Global high consequence infectious disease events

Monthly update

June 2018
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Published July 2018
PHE Publications
gateway number: 2018248

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 three categories currently – LOW, VERY LOW and EXCEPTIONALLY LOW. This assessment is as of January 2018.

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.
# Global high consequence infectious disease events: June 2018 update

## Section 1. Incidents of significance of primary HCIDs

### Ebola virus disease – outbreak in DRC

<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 (22 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 has reported 125 suspected cases, including 20 confirmed and 18 deaths, since the beginning of the year as part of seasonal transmission
- Iran, Iraq, Pakistan, Russia and Uganda continued reporting cases in June
- Indian media newly reported one case of CCHF in June
### Global high consequence infectious disease events: June 2018 update

#### Recent cases/outbreaks:
During June, one new confirmed and two new probable cases of Ebola virus disease (EVD) were reported in Équateur Province, DRC, raising the total number of reported cases to 55 (38 confirmed, 15 probable, 2 suspected), including 29 deaths. The last confirmed case (in Iboko) was reported on 06 June and died on 09 June; Bikoro and Wangata both reported their last confirmed case in May. All contacts linked to the confirmed/probable cases completed their monitoring period by 27 June. The end of the outbreak is expected be declared on 24 July, when the country has spent 42 days, two incubation periods, without notification of a new confirmed case (the last confirmed case to be discharged from an Ebola treatment centre on 12 June). The risk of further spread has been revised to moderate at the national level, and low at the regional and global levels.

| 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 33 reported since 1969) |
| Marburg virus disease | Sporadic outbreaks in Central and Eastern Africa | - Contact with infected blood or body fluids | No known cases in UK | VERY LOW - 5 travel related cases in the world literature |

#### Recent cases/outbreaks:
- **Nigeria** continues to report sporadic cases, with 12 confirmed in June (compared to 12 in May and 18 in April). 3 states (Edo, Ondo and Plateau) remain active
- **Liberia** reported 33 new suspected cases in June, of which 7 were confirmed. Bong, Grand Bassa and Nimba counties remain active

- no cases reported since November 2017
### Global high consequence infectious disease events: June 2018 update

#### Airborne 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>
| **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 human cases of H7N9 were reported in China in June, despite the occurrence of avian outbreaks. For comparison, in the same time period last year there were 35, and 7 in 2016

| **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:**
- No confirmed or suspected human cases of H5N1 were reported in June
- Nepal, Bangladesh and China reported avian outbreaks of HPAI H5N1 in June, without any associated human cases
| **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 | 4 cases in total; 2 imported cases (2012 and 2013), two secondary cases in close family members of second case; 3 deaths | VERY LOW (PHE Risk Assessment) |
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<tbody>
<tr>
<td><strong>Recent cases/outbreaks:</strong></td>
<td>In June, four confirmed cases of MERS were reported in Saudi Arabia, including one death (Saudi Arabia has recently stopped posting regular updates to their website)</td>
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<td></td>
<td>West and Central Africa</td>
<td>- Close contact with infected animal or human; indirect contact with contaminated material eg bed linen</td>
<td>No known cases in UK</td>
<td>VERY LOW - Not reported outside Africa since 2003</td>
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<td><strong>Monkey pox</strong></td>
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| **Recent cases/outbreaks:** | during 2018, DRC has reported 2,845 suspected cases, including 34 confirmed. 1,635 cases were reported in June, significantly higher than the number reported in May (269). Cases have been reported in 14 provinces, with Sankuru province having an exceptionally high number of suspected cases  
the outbreak reported in Cameroon in May is ongoing. As of 13 June, a total of 36 cases, including 1 confirmed, have been reported from three regions: Northwest, Southwest and Central  
Nigerian media reported 126 suspected cases, including two confirmed, in Plateau State in June |  |  |  |
<table>
<thead>
<tr>
<th>Infectious Disease</th>
<th>Outbreaks in Bangladesh and India; SE Asia at risk.</th>
<th>- Direct or indirect exposure to infected bats; consumption of contaminated raw date palm sap. - Close contact with infected pigs or humans.</th>
<th>No known cases in UK</th>
<th>EXCEPTIONALLY LOW - No travel related infections in the literature</th>
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<tr>
<td>Nipah virus</td>
<td>Recent cases/outbreaks:</td>
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<td>The outbreak reported in Kozhikkode district in Kerala, India in May was declared over on 1 July. As of 25 June, a total of 18 confirmed cases, including 16 deaths, were reported from Kozhikkode and Malappauram districts in Kerala, India. Only 1 new case was confirmed in June – a retrospectively investigated case with symptom onset on 17 May. Investigations confirmed fruit bats in Kozhikkode district were positive for Nipah virus, and likely the source of outbreak</td>
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<td>Pneumonic plague (Yersinia pestis)</td>
<td>Predominantly sub-Saharan Africa but also Asia, North Africa, South America, Western USA</td>
<td>- Flea bites - Close contact with infected animals - Contact with human cases of pneumonic plague</td>
<td>Last outbreak in UK 1918</td>
<td>VERY LOW - Rarely reported in travellers (PHE risk assessment for this outbreak)</td>
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<td>Recent cases/outbreaks:</td>
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<td></td>
<td>• nothing of significance</td>
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<td>Severe acute respiratory syndrome (SARS)</td>
<td>Currently none; two outbreaks originating from China 2002 and 2004</td>
<td>- Airborne particles - Direct contact with contaminated environment</td>
<td>4 cases related to 2002 outbreak</td>
<td>VERY LOW - Global spread but not reported since 2004</td>
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<td>Recent cases/outbreaks:</td>
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<td></td>
<td>• no suspected or confirmed human cases reported since 2004</td>
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Section 2. Incidents of significance of additional HCIDs

