Ebola virus is introduced into the human population through close contact with the blood, secretions, organs or other bodily fluids of infected animals. Once a person comes into contact with an animal that is infected with the virus, it can spread from human to human. Infection occurs from direct contact (through broken skin or mucous membranes) with the blood, or other body fluids (vomit, stool, urine, saliva, semen) of infected symptomatic people. Semen can contain virus for at least three months after apparent recovery from the illness.

Infection can also occur if broken skin or mucous membranes of a healthy person come into contact with environments that have become contaminated with an Ebola patient’s infectious fluids such as soiled clothing, bed linen, or used needles.

The incubation period is from two to 21 days. The illness usually begins abruptly with fever, headache, joint and muscle pain, sore throat and intense weakness. Stomach pains, diarrhoea and vomiting may occur. Some individuals may develop a rash, red eyes, hiccups, and internal or external bleeding. In severe cases patients develop failure of the liver and kidneys.

Anyone who has close contact with a person infected with the virus, or someone who handles samples from patients is at risk. This includes hospital staff, family members and laboratory workers, all of whom are at risk if they do not use proper barrier nursing techniques. These precautions include wearing protective gowns, gloves, and masks, in addition to wearing eye protection (eg goggles) or a face shield.

Ebola virus is not spread through routine, social contact (such as shaking hands) with asymptomatic individuals. The likelihood of contracting Ebola is considered very low unless there has been a specific exposure, such as direct contact with body fluids (eg blood, faeces, vomit) of infected people with symptoms or objects that have been contaminated with body fluids.
A fever in persons who have travelled to Ebola transmission areas is more likely to be caused by a common infection, such as malaria or typhoid fever, but such persons should be evaluated by a healthcare provider to be sure.

If you travel to an area affected by an Ebola outbreak, particularly, Guinea Liberia or Sierra Leone, the following precautions are recommended.

**Before you leave:**

- your organisation will register you with the PHE returning worker programme
- your organisation should be able to provide you with all the relevant personal protective equipment (PPE) for you to safely carry out your duties, but check with them what will be available. A personal supply of surgical masks and disposable gloves may also be useful, but this should be discussed with your organisation
- discuss with your organisation about what you should take with you, this will usually involve assembling a travel health kit containing basic first aid essentials, such as sunscreen, insect repellent containing DEET, painkillers, anti-diarrhoea tablets, a thermometer, household disinfectant, and alcohol-based hand rubs for hand hygiene. Be aware that hand rubs will not provide protection from any infection if hands are visibly soiled; in which case washing with soap and water is required
- seek information about the current Ebola outbreak. This is an evolving situation so remain aware of up-to-date, reliable information on the specific areas affected, as these may change over time. For information, see the links below.
- be sure you are up to date with all your routine immunisations, and see your healthcare provider at least 4-6 weeks before travel to review your immunisation status, and get advice on any additional travel-related immunisations, medications (most importantly malaria prophylaxis), or information you may need. However, even if you are travelling last minute, it is still not too late to get travel health advice. Some vaccines can be given at short notice and anti-malarial tablets can be started just before you travel. See www.nathnac.org
- if you are on prescribed medications, ensure you have a sufficient supply with you to cover your time in the field. If you have a pre-existing medical condition, you should discuss the suitability of this trip with your doctor or occupational health department
- if you have travel insurance, check your policy to establish the duration of trip covered for, whether emergency assistance is available, and whether this type of trip would be covered, or get additional insurance that covers medical evacuation in the event of illness. Check your organisation’s health and safety policies and medical evacuation arrangements
- identify in-country healthcare resources in advance of your trip and discuss with your organisation
While you are in an area where Ebola has been reported

Follow basic precautions, for example:

- avoid contact with ill or dead people unless wearing appropriate PPE
- avoid contact with ill or dead animals (especially primates and bats) as well as preparation and consumption of ‘bushmeat’ (also called wild meat; meat of terrestrial wild or feral mammals, killed for food in the tropics)
- adhere to safe sex practices including the use of barrier contraception

If you are involved in medical care you should maintain the **general principles of infection control at all times**, including:

- careful and frequent hand washing using soap and water (or waterless alcohol-based hand rubs when soap is not available)
- wearing gloves
- proper disposal of needles and other equipment and sterilisation of non-disposable equipment
- proper disposal of body fluids and tissues from patients

In addition, you must observe strict **barrier techniques** when in close contact with persons suspected or known to have Ebola. For healthcare workers working with Ebola patients in African healthcare settings, see WHO’s 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, published in September 2014. This document includes direct patient care, laboratory activities, post mortem examinations, movement and burial of human remains, cleaning and waste disposal.

Vital barrier techniques include wearing protective gowns, gloves, masks and eye protection or face shields. It is vitally important that these are very carefully removed after use. See detailed WHO advice. There is an NHS training video in preparation.

