



## Ebola Q&A – October 2014

### Questions about risk to the UK

#### **Are people in the UK at risk of Ebola?**

The overall risk to the general UK population continues to be low. The virus is only transmitted by direct contact with the blood or body fluids (such as blood, saliva or vomit) of an infected person.

There is a higher risk for humanitarian healthcare workers exposed to patients unless appropriate Personal Protection Equipment (PPE) is used. Specific advice has been prepared for humanitarian and health care workers.

#### **Is there a public health risk from a person with Ebola coming into the country?**

The incubation period of Ebola ranges from 2 to 21 days, and so whilst unlikely, it is not impossible that a person infected in Guinea, Liberia or Sierra Leone could arrive in the UK. An individual infected with Ebola may arrive in the UK with symptoms which began prior to departure or with symptoms that developed in transit, or they may arrive before developing any symptoms.

The Chief Medical Officer alerted UK medical practitioners about the situation in West Africa and requested they remain vigilant for unexplained illness in those who have visited the affected areas.

#### **Are we going to see an outbreak of Ebola in the UK?**

While the UK might see cases of imported Ebola, there is minimal risk of it spreading to the general population. England has a world class health care system with robust infection control systems and processes and disease control systems which have a proven record of dealing with imported infectious diseases. Ebola causes most harm in countries with less developed healthcare facilities and public health capacity.

### Questions about UK preparedness

#### **Are we prepared for Ebola in England?**

Public Health England is continuing to work with government and NHS colleagues to ensure the UK remains alert to, and prepared for, the risk of Ebola. The overall risk of Ebola to the UK remains low.

The UK contingency plans for Ebola are based on the assumption that there is a low, but nevertheless real, risk of importing a case of Ebola from West Africa. However, it is important to remember that if a case is identified here, the UK has robust, well-developed and well-tested NHS systems for managing unusual infectious diseases.

The Chief Medical Officer has advised all front line medical practitioners to be alert to Ebola in those returning from affected areas. Testing for the disease can be undertaken rapidly at PHE's Rare and Imported Diseases Laboratory in Porton to confirm/exclude the diagnosis.

### **How can you be sure that every region is ready for an Ebola case?**

Locally, Public Health England (PHE) is working with NHS England and local authority Directors of Public Health through the Local Health Resilience Partnerships (LHRPs) to ensure that plans are as robust as possible. PHE has existing strong partnership arrangements with the NHS, local authorities and ports covering all aspects of public health and infection control. Additional arrangements have been set up alongside these to ensure all information and guidance relating to Ebola is shared widely among partners, including setting up workshops and planning exercises.

### **What actions are being taken to halt the virus from coming to the UK?**

As of this week, the UK has introduced enhanced screening to key UK ports, starting at Heathrow. The aim is to ensure that as many people as possible arriving from the infected countries know the symptoms and how to get access to healthcare services as quickly as possible.

### **What is the test for Ebola? How and where is it carried out? How long does it take?**

Public Health England's Microbiology Services has provided a document as guidance on the appropriate pathway for testing for viral haemorrhagic fevers (VHF, such as Ebola), including samples to be taken, results turn-around time and other tests that may be conducted to look for alternative causes of illness.

See: <https://www.gov.uk/government/publications/viral-haemorrhagic-fever-sample-testing-advice>

### **How many tests have been done for Ebola in the UK?**

Public Health England runs the Imported Fever Service (IFS), which clinicians can contact for guidance if they're treating an individual with fever symptoms. As we would expect in this time of heightened Ebola vigilance, we're currently receiving a high number of calls - around 50-80 a week - relating to a wide variety of possible diseases. In July, the average was around 15.

It's important to remember that outside of the repatriation of a British Nurse in August 2014, we have not seen a case of Ebola in the UK. The increased calls to the IFS do not directly reflect increased risk in the UK, which remains low. But we encourage clinicians to stay alert and to always call the Imported Fever Service if they have a concern.

### **What is the process a patient will go through from being a possible to a confirmed case?**

There are many diseases which have similar symptoms in the early stages so specialist infection clinicians will make expert judgements on what the most likely diagnosis is based on the patient's history.

