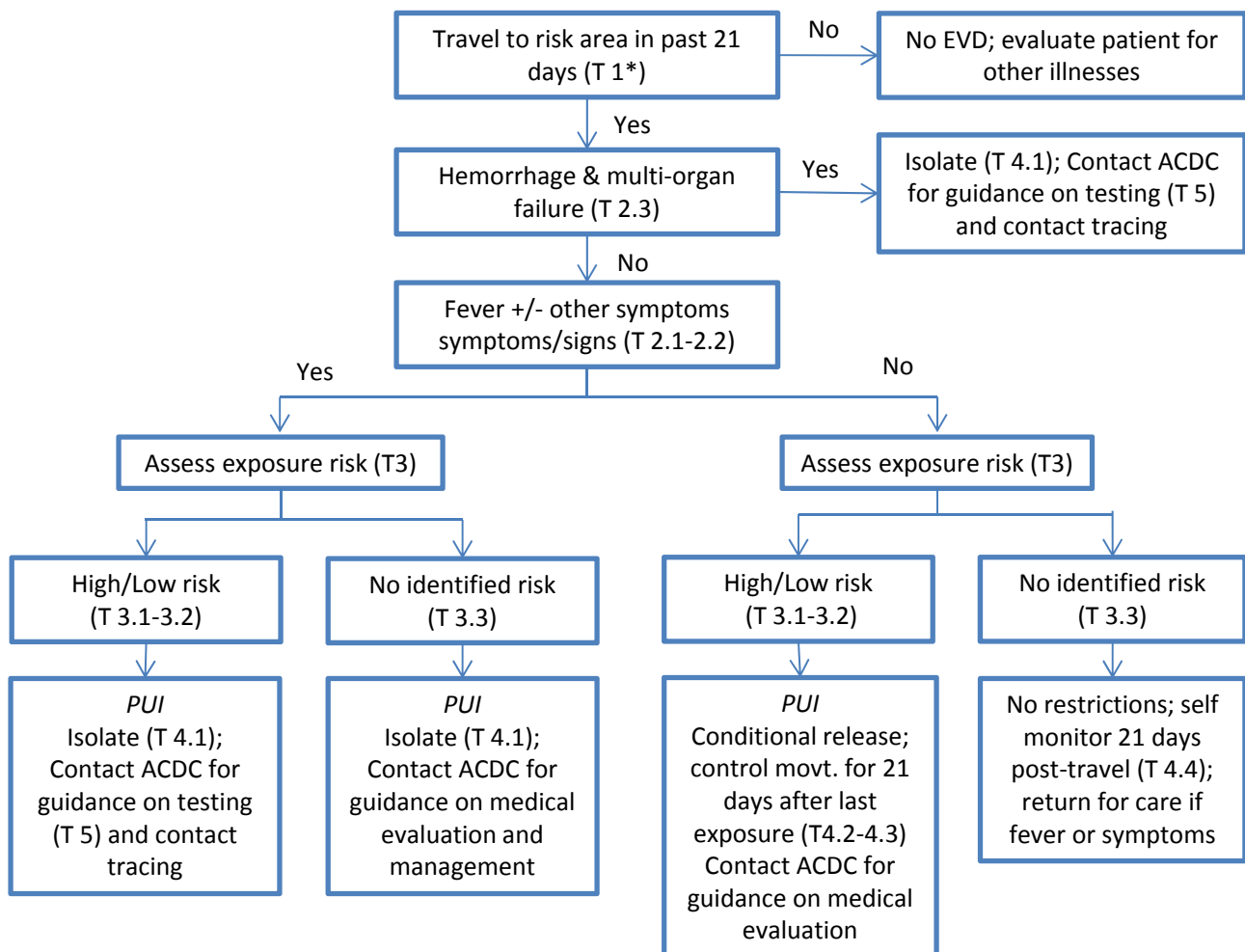
## Evaluation of Persons for Potential Ebola Exposure and Illness LA County (LAC) Acute Communicable Disease Control (ACDC) Program

This algorithm provides guidance for clinicians evaluating a patient for suspect Ebola virus disease (EVD). Evaluation for suspect EVD should be limited to persons who have traveled or worked in the epidemic area during the previous 21 days (see Table 1). Persons who have not been in the epidemic area during this period are not at risk for EVD and should be evaluated for other causes of illness. Updated information will be provided on the LAC Department of Public Health (DPH) website (<http://www.lapublichealth.com/acd/diseases/Ebola.htm>) and on the CDC website (<http://www.cdc.gov/vhf/ebola/hcp/index.html>) should the epidemic area change.

