

CARPHA INTERIM GUIDANCE ABOUT EBOLA VIRUS DISEASE FOR CRUISE SHIPS COMING TO THE CARIBBEAN November 12, 2014

This document provides information on Ebola virus disease (EVD) prevention and preparedness for cruise ships coming to the Caribbean.

This information is based on currently available scientific evidence and expert opinion, and is subject to change as relevant new information becomes available. It should be read in conjunction with relevant national legislation, regulations and policies. This document has been adapted and prepared for the Caribbean situation, and therefore may differ from guidance available from other agencies.

Background

The 2014 EVD epidemic is the largest in history. As of November 4, 2014 a total of 13,268 confirmed, probable, and suspected cases of EVD have been reported from six affected countries (Guinea, Liberia, Mali, Sierra Leone, Spain, and the United States of America) and two previously affected countries (Nigeria and Senegal).¹ There is currently only widespread and intense transmission in Guinea, Liberia and Sierra Leone. A total of 4960 deaths have been reported.¹ Up to date case counts and further information on the ongoing outbreaks in Africa can be found on the World Health Organization (WHO) website:
<http://www.who.int/csr/disease/ebola/situation-reports/en/>

What is Ebola Virus Disease (EVD)?

EVD is a severe acute viral illness. Symptoms of EVD can appear 2 to 21 days after exposure to the virus, but the average is 8-10 days.² Symptoms usually begin suddenly with fever, sore throat, chills, headache and muscle pain and weakness. Following the initial symptoms, additional symptoms may include rash, nausea, vomiting, diarrhea and internal and external bleeding.² Based on past outbreaks, an average of 50% of people infected with EVD die, but this has ranged from 25 to 90%.³

EVD can be transmitted through direct contact with:⁴

- Blood or body fluids (e.g., urine, saliva, sweat, faeces, vomit, breast milk, and semen) of a person who is sick with Ebola.
- Objects (e.g., needles and syringes) that have been contaminated with the virus.

- Infected animals (e.g., bats, primates) in the affected countries

Ebola is **NOT** spread through the air or by water, mosquitoes or consumption of properly cooked food. However, in Africa Ebola may be spread by handling bush meat.⁴

Only individuals infected with Ebola virus who are symptomatic can transmit the disease. Conversely, persons who are infected with Ebola virus, but not yet symptomatic, are not infectious and do not transmit the disease.

Guidance for Cruise Ships coming the Caribbean

To date, there have been **NO** reported cases of EVD in the Caribbean region.

There are no animal carriers of the Ebola virus in the Caribbean.

The likelihood of a case being imported to the Caribbean remains low. There are no cruise ships that come directly from the affected West African countries to the Caribbean so passengers would need to use commercial airlines to fly to a port of departure for the Caribbean. A recently published article (October 2014) in the Lancet that looked at the potential for international dissemination of EVD via commercial air travel showed no Caribbean countries were listed as the final destination countries of individuals departing from Guinea, Liberia or Sierra Leone.⁵

Although the likelihood is low that a case will be identified on a cruise ship in the Caribbean, the following information provides guidance for cruise ships on how to prepare for a case of EVD as well as what to do when a suspected case is identified on board. Refer to Appendix A for additional resources that provide useful information for cruise ships coming to the Caribbean and Appendix B for a useful infographic that describes key points for Ebola prevention on ships.

Travel Restrictions

As per the WHO recommendations⁶, CARPHA does **NOT** recommend travel bans on cruise ships for individuals coming from affected countries.

Pre-boarding Screening

The WHO does not recommend additional pre-boarding screening of passengers or crew, as it may have a limited effect in reducing international spread.⁶ However, depending on the availability of resources, cruise ships may wish to consider adding additional Ebola-related questions to their pre-boarding health questionnaire that passengers complete. Additional questions should ask about travel to affected West African countries in the past 21 days and, if a passenger has a recent travel history, questions on possible exposures to Ebola and current symptoms.

Passengers who indicate travel history in the previous 21 days to an affected country **AND** have compatible symptoms **OR** a known exposure to Ebola should be screened further by medical staff prior to boarding. Depending on the results of further screening, denial of boarding may be considered on a case by case basis. It is important to note that travel history to one of the

affected countries in the absence of symptoms or exposure risk is **NOT** sufficient cause for denial of boarding, as per WHO recommendations.

Pre-boarding Guidance for Ships

- Ensure all medical staff on board the ship are fully informed about EVD and what to do if a case is suspected on board.
- Ensure all medical staff on board the ship have access to sufficient quantities of personal protective equipment (PPE).
- Crew members and other staff who may have contact with ill persons should be instructed in the proper use, storage, and disposal of personal protective equipment (PPE). Improper handling of PPE can increase transmission risk.

