Global high consequence infectious disease events
Monthly update

April 2019
About Public Health England

Public Health England exists to protect and improve the nation’s health and wellbeing, and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

Public Health England
Wellington House
133-155 Waterloo Road
London SE1 8UG
Tel: 020 7654 8000
www.gov.uk/phe
Twitter: @PHE_uk
Facebook: www.facebook.com/PublicHealthEngland

Prepared by: Emerging Infections and Zoonoses Section, PHE
For queries relating to this document, please contact: epiintel@phe.gov.uk

© Crown copyright 2019
You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0. To view this licence, visit OGL or email psi@nationalarchives.gsi.gov.uk. Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

Published May 2019
PHE Publications
gateway number: GW-423

PHE supports the UN Sustainable Development Goals
Introduction

This monthly report provides detailed updates on known high consequence infectious disease (HCID) events around the world.

This report details all the HCID pathogens that are covered during epidemic intelligence activities. The report is divided into two sections. The first contains contact and airborne HCIDs that have been specified for the HCID Programme by NHS England. The second section contains additional HCIDs that are important for situational awareness.

Each section consists of two tables of known pathogens and includes descriptions of recent events. A third table will be included in the second section when undiagnosed disease events occur that could be interpreted as potential HCIDs.

Likelihood assessment

Included for each disease is a ‘likelihood assessment’; the likelihood of a case occurring in the UK, based on past UK experience and the global occurrence of travel-associated cases. There are 3 categories currently – LOW, VERY LOW and EXCEPTIONALLY LOW. This assessment is as of January 2019.

When considering clinical history, it is important to remember that cases can and do occur outside of the usual distribution area. It is not possible to assess accurately the risk of cases presenting to healthcare providers in England, but taken together it is inevitable that occasional imported cases will be seen.

Events found during routine scanning activities that occur in endemic areas will briefly be noted in the report. Active surveillance, other than daily epidemic intelligence activities, of events in endemic areas will not be conducted (eg, actively searching government websites or other sources for data on case numbers).

The target audience for this report is any healthcare professional who may be involved in HCID identification.
## Section 1: Incidents of significance of primary HCIDs

- **Ebola virus disease** – outbreak in North Kivu and Ituri provinces, DRC

### Crimean-Congo haemorrhagic fever (CCHF)

<table>
<thead>
<tr>
<th>Infectious disease</th>
<th>Geographical risk areas</th>
<th>Source(s) and route of infection</th>
<th>UK experience to date</th>
<th>Likelihood assessment</th>
</tr>
</thead>
</table>
| **Endemic** in Central and Eastern Europe, Central Asia, the Middle East, East and West Africa. First locally acquired case in Spain 2016 *(Risk Assessment)* | - Bite from or crushing of an infected tick  
- Contact with blood or tissues from infected livestock  
- Contact with infected patients, their blood or body fluids | 2 confirmed cases (ex-Afghanistan 2012; ex-Bulgaria 2014) | LOW - Rarely reported in travellers (23 cases in world literature) |

**Recent cases/outbreaks:**
- Pakistan and Russia are reporting sporadic cases, consistent with seasonal transmission
- **Uganda** reported one fatal case in Jinja district. 13 cases have been confirmed in the country since May 2018
- Angolan media reported one fatal case that occurred in **Lubango province** in November 2018. If officially confirmed, this will be the first detection of CCHF in Angola

<table>
<thead>
<tr>
<th><strong>Ebola virus disease</strong></th>
<th>Source(s) and route of infection</th>
<th>UK experience to date</th>
<th>Likelihood assessment</th>
</tr>
</thead>
</table>
| **Sporadic outbreaks in Western, Central and Eastern Africa** | - Contact/consumption of infected animal tissue (eg bushmeat)  
- Contact with infected human blood or body fluids | 4 confirmed cases (one lab-acquired in UK in 1976; 3 HCWs associated with West African epidemic 2014-15) | VERY LOW - Other than during the West Africa outbreak, exported cases are extremely rare |
### Recent cases/outbreaks:

The Ebola outbreak in DRC continues to deteriorate. The number of cases significantly increased in April, following continued disruption to response activities and attacks on health workers and healthcare facilities. April experienced the highest weekly case numbers and the highest monthly total since the outbreak began. As of 30 April, a total of 1,495 confirmed and probable cases have been reported across 21 health zones in North Kivu and Ituri provinces. This is an increase of 406 confirmed cases in the past month, compared to 199 in March. The IHR Emergency Committee for Ebola met on 12 April and determined that the ongoing outbreak does not currently constitute a Public Health Emergency of International Concern (PHEIC). The risk for the UK population has not changed and is currently assessed as negligible-very low.

