

# EBOLA VIRUS: SERIOUS COMMUNICABLE DISEASE OUTBREAKS

## INTRODUCTION

Ships call at Ports the world over since ancient times, and as such they can be exposed to many different local environments and situations.

These can include calling at Ports and Countries where communicable diseases are present, and as such the crew may be at risk of contracting such diseases or indeed become carriers of the bacteria or virus.

Indeed, one theory for the advent of the Black Death in Europe has been the introduction of the disease, and its spread, by infected rats being virulent stowaways on merchant ships.

Being alive to these challenges is very important for the safety of the ship's crew as well as to ensuring the uninterrupted free trading of the vessel.

Recently these issues have been the subject of significant media attention due to the renewed outbreak of the Ebola virus in West Africa.

In the following Loss Prevention article the Association would like to advise Members with the following :

- A. Ebola Virus – facts
- B. The 2014 Outbreak of Ebola
- C. Prevention and Control : Health advice for Vessels
- D. Legal implications of Vessel Quarantine
- E. Legal implications of Port Safety
- F. Loss Prevention Advice

## EBOLA VIRUS - FACTS

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The Ebola virus belongs to a family of viruses called Filoviridae. The dangerous Marburg virus is also a member of this family.



## The Virus

There are five species of Ebola virus:

1. Zaire
2. Sudan
3. Bundibugyo
4. Tai Forest
5. Reston

All of these viruses occur only in Africa apart from the Reston virus which is found in the Philippines and only causes disease in monkeys but not in humans and will not be discussed further in this advice. The Tai Forest virus has only caused one known case and will also not be discussed further. The Zaire virus is the most dangerous and causes death in 72% of cases. The Sudan virus causes death in 54% of cases whilst the Bundibugyo virus causes death in 27% of cases.

## Transmission

The Ebola virus lives in fruit bats. The first case in any outbreak is related to contact with animals or eating undercooked meat. Thereafter it spreads from human-to-human via direct contact with the blood or secretions of an infected person, exposure to objects contaminated with infected secretions (eg. needles) or by direct contact with dead bodies.



*The Ebola virus lives in fruit bats*

## Signs and symptoms

The incubation period is usually 8-10 days but can be as short as 2 days and as long as 21 days. The initial symptoms are very non-specific and include :

- a sudden onset of fever
- headache
- pain in muscles and joints
- intense weakness
- sore throat
- diarrhoea
- vomiting
- stomach pain and
- loss of appetite.

Of course these symptoms can occur in many diseases making clinical diagnosis difficult. Some patients will develop a rash, red eyes, cough, chest pain and difficulty breathing.

Some will bleed – and may have blood in the stool, vomit blood, cough blood, have blood in the urine or bleed from the nose or into the skin. At this stage, the diagnosis is more obvious.

## Previous outbreaks

Since the virus was first described in 1976 in an outbreak near the Ebola river in the Democratic Republic of the Congo, there have been a total 24 outbreaks involving 2,357 people (excluding the current outbreak) and resulting in 1,556 deaths with an overall case fatality rate (CFR) of 66%.

All previous outbreaks have occurred in central Africa (Congo, Gabon, Uganda) or the Sudan apart from the one case of Tai forest which occurred in the Ivory Coast. Previous outbreaks have been confined to small geographical areas.

## THE CURRENT 2014 OUTBREAK

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The virus causing this current epidemic is the most dangerous type - the Zaire virus. Unlike previous outbreaks, this epidemic has spread over wide areas. The current outbreak started in Guinea in January 2014 and has spread to Liberia. Recently, Sierra Leone also documented their first official cases of the virus.

The outbreak slowed in April and the beginning of May but has picked up again in recent weeks.

As of 4 August 2014, the cumulative number of cases attributed to EVD in the four countries stands at 1 711, including 932 deaths. The distribution and classification of the cases are as follows: Guinea, 495 cases (351 confirmed, 133 probable, and 11 suspected), including 363 deaths; Liberia, 516 cases (143 confirmed, 252 probable, and 121 suspected), including 282 deaths; Nigeria, 9 cases (0 confirmed, 2 probable, and 7 suspected), including 1 death; and Sierra Leone, 691 cases (576 confirmed, 49 probable, and 66 suspected), including 286 deaths.

