Public Health England

Protecting and improving the nation's health

Global high consequence infectious disease events

Monthly update

October 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, research, 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.

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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, Democratic Republic of the Congo (DRC)

Contact HCIDs				
Infectious disease	**Geographical risk areas**	**Source(s) and route of infection**	**UK experience to date**	**Likelihood assessment**
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)
	Recent cases/outbreaks: • **Pakistan** reported sporadic cases, consistent with seasonal transmission • health authorities in **India** retrospectively reported 10 cases in September (weeks 36 & 37)			
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 (1 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
	Ongoing outbreak: The Ebola outbreak in the **DRC** continues though with reduced intensity of transmission. During October, 76 confirmed cases were reported, compared to 157 in September. This was the lowest monthly total since September 2018. As of 31 October, a total of 3,273 confirmed and			

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<tr><td></td><td colspan="4">probable cases had been reported across 29 health zones in North Kivu, Ituri and South Kivu provinces. The number of health zones reporting active transmission declined, however, security and operational challenges continued in some areas with consequent reduced access for response teams.

The WHO IHR Emergency Committee reconvened on 18 October 2019. Its view was that this event still constitutes a Public Health Emergency of International Concern.

The risk for the UK population has not changed and is currently assessed as negligible-very low.</td></tr>
<tr><td rowspan="2">Lassa fever</td><td>Endemic in sub-Saharan West Africa</td><td>- 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</td><td>14 cases since 1971, all ex-West Africa</td><td>LOW - Overall it is the most common imported VHF but still rare (global total 35 reported since 1969)</td></tr>
<tr><td colspan="4">Recent cases/outbreaks:
Nigeria - 40 confirmed cases in the 5 weeks to 3 November 2019, mostly from Edo and Ondo states. As of 3 November, 754 cases had been confirmed in 2019. Weekly case numbers have been at low level since week 15 (April)
as of 3 November, Liberia reported 130 suspected cases, of which 35 were confirmed. This is an increase of 24 cases, including 8 confirmations, since 8 September</td></tr>
<tr><td rowspan="2">Marburg virus disease</td><td>Sporadic outbreaks in Central and Eastern Africa</td><td>- Contact with infected blood or body fluids</td><td>No known cases in UK</td><td>VERY LOW - 5 travel related cases in the world literature</td></tr>
<tr><td colspan="4">Recent cases/outbreaks:
no cases reported since November 2017</td></tr>
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Airborne HCIDs				
Infectious disease	**Geographical risk areas**	**Source(s) and route of infection**	**UK experience to date**	**Likelihood assessment**
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 October			
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 October			
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); 2 secondary cases in close family members of 2nd case; 3 deaths	VERY LOW (PHE Risk Assessment)

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<tr><td></td><td colspan="4">Recent cases/outbreaks:
13 cases, including 6 deaths, were reported in Saudi Arabia during October, bringing the total reported here during 2019 to 189
the United Arab Emirates reported one confirmed, locally-acquired case, with a history of camel contact, in Dubai. This is the first case from the UAE since May 2018
the global total is 2,482 cases with 854 associated deaths</td></tr>
<tr><td rowspan="2">Monkey pox</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>3 cases in total; 2 imported (Sept 2018) and 1 nosocomial transmission</td><td>VERY LOW - Reported outside Africa for the first time in 2018 (2 in UK and 1 in Israel)</td></tr>
<tr><td colspan="4">Recent cases/outbreaks:
DRC: as of 13 October, 4,374 suspected cases and 87 deaths had been reported in 2019, an increase of 405 cases since last month’s summary
Nigeria reported 21 suspected cases this month, of which 4 confirmed</td></tr>
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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 cases were reported in October			
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 was in 1918	VERY LOW - Rarely reported in travellers
	Recent cases/outbreaks: • local media reported a suspected case of pneumonic plague in **Madagascar**			
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

- Undiagnosed febrile illness, suspected Ebola virus disease - Tanzania

Contact HCIDs				
Infectious disease	**Geographical risk areas**	**Source(s) and route of infection**	**UK experience to date**	**Likelihood assessment**
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: • as of 6 October, **Argentina** had reported 14 confirmed cases in 2019, from Santa Fe, Córdoba and Buenos Aires provinces. This is an increase from 7 cases in the same time period last year			
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: • one confirmed case was reported retrospectively for September, in Santa Cruz department.			

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<tr><td rowspan="2">Lujo virus disease</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>EXCEPTIONALLY LOW – a single travel related case; not reported anywhere since 2008</td></tr>
<tr><td colspan="4">Recent cases/outbreaks:
no confirmed or suspected human cases reported since 2008</td></tr>
<tr><td rowspan="2">Severe fever with thrombocytopenia syndrome (SFTS)</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></tr>
<tr><td colspan="4">Recent cases/outbreak:
South Korea reported 51 cases in October, bringing the total for 2019 to 223. This is consistent with previous years
Japan reported 17 cases in September (11 this month + 6 added retrospectively), bringing the total reported in 2019 to 95. This is higher than previous years.
(China does not provide publically available data on cases of SFTS)</td></tr>
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Airborne HCIDs				
Infectious disease	**Geographical risk areas**	**Source(s) and route of infection**	**UK experience to date**	**Likelihood assessment**
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 2 hantavirus cases in October, bringing the total for 2019 to 62 cases. This total is higher than expected, given the median for the last 5 years. (Chile no longer reports specific Hantaviruses separately)			
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)
	Recent cases/outbreaks: • no confirmed or suspected human cases of H5N6 were reported in October • an avian outbreak was reported in **Vietnam**, with no associated human cases			
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

		sustained human-human transmission)		
	Recent cases/outbreaks: • no confirmed or suspected human cases of H7N7 were reported in October			

Undiagnosed Disease Events	
Tanzania – undiagnosed febrile illness, probable Ebola virus disease	No further information became available with regards to the unexplained deaths in Tanzania, which were noted in the September report and considered to be probable EVD-related deaths. As of 31 October 2019, PHE believed there was no evidence of ongoing active transmission of Ebola in Tanzania.