What to do if a Case of EVD is Suspected On Board

The following guidance is modified from the World Health Organization's Travel and Transport Risk assessment (section 4.2.4).⁷

If a crew member or passenger presents with symptoms compatible with EVD on board a ship, the following **steps and precautions** should be taken:

- Immediate expert medical opinion should be sought and the event should be reported as soon as possible to the next port of call by the ship's master.
- Depending on the situation, the competent authority at the relevant port may need to arrange medical evacuation or special arrangements for disembarkation, hospitalization of the patient and laboratory diagnosis.
- Countries may require arriving ships to complete and deliver the Maritime Declaration of Health (International Health Regulations(IHR) Annex 8). Measures taken on board should also be noted on the IHR Ship sanitation control certificate (IHR Annex 3).
- Keep the affected person's cabin doors closed, if not placed in an isolation room on board.
- Provide information about the risk of EVD transmission to persons who will take care of the patient or enter their cabin or isolation room.
- Maintain a log of all people entering the cabin or isolation room, all of whom should be considered contacts unless a diagnostic test is reported as negative.
- Ensure that anyone who enters the cabin or isolation room to provide care to the affected person or to clean the cabin uses personal protective equipment as follows:
 - Non-sterile examination gloves or surgical gloves; cleaners should preferably use heavy duty/rubber gloves.
 - A disposable impermeable long-sleeved gown to cover clothing and exposed skin, a medical mask and eye protection (eye visor or goggles or face shield) when coming in close contact with the affected person and/or if any exposure to blood or body fluids is expected; if unavailable, a waterproof apron should be worn over a non-impermeable gown.
 - Rubber boots or closed, puncture-and fluid-resistant shoes with overshoes.

- Before exiting the cabin or isolation room personal protective equipment should be removed in such a way as to avoid contact with the soiled items and any area of the face.
- Anyone providing care to the person in isolation should perform hand hygiene by hand-rubbing with an alcohol-based hand-rub solution for about 20-30 seconds or hand-washing with soap and water for about 40-60 seconds if hands are visibly dirty, before putting on gloves, after any direct contact with the affected passenger or with his/her personal belongings or any objects/surface potentially contaminated with his/her blood or body fluids and after removing personal protective equipment.
- Limit the movement and transport of the affected person from the cabin or isolation room to essential purposes only. If transport is necessary, the affected person should wear a medical mask and disembark in such a way as to avoid any contact with other person on board the vessel.
- Clean and disinfect spills without spraying or using an aerosol. Used linen, cloths, eating utensils, laundry and any other item in contact with a patient's body fluids should be collected separately and disinfected in such a way as to avoid any contact with persons or contamination of the environment. Surfaces or objects contaminated with blood, other body fluids, secretions or excretions should be cleaned and disinfected as soon as possible using standard detergents/disinfectants (e.g. a 0.5% chlorine solution or a solution containing 1000 ppm available free chlorine) with a recommended contact time of 30 minutes. Application of disinfectants should be preceded by cleaning to prevent inactivation of disinfectants by organic matter. Soiled linen and cloths should not be reused and should be disposed of in infectious waste bags.
- All waste produced in the cabin or isolation room should be handled according to the protocol of the ship for clinical infectious waste. If an incinerator is available on board, waste should be incinerated. If waste must be delivered ashore, special precautions are needed and the port authority should be informed before waste delivery.
- Begin contact tracing immediately. Personal protective equipment is not necessary when interviewing asymptomatic individuals, when a distance of one metre is maintained.
 - Close contacts of the affected persons (e.g. passengers, crew members or cleaning staff) should be identified, assessed for their specific level of exposure and asked to do passive self-monitoring of temperature (e.g. monitoring temperature only if feeling feverish) and symptoms or active self-monitoring (e.g. by regular temperature measurement twice a day and for 21 days).

CARPHA will continue to evaluate new information as it becomes available, and will update this guidance as needed.

REFERENCES

1. World Health Organization. Ebola Response Roadmap Situation Report – Oct 22, 2014. Available from: http://apps.who.int/iris/bitstream/10665/137091/1/roadmapsitrep22Oct2014_eng.pdf?ua
2. Public Health Agency of Canada. Ebola Symptoms. Modified Oct 16, 2014. Available from: <http://www.healthycanadians.gc.ca/diseases-conditions-maladies-affections/disease-maladie/ebola/symptoms-symptomes-eng.php>
3. World Health Organization. Ebola virus disease. Modified Sept, 2014. Available from: <http://www.who.int/mediacentre/factsheets/fs103/en/>
4. Centers for Disease Control and Prevention. Ebola Transmission. Modified Oct 22, 2014. Available from: <http://www.cdc.gov/vhf/ebola/transmission/index.html>
5. Bogoch II, Creatore MI, Cetron MS, Brownstein JS, Pesik N, Miniota J, et al. Assessment of the potential for international dissemination of Ebola virus via commercial air travel during the 2014 west African outbreak. *The Lancet*, Early Online Publication, 21 October 2014; doi: 10.1016/S0140-6736(14)61828-6.
6. World Health Organization. Statement on the 3rd meeting of the IHR Emergency Committee regarding the 2014 Ebola outbreak in West Africa. Modified Oct 23, 2014. Available from: <http://www.who.int/mediacentre/news/statements/2014/ebola-3rd-ihc-meeting/en/>
7. World Health Organization. WHO Travel and Transport Risk Assessment: Interim guidance for public health authorities and the transport sector. Modified Sept, 2014. Available from: http://apps.who.int/iris/bitstream/10665/132168/1/WHO_EVD_Guidance_TravelTransport_Risk_14.1_eng.pdf?ua=1