If you think you have been exposed to Ebola while in the affected area:

- if you do not have any symptoms but think that you have been exposed to Ebola (eg through a breach in PPE), contact your organisation immediately. They will be able to give further advice
- if you become unwell, inform your organisation, visit a healthcare provider immediately and inform them that you may have had contact with Ebola. There may be a legal duty to report this and your organisation should be aware of this requirement. When travelling to seek medical attention, limit your contact with others. All other travel should be avoided
• remember that symptoms of Ebola can be non-specific, eg chills, muscle aches, sore throat. Other potential causes of illness (such as malaria) should not be overlooked

After your return

On your arrival in the UK you should comply with the screening process at the port of entry.

Health, public health and social care workers returning from an affected area will need to be assessed before they can return to work involving patient contact in the UK. This assessment will look at the type of work that you carried out in West Africa and whether there were any issues around the use of PPE during this period. This will determine the degree of follow-up required and the work activities you can resume in the following 21 days. People are not considered infectious while asymptomatic but, to maintain high standards of patient safety within the NHS, some healthcare activities may be restricted until returning staff are past the incubation period for Ebola (21 days).

Your organisation will provide your contact details and your exposure categorisation to PHE when you return from your work in West Africa. Before you can return to work, you have a duty to undertake this assessment and follow the advice provided. The follow up required for each category of returning worker is dependent on the type of work undertaken.

The local PHE health protection team will be sent your details before you return to the UK and will make contact with you to undertake the follow-up process. This will be as follows:

• **Category 1:** there are no restrictions on the activities of a person in this category – you can return to usual activities. You will be contacted once by the local PHE team on your return. There is no further monitoring or reporting requirement after this contact. You will be given advice about reporting illness and accessing healthcare should you become unwell

• **Category 2:** You will be contacted by the local PHE team on your return and they will advise you as to what activities and work you are able to undertake in the following 21 days. They will also advise you as to any other precautions you should take. You are required to check your temperature twice daily for 21 days after return (please see section on use of medicine below), and to report any raised temperature (37.5°C or higher) or other suspicious symptoms to a designated PHE contact. A monitoring kit and detailed guidance will be provided by PHE
• **Category 3**: You will be contacted by the local PHE team on your return and they will advise you on what activities and work you are able to undertake in the following 21 days. They will also advise you as to any other precautions you should take. You are required to check your temperature twice daily for 21 days after return (please see section on use of medicine below), and to REPORT DAILY to a designated PHE contact, even if you don’t have a raised temperature (37.5°C or higher) or other suspicious symptoms. A monitoring kit and detailed guidance will be provided by PHE

**Use of medicines such as aspirin, paracetamol or ibuprofen**

Certain medicines can have the effect of reducing body temperature during a fever (antipyretic). Medicine with an antipyretic, including aspirin, paracetamol or ibuprofen, can lower your body temperature for up to 8 hours. Therefore, for up to 8 hours after taking an antipyretic, thermometer measurements may show a lower temperature than would be expected due to the effect of the antipyretic.

You must make contact with your designated local PHE contact if you need to take such a medicine for further advice. Please take your temperature before you take aspirin, paracetamol or ibuprofen, and if it is 37.5°C or higher then you must contact your designated PHE contact immediately.

A temperature of 37.5°C is always significant, whether you are taking one of these medicines or not, and must be reported urgently.

**If you become unwell within the 21-day period after return to the UK**

This must be reported to the designated local PHE contact who will arrange for you to be medically assessed. If there is any delay in making contact with them, you should phone 111 reporting your recent work in an Ebola affected area. If you are seriously ill, dial 999, and report your recent work in an Ebola affected area.

**Looking after yourself when you return**

Supporting the response in West Africa will be rewarding, but it can be stressful and emotionally demanding. It is likely that you will be in contact with people who are seriously ill and their families. It is normal to feel distress under these circumstances and your training and your colleagues will help you to deal with these challenges.

There are a number of simple things you can do while you are there and when you return home that have been shown to help people cope with difficult circumstances:
• talk to people around you: colleagues, friends and try to keep in touch with your family. Just engaging in normal activities with others can help you to cope
• don’t drink too much alcohol; although it can be tempting and seem to help in the short term, drinking too much can make things worse
• look after yourself physically: don’t overdo it; take breaks; remember to eat regularly and properly; try to get enough sleep; gentle exercise can help
• if you are struggling to cope then you should tell your supervisor or your GP who can help you to find further support. Remember that if you look after yourself and your own needs, you will be in a better position to help others

Additional information

For more information about health recommendations for travel to Africa, see: www.nathnac.org.

For more information about Ebola virus disease, see:

For information about other viral haemorrhagic fevers, see:

For healthcare workers working with VHF patients in African healthcare settings, see WHO’s “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”:

Contact your local PHE health protection team:
http://legacytools.hpa.org.uk/AboutTheHPA/WhatTheAgencyDoes/LocalServices/PostcodeSearch/.

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