



Ebola Risk Advisory

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What is Ebola?

Ebola Virus Disease (EVD) or Ebola Haemorrhagic Fever (EHF) is a severe acute viral illness, which can kill up to 90 per cent of those infected. It is actually a group of viruses, five of which are known to affect humans, although this latest strain could be identified as the sixth strain if it is confirmed as a strain of its own.

There are various strains of Ebola, generally named after the area where they were first diagnosed: Zaire Ebola Virus; Sudan Ebola Virus; Reston Ebola Virus; Cote D'Ivoire Ebola Virus; Bundibugyo Ebola Virus and the Tai Forest Ebola Virus. The latest pandemic outbreak of Ebola, which started in Guinea in early 2014 and spread rapidly to Sierra Leone and Liberia, is 97 per cent identical to the Zaire Ebola Virus.

The symptoms are generally the same for each strain and begin two days to three weeks (eight to ten days being most common, and two days to twenty one days being rarer) after a person contracts the virus, with the sudden onset of fever, intense weakness, muscle pain, headache and sore throat.

The Centre for Disease Control (CDC) in the United States advises that sufferers are contagious from the onset of the fever, however notes that the virus may not be detected in blood samples for up to three days after symptoms appear. The virus generally develops into nausea, vomiting, diarrhoea, a rash and impaired kidney and liver function due to rapid dehydration. The virus is transmitted via bodily fluids including blood, vomit, saliva, mucus, faeces, sweat and tears. The virus has been noted to live outside the body, on surfaces out of direct sunlight, for 24 - 48 hours, in laboratory conditions.

Both the CDC and the World Health Organisation (WHO) have also advised airlines, and doctors treating existing cases, to take precautions against droplet infection, and both have warned that the virus can be caught from contaminated instruments and contaminated surfaces.

All sufferers experience an impaired circulatory system and blood clotting problems. Bleeding from mucous membranes and puncture sites develops in about half of all cases. There can also be internal bleeding in the stomach and digestive tract, as well as from the nose and in the vagina. Severe bleeding is rare, and if it does happen it is generally centred in the gastrointestinal tract. Treatments are supportive in nature such as painkillers, electrolytes and antibiotics, as secondary infections are common. The earlier the virus is detected, the greater the chance the sufferer has of survival. Initial reports stated that the Guinea strain of Ebola killed 90 per cent of all sufferers, but the official figures to date would put that figure at around 50 - 70 per cent.

Fruit bats are asymptomatic carriers of the virus, and monkeys and pigs may be too.

Human-to-human transmission is through broken skin or mucous membranes (nose, mouth, eyes) coming into contact with the blood, secretions or other bodily fluids of infected people, or instruments or environments contaminated with such fluids.

The medical advisory from the US Embassy in Sierra Leone states that the virus can be destroyed by soap, bleach, exposure to sunlight or drying. Medical experts claim sunlight kills the virus immediately.

A washing machine cycle has been proven to kill the virus on clothing saturated with infected body fluids. Some medical experts have disputed the effectiveness of hand sanitizers in containing the virus, stating they are only effective in killing bacteria and not virus cells.

No licensed vaccine for Ebola is available to date but the CDC and the WHO has given permission for certain experimental vaccines to be tried on Ebola patients. Two companies, Tekmira Pharmaceutical Corporation and Zmapp are in the forefront of supplying the experimental drugs, but both say they do not have a large stockpile. American Federal researchers are starting formal testing on human subjects in the United States.

In 2011 a vaccine against Ebola was successful in protecting mice from the virus. Another vaccine has been seen to work in monkeys even three days after they are shown to have the symptoms.

Severely ill Ebola sufferers require intensive care. Patients quickly become dehydrated and require intravenous fluids. Survivors of Ebola may remain contagious for months after they have recovered from the virus. Men have been found to still have the virus in their semen at least 61 days after recovering from Ebola. Anyone who has suffered from Ebola and survived should be tested a few months afterwards for either antibodies to the virus, the viral DNA or the virus itself.

The bodies of the deceased also remain infectious for a significant period and have to be disposed of very carefully in sterile conditions.

How to protect travellers against Ebola

Because there is, as yet, no generally available vaccine for the virus for humans, the best protection is prevention.

The WHO has now declared a public health emergency. It has not called for a ban on international travel or trade, however a number of airlines have stopped flights to the most affected countries, and some countries have banned travellers coming from those countries. Some airlines have also halted flights to major African air hubs. Some neighbouring African countries have closed their borders to the most affected countries. Some have given orders to shoot anyone crossing the border.

Many countries are advising their nationals not to travel to Guinea, Sierra Leone, and Liberia. Some international companies in Nigeria, and the Democratic Republic of Congo, where there are also Ebola cases, have evacuated their personnel.

The CDC has issued a Level One warning, the CDC's highest. As with all infectious and tropical diseases, the traveller is advised to take basic precautions to avoid coming into contact with the virus, such as not touching infected sufferers, or not being within one metre of an Ebola infected person without barrier protection, and not frequenting crowded places such as public transport, shopping malls, or hospitals and medical clinics unless seeking treatment.