If Ebola is considered a possibility on this basis, then a person would be tested for the disease. A suspect case would be isolated in a side room so as to minimise contacts with other people while they are being tested and healthcare staff treating the patient will wear personal protective equipment (PPE), such as facemasks, goggles, gowns and gloves. It is only if this test is positive that the case is considered to be 'confirmed'.

If the test is positive then they will be transferred to a hospital based High Level Isolation Unit at the Royal Free Hospital in London.

### **What if someone thinks they might have Ebola?**

Unless you've come into contact with the blood or bodily fluid of an infected person (for example by providing healthcare for a person with Ebola or handling the dead body of someone who died from Ebola), there is little chance of being infected.

The advice is that if anyone is worried about symptoms (such as fever, chills, muscle aches, headache, nausea, vomiting, diarrhoea, sore throat or rash) within 21 days of coming back from Guinea, Liberia or Sierra Leone, they should stay at home and immediately telephone 111 or 999 and explain they have recently visited West Africa. If necessary, they would be taken by ambulance to hospital where they would be isolated and seen by healthcare staff wearing PPE. If required, blood samples would be taken for testing. If confirmed, the patient would be safely transferred to Royal Free.

It's important to remember there are other illnesses which are much more common than Ebola (such as flu, typhoid fever and malaria) that have similar symptoms in the early stages, so proper medical assessment is really important to ensure each patient gets the right diagnosis and treatment. It is also really important that medical services are expecting a patient's arrival and calling 111 or 999 will ensure that this happens.

### **What happens if someone who thinks they may have Ebola sees their GP or turns up at A&E without calling 111 or 999 first?**

There is clear guidance for a range of scenarios, produced by the Advisory Committee on Dangerous Pathogens (ACDP) on the management of patients with a viral haemorrhagic fever (VHF), such as Ebola, or other infectious diseases of high consequence. It provides advice on how patients suspected of being infected with VHF should be comprehensively assessed, rapidly diagnosed and safely managed within the NHS, to ensure the protection of public health.

Available here: <https://www.gov.uk/government/publications/viral-haemorrhagic-fever-algorithm-and-guidance-on-management-of-patients>

### **If we have an imported case or cases in the UK, will this swamp the NHS?**

No. The UK has two specialist high-level isolation unit beds available at the Royal Free Hospital. There is further capacity available at the Royal Free and surge capacity at a number of other units across the country.

## **Questions about UK National Exercise on Ebola**

### **How did you test UK preparedness to Ebola?**

On Saturday 11 October PHE, the Department of Health and NHS England engaged in a national exercise to test our preparedness to Ebola in England. We tested the scenario that imported cases of Ebola were discovered in a community, to demonstrate and test the reaction to such cases. This demonstrated to us that we have a robust, well-developed and well-tested system for managing this disease. We are talking to Scotland, Wales and Northern Ireland about the lessons learnt.

Local Resilience Forums across England are, in addition, holding their own exercises this week, and we expect all local areas to be taking appropriate steps in light of the lessons learned. We are also talking to the Devolved Administrations about lessons to be learned.

### **What gaps did you identify in UK strategy?**

As the UK is already well-prepared for dealing with infectious diseases, no large strategy gaps were identified. The exercise simply highlighted the need for medical professionals – and indeed the wider community – to be vigilant and responsible in reporting potential cases. Whilst the UK healthcare system is extremely prepared and capable in the event of an Ebola case being imported, the onus has to be on individual travellers who return to the UK. That said, we believe the enhanced screening procedures at ports will minimise the risk of an Ebola case from entering the UK undetected.

## **Questions about screening**

### **Why is the UK implementing screening?**

The purpose of screening is to identify, and give advice to, passengers coming from high risk areas who will be spending time in the UK. This is to provide them with relevant advice on the nature of the virus, what to be aware of and what action to take should they begin to display any symptoms.

### **Does this mean the risk to the UK has increased?**

No. The risk remains low but the Government is looking at the best options for keeping people safe.

### **Who will be affected by screening at UK?**

Using existing Border Force technology, passenger data will be used to identify those passengers who have recently travelled from Liberia, Sierra Leone and Guinea on routes with onward connection to the UK.