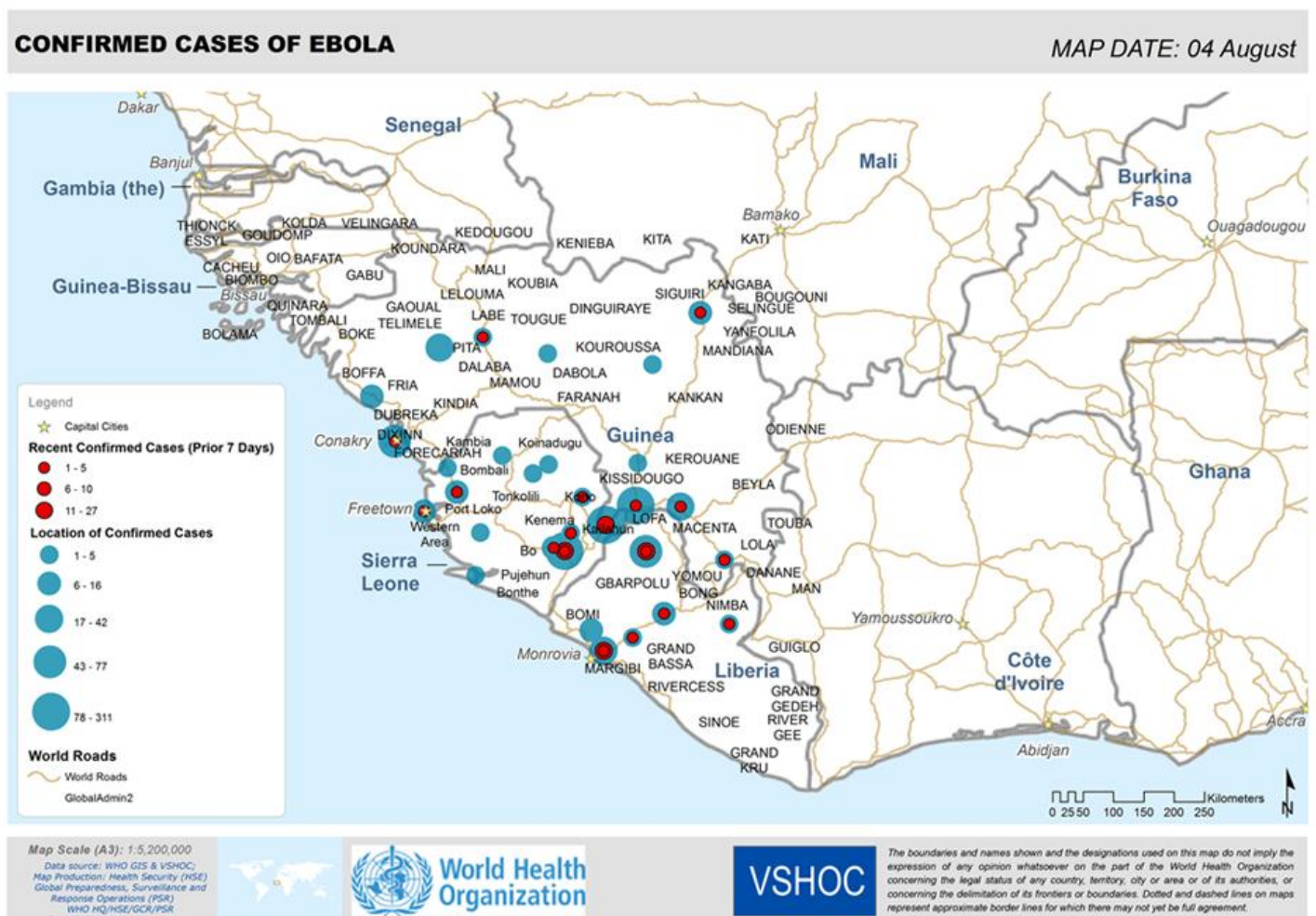
The WHO has not recommended any travel or trade restrictions to Guinea or Liberia at present.