Nothing of significance

<table>
<thead>
<tr>
<th>Contact HCIDs</th>
<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:
- nothing of significance. Argentina has not provided an update since the end of February 2018
- no suspected or confirmed human cases reported in 2018
## Global high consequence infectious disease events: June 2018 update

<table>
<thead>
<tr>
<th>Disease</th>
<th>Description</th>
<th>Mode of transmission</th>
<th>UK Cases</th>
<th>Likelihood</th>
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</thead>
<tbody>
<tr>
<td><strong>Lujo virus disease</strong></td>
<td>Single case acquired in Zambia lead to a cluster in South Africa in 2008.</td>
<td>- Presumed rodent contact (excreta, or materials contaminated with excreta of infected rodent) - Person to person via body fluids</td>
<td>No known cases in UK</td>
<td>VERY LOW - Single travel related case; not reported anywhere since 2008</td>
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<td><strong>Recent cases/outbreaks:</strong></td>
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<tr>
<td><strong>Severe fever with thrombocytopenia syndrome (SFTS)</strong></td>
<td>Only reported from China (southeastern), Japan and Korea</td>
<td>- Presumed to be tick exposure. - Person to person transmission described in household and hospital contacts, via contact with blood/bloodstained body fluids</td>
<td>No known cases in UK</td>
<td>EXCEPTIONALLY LOW - Not known to have occurred in travellers</td>
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<tr>
<td><strong>Recent cases/outbreak:</strong></td>
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- **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
  - VERY LOW - Single travel related case; not reported anywhere 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/outbreaks:**
  - **Japan** reported 5 cases in June as part of seasonal transmission
  - **South Korea** reported 36 cases in June as part of seasonal transmission, higher than previous years

(China does not provide publically available data on cases of SFTS)
## Airborne HCIDs

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</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 |

**Recent cases/outbreaks:**
- Chile reported two human cases in June. They have reported 30 cases in 2018, compared to 68 cases during the same time period in 2017

(Argentina reports hantavirus detections generically so it is not possible to determine specifically any Andes virus infections)

| **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  
- Close contact with infected humans (no sustained human-human transmission) | No known cases | VERY LOW - Not known to have occurred in travellers (PHE risk assessment) |

**Recent cases/outbreaks:**
- no suspected or confirmed human cases were reported in June
Global high consequence infectious disease events: June 2018 update

| 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 suspected or confirmed human cases of H7N7 were reported in June

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<tr>
<th>Undiagnosed Disease Events</th>
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</table>

**Undiagnosed morbidity – susp haemorrhagic fever - Cameroon**

On 7 June 2018, **one suspected case of haemorrhagic fever** was reported in a health district in the Far North Region (northernmost province) in Cameroon. The cause is still being investigated. No other information was available, not even which health district the alert was from. The Far North Region borders Chad to the east and Nigeria to the west.