Folkhälsomyndigheten

Ebola and Marburg: Monitoring of returnees from affected areas

Guidance – version 4

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About the publication

The Public Health Agency of Sweden has developed guidance to support the monitoring of persons returning from areas with active cases of Ebola and Marburg. This guidance covers both aid workers and other travelers who may have been exposed to infection during their stay via close contact with people in the local community or through healthcare environments. The aim is to provide a national recommendation for uniform treatment of this group. The guidance is primarily intended for employers of returning workers, such as the Swedish Civil Defence and Resilience Agency (MCF), the Red Cross and Doctors Without Borders (Médecins Sans Frontières), as well as healthcare workers and county medical officers. It can also be applied when following up on other travelers with a corresponding risk of exposure. The guidance includes communicable disease prevention and control, and should be integrated in any returnee programme that employers may have.

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Content

Background

Ebola and Marburg are zoonotic diseases endemic in East, Central and West Africa. Ebola and Marburg are RNA viruses of the filovirus family that cause haemorrhagic fever.

The diseases regularly affect individuals infected by animals, with occasional larger outbreaks when the virus is also spread from person to person. The largest Ebola outbreak to date occurred in West Africa in 2014, when thousands of people fell ill.

The Communicable Diseases Act (2004:168) provides special provisions for Ebola and Marburg, both of which are classified as diseases dangerous to public health. More information on the Communicable Diseases Act and the classification of diseases can be found on the Public Health Agency of Sweden's webpage.

Notifiable diseases

Viral haemorrhagic fevers like Ebola and Marburg are transmitted through direct contact with blood or other body fluids of infected individuals. They are not transmitted through social contact with asymptomatic individuals. Both diseases usually start with a sudden fever, headache, muscle aches, sore throat and fatigue. Further information is available on the Public Health Agency of Sweden website:

Disease information – Ebola

Disease information about Marburg virus disease

Individuals who have worked in or visited Ebola- or Marburg-affected areas may have been exposed and are at risk of infection and should therefore be subject to monitoring upon return. In many cases, symptoms of Ebola or Marburg are more likely to be a consequence of other diseases such as malaria or influenza, and should therefore be widely investigated at an infectious disease clinic.

Purpose

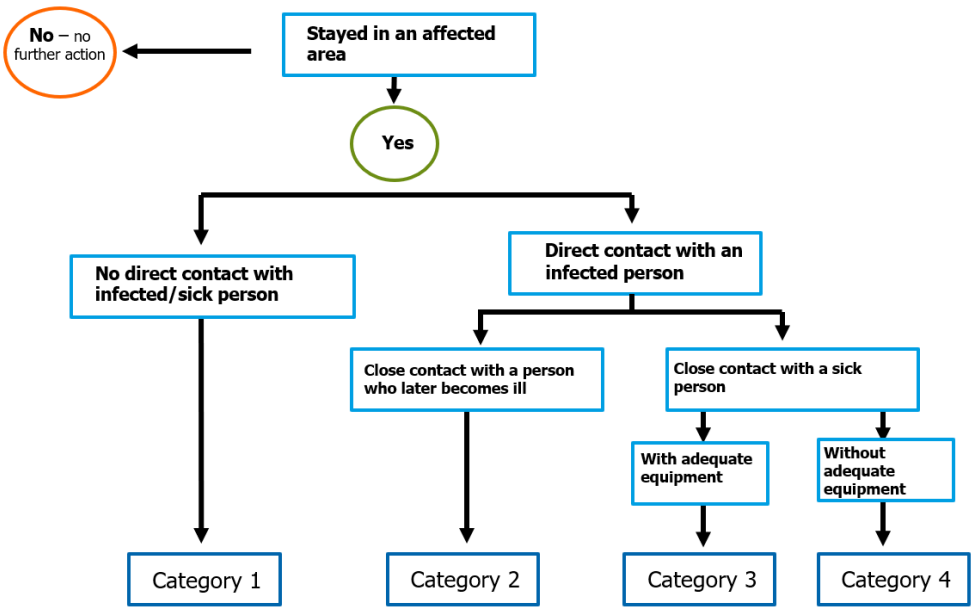
This guidance aims to provide a national recommendation for the monitoring of returnees from areas with active cases of Ebola or Marburg.