The CDC (Centers for Disease Control and Prevention) in the US has issued a travel alert to airlines and set up emergency quarantine stations.

Some countries in the region have implemented their own measures, and Members are referred to the previous advices from the Association in this regard :

<http://www.skuld.com/topics/people/diseases/ebola-virus-follow-up-on-outbreak-of-disease-in-guinea/>

<http://www.skuld.com/topics/voyage--port-risks/port-news/africa/guinea-illness-breakout/>



Hot Tip : Members are advised that if they have called at any country where an outbreak has been reported, they should seek to check with the Shipping Agents in the next Port / Country of call to find out what the latest quarantine and inspection requirements may be : well in advance of arrival.

## PREVENTION AND CONTROL : HEALTH ADVICE FOR VESSELS

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### 1. Action to be taken by Master in suspected cases of Ebola:

- If a crew member has the symptoms listed above, has visited an area in the current outbreak area and is within the incubation period of the Ebola virus, then that person should be isolated from others on board the ship and disembarked into hospital at the next port or sooner if a helicopter evacuation is available. In some cases, this will mean diverting to the next port rather than continuing onwards to the next scheduled port-of-call.
- Suspected cases should be attended to by other crew members who are fully protected by wearing disposable gowns, disposable gloves, masks and, if they are within one meter, goggles. These should be disposed of in a container which allows no breach (eg. plastic bags which can be zipped). If needles are needed to give injections then they should be disposed of in a sterile container. Crew members attending the patient should wash their hands well with soap and water or alcohol after attending the patient. The number of crew members attending the patient should be limited.
- All ships visiting Guinea or Liberia or Sierra Leone should have an adequate supply of masks, gowns, gloves and goggles.
- After the patient has been transferred off the ship to hospital, the sick-bay should be thoroughly cleaned with disinfectant. The person(s) undertaking the cleaning should wear full protective equipment including goggles.
- It would be prudent to quarantine all people in close contact with the patient and this will mean removing them from the ship. It is not necessary to quarantine other crew and officers unless the patient is confirmed to have Ebola virus in which case the whole crew and officers should be quarantined and replaced. If the patient is confirmed to have Ebola then the whole ship should be fumigated before the new crew and officers arrive.



*Frequently Washing hands is a key step to preventing the spread of disease*

## 2. Master instructions to crew and officers to minimize contracting Ebola when on shore leave in outbreak areas:

- Do not eat bat meat and do not eat undercooked meat
- Avoid visiting hospitals
- Frequently wash hands with soap and water or alcohol
- Avoid close contact with locals (including sexual intercourse)
- Report any symptoms, especially fever, at an early stage
- It should be noted that the best way of preventing Ebola infection is to cancel shore leave when in an area affected by the outbreak

## LEGAL IMPLICATIONS OF VESSEL QUARANTINE

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As a general rule, charterparties will place risks associated with the crew and vessel on Owners. However, members should always refer to the terms of the relevant charterparty and consider the particular facts when assessing who may be responsible for any losses and delays suffered by interested parties in the event of an outbreak, or a suspected outbreak on board the vessel.

Affected parties may include charterers and cargo owners if the vessel is unable to load or discharge cargo or is delayed in doing so. There may also be associated repatriation costs and costs of fumigation which are likely to be for Owners' account unless the charterparty provides otherwise.