Health officials advise that only bottled mineral water should be consumed, and that it is inadvisable to drink from the bottle in case the plastic has been contaminated by virus or bacteria. The traveller is advised to distil water into a preferably sterilised container.

It is recommended that reliable food sources be sought, and supplies reserved, in countries with Ebola cases. People in the three most affected countries are being advised to avoid all strangers.

Care should be taken not to share cutlery or crockery, telephones, safety clothing etc. Hands should be washed frequently, preferably in disinfectant or soap.

Further advice from the CDC includes wearing long sleeves and long trousers when in public to avoid brushing bare skin against potential sufferers; to wear sunglasses to avoid rubbing one's eyes, and to wear a surgical mask which fits completely around the nose and mouth when in public to avoid any risk of transmission in droplet form. In the event of a widespread epidemic in an area where the traveller is present, clothes and shoes worn outside of the home or office should ideally be removed before entering the building.

This virus is specifically transmitted by various animals, and the food products derived from those animals, so contact with, or consumption of, monkeys, fruit bats and pork meat should be avoided. Forest antelope and porcupines are also known to have fallen victim to Ebola so

should also be avoided. It may be advisable to avoid all meat products in an area where Ebola is known to be present.

Given the virus may be concealed by those who are affected, because of the stigma of diagnosis and a possible quarantine demand, it is important that travellers are able to identify the symptoms, and take additional measures to avoid accidental exposure.

Travellers who become unwell should seek medical advice immediately. If a friend or colleague becomes unwell the patient should be quarantined immediately, and a traveller should only be in close proximity to the patient while wearing protective clothing including a surgical gown, mask, gloves and eye protection. Masks should cover the nose and mouth completely with no gaps around the sides. No skin should be exposed. Clothing should be washed regularly with soap or disinfectant to kill the virus.

For those working in the vicinity of an Ebola outbreak it may be advisable to leave the area until the outbreak is contained. Should there be multiple outbreaks in the country it would be advisable to consider leaving the country for a period of time. Travellers should not travel if they feel at all unwell, or have a fever, and should monitor their fellow passengers for any Ebola-like symptoms.

The Latest Situation

A number of countries have now reported suspected Ebola cases, but so far many of these suspected cases have been announced negative after testing for Ebola. The Democratic Republic of Congo has confirmed it has Ebola cases.

The WHO has stated that the virus is "evolving in alarming ways" and predicted there could be up to 20,000 new cases in coming months. American health officials claim that Ebola has the upper hand. One UN envoy said the war on Ebola could take six months to win, and could lead to a food crisis in affected countries, and do huge damage to West African economies.

The epicentre of the 2014 Ebola outbreak is Sierra Leone, Guinea and Liberia, which have all declared an epidemic in their respective countries and the number of cases are still rising.

Sierra Leone and Liberia have declared a state of emergency. Nigeria has also declared a red alert and a state of emergency after reporting new cases, and after the Director of the CDC, Dr Tom Frieden, said he was deeply concerned about the spread of Ebola in Nigeria and urged urgent preventative measures. All schools in Nigeria have been closed.

Sierra Leone has deployed troops to maintain security at quarantine centres, and enforce cordons around the most affected areas, only allowing health officials in or out.

Liberia has announced that anyone who has been in contact with an infected sufferer must submit to quarantine, and has sealed off the heavily populated slum area of West Point in Monrovia, effectively trapping 50,000 to 75,000 people in a small area with restricted food supplies and poor sanitation. Troops are reported to have fired at people trying to break the cordon. One teenage boy was killed while participating in a protest against the closure. The mass quarantine followed days of bodies being abandoned on the streets of Monrovia as people attempted to evade enforced quarantine. Both Liberia and Sierra Leone have declared it a criminal offence to conceal an Ebola sufferer.

The number of known cases in all affected countries continues to rise. (See the links below for the most up-to-date figures).

Nigeria reported a number of cases, and suspected cases, after an American-Liberian man, named Patrick Sawyer, travelled by plane from Monrovia, Liberia, via Ghana and Togo to Nigeria while visibly suffering from symptoms of Ebola, and died of the virus in a hospital in Lagos a few days later. Sawyer was not quarantined immediately on arrival and some medical workers who came into contact with him, and people he met, have now died.

The World Health Organisation (WHO) has admitted it made mistakes in containing the virus initially.

Sir Mark Walport, the United Kingdom's Chief Scientist, told the Telegraph newspaper in the UK that Ebola is "a potential major threat to Britain." Public Health England has stated that the "virus is clearly not under control."

Marc Poncin, the Ebola emergency coordinator in Guinea admitted: "We are not stopping the epidemic." The World Bank has pledged hundreds of millions of US dollars to help contain the spread. African governments have also pledged millions of dollars to combat the virus and to research a vaccine or a cure.

There are grave fears that Africa is on the brink of an Ebola virus pandemic.