Monitoring upon return

Individuals who may have been exposed to Ebola or Marburg, but have not developed any symptoms, should be individually assessed for the risk of transmitting the infection to others based on four risk categories. This assessment is then used to determine how the person is to be monitored in order to establish the diagnosis without delay in the event of illness and thus minimise the risk of secondary cases. Figure 1 presents the risk categorisation flowchart.

In all contacts with healthcare services, regardless of whether fever or other symptoms of suspected Ebola or Marburg are present, infectious disease specialists and county medical officers should be consulted.

Figure 1. Flowchart of risk categorisation of asymptomatic individuals with possible or confirmed exposure to Ebola or Marburg



Recommendations for monitoring of individuals exposed to Ebola

Category 1 – Low exposure – Low risk

The person has been in an area with active cases of Ebola or Marburg, but has not had direct contact with a sick person or their body fluids. For example, they may have assisted in training other healthcare workers, or performed administrative or other non-medical aid work. Other examples include individuals who have visited relatives/friends in the affected area.

Monitoring for those returning home

- Self-monitoring of temperature twice a day for 21 days after leaving the affected area.
- Individuals who have been exposed can contact the county medical officer if they have any general questions.
- Contact the infectious disease clinic by phone if temperature is ≥ 38°C.
- From a communicable disease control perspective, the person can work and live as usual.

Category 2 – Temporary exposure – Some risk

The person has – without adequate protective equipment – had contact (<1 meter) with a person who has been diagnosed with, but who had not yet developed clear symptoms of, Ebola or Marburg. Examples of such situations may include: spending time in the same waiting room, working as a receptionist, or spending time in the same household, classroom, or workplace.

Monitoring for those returning home

- Self-monitoring of temperature twice a day for 21 days after last exposure.
- Individuals who have been exposed can contact the county medical officer if they have any general questions.
- An individual assessment may need to be made based on the medical history and current situation. If it is clear that the contact was completely asymptomatic, the person returning home can work and live as usual.
- Contact the infectious disease clinic by phone if temperature is ≥ 38°C.

Category 3 – Extensive exposure – Low risk

The person has cared for a person with Ebola or Marburg and/or had contact (< 1 meter) with the infected person's body fluids. The person has used adequate

protective equipment. No known incidents have occurred that could have posed a risk of infection.

Examples: Healthcare workers returning home from an assignment abroad in an Ebola- or Marburg-affected area or from high isolation care units in Sweden.

Monitoring for those returning home

- Self-monitoring of temperature twice a day for 21 days after last exposure.
- Inform the county medical officer/treating physician of the measured body temperature daily.
- Contact the infectious disease clinic by phone if temperature is ≥ 38°C.
- From a communicable disease control perspective, the person can work and live as usual.

Category 4 – Extensive exposure – High risk

The returnee has cared for a person with Ebola or Marburg and/or had contact (< 1 meter) with a person with Ebola or Marburg who, for example, coughed, vomited, was bleeding or had diarrhea, without wearing adequate protective equipment and/or an incident occurred. Examples of incidents include needlestick incidents, splashes of body fluids on mucous membranes or in the eyes, or direct contact with the body fluid/tissue of a person with Ebola or Marburg.

Monitoring for those returning home

- The person at high risk should be offered a medical contact person at an infectious disease clinic, and the county medical officer must be informed.
- Individual assessment by the treating physician, in consultation with the county medical officer if necessary.
- Self-monitoring of temperature twice a day for 21 days after exposure.
- The county medical officer or treating physician is contacted daily and informed of all values on an ongoing basis. If a fever (≥ 38°C) or other symptoms develop – call an infectious disease clinic immediately.
- Special recommendations apply to cases involving exposure. In consultation with the county medical officer, the physician in charge of the case gives recommendations related to work, close contacts and travel.
    - Work-related recommendation: May involve a change in work duties, remote work, or suspension.
    - Recommendation related to close contacts: May involve avoiding various forms of social contact with other people during the period of observation.
    - Travel-related recommendation: May involve not using public transport or making long journeys, and instead staying in the local area.

Suspected cases

If a patient presents with symptoms consistent with haemorrhagic fever, the patient must be given infection control instructions to follow (Chapter 4, Section 2 of the Communicable Diseases Act). Patients with symptoms of Ebola or Marburg must be taken to an infectious disease clinic immediately to have this investigated, with relevant precautions taken in connection to this. The individual also has an obligation to seek medical care (Chapter 3, Section 1 of the Communicable Diseases Act).

