

Considerations for border health and points of entry for filovirus disease outbreaks

Interim guidance



Key points

- During outbreaks of filovirus diseases, cases, contacts and individuals in affected areas who present signs and symptoms compatible with case definitions should not travel, including internationally.
- Travellers going to countries with ongoing filovirus disease outbreaks should avoid contact with anyone who shows symptoms (like fever, vomiting, diarrhoea or bleeding) or with materials and surfaces contaminated by their bodily fluids, and stay away from infected people's bodies, including during funerals.
- Travellers returning from countries affected by filovirus disease outbreaks within the previous 21 days who feel sick with early symptoms like fever or bleeding and think they may have been exposed, should isolate themselves, contact a doctor and report their travel history.
- Travel-related health measures implemented in response to filovirus disease outbreaks should be based on a thorough risk assessment and reviewed regularly. They should not unnecessarily interfere with international travel and trade. To the extent possible, data should be collected on their effectiveness, cost-effectiveness and impact.
- Health authorities should strengthen capacities for detection, reporting and management of cases and contacts, risk communication and community engagement, and infection prevention and control at points of entry, on board conveyances and across borders based on a risk assessment.

Introduction

The filoviridae family comprises eight genera among which *Orthoebolavirus* and *Orthomarburgvirus* genera. Viruses from both genera can cause outbreaks of filovirus diseases (FVD), which have occurred mostly in countries in sub-Saharan Africa. It is thought that fruit bats of the Pteropodidae family are natural hosts for these viruses. Viruses can be introduced into the human population through close contact with the blood, secretions, organs or other bodily fluids of infected animals such as fruit bats, chimpanzees, gorillas, monkeys, forest antelope or porcupines found ill or dead or in the rainforest (Ebola diseases) or through prolonged exposure to mines or caves inhabited by Rousettus fruit bat colonies (Marburg disease) (1, 2).

Once introduced in the human population, the virus spreads through human-to-human transmission via direct contact (through broken skin or mucous membranes) with the blood, secretions, organs or other bodily fluids of infected people, and with surfaces and materials (e.g. bedding, clothing) contaminated with these fluids. People cannot transmit the disease before they have symptoms. FVDs require direct contact with a sick patient presenting with symptoms or a natural host.

Process and methodology

This interim guidance summarizes the relevant legal provisions and technical advice from WHO concerning border health and point of entry (PoE) measures for FVD outbreaks, including in the context of the 2024 outbreak of Marburg virus disease in Rwanda.

Its content is based on the legal provisions and requirements of the International Health Regulations (IHR) (2005); WHO's existing guidance on surveillance, contact tracing, clinical care, infection prevention and control, and risk communication and community engagement for FVDs; WHO's handbooks on the management of public health events in aviation, on board ships and in land borders; and WHO's latest systematic reviews of evidence on the effectiveness and impact of travel-related health measures.

Travel advice

1. Advice for travellers in affected countries

- The following individuals should avoid undertaking any travel, including internationally, until they are determined to no longer constitute a public health risk to others:
 - anyone being considered as a suspected, probable or confirmed case of a FVD by jurisdictional health authorities;
 - anyone who has been identified as a contact of a FVD case and is therefore subject to health monitoring; and
 - any individual with signs and symptoms compatible with the case definition during an FVD outbreak.
- Anyone with FVD-like symptoms should reach out to a local health provider for up-to-date and accurate advice. Early care at a designated treatment centre is essential for anyone who has tested positive for a FVD as it can improve the chance of survival (3).

2. Advice for travellers going to or returning from affected countries

- If you are traveling to an FVD-affected country or a high-risk area, stay up-to-date on the evolution of the outbreak; avoid contact with anyone who shows FVD symptoms (like fever, vomiting, diarrhoea or bleeding) or with materials and surfaces contaminated by their bodily fluids); and stay away from infected people's bodies, including during funerals.
- If you have returned from an FVD-affected country or a high-risk area within the previous 21 days, feel sick with early symptoms like fever or bleeding, and think you may have been exposed, isolate yourself and contact a doctor right away. Share your travel history, any high-risk situations you were involved in, and people you were close to.

Further information on the signs and symptoms of MVD and EVD, as well as on how to protect oneself and others is available on WHO's website (3, 4).

Policy considerations on travel and trade restrictions

Travel-related health measures implemented in response to FVD outbreaks should be based on a thorough risk assessment and reviewed regularly. They should not unnecessarily interfere with international travel and trade.

While there is no definition in the IHR (2005) for ‘travel and trade restrictions’, this term is commonly used to refer to health measures that significantly interfere with international traffic by refusing the entry or departure of international travellers, baggage, cargo, containers, conveyances, goods, and the like, or their delay, for more than 24 hours. Any State Party implementing additional health measures that significantly interfere with international traffic shall inform WHO, within 48 hours of implementation, of such measures and their public health rationale and relevant scientific information, as provided in article 43 of the IHR (2005) (5).

Syndromic screening implemented at borders or PoEs is not considered a travel restriction as long as it does not cause refusal or delay for more than 24 hours.

