



International Labour Office - Geneva



# Ebola Virus Disease: Occupational Safety and Health

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*Joint WHO/ILO Briefing Note for Workers and Employers*

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This briefing note is based on the existing WHO and ILO guides and recommendations for Ebola Virus Disease at the time of the publication. It will be updated as new information and recommendations become available.

## **Ebola Virus Disease**

- Ebola Virus Disease (EVD), formerly known as Ebola Haemorrhagic Fever, is a severe illness in humans. It can be fatal without proper treatment and care. EVD outbreaks occur primarily in tropical countries in Central and West Africa.
- Sudden onset of fever, intense weakness, muscle pain, headache and sore throat are typical signs and symptoms. This is followed by vomiting, diarrhoea, rash, impaired kidney and liver function, and in some cases, both internal and external bleeding.
- The incubation period, or the time interval from infection to onset of symptoms, is from 2 to 21 days. The patients become contagious once they begin to show symptoms. They are not contagious during the incubation period. EVD infections can only be confirmed through laboratory testing.
- Other diseases can have similar symptoms, such as malaria, typhoid fever, shigellosis, cholera, leptospirosis, plague, rickettsiosis, relapsing fever, meningitis, hepatitis and other viral haemorrhagic fevers.

## **Ways of transmission**

- The origin of the virus is unknown but fruit bats are considered the likely natural reservoir. It is transmitted to people from dead or alive wild animals and can spread in the human population through human-to-human transmission.

- People become infected through direct contact (through broken skin or mucous membranes such as lips, nostrils, mouth, eyes or genitals) with the blood, secretions, or other body fluids of a sick person, a person who has died from the disease or infected animals.
- People can also become infected from indirect contact by having broken skin or mucous membranes come in contact with materials or utensils contaminated with blood, secretions, or other body fluids from sick people and bodies (for example used gloves, masks, goggles, other medical waste, soiled clothes, bed linen, used needles and medical instruments).
- Men who have recovered from the illness can still spread the virus to their partner through their semen for up to 7 weeks after recovery.

### **Occupational health and safety risks**

- Health-care workers are at risk of infection when caring for EVD patients if they do not wear adequate personal protection equipment (PPE) and if they do not follow strictly the recommended measures for infection prevention and control.
- Other risks for workers involved in health care and epidemic response to EVD include psychological distress, stigma, violence, long working hours, heat stress and dehydration from using heavy PPE and ergonomic problems from handling bodies and loads. These require specific measures for psychosocial support, security and work organization.
- Care for individuals who have symptoms of EVD requires treatment in a hospital or treatment centre staffed by doctors and nurses properly qualified and equipped for this purpose. Care in other settings or at home represents a high risk of Ebola virus infection for family members, home caregivers, traditional healers, and village midwives who have contact with the sick person and his/her environment.
- Importantly, transmission occurs during funerals and burial rituals that involve direct contact with the body and body fluids of a person who has died of EVD.
- Animal-to-human transmission through contact with animals infected with Ebola virus is important at the beginning of the outbreak. It may occur during hunting, trading of bush meat, and during forestry and wildlife work.
- The risk of business travellers becoming infected with Ebola virus during a visit to the affected areas and developing disease after returning is extremely low, even if the visit included travel to the local areas from which primary cases have been reported. Transmission requires direct contact with blood, secretions, or other body fluids of infected living or dead persons or animals, all unlikely exposures for the average traveller.
- Fellow travellers, crew and workers at airports, ports or ground crossings can be at risk if a person who has been exposed to Ebola virus and developed symptoms

boards a commercial flight, or other mode of transport, without informing the transport company of his or her status.

## Preventing EVD in the workplace

- In all situations basic infection prevention and control practices can prevent the infection.
- Health workers at all levels of the health system – hospitals, clinics, laboratories, health posts, laundries, transport – should be briefed on the nature of the disease and how it is transmitted, and strictly follow recommended infection control precautions.
- All staff handling suspected or confirmed cases of EVD or contaminated specimens and materials should use special personal protective equipment for working with biohazards, and apply hand hygiene measures according to WHO recommendations. If the recommended level of precaution is implemented, transmission of disease should be prevented.
- Since other infectious diseases may have symptoms compatible with EVD, it is important to apply standard measures of precaution in all health care facilities – such as prevention of needle sticks and sharps injuries, safe phlebotomy, hand hygiene, rational use of personal protective equipment, regular and rigorous environmental cleaning, decontamination of surfaces and equipment, and safe management of soiled linen and healthcare waste.
- All workers with symptoms of EVD should seek rapid medical attention. WHO does not advise families or communities to care for individuals who may present with symptoms of Ebola virus disease in their homes.
- Handling of bodies and body fluids of a person who has died of EVD requires trained burial teams, who are equipped to properly bury the dead using heavy duty protective equipment while respecting local customs.
- In areas where Ebola virus is reported in animals, workers handling animals should wear gloves and other appropriate personal protective equipment and clothing.
- Returning business travellers from the affected areas, who did not apply the necessary measures for infection prevention and control, should be alerted if they develop symptoms (such as fever, weakness, muscle pain, headache, sore throat, vomiting, diarrhoea, rash, or bleeding) within 21 days after return. If they suspect that they have been exposed to Ebola virus (e.g. volunteers who worked in healthcare settings) in the affected areas, they should seek rapid medical attention and mention their recent travel to the attending physician.
- Affected countries are requested to conduct exit medical screening of all persons at international airports, seaports and major land crossings, for unexplained febrile illness consistent with potential Ebola infection. Any person with an illness consistent with EVD should not be allowed to travel abroad, unless this travel is part of an