Patients with a suspected or confirmed Ebola or Marburg infection may also, if their behaviour exposes someone else to an immediate risk of infection, be temporarily isolated in accordance with Chapter 5, Section 3 of the Communicable Diseases Act, following a decision by the county medical officer.

Extraordinary communicable disease control measures

If there is a risk of a disease that is dangerous to society spreading, the County Medical Officer may, in accordance with the Communicable Diseases Act (Chapter 3, Section 9), decide that a person who has, or is presumed to have, been exposed to the disease be placed in quarantine.

Quarantine is a measure that may be imposed if a person is assumed to have been exposed to infection without necessarily being ill. Quarantine differs from isolation under Chapter 5 of the Communicable Diseases Act, under which the county medical officer may order the isolation of persons who are infected with, or suspected to be infected with, a generally dangerous communicable disease. The regions are responsible for making quarantine facilities available. If a person who has been placed in quarantine develops a disease that is dangerous to society, the person should immediately be isolated in hospital, either voluntarily or with support from the provisions of Chapter 5 of the Communicable Diseases Act (Government Bill 2003/04:158, pp. 69 and 105).

General information on monitoring

Monitoring of returnees lasts for 21 days after the last exposure. Before an aid worker departs, it is important to plan for their deployment and what will happen when they return to Sweden, together with their employer and, if necessary, a county medical officer. This planning should include how to reduce the risk of secondary cases both during deployment and after returning to Sweden.

Other measures to consider for reducing the risk of spreading infection if a person develops a fever after returning to Sweden include avoiding exposing close relatives, for example by having access to a bathroom that is not shared with others.

Ebola and Marburg are not contagious until symptoms appear. A rule of thumb is that a person is not contagious if they do not have a fever. Monitoring of categories 1-3 is done at home. For category 4, monitoring can usually be done at home if it is possible to follow the specified monitoring recommendations.

A person who may have been exposed to Ebola or Marburg may develop some other illness during the 21-day observation period, including malaria or other infectious diseases. The possibility of an alternative diagnosis should not be overlooked. Appropriate diagnostic evaluation should be undertaken while maintaining infection prevention and control measures, in close consultation with the infectious disease clinic and the county medical officer (communicable disease unit) in the region.

If haemorrhagic fever is suspected, the patient should be given precautions to follow. Temporary isolation and quarantine, as decided by the county medical officer, may be required.

If Ebola or Marburg infection is suspected on return to Sweden, please refer to the infectious disease prevention leaflet on Ebola (Ebola virus infection) issued by Smittskyddsläkarföreningen.

Information for physicians: Smittskyddsläkarföreningen's Infectious Disease Prevention Leaflet Ebola

Links

Public Health Agency of Sweden

Disease information about Ebola virus disease

Disease information about Marburg virus disease

Smittskyddsläkarföreningen

Smittskyddsläkarföreningen's Infectious Disease Prevention Leaflet Ebola

ECDC

European Centre for Disease Prevention and Control. Infection prevention and control measures for Ebola virus disease. Public health management of healthcare workers returning from Ebola-affected areas. 21 January 2015. Stockholm: ECDC; 2015

Publication on Ebola virus disease for returning aid workers

UK Health Security Agency

Guidance. Ebola virus disease: information for humanitarian aid workers

Publication on Ebola virus disease for aid workers

WHO

Ebola virus disease. Key facts.

Information on Ebola virus disease from the World Health Organization

The guidance provides a national recommendation for the monitoring of returnees from areas with active cases of Ebola and Marburg. The guidance is primarily intended for employers of returning workers, such as the Swedish Civil Defence and Resilience Agency (MCF), the Red Cross and Doctors Without Borders (Médecins Sans Frontières), as well as healthcare workers and county medical officers. It can also be used as a tool for risk assessments of travelers with a corresponding risk of exposure.

The Public Health Agency of Sweden is an expert authority striving to improve public health at the national level. The Agency does this by developing and supporting societal efforts to promote health, prevent illness and improve preparedness to combat health threats. Our vision is public health that strengthens the positive development of society.

Folkhälsomyndigheten

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