### Lassa fever

**Endemic in sub-Saharan West Africa**

- Contact with excreta, or materials contaminated with excreta of infected rodent
- Inhalation of aerosols of excreta of infected rodent
- Contact with infected human blood or body fluids

14 cases since 1971, all ex-West Africa

LOW - Overall it is the most common imported VHF but still rare (global total 35 reported since 1969)

### Recent cases/outbreaks:

- As of 28 April, a total of 2,323 suspected cases, including 554 confirmed, have been reported across 21 states in Nigeria. Weekly case numbers have decreased since week 10, and only 28 cases were reported in the 4 weeks to 28 April.
- 58 suspected cases have been reported from Kenema District, Sierra Leone since the beginning of 2019, including 2 confirmed.
- Liberia has reported 54 suspected cases, including 6 deaths, since the beginning of the year. Of these, 19 have been confirmed. 10 were reported in the month of April.
### Marburg virus disease

<table>
<thead>
<tr>
<th>Sporadic outbreaks in Central and Eastern Africa</th>
<th>- Contact with infected blood or body fluids</th>
<th>No known cases in UK</th>
<th>VERY LOW - 5 travel related cases in the world literature</th>
</tr>
</thead>
</table>

**Recent cases/outbreaks:**
- no cases reported since November 2017
<table>
<thead>
<tr>
<th>Infectious disease</th>
<th>Geographical risk areas</th>
<th>Source(s) and route of infection</th>
<th>UK experience to date</th>
<th>Likelihood assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza A(H7N9) virus (Asian lineage)</td>
<td>All human infections acquired in <strong>China</strong></td>
<td>- Close contact with infected birds or their environments&lt;br&gt;- Close contact with infected humans (no sustained human-human transmission)</td>
<td>No known cases in UK</td>
<td>VERY LOW (PHE Risk Assessment)</td>
</tr>
<tr>
<td>Recent cases/outbreaks:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• one confirmed human case of H7N9 was reported in <strong>Gansu province, China</strong> in April. This is the first human case to be reported in over a year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza A(H5N1) virus</td>
<td>Human cases predominantly in SE Asia, but also Egypt, Iraq, Pakistan, Turkey, Nigeria. Highly pathogenic H5N1 in birds much more widespread, including UK</td>
<td>- Close contact with infected birds or their environments&lt;br&gt;- Close contact with infected humans (no sustained human-human transmission)</td>
<td>No known cases in UK</td>
<td>VERY LOW (PHE Risk Assessment)</td>
</tr>
<tr>
<td>Recent cases/outbreaks:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• one confirmed human case of H5N1 was reported in <strong>Nepal</strong>. This is the first human case ever reported from Nepal, and the first case of H5N1 reported globally since 2017. Nepal has reported outbreaks of H5N1 in poultry over the last few months&lt;br&gt;• avian outbreaks were reported in China, Bhutan and India with no associated human cases</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Global high consequence infectious disease events: April 2019 update
### Middle East respiratory syndrome (MERS)

**The Arabian Peninsula** - Yemen, Qatar, Oman, Bahrain, Kuwait, Saudi Arabia and United Arab Emirates

- Airborne particles
- Direct contact with contaminated environment
- Direct contact with camels

5 cases in total; 3 imported cases (2012, 2013 and 2018), two secondary cases in close family members of second case; 3 deaths

**Very Low (PHE Risk Assessment)**

**Recent cases/outbreaks:**
- 22 cases, including 8 deaths, were reported in Saudi Arabia in April; 10 were primary and 12 were secondary cases. In total, Saudi Arabia has reported 135 cases across the country since January 2019

### Monkey pox

**West and Central Africa**

- Close contact with infected animal or human
- Indirect contact with contaminated material eg bed linen

3 cases in total; 2 imported (Sept 2018) and 1 nosocomial transmission

**Very Low - Reported outside Africa for the first time in 2018 (2 in UK and 1 in Israel)**

**Recent cases/outbreaks:**
- As of 14 April, 1,366 suspected cases have been reported from northwestern DRC (Ecuador, North Ubangi and South Ubangi) in 2019
- As of 7 April, Nigeria has reported 328 suspected cases, including 132 confirmed, since the beginning of the outbreak. 23 cases from 13 LGAs across 9 states have been reported in 2019
### Nipah virus

Outbreaks in Bangladesh and India; SE Asia at risk
- Direct or indirect exposure to infected bats; consumption of contaminated raw date palm sap
- Close contact with infected pigs or humans

No known cases in UK
EXCEPTIONALLY LOW
- No travel related infections in the literature

**Recent cases/outbreaks:**
- no confirmed or suspected human cases were reported in April 2019

### Pneumonic plague (*Yersinia pestis*)

Predominantly sub-Saharan Africa but also Asia, North Africa, South America, Western USA
- Flea bites
- Close contact with infected animals
- Contact with human cases of pneumonic plague

Last outbreak in UK 1918
VERY LOW - Rarely reported in travellers

**Recent cases/outbreaks:**
- two fatal cases of bubonic plague were reported in Bayan Olgii province, Mongolia at the end of April in people who had eaten raw meat of a marmot. A 6-day quarantine was imposed on the affected town and 118 contacts were isolated and treated with prophylactic antibiotics