### **What is the screening process?**

All those travelling from the affected countries will have their temperature taken and complete a questionnaire asking about their current health, recent travel history and whether they might be at potential risk through contact with Ebola patients.

Based on the information provided and their temperature, passengers will either be given advice and allowed to continue their journey or undergo a clinical assessment by PHE staff and if necessary be transferred to hospital for further tests.

Anyone who is well but may have been at increased risk of contact with the Ebola virus will be given printed information and a PHE contact number to call if they develop symptoms.

### **Where will the screening take place?**

The Government has currently asked for screening at Heathrow, Gatwick and Eurostar terminals. Introducing screening at Heathrow and Gatwick will cover approximately 90% of passengers coming from the region with through tickets for the UK.

### **What about other airports?**

Plans are in place for a further roll-out to other UK ports, if necessary. Screening has started at the highest risk airports, where most connecting flights from the affected region arrive. This will be kept under review and the Government will look at what further action is needed based on the latest medical advice.

### **How many people do you expect to check?**

We know that less than 1,000 passengers arrived by air from the affected countries in September and around 85% arrive at Heathrow.

### **How will you know who to check?**

Border Force, working with airlines, have flight details in terms of where people have been flying from with single tickets. It is also possible to identify passengers travelling on indirect connections.

### **Will enhanced screening stop cases arriving?**

It's important to remember this is just one part of the screening process. PHE is also working with the international community and local health authorities to ensure robust exit screening remains in place at airports in Sierra Leone, Guinea and Liberia, which will pick up anyone who is symptomatic before they leave these countries.

Although no system can completely prevent a case of Ebola coming into the UK, enhanced screening will ensure that individuals at risk know exactly what to do if they start feeling ill, and can get in touch with the expert advice they need immediately.

The overall risk of Ebola in the UK remains low, and we have a world-class domestic health system that is ready to respond if we do see a case in the UK.

### **If you're on a flight with someone with Ebola what is the risk to you?**

You cannot catch Ebola through social contact or by travelling on a plane with someone who is infected, without direct contact with the blood or body fluids of an infected person.

Cabin crew identifying a sick passenger with suspicion of infectious disease on board, as well as ground staff receiving the passenger at the destination, would follow the International Air Transport Association guidelines for suspected communicable diseases.

If there is someone unwell on board a flight, the pilot of the aircraft is legally required to inform air traffic control. Arrangements will be made for medical assessments for the person on arrival. The exact arrangements will depend on the airport involved. The local Public Health Team would be alerted if there was a possibility that the individual was suffering from an infectious disease so that appropriate public health action could be initiated.

### **Does PHE support this enhanced screening?**

PHE welcomes the Government's announcement on targeted screening measures at the UK's main ports of entry. This will provide an additional opportunity to raise awareness of Ebola symptoms amongst those arriving from affected areas, to help ensure anyone that develops symptoms seeks prompt medical assistance.

The opportunity to undertake medical assessment at these busy ports, by trained medical personnel, builds on the standard protocol for all UK airports where an assessment is undertaken if someone arrives displaying symptoms of any serious illness.

It is important to remember that overall the risk of Ebola in the UK remains low, and that we have a world-class domestic health system that is ready to respond if we do see a case in the UK.

### **Questions about Ebola symptoms, treatment and contact tracing**

#### **What is Ebola?**

Ebola virus disease (previously known as Ebola haemorrhagic fever) is a rare but severe disease which is caused by Ebola virus. It can result in uncontrolled bleeding, causing damage to the patient's vital organs. It was first recognised in 1976 and has caused sporadic outbreaks since in several African countries.

The virus is initially transmitted to people from wild animals and spreads in the human population through human-to-human transmission through contact with blood and body fluids.

#### **What are the symptoms?**

An infected person will typically develop a fever, headache, joint and muscle pain, sore throat, and intense muscle weakness. These symptoms start suddenly, between 2 and 21 days after becoming infected, but usually after 5-7 days. Diarrhoea, vomiting, a rash, stomach pain and impaired kidney and liver function follow. The patient then bleeds internally, and may also bleed from the ears, eyes, nose or mouth. Ebola virus disease is fatal in 50-90% of cases. The sooner a person is given care, the better the chances that they will survive.

