



Public Health
England

Protecting and improving the nation's health

Global high consequence infectious disease events Monthly update

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Introduction

This 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 2 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 2 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 (for example, 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

Notable event: Ebola virus disease outbreak in 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)	<p>Endemic in Central and Eastern Europe, Central Asia, the Middle East, East and West Africa. First locally acquired case in Spain 2016 (Risk Assessment).</p>	<ul style="list-style-type: none"> 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 	Two confirmed cases (ex-Afghanistan 2012; ex-Bulgaria 2014).	LOW – Rarely reported in travellers (23 cases in world literature).
	<p>Recent cases/outbreaks:</p> <ul style="list-style-type: none"> Georgia confirmed 1 additional case for 2020, bringing the overall tally for 2020 to 11 Russia's Stavropol region reported 8 cases in July, by mid-July 30 cases had been reported for 2020. The Rostov region reported an overall total of 14 cases for 2020 in July. For both regions incidences were lower than those of 2019. 			
Ebola virus disease	<p>Sporadic outbreaks in Western, Central and Eastern Africa.</p>	<ul style="list-style-type: none"> contact/consumption of infected animal tissue (such as, bushmeat) contact with infected human blood or body fluids 	Four confirmed cases (1 lab-acquired in UK in 1976; 3 HCWs associated with West African	VERY LOW – Other than during the West Africa outbreak, exported cases are extremely rare.

			epidemic 2014 to 2015).	
	<p>DRC - outbreak in Equateur province On 1 June 2020, a new outbreak was declared in Équateur province, on the other side of the now declared over 10th outbreak, when a small cluster of cases was reported in the city of Mbandaka. This province was previously affected by EVD in the summer of 2018. In July the new outbreak continued to see rising numbers of confirmed cases and geographical spread to new health areas, with 27 health areas in eight health zones affected. By end of July a total of 73 cases (69 confirmed and four probable) including 31 deaths (42.5% CFR) had been reported, with three health workers having been affected. The number of health areas that have reported at least one confirmed or probable case of EVD since the start of this outbreak has risen to 27, in eight of the 18 health zones in the province. Challenges encountered were inadequate resources for alert investigations in Mbandaka, and case management in rural and hard-to-reach areas continue. According to the WHO, the constant presence of confirmed cases in the community was of particular concern, along with suspected cases who were not being isolated or delays in isolation. Additionally, there are insufficient funds available to cover the response required. Although all pillars of response are active in the affected areas, further actions are required to limit spread to other areas (including spread to neighbouring countries Republic of Congo and Central African Republic), along with intense community engagement with community leaders to prevent resistance to response activities and ensure that communities become fully engaged in response activities.</p>			
Lassa fever	<p>Endemic in sub-Saharan West Africa</p>	<ul style="list-style-type: none"> • 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 	<p>Fourteen cases since 1971, all ex-West Africa.</p>	<p>LOW – Overall it is the most common imported VHF but still rare (global total 35 reported since 1969).</p>
<p>Recent cases/outbreaks:</p>				

	<ul style="list-style-type: none"> • Nigeria:after the peak in cases January to March, the decreasing trend observed from April to June, continues with only 14 confirmed cases in Ondo state mostly in July. The total number of confirmed cases to 28 June 2020 was 1,054. • Guinea reported one case (with one death) mid-July 			
<p>Marburg virus disease</p>	<p>Sporadic outbreaks in Central and Eastern Africa</p>	<ul style="list-style-type: none"> • contact with infected blood or body fluids 	<p>No known cases in UK.</p>	<p>VERY LOW – 5 travel-related cases in the world literature.</p>
	<p>Recent cases/outbreaks:</p> <ul style="list-style-type: none"> • no cases reported since November 2017 			

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 .	<ul style="list-style-type: none"> close contact with infected birds or their environments close contact with infected humans (no sustained human-to-human transmission) 	No known cases in UK.	VERY LOW (PHE Risk Assessment).
	Recent cases/outbreaks: <ul style="list-style-type: none"> no confirmed or suspected human cases of H7N9 were reported in July 			
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.	<ul style="list-style-type: none"> close contact with infected birds or their environments close contact with infected humans (no sustained human-to-human transmission) 	No known cases in UK.	VERY LOW (PHE Risk Assessment).
	Recent cases/outbreaks: <ul style="list-style-type: none"> no confirmed or suspected human cases of H5N1 were reported in July 			
Middle East respiratory syndrome (MERS)	The Arabian Peninsula – Yemen, Qatar, Oman, Bahrain, Kuwait, Saudi Arabia and United Arab Emirates	<ul style="list-style-type: none"> airborne particles direct contact with contaminated environment direct contact with camels 	Five cases in total; 3 imported cases (2012, 2013 and 2018); 2 secondary cases in close family members of 2 nd case; 3 deaths	VERY LOW (PHE Risk Assessment).