appropriate medical evacuation. In the unlikely case that such a person becomes sick on board he or she has to be isolated and special measures should be taken according to the international recommendations to protect the health of staff and fellow travellers.

## **Rights, duties and responsibilities of workers and employers**

- Employers, workers, and their organizations should collaborate with health authorities in the prevention and control of the EVD outbreak.
- The employers have overall responsibility to ensure that all practicable preventive and protective measures are taken to minimize occupational risks.
- The employers are responsible for providing adequate information, comprehensive instruction and necessary training on occupational safety and health (OSH); consult workers on OSH aspects related with their work, and notify the labour inspectorate of cases of occupational diseases.
- Health-care and other workers are responsible for following established OSH procedures, avoid exposing others to health and safety risks and participate in OSH training provided by the employer.
- Employers are required to provide adequate protective clothing and protective equipment to health-care or other staff caring for suspected or confirmed Ebola patients or handling animals.
- OSH measures shall not involve any expenditure for the workers.
- Workers are required to report forthwith to their immediate supervisor any situation which they have reasonable justification to believe presents an imminent and serious danger to their life or health; until the employer has taken remedial action, if necessary, the employer cannot require workers to return to a work situation where there is continuing imminent and serious danger to life or health.
- Health care and other workers have the right to remove themselves from a work situation that they have reasonable justification to believe presents an imminent and serious danger to their life or health. When a staff member exercises this right, he or she shall be protected from any undue consequences.
- EVD and post-traumatic stress disorder, if contracted through occupational exposure, are considered occupational diseases. Workers who suffer from them as a result of work activities have the right to compensation, rehabilitation and curative services.
- Co-operation between management and workers and/or their representatives within the undertaking shall be an essential element of workplace-related prevention measures (such as through workers' safety delegates, safety and health committees, and collaboration in providing information and training).

The ILO and the WHO are working together on developing information materials, technical guides and practical recommendations for addressing all occupational health and safety risks in the preparedness and response to the epidemic of EVD.

## Resources for further information

### General

- WHO. Global Alert and Response. Ebola Virus Disease – web portal <http://www.who.int/csr/disease/ebola/en/>
- WHO. Ebola and Marburg virus disease epidemics: preparedness, alert, control, and evaluation. Interim manual version 1.2: [http://www.who.int/csr/disease/ebola/manual\\_EVD/en/](http://www.who.int/csr/disease/ebola/manual_EVD/en/)
- WHO. Occupational Health – web portal: [http://www.who.int/occupational\\_health/en/](http://www.who.int/occupational_health/en/)
- ILO Occupational Safety and Health web portal: <http://www.ilo.org/safework/lang--en/index.htm#a1>

### Health Care Settings

- WHO Interim Infection Prevention and Control Guidance for Care of Patients Suspected or Confirmed Filovirus Haemorrhagic Fever in Health-Care Settings, with Focus on Ebola: <http://www.who.int/csr/resources/who-ipc-guidance-ebolafinal-09082014.pdf?ua=1>
- WHO. Needlestick Injuries: [http://www.who.int/occupational\\_health/topics/needinjuries/en/](http://www.who.int/occupational_health/topics/needinjuries/en/)
- ILO Health Services Sector: <http://www.ilo.org/global/industries-and-sectors/health-services/lang--en/index.htm>
- ILO/WHO HealthWISE - Work Improvement in Health Services - Action Manual: [http://www.ilo.org/sector/Resources/training-materials/WCMS\\_237276/lang--en/index.htm](http://www.ilo.org/sector/Resources/training-materials/WCMS_237276/lang--en/index.htm)

### Travel and Transport Settings

- WHO. Travel and transport risk assessment: Recommendations for public health authorities and transport sector: <http://www.who.int/ith/updates/20140421/en/>
- IATA guidelines: <http://www.iata.org/whatwedo/safety/health/Documents/health-guidelines-cabin-crew-2011.pdf>