Global high consequence infectious disease events

Monthly update

January 2019
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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 three 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
- Lassa fever – outbreak in Nigeria

## Contact HCIDs

<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>
| Crimean-Congo haemorrhagic fever (CCHF) | 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) |
| Ebola virus disease | 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:**
- Afghanistan reported one suspected case in January
**Recent cases/outbreaks:**

The outbreak in eastern **DRC** remains widespread and difficult to control due to persistent challenges around security and community mistrust impacting response measures. As of 1 **February**, a total of 769 confirmed and probable cases have been reported, including 715 confirmed (+155 in the past month) across 18 health zones in North Kivu and Ituri provinces. In the past 21 days, confirmed cases were reported from 12 of the 18 affected health zones, with **Katwa, Butembo and Beni as the main hot spots**. The majority of cases continue to be reported among unknown contacts. Two new health zones, Manguredjipa and Kayina, reported confirmed cases linked to other affected health zones, highlighting the continued risk of spread. At the end of January, a confirmed case with links to Katwa was initially hospitalised in Haut-Uele province (north of the affected area).

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's the most common imported VHF but still rare (global total 35 reported since 1969) |
### Recent cases/outbreaks:
- **Nigeria** reported a significant increase in cases. As of 27 January, 538 suspected cases, including 213 confirmed, from 16 states have been reported. While Lassa fever is endemic in Nigeria with outbreaks typically occurring between January and April, the number of confirmed cases in the first 3 weeks of 2019 exceeded those reported during the same period in any of the previous years. As such, the Nigeria Centre for Disease Control declared an outbreak on 22 January. 68% of all confirmed cases have been reported from the two most affected states, namely; Edo (76 cases, 36%) and Ondo (68 cases, 32%)
- **Togo** reported 2 confirmed fatal cases in Kara Region in January. There have been cases of Lassa fever in Togo as recently as 2017
- **Guinea** reported 1 confirmed case in Mamou Region in January. Guinea has reported sporadic cases of Lassa fever before, including 1 in January 2018

### 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>
</table>
| **Influenza A(H7N9) virus (Asian lineage)** | All human infections acquired in China | - Close contact with infected birds or their environments  
- Close contact with infected humans (no sustained human-human transmission) | No known cases in UK | VERY LOW (PHE Risk Assessment) |
| **Recent cases/outbreaks:** | | | | |
| | - no confirmed or suspected human cases of H7N9 were reported in China in January | | | |
| **Influenza A(H5N1) virus** | Human cases predominantly in SE Asia, but also Egypt, Iraq, Pakistan, Turkey, Nigeria. Highly pathogenic H5N1 in birds much more widespread, including UK | - Close contact with infected birds or their environments  
- Close contact with infected humans (no sustained human-human transmission) | No known cases in UK | VERY LOW (PHE Risk Assessment) |
| **Recent cases/outbreaks:** | | | | |
| | - Vietnam reported 1 suspected human case of H5N1 in Ca Mau Province in January. As no further reports could be found, it is unlikely that the case was confirmed  
- avian outbreaks were reported in India and Vietnam with no associated human cases | | | |
### Middle East respiratory syndrome (MERS)

| 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:**
- **Saudi Arabia** has reported 24 cases since the beginning of 2019, including a cluster in Wadi ad-Dawasir, suggesting a healthcare-associated outbreak.
- **Oman** reported a cluster of 5 confirmed cases, including 2 deaths, in January. While Oman has previously reported cases, this is the largest reported outbreak to date in the country.

### Monkey pox

| 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:**
- no confirmed or suspected human cases reported in January.
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### 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 reported in January

### 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:**

- Madagascar continued to report cases of plague as part of seasonal transmission, but case numbers are very much lower than in 2018. As of 21 January, a total of 80 confirmed cases, including 12 pneumonic and 24 deaths, have been reported from 15 districts across the country

### 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
## Section 2. Incidents of significance of additional HCIDs

- Nothing of significance

### Contact HCIDs

<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 |
| 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:**
- Argentina has not provided an update since the end of March 2018
- no confirmed or suspected human cases were reported in January
<table>
<thead>
<tr>
<th></th>
<th>Lujo virus disease</th>
<th>Severe fever with thrombocytopenia syndrome (SFTS)</th>
</tr>
</thead>
</table>
| 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 |
| **Recent cases/outbreaks:** | **EXCEPTIONALLY LOW** - Single travel related case; not reported anywhere since 2008 | **EXCEPTIONALLY LOW** - Not known to have occurred in travellers |
| 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 |
| **Recent cases/outbreak:** | | |
| - South Korea reported no cases in January, relatively consistent with previous years  
- Japan reported 1 case in January, consistent with previous years | | |
<p>| (China does not provide publically available data on cases of SFTS) | | |</p>
<table>
<thead>
<tr>
<th>Airborne HCIDs</th>
<th>Source(s) and route of infection</th>
<th>UK experience to date</th>
<th>Likelihood assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Andes virus (Hantavirus)</strong></td>
<td>Rodent contact (excreta, or materials contaminated with excreta of infected rodent - Person to person transmission described in household and hospital contacts</td>
<td>No known cases in UK</td>
<td>VERY LOW - Rare cases in travellers have been reported</td>
</tr>
<tr>
<td><strong>Recent cases/outbreaks:</strong></td>
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<tr>
<td><em>the outbreak of hantavirus reported in Epuyen, Chubut region of Argentina at the beginning of December is ongoing. By 31 January, 31 confirmed cases, including 11 deaths, were reported. Of 74 exposed contacts, 44 finished their monitoring period without event, and 30 remain under monitoring. While Andes virus hasn’t been specifically named, the virus is endemic in the region and there are reports of person-to-person transmission</em></td>
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<tr>
<td><em>(Argentina reports hantavirus detections generically so it is not possible to determine specifically any Andes virus infections)</em></td>
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<tr>
<td><strong>Influenza A(H5N6) virus</strong></td>
<td>Close contact with infected birds or their environments</td>
<td>No known cases</td>
<td>VERY LOW - Not known to have occurred in travellers (PHE risk assessment)</td>
</tr>
<tr>
<td><strong>Recent cases/outbreaks:</strong></td>
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<tr>
<td><em>no confirmed or suspected human cases of H5N6 were reported in January</em></td>
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</tbody>
</table>
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| **Influenza A(H7N7) virus** | Sporadic occurrence including Europe and UK | - Close contact with infected birds or their environments  
- Close contact with infected humans (no sustained human-human transmission) | No known cases | VERY LOW - Human cases are rare, and severe disease even rarer |

**Recent cases/outbreaks:**
- no confirmed or suspected human cases of H7N7 were reported in January

| **Undiagnosed Disease Events** | None reported |