Appendix A: Resources for Cruise Ships

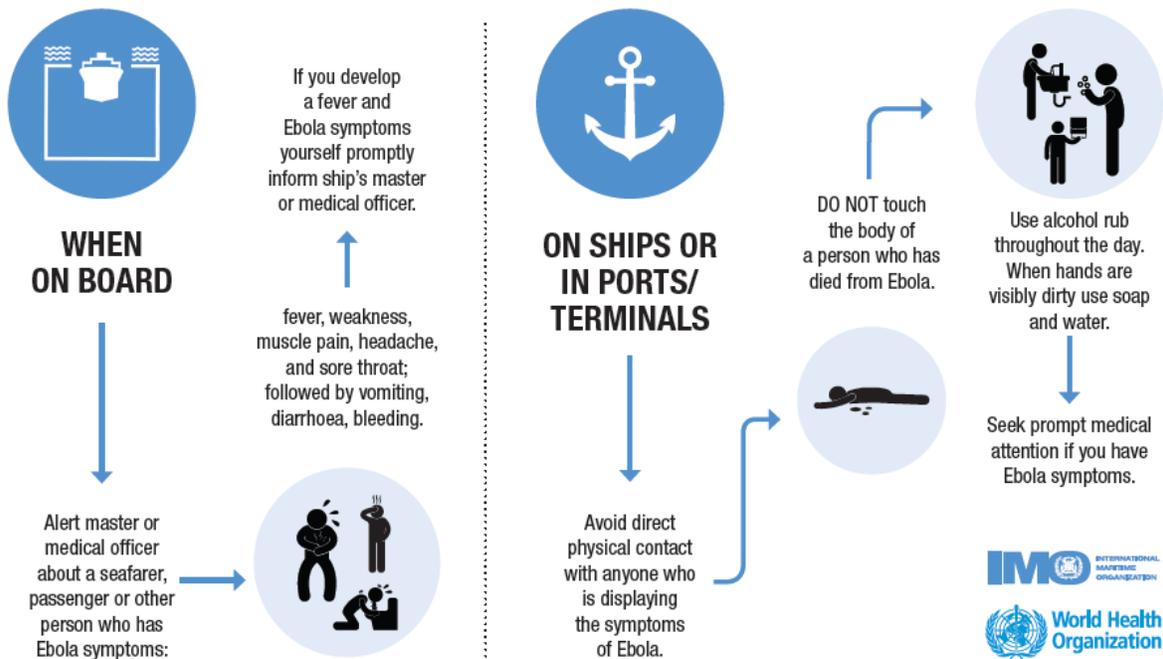
The following are a list of resources that provide information that may be useful for cruise ships coming to the Caribbean.

- Centres for Disease Control - Guidance on Personal Protective Equipment To Be Used by Healthcare Workers During Management of Patients with Ebola Virus Disease in U.S. Hospitals, Including Procedures for Putting On (Donning) and Removing (Doffing)(Oct 20, 2014). Available from: <http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html>
- Public Health Agency of Canada – Interim Guidance Ebola Virus Disease: infection prevention and control measures for borders, healthcare settings and self-monitoring at home (Sept 12, 2014). Available from: <http://www.phac-aspc.gc.ca/id-mi/vhf-fvh/ebola-ipc-pci-eng.php>
- Public Health Agency of Canada - Environmental sanitation practices to control the spread of communicable disease in passenger conveyances and terminals (Jun 23, 2014). Available from: <http://www.phac-aspc.gc.ca/id-mi/inf-cont-inf/sanitation-hygiene-eng.php?from=professionals-page>
- World Health Organization – WHO Interim Guidance for Ebola Event Management at Points of Entry (Sep, 2014). Available from: http://apps.who.int/iris/bitstream/10665/131827/1/WHO_EVD_Guidance_PoE_14.1_eng.pdf?ua=1&ua=1
- World Health Organization - Interim infection prevention and control guidance for care of patients with suspected or confirmed Filovirus Haemorrhagic Fever in health-care settings, with focus on Ebola (Sept, 2014). Available from: http://apps.who.int/iris/bitstream/10665/130596/1/WHO_HIS_SDS_2014.4_eng.pdf

Appendix B: Infographic for Cruise Ships

The following infographic from the WHO and IMO illustrates, in summary form, the key points to keep in mind for Ebola prevention when travelling on ships.

TRAVEL TO AND FROM EBOLA-AFFECTED COUNTRIES IS LOW-RISK HERE IS WHAT YOU NEED TO KNOW



Available from: <http://www.imo.org/MediaCentre/HotTopics/ebola/Documents/Ebola%20final.pdf>