The United States has now sent dozens of experts from the CDC to West Africa. CDC officials say that WHO does not have the budget, nor the structure, to handle this outbreak.

The organisation that has taken the lead in treating the victims of this latest epidemic, Medecins Sans Frontieres (MSF), otherwise known as Doctors Without Borders, says its staff are increasingly being blamed for spreading the virus because so many medical employees have contracted it. MSF Director, Dr Bart Janssens, said MSF vehicles have been attacked while trying to enter areas known to have cases of Ebola and doctors and nurses have been threatened with machetes and knives.

International aid workers and health officials who caught the virus have been evacuated to Western hospitals. Some have died. Senior medical officers in the affected countries have died of Ebola.

Despite publicity campaigns by the governments fighting Ebola, MSF says key preventative messages are not getting through, and people are continuing to attend funerals where there are no infection control measures in place, even though the bodies of Ebola victims remain contagious for up to two months after death.

African tradition demands that the body of someone who has died be washed by relatives. The Nigeria Ebola victim had been in Liberia attending the funeral of his sister. A total of three of his relatives are reported to have died from Ebola. He himself may have escaped from quarantine.

Doubt is being cast on the validity of the official figures of Ebola victims and sufferers. Even the WHO has stated that it believes the official figures are a "gross underestimation."

A spokesman for the WHO said: "A failure to gauge the severity of the initial outbreak, and a subsequent relaxation of counter-measures, helped to give rise to a "second wave" from April."

The 2014 Outbreak in Statistics

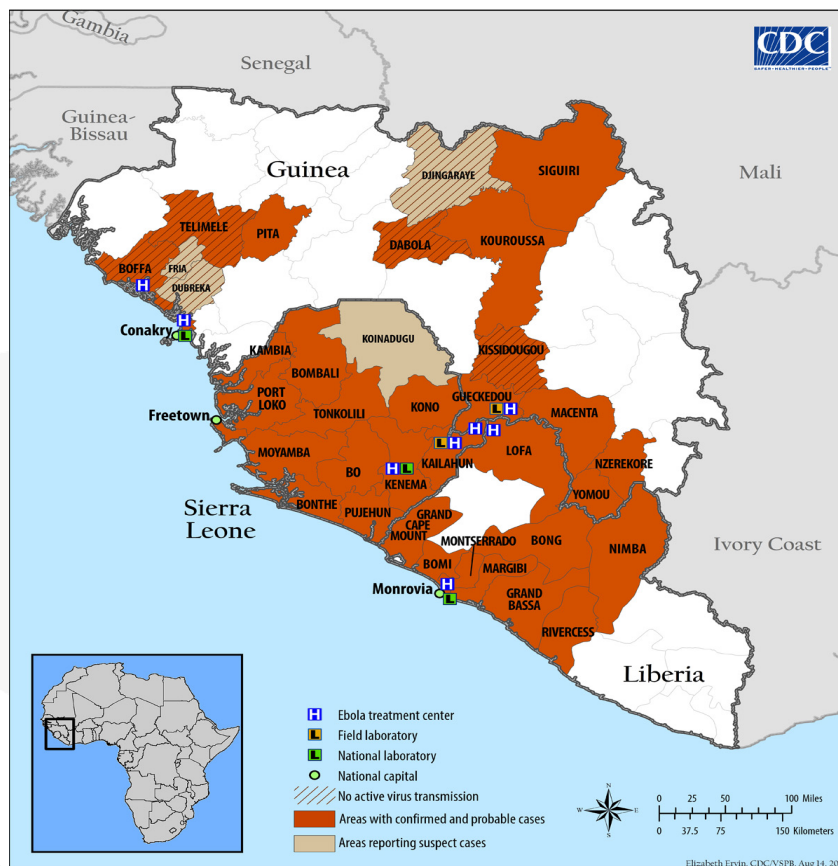
Nigeria has so far reported the fewest cases with just a handful of deaths and less than two dozen cases in the country.

In Guinea, where the outbreak started, the rate of new cases has slowed but the number of confirmed and suspected cases, and the number of deaths, is still rising overall.

The rise has been substantially higher in Liberia and Sierra Leone where Ebola has a foothold in heavily populated urban areas.

Please consult the following web address for the very latest Ebola statistics, country by country.

<http://www.afro.who.int/en/clusters-a-programmes/dpc/epidemic-a-pandemic-alert-and-response/outbreak-news.html>



CDC map showing Ebola cases (confirmed and suspected) up to August 14 2014

In Liberia seven counties out of fifteen have reported confirmed or suspected cases of Ebola, including Lofa, Montserado, Margibi, Bomi, Bong, Nimba and Grand Gedeh. Numerous cases have been reported in Monrovia.

In Sierra Leone, the districts of Kailahun, Kambia, Port Loko, Western and Kenema are the worst affected.

Stringent medical screening has now been implemented at airports worldwide, including body scanners which detect fever. In most countries worldwide, every incoming traveller is being questioned and assessed for Ebola symptoms. Some countries are implementing onward monitoring for travellers arriving from an infected zone.

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