ECDC TECHNICAL REPORT

Public health management of persons having had contact with Ebola virus disease cases in the EU

7 November 2014

Background

The unprecedented magnitude and geographical extent of the Ebola Viral Disease (EVD) outbreak in West Africa has overwhelmed the local response capacity, posing an extreme challenge for outbreak containment.

As long as the outbreak in West Africa continues, it can be expected that a person who has travelled from an Ebola-affected area might develop EVD after arriving in a non-affected country, for example in the EU. On 30 September 2014, CDC confirmed the first case[1] of Ebola diagnosed in the United States in a person who had travelled from Liberia.

Certain cases from the affected areas are currently being medically evacuated to Europe and the USA. Furthermore, as of 7 November 2014, three healthcare workers have been infected outside the affected countries after caring for EVD cases: one in Spain and two in the USA.

Decreasing the risk of Ebola virus transmission is dependent on early detection and isolation of cases, and the early detection and isolation of new EVD cases among their contacts, through contact tracing and monitoring. There is a risk of transmission in the period between the onset of the first symptoms, the recognition of the possibility of EVD by healthcare professionals and the subsequent isolation of the patient.

Scope of this document

This document aims to provide guidance to EU/EEA public health authorities for the management of those having had contact with EVD cases. Implementation may be modified in accordance with the public health assessment carried out by the public health officer interviewing the contacts. This document was presented to the Health Security Committee and discussed at a teleconference on 7 November 2014. The Health Security Committee noted the contents of the document.

Target audience

Public health professionals and healthcare practitioners in EU/EEA Member States.

[1] http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/united-states-imported-case.html

Suggested citation: European Centre for Disease Prevention and Control. Public health management of persons having had contact with Ebola virus disease cases in the EU, 7 November 2014. Stockholm: ECDC; 2014.

Purpose of contact management

In light of the severity of EVD, a prompt public health response to identify and manage contacts of confirmed and probable cases is essential.

The purpose of managing EVD case contacts is:

- to identify symptomatic contacts as early as possible for isolation and treatment; and
- to facilitate prompt laboratory diagnostic testing.

Definition of contact persons

A contact person of an EVD case is a person not currently presenting symptoms, who has or may have been in contact with an EVD case, bodily fluids from a case, or a soiled environment. The associated risk of infection depends on the level of exposure which will, in turn, determine the type of monitoring.

1. Definition of contact persons with low-risk exposure:

- Casual or physical contact with a feverish but ambulant and self-caring EVD case (e.g. sharing a seating area or public transportation, including airplane transport; receptionist tasks; etc.)
- Close, face-to-face or physical contact with a case (not coughing or vomiting).
- Household, classroom or office contact.

2. Definition of contact persons with high-risk exposure[2]:

- Close face-to-face contact (e.g. within one metre) without appropriate personal protective equipment (including eye protection) with a probable or confirmed case who is coughing, vomiting, bleeding, or has diarrhoea.
- Direct contact with bodily fluids or any materials soiled by bodily fluids from a probable or confirmed case.
- Percutaneous injury (e.g. with a needle) or mucosal exposure to bodily fluids, tissues or laboratory specimens of a probable or confirmed case.
- Participation in funeral rites having direct contact with human remains (including bodily fluids) of a case in or from an area experiencing community transmission without appropriate personal protective equipment.
- Having had unprotected sexual contact with a case within three months of the case recovering from EVD.
- Having had direct contact with bushmeat, bats or primates, living or dead, from affected areas.

3. Healthcare workers with occupational exposure

Occupational exposure is defined here as any exposure of healthcare workers, including laboratory workers, involved in caring for a confirmed EVD patient, even when using appropriate personal protective equipment. Contact with EVD patients using appropriate personal protective equipment is considered to be low-risk exposure. However, given their occupational nature (repeated over time), such exposures require specific monitoring.

Healthcare workers may need to be monitored for occupational exposure in the EU in two situations:

- **While caring for Ebola patients in EU/EEA hospitals**
  Healthcare workers should be registered and monitored as part of the occupational health procedures/routines in their country of practice. This will usually involve registration, active monitoring of symptoms and a prompt investigation in the event of any symptoms possibly related to EVD.
- **Upon returning from affected areas where they have been involved in caring for patients with EVD**
  ECDC has developed a technical document on the public health management of healthcare workers returning from Ebola-affected areas (published on 10 November 2014).

[2] Adapted from Ebola virus disease case definition for reporting in EU. Available from: http://www.ecdc.europa.eu/en/healthtopics/ebola_marburg_fevers/EVDcasedefinition/Pages/default.aspx

Monitoring of contacts

Figure 1 describes the monitoring of contacts and the actions to take in the event of a contact developing symptoms.

Public health authorities can, depending on the specific situation, support, promote or implement further restrictions (e.g. voluntary limitation of contacts by the person, or avoiding contact with crowds).

The contact tracing and management are based on the following current knowledge:

- The incubation period of Ebola viruses can be as long as 21 days.
- Only symptomatic patients can transmit the infection. Infectiousness starts from the onset of symptoms.
- Transmission may occur through direct contact with the patient or blood and other bodily fluids of the patient.
- Dead bodies and their blood and bodily fluids remain infectious.
- There is no evidence of airborne transmission, but precautions are warranted if aerosol-generating symptoms (such as vomiting) occur or aerosol-producing procedures are performed.
- Transmission via inanimate objects contaminated with infected bodily fluids (fomites) is possible.

