

## Introduction

This guide provides guidance and background information for the fire service in the event of handling ebola (suspected) patients.

### 1 What is ebola?

The ebola virus, which originates in West Africa, causes a rare but very serious infectious disease. The symptoms are: high fever, headache, muscle aches, vomiting, diarrhea and hemorrhages in the body. These symptoms occur after infection with the ebola virus between 2 and 21 days (with an average 7 days). As long as people do not have symptoms, they are not infectious to their environment.

### 2 How is infection possible?

The disease is only transmitted through direct physical contact with a victim or the bodily fluids of a victim (blood, saliva, urine, sweat, and the like).

There is also a possibility for transmission by eating or slaughtering sick wild animals (so called bushmeat). The disease is not transported through the air. Ebola is only contagious when somebody is sick or dead from ebola. Once infected, there is a high risk of death (40-90%).

### 3 Is there a treatment?

There is no vaccine or cure for ebola available at this time. Treatment consists mainly of controlling the complications. Ebola creates such severe symptoms that people always need (medical) care, especially at this time they are the most infectious.

### 4 Containment

An ebola outbreak is contained by recognizing patients quickly and isolating them so that no new infections can occur. People who have been in contact with a patient (without protection) are monitored for three weeks to see if they develop symptoms. In that case, they will also be directly admitted to the hospital, where they are separated from other patients. First aid workers transporting or treating patients have to wear protective clothing and follow strict rules to avoid infection and spreading of ebola.

### 5 Protection of first responders

There is a national guideline for ambulance services for the transport of highly infectious patients. This guideline includes detailed information such as personal protection of ambulance staff. This information may also be used by the fire brigade.

It is important not to touch the patient unless special protective equipment is worn. The disease can, after all, be spread through direct contact with the patient. If contact with a patient is needed, the fire brigade personnel can use disposable suits with full face protection, rubber boots and gloves. It is also safe to use their "standard" chemical- or gastight suits.



## 6 When is it possible that fire brigade personnel come in contact with a potential ebola infected patient?

If the ebola disease comes to your country it cannot be excluded that firefighters may come in contact with ebola (suspected) patients. For example when assisting ambulance or medical services.

Immediately decontaminate the firefighter after intervention and remove the gear, medical staff can give advice in this case. During the following three weeks the firefighter will be monitored closely.

## 7 Disinfection

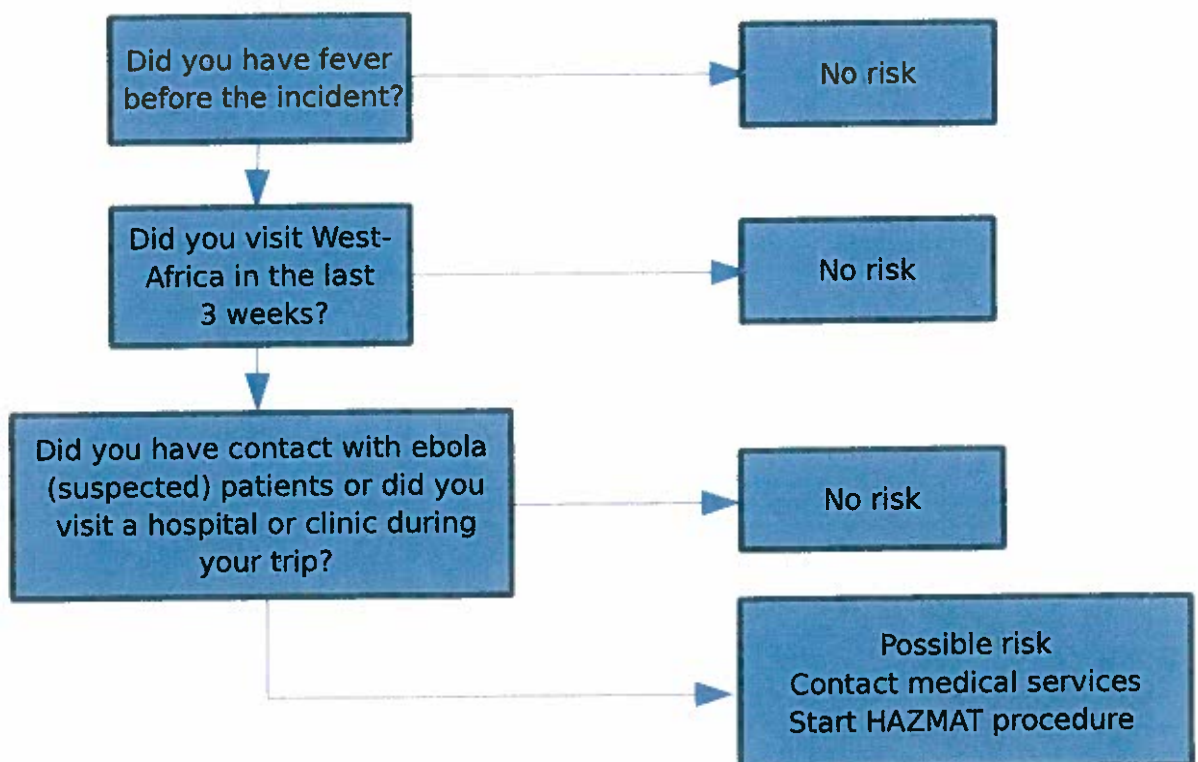
Disinfect small surfaces with 70% alcohol or more, and large surfaces with a chlorine solution with 0,5% active chlorine<sup>1</sup>. Make a solution just before use.

Provide sufficient contact time for the chlorine solution: Keep all surfaces and materials moist for at least 10 minutes. Then rinse with water and dry.

## 8 How to dispose (de)contaminated materials?

Contaminated waste need to be proceeded as pathogen waste. Follow national standards for disposal of the pathogen waste.

## 9 Quick risk assessment



<sup>1</sup>Disinfection of reusable supplies and equipment, WHO.  
<http://www.who.int/csr/disease/ebola/en/>