	<p>Recent cases/outbreaks:</p> <ul style="list-style-type: none"> As of 2 July, 57 cases (with 20 deaths) have been reported in Saudi Arabia, 2 in the United Arab Emirates and 1 in Qatar in 2020, as reported by ECDC in July. For awareness, regular reporting of MERS cases seems to have stalled, especially for Saudi Arabia, since the start of the COVID-19 pandemic. 			
	West and Central Africa	<ul style="list-style-type: none"> close contact with infected animal or human indirect contact with contaminated material, such as bed linen 	Three 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).
Monkeypox virus	<p>Recent cases/outbreaks:</p> <ul style="list-style-type: none"> DRC reported 334 suspected cases including 10 deaths in July. A total of 2,924 suspected cases (108 deaths) had been reported thus far in 2020. Compared to the same period in 2019, although the number of cases is slightly lower (3,015 cases by August 2019), the number of deaths is significantly higher in 2020 (64 deaths by August 2019). The reason for the increased case fatality rate is unknown at this stage. Nigeria reported 3 suspected case up to 26th of July 			

Nipah virus	Outbreaks in Bangladesh and India; SE Asia at risk.	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • no confirmed or suspected cases reported in July 			
Pneumonic plague (<i>Yersinia pestis</i>)	Predominantly sub-Saharan Africa but also Asia, North Africa, South America, Western USA	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • DRC's Ituri province is seeing an increase in plague cases in a single health zone. From mid-June to mid-July 45 cases including 9 deaths were reported. Of these, two showed signs of septicemic plague; all the other cases were diagnosed as having bubonic plague. According to the available information, it is likely that all three types of plague clinical presentation (bubonic, septicemic and pneumonic) are present. Overall, 75 cases (17 deaths) were reported for 2020. 			
Severe acute respiratory syndrome (SARS)	Currently none; 2 outbreaks originating from China 2002 and 2004.	<ul style="list-style-type: none"> • airborne particles • direct contact with contaminated environment 	Four 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

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.	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • no confirmed or suspected cases were reported in July 			
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)	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • no confirmed or suspected cases were reported in July 			

Lujovirus disease	<p>Single case acquired in Zambia lead to a cluster in South Africa in 2008.</p>	<ul style="list-style-type: none"> presumed rodent contact (excreta, or materials contaminated with excreta of infected rodent) person-to-person via body fluids 	<p>No known cases in UK.</p>	<p>EXCEPTIONALLY LOW – a single travel related case; not reported anywhere since 2008.</p>
	<p>Recent cases/outbreaks:</p> <ul style="list-style-type: none"> no confirmed or suspected human cases reported since 2008 			
Severe fever with thrombocytopenia syndrome (SFTS)	<p>Mainly reported from China (southeastern), Japan and Korea; first ever cases reported in Vietnam and Taiwan in 2019.</p>	<ul style="list-style-type: none"> presumed to be tick exposure person-to-person transmission described in household and hospital contacts, via contact with blood/bloodstained body fluids 	<p>No known cases in UK.</p>	<p>EXCEPTIONALLY LOW – Not known to have occurred in travellers.</p>
	<p>Recent cases/outbreak:</p> <ul style="list-style-type: none"> China: media reports of 60 hospitalised cases and 7 deaths for 2020 			

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.	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> no confirmed or suspected cases were reported in July 			
Influenza A(H5N6) virus	Mostly China (March 2017 new strain in Greece, and subsequently found in Western Europe).	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> no confirmed or suspected human cases of H5N6 were reported in July 			
Influenza A(H7N7) virus	Sporadic occurrence including Europe and UK.	<ul style="list-style-type: none"> close contact with infected birds or their environments close contact with infected humans (no sustained human-to-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 July