#### **Who is at risk?**

Anyone who cares for an infected person or handles their blood or fluid samples is at risk of becoming infected. Hospital workers, laboratory workers and family members are at greatest risk. Strict infection control procedures and wearing protective clothing minimises this risk.

#### **Can you catch Ebola by touching the skin of someone who was symptomatic?**

Even with a symptomatic person, direct contact with blood or body fluids is the only way Ebola is transmitted. Once symptomatic, all body fluids such as blood, urine, stool, vomit, sweat, saliva and semen are infectious. Ebola virus disease is **not** spread through ordinary social contact, such as shaking hands, travelling on public transport or sitting beside someone who is infected and does not have any symptoms.

### **Can you catch Ebola from someone without symptoms?**

No. People infected with Ebola can only spread the virus to other people once they have developed symptoms, such as a fever. Even if someone has symptoms, it's important to remember that the virus is only transmitted by direct contact with the blood or body fluids of an infected person.

### **Is there a treatment for Ebola?**

There is no specific vaccine or medicine that has yet been proven to be effective against Ebola. There is no cure for this disease, and antibiotics are not effective. In some instances, clinicians treating individuals with Ebola may source and decide to use an experimental drug, such as Zmapp. Severely ill patients require intensive supportive care, which may include rehydration with intravenous fluids.

### **Do the Texan and Spanish healthcare cases prove it's impossible to curb the spread of this disease?**

Treating Ebola is not risk-free and we applaud the courage of healthcare workers who are helping to treat Ebola patients in West Africa and in countries that have seen imported cases.

In these cases it seems likely that protocols were not completely followed, but PHE will be in touch with the Spanish authorities and with CDC to see what lessons can be learnt.

We are confident we have the right protocols in place, as demonstrated in the Will Pooley case, but we are always looking to see if we can improve our procedures.

### **If we had a case in the UK, how would PHE trace their contacts?**

England has a world class health care system, and robust infection control systems and processes and disease control systems. These are all active permanently, and always available and regularly tested and proven to be effective. Contact tracing will be undertaken by public health services if a patient has a positive test result for Ebola infection. In England, this will be undertaken by PHE which has a network of teams around the country staffed by specialists with expertise in a wide range of infectious diseases. There are similar services in Scotland, Wales and Northern Ireland.

### **Who would we contact trace? What's the definition of a close contact?**

Public health specialists will carefully interview all individuals to find out what sort of contact they had with the person infected with Ebola. Those who had close, physical contact with the Ebola-infected person or their body fluids while that person was symptomatic will be monitored; this involves checking if they have any symptoms including monitoring their temperature. The exact range of people included such as family members will depend on what sort of contact they had with the person infected with Ebola. It is important to remember that people infected with Ebola can only spread the virus to other people once they have developed symptoms and Ebola is **not** spread through ordinary social contact, such as shaking hands or sitting next to someone, with people who are well.

### **If someone with confirmed Ebola was symptomatic on a flight, who is followed up? Is it one seat behind / in front / adjacent?**

It is important to remember that the international agencies are working with the affected countries and airlines to advising passengers leaving the affected regions not to travel if they are displaying signs and symptoms of the illness.

However, there are established international guidelines for managing the situation if a suspected Ebola case is symptomatic on a flight. Cabin crew identifying a sick passenger with suspicion of infectious disease on board, as well as ground staff receiving the passenger at the destination, should follow the International Air Transport Association (IATA) guidelines for suspected communicable diseases – agreed with public health doctors at the Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation (CAPSCA). <https://www.iata.org/whatwedo/safety/health/Documents/health-guidelines-cabin-crew-2011.pdf>

If there is a symptomatic person on board the flight the aircraft contact air traffic control who makes contact with primary responders. Contact tracing will only be undertaken if a patient tests positive for Ebola and they had symptoms while on the flight. In these circumstances, public health specialists will work with the relevant airline to identify those sitting one seat away in all directions from the patient, as well as any crew members who were working in that section of the aircraft.

### **What is the infection control procedure if someone who was symptomatic had used public transport?**

Public health specialists will carefully investigate the patient to find out what sort of symptoms they had while travelling, to decide what tracing activities and infection control procedures are required. These may include special cleaning and disinfection measures.