### 1. Time Charters

- **Off-hire:** Under a time charter, the vessel may be considered off-hire if the vessel is delayed for reasons associated with the outbreak, for example taking crew members off the vessel, or replacing crew on quarantine restrictions. For example, clause 15 of the New York Produce Exchange ("NYPE") form of charterparty, refers to loss of time from "deficiency of men". If the full working of the vessel is prevented due to crew members being affected by the Ebola Virus, the vessel may be put off-hire for the period of time the vessel is not at the disposal of Charterers.
- **Termination of charter:** Only in extreme circumstances would Charterers be able to terminate the charterparty, for example, in circumstances where the period of delay caused by a crew member contracting the virus or suspected of contracting the virus is so long as to deprive Charterers of the whole benefit of the charter.
- **Unsafe port:** In circumstances where Charterers order the vessel to proceed to a port where there is an outbreak of a communicable disease, port safety issues may arise. *More information on unsafe port issues, below.*

## 2. Voyage Charters

**Seaworthiness:** Under a voyage charter, Owners are obliged to provide a vessel which is seaworthy for the purposes of the contractual voyage. The requirement of proper manning of the vessel may be expressly provided for in the charterparty as part of Owners' obligations to provide a vessel which is seaworthy although the requirement to have the vessel properly manned forms part of the concept of seaworthiness under general law. Should Members of the crew fall ill and be unable to perform their duties, and should this cause the vessel to not be able to have a working complement of crew, including as may be required under SOLAS, she may not be able to sail safely.

## 3. Free Pratique

Legal issues may arise if the vessel is unable to obtain free pratique as a result of quarantine restrictions placed on her.

→ Under a time charterparty, the off-hire clause may be triggered.

→ Under a voyage charterparty, the vessel may be unable to serve a valid notice of readiness if the charterparty expressly provides for the granting of free pratique before a valid NOR can be served.

More usually, charterparties provide a valid NOR can be given, whether given free pratique or not but if the vessel is refused clearance, then the vessel would not be ready to load, a valid NOR could not be given and laytime would not commence.

## LEGAL IMPLICATIONS OF PORT SAFETY

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### 1. Unsafe ports definition

If a charter contains a safe port warranty, then charterers will be liable for any foreseeable loss which owners suffer as a result of charterers requiring the vessel to call at an unsafe port (in breach of the safe port warranty).

The classic definition of a safe port was given in the case, *The Eastern City* [1958] 2 Lloyds Rep 127:

*'A port will not be safe unless, in the relevant period of time, a particular ship can reach it, use it and return from it without, in the absence of some abnormal occurrence, being exposed to danger which cannot be avoided by good navigation and seamanship'.*

Significantly charterers' obligation is to order a vessel to a port which is safe *'during the relevant period'*. Requiring a vessel to call at a port which is presently safe but which is expected to be unsafe when the vessel will use the port would, therefore, constitute a breach of a safe port warranty.

However it is not, a breach of a safe port warranty to order a vessel to a port :

→ which is unsafe at that time of giving the order but which will be safe when the vessel arrives at that port

→ or which, at the time of giving the order, is expected to be safe when the vessel will use the port but which, during the course of the vessel's voyage, unexpectedly becomes unsafe.

**Hot Tip : always check your Charterparty to see whether :**

→ it contains an express Safe Port warranty

→ this warranty is absolute or subject to a due diligence obligation only

## 2. Diseases rendering a port unsafe

An outbreak of a contagious and deadly disease, such as Ebola, could potentially render a port temporarily 'unsafe' if calling at the port would expose the vessel to significant unavoidable danger (e.g. that the crew would contract the disease or that the operation of the port would be so disrupted that the port would be dangerous to use).

The characteristics of a disease (e.g. its virulence) and its local geographical spread will effect whether a disease outbreak will render a particular port unsafe. An outbreak of a disease will be more likely to render a port unsafe if the disease is:

→ highly contagious, and

→ spread throughout a city and/or affects a large proportion of the city's population

→ is found in the immediate vicinity of the port,

→ cannot be avoided by prophylactic measures.

This is because these factors, among others, will increase the probability of crew members contracting the disease and/or the disease adversely affecting the operation of the port.

