Ebola

14 October, 2014
National Case Definition: Ebola Virus Disease (EVD)

For surveillance purposes, a person with EVD-compatible symptoms is defined as an individual presenting with fever of ≥ 38.6 degrees Celsius AND at least one of the following additional symptoms/signs:

- malaise
- myalgia
- severe headache
- conjunctival injection
- pharyngitis
- abdominal pain
- vomiting
- diarrhea that can be bloody
- bleeding not related to injury (e.g., petechiae, ecchymosis, epistaxis)
- unexplained hemorrhage
- erythematous maculopapular rash on the trunk

Person Under investigation (PUI)

A person with EVD-compatible symptoms (as defined above) not attributed to another medical condition AND at least one of the following epidemiologic risk factors within the 21 days before the onset of symptoms:

- Residence in or travel to an area where EVD transmission is active

- Healthcare worker (HCW) wearing personal protective equipment (PPE) and adhering to appropriate infection prevention and control precautions with no safety breaches, who directly or indirectly cared for a probable or confirmed case of EVD (e.g. direct patient care or contact with environment or fomites of a case)

- Other patient or visitor without high risk exposures, as defined below, who spent time in a healthcare facility where probable or confirmed cases of EVD are being treated

- Household member of a probable or confirmed case of EVD without high-risk exposures, as defined below

- Laboratory worker processing body fluids of probable or confirmed cases of EVD with appropriate PPE and standard biosafety precautions and no safety breaches

- Direct exposure to human remains (e.g. through participation in funeral or burial rites) in a geographic area where the outbreak is occurring with appropriate PPE and no safety breaches

- Direct unprotected contact with bats or primates from EVD-affected country

Probable Case

MSF Staff Members Lead a Young Patient with Suspected Ebola into the Case-Management Center.

Ebolavirus

Structure

ssRNA
Nucleocapsid
Polymerase
Viral membrane
Glycoprotein spikes
Matrix

20 nm

Transmission Chains in the Outbreak of Ebola Virus Disease in Guinea.

Map of Guinea Showing Initial Locations of the Outbreak of Ebola Virus Disease.

Ebola Virus Cases and Deaths in West Africa (Guinea, Liberia, Nigeria, and Sierra Leone), as of August 11, 2014 (Panel A), and Over Time (Panel B).

Districts Affected by Ebola Virus Disease in Three Countries in Africa.

On a basic level, the Ebola virus is covered in glycoprotein that locks onto specific parts of a host cell. The principle of the ZMapp three-antibody cocktail is to provide passive immunity by injecting ready-made antibodies raised in the laboratory to latch onto specific parts of an infectious agent, allowing the body to mount an immediate immune response.
Dr. Brantly
Nurse Nina Pham
Structures of Ebola Vaccine Candidates rVSV (Panel A) and cAd3 (Panel B).

PPE Use in Healthcare Settings: How to Safely Don, Use, and Remove PPE