Protecting travellers and healthcare workers from ebola infection

Information and advice from the Faculty of Travel Medicine of the Royal College of Physicians and Surgeons of Glasgow to support the prevention of further spread of ebola infection

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Ebola infection

The ebola virus epidemic has now claimed at least 4,000 lives in the deadliest epidemic to date, which the World Health Organisation declared on 8 August to be a public health emergency of international concern.

The Faculty of Travel Medicine of the Royal College of Physicians and Surgeons of Glasgow is a world leader in the provision of professional development and support to health professionals involved in aspects of travel health. This includes healthcare professionals who advise travellers intending to travel to endemic countries, healthcare workers currently volunteering for service in affected areas, and infectious disease physicians at the front line of providing care for incoming travellers from affected areas.

The Faculty has prepared the following information and advice for travellers and healthcare workers in order to support the prevention of further spread of this disease.

Why has this epidemic occurred?

Ebola virus was first identified in Africa in the mid-1970s and has caused intermittent outbreaks of disease in the last 40 years. Because these outbreaks have generally occurred in isolated rural communities, they were mostly contained with moderate but intensive effort. A recent warning that the epidemic will claim hundreds of thousands of lives if the current epidemic trajectory is maintained has been issued.¹

How far has it spread?

The current ebola outbreak has primarily affected countries in West Africa including Sierra Leone, Liberia, Nigeria, Senegal, the Democratic Republic of Congo and Guinea, although it is encouraging to note that Nigeria has been declared Ebola-free by WHO. In Spain, a nurse who had taken maximal precautions became gravely ill after touching her face with her gloves and in the US two healthcare workers are infected after treating a patient recently returned to the US from Liberia, who subsequently died.

What are the symptoms of the disease?

The illness may start suddenly two to 21 days after exposure with fever, muscle aches, weakness, headache and sore throat. This will later progress to vomiting, diarrhoea and a rash. Malfunction of the liver and kidneys is typical and some patients also have profuse internal and external bleeding.

How easily does the disease spread?

The European Centre for Disease Prevention and Control (ECDC) advises that ebola spreads through contact with bodily fluids and it is this direct contact which transmits the infection from one person to another. Casual contact in public places with people who do not appear to be ill does not transmit ebola. There is no risk from handling money, groceries or swimming in a pool. Mosquitos do not transmit the ebola virus and, unlike influenza, the virus does not transit through the air.

What are countries doing to stop the spread of ebola?

Some countries, including the US, UK and Singapore, have introduced screening of travellers arriving from West Africa in order to assess potential risk and take appropriate action if required. As the epidemic increases, the likelihood of cases arriving in different countries around the world is likely to increase. We applaud the steps being taken by many nations to prepare healthcare workers to protect themselves against this highly lethal virus. We also stress the importance of ensuring that hospitals are equipped to deal with ebola cases should they arise by providing the adequate safe care of the individual affected and ensuring safe working processes to ensure no further spread of the disease.

Once this crisis is past the UK Governments will need to consider whether its Infectious Diseases Units are appropriately designed and equipped for the severe viral threats which SARS, MERS Co-V and now Ebola have posed to health care workers and their patients.

What precautions should people travelling to affected countries take?

The European Centre for Disease Prevention and Control (ECDC) has issued advice for travellers to endemic countries²:

- Avoid direct contact with blood or bodily fluids of either a patient or deceased person and contaminated objects
- Avoid contact with wild animals, alive or dead, and the consumption of 'bush meat'
- Avoid unprotected sexual intercourse
- Avoid habitats which may be populated by bats, such as caves, isolated shelters or mining sites
- Wash hands regularly, using soap or antiseptics

The advice above is particularly important for colleagues, relatives and friends attending funerals.

Is there any additional advice for healthcare workers?

Healthcare workers going out to epidemic countries are being intensively trained before arrival and their protection will involve wearing protective clothing when treating infected individuals, and taking meticulous care when handling needles and equipment.

Are there any other steps that can be taken to avoid spread?

Ebola virus is easily killed by soap, bleach, sunlight and high temperatures or drying. Machine washing clothes that have been contaminated with fluids will destroy the virus. While it survives only a short time on surfaces that are in the sun or have dried, ebola can survive for longer or clothes or materials that have been stained with blood or other bodily fluids.

Further reading

Meltzer MI, Atkins CY, Santibanez S et al 'Estimating the future number of cases in the Ebola epidemic' MMWR Surveill Summary 2014; 63: 1-14

² http://www.ecdc.europa.eu/en/healthtopics/ebola_marburg_fevers/information-travellers/pages/information-travellers.aspx