Technical considerations for border health and points of entry in countries affected by a filovirus disease outbreak or at high risk

1. Syndromic entry and exit screening

Public health authorities working at PoEs and across borders in affected areas may implement exit screening of signs and symptoms compatible with the FVD case definition, while those working in high-risk areas may implement entry screening. If screening measures are implemented, they should be informed by a risk assessment which is reviewed regularly to update and adapt measures when necessary. Such risk assessment should factor in the modes of transmission of the FVD (direct contact with body fluids of living or deceased patients or surfaces or material contaminated with these fluids) to understand the level of risk when analyzing social interactions and movement patterns of probable, suspected and confirmed cases. FVDs require direct contact with a sick patient presenting with symptoms or a natural host. If entry and/or exit screening is implemented at land borders, it should be coordinated among the neighboring countries to enable the rapid sharing of information, coordination of response and efficient use of resources (6). The dignity, human rights and fundamental freedoms of travellers should be respected when implementing travel-related health measures as provided by Article 32 of the IHR (2005).

WHO conducted a scientific review of the evidence on the effectiveness of syndromic entry and exit screening for epidemic-prone diseases of travellers at ground crossings (7), which concluded that there is insufficient evidence to issue a recommendation for or against such measures. For this reason, data on the effectiveness, cost-effectiveness and impact of screening measures should be collected to the extent possible to support research efforts in this area.

2. Cross-border surveillance and collaboration

PoEs and border communities should be part of the early warning surveillance network for FVDs and report any suspected case promptly through the hotlines or alert systems. Cross-border surveillance and collaboration should be enhanced between neighbouring countries by establishing or building on existing cross-border coordination mechanisms for data sharing, including PoE(s) and porous borders (8). Existing data on the cross-border movement of people, animals and freight in high-risk districts, including at PoEs, across porous borders and border communities, can be used when available, or mapped when it is not readily available, to identify at-risk populations and inform the geographical location of public health interventions.

3. Detection, reporting and management of cases and contacts at points of entry, on board conveyances and across borders

Contingency plans and SOPs should be developed, or reviewed and updated, for the detection, reporting and management of suspect FVD cases and contacts at PoEs, on board conveyances, and across borders, including provisions for international contact tracing.

If a suspect case is identified on board a conveyance, PoE and conveyance operators should follow the advice provided by public health authorities. A case-by-case, context-specific risk assessment should be conducted for contact tracing purposes, taking into consideration the type of travel, type of PoE/conveyance, and the specific modes of transmission of the FVD. Travelers and crew who have had direct physical contact with a suspect case or touched his/her blood or body fluids or clothes may be at elevated risk of being infected. In air travel, conveyance operators may use the Passenger Health Locator Form for contact tracing purposes (9). The IATA guidance for cabin crew on a suspected communicable disease (10) can also be used; nonetheless, it should be complemented by an ad-hoc risk assessment as aforementioned. Public health authorities should inform travelers about the risk of potential exposure and the recommended preventive measures.

Public health authorities working at PoEs should identify an appropriate space and equipment to interview and assess suspect cases while protecting the safety of others; establish a referral system to an appropriate isolation unit or medical facility, including an ambulance, trained personnel and appropriate equipment; and develop procedures and identify equipment for cleaning, disinfection and decontamination.

Authorities working at PoEs, conveyances and in border communities should display and disseminate risk communication materials on the signs and symptoms of the FVD and how to seek care in all relevant languages for travelers and cross-border communities. Cases, contacts and individuals with signs and symptoms compatible with the FVD case definition should be advised not to travel in line with the aforementioned travel advice.

Technical considerations for border health and points of entry in other countries to prevent the importation of filovirus diseases

If a country with travel connections to affected areas decides to implement entry screening of signs and symptoms compatible with the FVD case definition, these measures should be informed by evidence and applied using a risk-based approach. They should be based on a thorough risk assessment, which is reviewed

regularly to update the measures accordingly. WHO conducted a scientific review of the evidence on the effectiveness of syndromic entry and exit screening for epidemic-prone diseases of travellers at ground crossings, which concluded that there is insufficient evidence to issue a recommendation for or against such measures (7). Data on the effectiveness, cost-effectiveness and impact of screening measures should be collected to the extent possible to support research efforts in this area.

Other preparedness measures relevant to PoEs in countries with travel connections to affected areas include the required capacities as per Annex 1b of the IHR (2005), which include the availability of: a public health contingency plan and related standard operating procedures for the detection, reporting and management of suspected cases and contacts which is updated and tested in collaboration with all relevant stakeholders, including conveyance operators; appropriate space and equipment to interview and assess suspect cases; a referral system to a medical facility, including transportation, trained personnel and equipment; necessary equipment for cleaning, disinfection and decontamination; and coordination mechanisms with conveyance operators for risk communication and information sharing to facilitate early detection, reporting and management of suspected cases and contacts onboard.

Plans for updating

WHO continues to monitor the situation closely for any changes that may affect this interim guidance. Should any factors change, WHO will issue a further update.

References

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