It is important to note that the UK has robust systems in place already for infectious disease control, including those in airports and ports, and that the risk of Ebola in England remains low.

### **Questions about the current outbreak**

#### **Where is the current outbreak?**

Since March 2014, there has been a large, widespread outbreak affecting Guinea, Liberia and Sierra Leone. Nigeria and Senegal have also been affected by imported cases. Latest information is available from WHO.

#### **Is there a risk of Ebola transmission from illegal bushmeat?**

The risk to the UK population of acquiring Ebola virus from bushmeat is very low.

It is illegal to import bushmeat into the UK. Cooking will kill the virus, but there is some risk in handling raw bushmeat and the Food Standards Agency advice has always been that people should avoid illegal bushmeat as you can never be certain of its safety.

#### **What is the UK government doing to respond to the Ebola crisis?**

The UK is coordinating and leading the response to Ebola in Sierra Leone and has committed to provide 700 Ebola treatment beds in at least 4 treatment centres in areas where need is greatest. To provide staff for these facilities – and the 92-bed facility – the UK will scale up the national Ebola Training Facility (which already trains 90 health workers a week) to train Sierra Leonean and international staff. We are also working with partners on the ground to significantly scale up support for social mobilisation, contact tracing, burial



services, and community-level care. Vaccine trials are underway in the UK and Mali, through the University of Oxford, the Wellcome trust and with international partners.

### **What support is PHE providing in West Africa?**

In addition to our work here in the UK, PHE staff have also been on the frontline as part of the international effort to tackle Ebola in West Africa. They have been supporting the Sierra Leone Ministry of Health by providing expert guidance on managing the outbreak and preventing the spread of the virus in health care facilities and in the community. Earlier this year a team member also worked on the ground in Sierra Leone, as part of the WHO global response. As well as providing support in Sierra Leone, a number of PHE scientists have provided expert virological support with the EU Mobile Lab in Guinea. Discussions are ongoing regarding further deployment of PHE staff to Africa.

### **How many NHS staff have volunteered to help with the outbreak?**

More than 650 staff have volunteered to date, but the numbers continue to increase.

### **What training will NHS volunteers receive?**

NHS workers who volunteer to go to West Africa will now go through UK-Med, which is experienced in sending NHS staff into humanitarian situations. Volunteers will go through a comprehensive interview and training programme in the UK and Sierra Leone to make sure they are as prepared as possible for the demands of working in Ebola-hit areas.

### **When will the first NHS staff go to Sierra Leone?**

Plans are still being developed, but it's envisaged NHS volunteers going out as early as mid-December.

### **What about returning staff? Will they be quarantined?**

Returning healthcare workers will be monitored by PHE who will:

- Provide information and advice
- Assess risk
- Ensure daily monitoring
- Advise self-monitoring of fever and symptoms twice a day for 21 days
- Advise against carrying out any exposure-prone procedures for 21 days (e.g. surgery, intubation)

### **What is being done to try and find new treatments/cures?**

The UK is using its position as a global centre of research to better understand Ebola and help prevent a future outbreak. Working with the Wellcome Trust the UK government has launched a global call for research which could produce evidence to better manage the current outbreak and those in the future.

The UK, alongside Wellcome Trust and Medical Research Council has also co-funded clinical trials of a potential vaccine which could be pivotal to preventing outbreaks.

### **What guidance have we given humanitarian workers?**

Anyone planning to conduct humanitarian work in areas of Africa where outbreaks of Ebola virus disease are known to occur needs to be familiar with how Ebola virus is transmitted. A leaflet recommending the precautions that humanitarian workers should take and providing advice on what they should do if they suspect an infection, has been developed by PHE.

Available: <https://www.gov.uk/government/publications/ebola-virus-disease-information-for-humanitarian-aid-workers>

### **What guidance have we given schools and universities?**

An algorithm has been developed to assist universities and other further educational establishments who may have students returning or visiting from affected countries.

Available: <https://www.gov.uk/government/publications/ebola-advice-and-risk-assessment-for-universities-and-further-educational-establishments>

Further information on Ebola can be found on the PHE website, see: [Ebola virus disease: clinical management and guidance](#)

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