Persons with a positive travel history should be evaluated for fever and other symptoms (Table 2), and for exposure to EVD patients (Table 3). During evaluation, keep patients in a private room with the door closed; limit entry and maintain a log of people who enter the room; use standard, contact and droplet precautions; and perform only essential diagnostic and laboratory testing. Persons Under Investigation (PUI) are defined as those with a positive travel history plus fever with other compatible symptoms and/or with confirmed/suspect exposure to a person with EVD or remains of someone who died from EVD. **All PUI should be reported immediately to ACDC (weekdays: 213-240-7941; nights/weekends: 213-974-1234).** Persons with a positive travel history, no identified risk factors and no symptoms should self-monitor for fever or other symptoms for 21 days after leaving the outbreak area and return for care as needed. Reporting is not required for those with no identified risk and who are asymptomatic.

Laboratory testing for suspect EVD using PCR is available at the LAC Public Health Laboratory (PHL). Consultation with ACDC is required for testing at LAC PHL or at CDC; assistance in specimen handling will be provided by the LAC PHL.

### Algorithm for assessment and management of persons with suspect EVD



\*Refer to designated table (T) and column or row as indicated

**Tables 1-5: Assessment and management of persons with potential EVD**

<b>Table 1. EBOLA RISK AREAS</b>
<b>Current outbreak (as of 9/5/14):</b> Guinea; Liberia; Sierra Leone; Lagos and Port Harcourt, Nigeria; Dakar, Senegal. A second outbreak (different virus strain) also is ongoing in the Democratic Republic of Congo

<b>Table 2. SYMPTOMS AND SIGNS</b>
<b>1 - Fever:</b> T ≥ 38.6 C / 101.5 F or subjective history of fever
<b>2 - Other symptoms:</b> 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 internally or externally
<b>3 - Hemorrhage and multi-organ failure:</b> Bleeding from GI tract or other sites, shock, DIC, renal failure, hemodynamic instability, or other symptoms/signs of severe illness

<b>Table 3. EXPOSURE RISK</b>		
<b>1 - High risk</b>	<b>2 - Low risk</b>	<b>3 - No identified 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>	<ul style="list-style-type: none"> <li>• Household member or other close contact (within 3 feet) with an EVD patient</li> <li>• Other close contact with an EVD patient in a healthcare facility or community setting</li> </ul>	<ul style="list-style-type: none"> <li>• Having been in a country in which an EVD outbreak occurred within the past 21 days and having had no high or low risk exposures</li> </ul>

<b>Table 4. ISOLATION AND MOVEMENT RESTRICTIONS</b>
<b>1 - Isolation:</b> <ul style="list-style-type: none"> <li>• Single patient room with the door closed; limit entry of personnel to room; keep a log of all persons who enter the room</li> <li>• Standard, contact and droplet precautions</li> <li>• Limit phlebotomy and only perform essential diagnostic and clinical laboratory tests.</li> <li>• PPE – Gloves, gown, eye protection (goggles or face shield); facemask; additional PPE if copious blood or other fluid in the environment would include double gloving, disposable shoe covering, leg covering. Discard PPE on leaving room taking care to avoid contamination when removing; hand hygiene immediately after removing PPE</li> <li>• Aerosol generating procedures – Limit procedures as possible. If procedures required, conduct in a private room and ideally an Airborne Infection Isolation Room (AIIR). Personnel should use respiratory protection that is at least as protective as a NIOSH certified fit-tested N95 filtering facepiece respirator or higher (e.g., powered air purifying respiratory or elastomeric respirator)</li> </ul>
<b>2 - Conditional release:</b> Monitoring by public health authority; twice-daily self-monitoring for fever; notify public health authority if fever or other symptoms develop
<b>3 - Controlled movement:</b> Notification of public health authority; no travel by commercial conveyances (airplane, ship, train, bus, taxi); timely access to appropriate medical care if symptoms develop
<b>4 - Self-monitor:</b> Check temperature and monitor for other symptoms

<b>Table 5. RECOMMENDATIONS FOR SPECIMEN COLLECTION, HANDLING AND TRANSPORTATION</b>
Contact the LAC DPH Laboratory Bioterrorism Response Unit (562-658-1360) for consultation on laboratory testing for Ebola. Procedures for the collection, handling, transportation, and testing of specimens for EVD issued by CDC is posted at: <a href="http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-specimen-collection-submission-patients-suspected-infection-ebola.html">http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-specimen-collection-submission-patients-suspected-infection-ebola.html</a> .