## 3. Ebola affected ports

Ebola is highly contagious, however, the number of confirmed cases in Conakry compared to the size of the city (which has a population of between one and two million) is small. For this reason the probability of a crew member coming into contact with an affected person is relatively low compared to what it would be if the city was much smaller. Furthermore, the Association understands that there have not been any confirmed cases of vessels' crews contracting Ebola during visits to Conakry. These facts suggest that Conakry is, at present, a safe port with respect to the current disease outbreak.

It is also arguable that a port may be deemed to be unsafe if calling at that port would result in a vessel being excluded from calling at other ports or subjected to extended periods of quarantine.

The Association has, to date, received no reports of vessel's being excluded from ports or being extensively quarantined as a result of calling at Conakry.



#### 4. Owners' refusal to call at a port because they consider it unsafe

If an owner refuses to call at a port which is safe, then they will breach their obligations under the bill of lading and the charter party (be it time or voyage).

In those circumstances, charterers and the cargo interests would be entitled to recover the foreseeable losses which they suffer as a result of owners' breach. For this reason owners should take great care before refusing to call at a port on the basis that it is unsafe.

**Hot Tip : the Association is ready to assist its Members to consider such questions, and would recommend that before any decision is made, suitable advice is sought. The Association, through its extensive Correspondent network, can assist Members make informed decisions.**

#### 5. Temporarily unsafe ports

The danger created by a disease is normally temporary. If a port becomes temporarily unsafe after charterers have legitimately ordered a vessel to call there, then charterers and cargo interests may be entitled to insist that the vessel wait until the port becomes safe again and the vessel's cargo can be delivered.

Whether this is commercially viable for a charterer will depend upon the terms of their charter and the nature of the cargo.

*Points to consider include:*

- Owners who have time chartered out would be entitled to claim hire from time charterers whilst the vessel waits for the port to become safe.
- Owners who voyage charter their vessel on 'berth charter' terms would not be entitled to claim demurrage until the vessel enters the berth. In these circumstances an owner would bear the financial burden of a vessel waiting for a temporarily unsafe port to become safe.
- Voyage charterers, who fix on 'port charter' terms would, be obliged to pay demurrage whilst the vessel waits for the port to become safe once again.
- Time charterers should note that if they sub charter their vessel for voyages on 'berth charter' terms they may be obliged to pay owners hire whilst being unable to claim demurrage.
- Time Charterers should also consider their obligations to Owners with respect to the duration of the Charterparty period.

### LOSS PREVENTION ADVICE

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The first and foremost advice is to ensure that a balanced view is taken of the issues that may arise with respect to the risk of communicable diseases in any particular Port or Country.

Vessels call at Ports every day where there is a potential risk of some sort, and in the vast majority of cases these Port calls are safe and without incident.

Equally, however, it is important to not neglect the training of the crew with respect to personal health and hygiene, as well to ensure that vessels are aware of any particular challenge they may face at any particular Port of Call.



*Wearing a face mask when ill helps to prevent the spread of disease*

The key to successful and safe trading is always to be well prepared and well informed, so that risks can be appropriately managed.

To that end, the Association would recommend Members ensure that :

1. crew are well trained with respect to matters of personal health and hygiene
2. crew know and understand the vessel's rules and requirements with respect to these matters
3. vessels are appropriately stocked with medicines and medical equipment
4. crew are suitably trained to provide aid and care to any crew member that falls ill
5. prior to any voyage to a place known to have a communicable disease outbreak the vessel should receive advance information on the situation from the shore side (Technical Managers and local Agents need to be involved in ensuring vessels have up to date information on any relevant situation)
6. if a vessel proceeds to a place where there is a communicable disease outbreak, then advance consideration should be given to :
  - a. briefing the crew on what to expect
  - b. reiterating advice on personal health and hygiene
  - c. considering recommendations on shore leave, including :
    - i. areas of travel
    - ii. local interaction

- iii. consumption of food and drink
  - d. considering whether to postpone shore leave
7. there are in place clear company guidelines, including guidelines on how vessels should deal with the circumstance of a crewman falling ill

## CREDITS

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