

Algorithm to Assist with Testing and Monitoring of Patients with Suspected Ebola Virus Disease (EVD) in Dallas County

(Updated 8/27/14 – Please note this interim guidance is subject to change.)

EPIDEMIOLOGICAL RISK FACTORS

Within 21 days before symptom onset: Residence in (or travel to) an area where EVD transmission is active (Guinea; Sierra Leone; Liberia; Lagos, Nigeria; or Democratic Republic of Congo)^{1,2}
[If YES, use Screening Questionnaire on page 2 to determine exposure classification]

NO

EVD NOT SUSPECTED – DO NOT TEST

ANY HIGH-RISK EXPOSURE^{1,2}

- Percutaneous or mucous membrane exposure or direct skin contact with body fluids of an EVD patient without appropriate personal protective equipment (PPE) **OR**
- Processing body fluids of confirmed EVD cases without appropriate PPE or standard biosafety precautions **OR**
- Contact with a dead body without appropriate PPE in a country where an EVD outbreak is occurring

ANY LOW-RISK EXPOSURE^{1,2}

- Patient care or other close contact (without high-risk exposure) with EVD patients in healthcare facilities or community settings of outbreak-affected countries **OR**
- Household contact¹ with an EVD patient **OR**
- Direct handling of bats, rodents, or primates or raw bushmeat from disease-endemic areas

NO KNOWN EXPOSURE

- Persons who had residence in (or travel to) an EVD outbreak-affected area in the last 21 days **WITHOUT** high- or low-risk exposures

Immediately report/consult DCHHS if these exposures are identified, regardless of symptoms: 214-819-2004 or 877-605-2660.

CLINICAL CRITERIA¹⁻³

- **NO FEVER AND**
- Compatible symptoms: severe headache, muscle pain, vomiting, diarrhea, abdominal pain, **or** unexplained hemorrhage **AND**
- Unknown or abnormal blood work including: thrombocytopenia <150,000 cells/μL **AND/OR** elevated hepatic transaminases

- **FEVER ≥101.5°F (38.6°C) WITH OR WITHOUT**
- Compatible symptoms: severe headache, muscle pain, vomiting, diarrhea, abdominal pain, **or** unexplained hemorrhage **AND/OR**
- Unknown or abnormal blood work including: thrombocytopenia <150,000 cells/μL **AND/OR** elevated hepatic transaminases

- **FEVER ≥101.5°F (38.6°C) AND**
- Compatible symptoms: severe headache, muscle pain, vomiting, diarrhea, abdominal pain, **or** unexplained hemorrhage **AND**
- Unknown or abnormal blood work including: thrombocytopenia <150,000 cells/μL **AND/OR** elevated hepatic transaminases
- **AND** no alternate diagnosis

YES

YES

NO

YES

NO

EVALUATION RECOMMENDATIONS

EVD SUSPECTED – TESTING INDICATED

Immediately report/consult DCHHS at 214-819-2004 or 877-605-2660.
Ensure infection control measures implemented, including⁴:

- Standard, contact & droplet precautions, including gloves, fluid-resistant gowns, eye protection, face mask; additional PPE may be required
- Single patient room with private bathroom, door closed; no carpet, upholstered furniture, or cloth curtains; restrict visitors
- Avoid aerosol-generating procedures; limit use of needles and sharps
- Implement environmental infection control measures⁵

Include malaria diagnostics in initial testing as it is the most common cause of febrile illness in persons with travel to affected countries
Do not use pneumatic tube system for transport of any specimens; DCHHS will arrange specimen transport and testing for EVD⁶

EVD CURRENTLY UNLIKELY – TESTING NOT INDICATED²

If not inpatient, advise patient to:

- Self-monitor twice daily for fever and other symptoms for 21 days from last exposure
- Seek medical evaluation at first sign of illness

ALL high- or low-risk exposures: report/consult DCHHS about possible need for conditional release and movement restrictions, even if asymptomatic⁷

References:

1. CDC. [Updated Case Definition for EVD](#) (8/22/14)
2. CDC. [Health Advisory to Clinicians: Guidelines for Evaluation of US Patients Suspected of Having Ebola Virus Disease](#) (8/1/14, updated 8/8/14)
3. CDC. [EVD Information for Clinicians in U.S. Healthcare Settings](#). (8/10/14)
4. CDC. [Infection and Control Recommendations for Hospitalized Patients with Known or Suspected Ebola Hemorrhagic Fever in U.S. Hospitals](#) (8/19/14)
5. CDC. [Interim Guidance for Environmental Infection Control in Hospitals for Ebola virus](#) (8/19/14)
6. CDC. [Interim Guidance for Specimen Collection, Transport, Testing, and Submission for Patients with Suspected Infection with EVD](#) (8/26/14)
7. CDC. [Interim Guidance for Monitoring and Movement of Persons with Ebola Virus Disease Exposure](#) (8/22/14)



Ebola Virus Disease (EVD): Screening Questionnaire

(Updated 8/27/14 – Please see page 1 testing algorithm)

N.B.: Early recognition of EVD is critical for infection control. Any patient with suspected EVD should be isolated until the diagnosis is ruled-out. A thorough assessment may not be possible at the time of initial patient encounter, if the patient does not recall or feels uncomfortable discussing possible exposures. As exposure questions are readdressed during subsequent interviews, additional details of exposures should be discussed with health department.

1. Has the patient been in an EVD-affected area within 21 days before onset of symptoms (currently Guinea, Sierra Leone, Liberia, Democratic Republic of the Congo, and Lagos, Nigeria)?

If the answer to **Question 1** is **YES**, go to **Question 2**.

If the answer to **Question 1** is **NO**, this patient is not at risk for EVD. Evaluate the patient as you would normally.

2. Has the patient done any of the following in the 21 days before onset of symptoms:

- Had direct contact with known or suspected EVD patients?
- Lived with anyone known or suspected to have EVD?
- Provided healthcare for any patients known or suspected to have EVD?
- Been in a hospital which is treating EVD patients (as a patient, visitor or staff)?
- Worked in a lab which handles specimens from EVD patients?
- Handled raw bushmeat?
- Participated in a funeral with handling of the body of someone who has died of EVD or unknown causes?
- Been exposed to any bats, rodents, or primates in an EVD-affected area?

If any of the answers to **Question 2** are **YES**, go to **Question 3**.

If all of the answers to **Question 2** are **NO**, skip **Question 3** and go to **Question 4**.

3. Does the patient have ANY of the following symptoms: fever (subjective OR $\geq 101.5^{\circ}\text{F}$), muscle pain, stomach pain, diarrhea or vomiting, headache, or unexplained bleeding or bruising?

If the answer to **Question 3** is **YES**:

- Immediately place the patient in a private room with contact and droplet precautions (if not already in one) while clinical evaluation is in progress and until cleared by the hospital infection preventionist.⁴
- Notify your hospital infection preventionist and DCHHS immediately (214-819-2004 or 877-605-2660).

If the answer to **Question 3** is **NO**:

- EVD is unlikely for this patient at this time. Continue with your normal clinical evaluation.
- Notify DCHHS immediately (214-819-2004 or 877-605-2660).
- At discharge, advise the patient to take his or her temperature twice daily for 21 days from the time they left the affected area and to immediately seek medical attention if any fever or other symptoms develop. Tell the patient to notify the provider about exposure history and symptoms prior to arrival.

4. Does the patient have a subjective fever or documented fever ($\geq 101.5^{\circ}\text{F}$)? [for patients who have traveled to an affected area but report no known exposure to EVD]

If the answer to **Question 4** is **YES**:

- Immediately place the patient in a private room with contact and droplet precautions (if not already in one) while clinical evaluation is in progress and until cleared by the hospital infection preventionist.⁴
- Notify your hospital infection preventionist and DCHHS immediately (214-819-2004 or 877-605-2660).

If the answer to **Question 4** is **NO**:

- EVD is unlikely for this patient at this time. Continue with your normal clinical evaluation.
- At discharge, advise the patient to take his or her temperature twice daily for 21 days from the time they left the affected area and to immediately seek medical attention if any fever or other symptoms develop. Tell the patient to notify the provider about exposure history and symptoms prior to arrival.