### Severe acute respiratory syndrome (SARS)

Currently none; two outbreaks originating from China 2002 and 2004
- Airborne particles
- Direct contact with contaminated environment

4 cases related to 2002 outbreak
EXCEPTIONALLY LOW
- Not reported since 2004

**Recent cases/outbreaks:**
- no confirmed or suspected human cases reported since 2004
Global high consequence infectious disease events: April 2019 update

Section 2: Incidents of significance of additional HCIDs

- nothing of significance

<table>
<thead>
<tr>
<th>Infectious disease</th>
<th>Geographical risk areas</th>
<th>Source(s) and route of infection</th>
<th>UK experience to date</th>
<th>Likelihood assessment</th>
</tr>
</thead>
</table>
| Argentine haemorrhagic fever (Junin virus) | Argentina (central). Limited to the provinces of Buenos Aires, Cordoba, Santa Fe, Entre Rios and La Pampa | - Direct contact with infected rodents  
- Inhalation of infectious rodent fluids and excreta  
- Person-to-person transmission has been documented | No known cases in UK | EXCEPTIONALLY LOW - Travel related cases have never been reported |

**Recent cases/outbreaks:**
- Argentina has not provided a monthly update since the end of March 2018

<table>
<thead>
<tr>
<th>Infectious disease</th>
<th>Geographical risk areas</th>
<th>Source(s) and route of infection</th>
<th>UK experience to date</th>
<th>Likelihood assessment</th>
</tr>
</thead>
</table>
| Bolivian haemorrhagic fever (Machupo virus) | Bolivia - limited to the Department of Beni, municipalities of the provinces Iténez (Magdalena, Baures and Huacaraje) and Mamoré (Puerto Siles, San Joaquín and San Ramón) | - Direct contact with infected rodents  
- Inhalation of infectious rodent fluids and excreta  
- Person-to-person transmission has been documented | No known cases in UK | EXCEPTIONALLY LOW - Travel related cases have never been reported |

**Recent cases/outbreaks:**
- no confirmed or suspected human cases were reported in April
<table>
<thead>
<tr>
<th>Disease</th>
<th>Description</th>
<th>Transmission Risk</th>
<th>Cases in UK</th>
<th>Global Exposure</th>
</tr>
</thead>
</table>
| **Lujo virus disease**                       | Single case acquired in Zambia lead to a cluster in South Africa in 2008   | - Presumed rodent contact (excreta, or materials contaminated with excreta of infected rodent)  
- Person to person via body fluids       | No known cases in UK                     | EXCEPTIONALLY LOW - Single travel related case; not reported anywhere since 2008 |
| **Recent cases/outbreaks:**                  |                                                                            |                   |             |                 |
| - no confirmed or suspected human cases reported since 2008 |
| **Severe fever with thrombocytopenia syndrome (SFTS)** | Only reported from China (southeastern), Japan and Korea | - Presumed to be tick exposure  
- Person to person transmission described in household and hospital contacts, via contact with blood/bloodstained body fluids | No known cases in UK                     | EXCEPTIONALLY LOW - Not known to have occurred in travellers |
| **Recent cases/outbreak:**                   |                                                                            |                   |             |                 |
| - South Korea reported no cases in April, consistent with previous years  
- Japan reported one case in April, bringing the total reported in 2019 to 8. This is consistent with previous years |
<p>| (China does not provide publically available data on cases of SFTS) |</p>
<table>
<thead>
<tr>
<th>Infectious disease</th>
<th>Geographical risk areas</th>
<th>Source(s) and route of infection</th>
<th>UK experience to date</th>
<th>Likelihood assessment</th>
</tr>
</thead>
</table>
| **Andes virus (Hantavirus)** | Chile and southern Argentina | - Rodent contact (excreta, or materials contaminated with excreta of infected rodent  
- Person to person transmission described in household and hospital contacts | No known cases in UK | VERY LOW - Rare cases in travellers have been reported |
| **Influenza A(H5N6) virus** | Mostly China (March 2017 new strain in Greece, and subsequently found in Western Europe) | - Close contact with infected birds or their environments | No known cases | VERY LOW - Not known to have occurred in travellers (PHE risk assessment) |
| **Influenza A(H7N7) virus** | Sporadic occurrence including Europe and UK | - Close contact with infected birds or their environments  
- Close contact with infected humans (no | No known cases | VERY LOW - Human cases are rare, and severe disease even rarer |

**Recent cases/outbreaks:**
- **Chubut province, Argentina** reported one new confirmed case in April
- **Chile** reported 7 cases of hantavirus in April, bringing the total for 2019 to 46 cases and 9 deaths (Chile has stopped reporting specific Hantaviruses separately)
Global high consequence infectious disease events: April 2019 update

<table>
<thead>
<tr>
<th></th>
<th>sustained human-human transmission)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recent cases/outbreaks:</strong></td>
<td></td>
</tr>
<tr>
<td>• no confirmed or suspected human cases of H7N7 were reported in April</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Undiagnosed Disease Events</th>
<th>none reported</th>
</tr>
</thead>
</table>