Main actions for contact persons

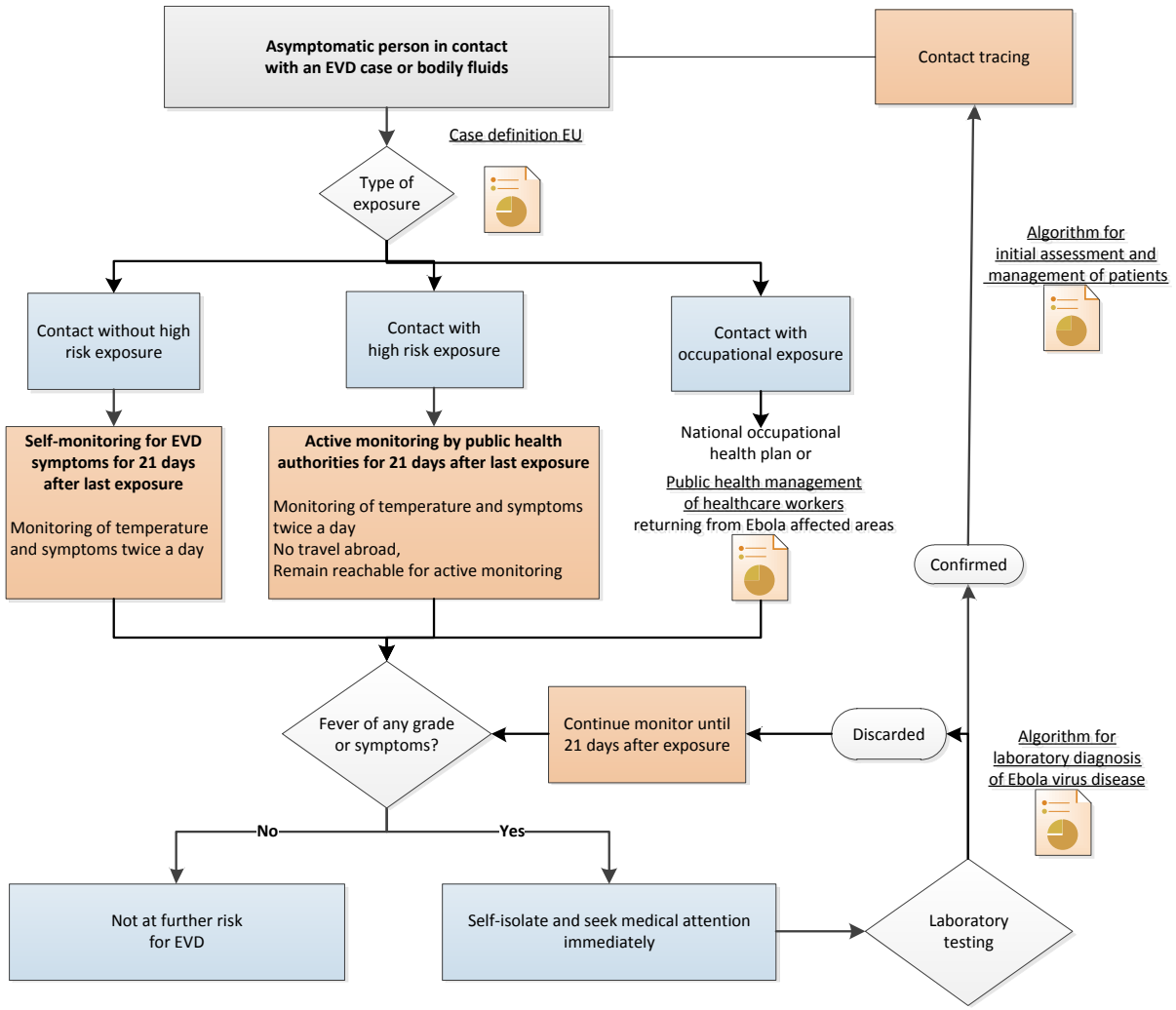
- Contact with low-risk exposure:
  - Self-monitoring for EVD symptoms, including fever of any grade, for 21 days after last exposure. Public health authorities may do more, depending on the specific situation.
- Contact with high-risk exposure:
  - Active monitoring for EVD symptoms, including fever of any grade, for 21 days after last exposure by public health authorities;
  - No travel abroad;
  - Remaining reachable for active monitoring;
  - Restriction of contacts (voluntary self-quarantine or imposed) to be considered in the event of very high-risk exposure.

Contact persons should immediately self-isolate and contact health services in the event of any symptom appearing within 21 days. If no symptoms appear within 21 days of last exposure the contact person is no longer considered to be at risk of developing EVD.

Contact management steps after a case is identified

The steps are contact listing (and classification of the contact as having had low-risk, high-risk, or occupational exposure), contact tracing, contact assessment and management, and follow-up by an outbreak control team. These steps are initiated immediately after a case is confirmed.

Figure 1. Algorithm EVD contact management



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