Public Health England

Protecting and improving the nation's health

Global high consequence infectious disease events

Monthly update

August 2020

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.

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

Published September 2020
PHE Publications
gateway number: GW-1602

PHE supports the UN
Sustainable Development Goals

Introduction

This report provides detailed updates on known high consequence infectious disease (HCID) events around the world as monitored by PHE's epidemic intelligence activities.

The following report is divided into 2 sections covering all the defined HCID pathogens. 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 Equateur province, Democratic Republic of the Congo (DRC) (ongoing)

<table>
<tr><th colspan="5">Contact HCIDs</th></tr>
<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>
<tr><td rowspan="2">Crimean-Congo haemorrhagic fever (CCHF)</td><td>Endemic in Central and Eastern Europe, Central Asia, the Middle East, East and West Africa. First locally acquired case in Spain 2016 (HAIRS risk assessment).</td><td>• 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</td><td>Two confirmed cases (ex-Afghanistan 2012; ex-Bulgaria 2014).</td><td>LOW – Rarely reported in travellers (23 cases in world literature).</td></tr>
<tr><td colspan="4">Recent cases/outbreaks:
• Iran retrospectively reported 38 cases and 5 deaths since the beginning of the current Iranian calendar year (March 21)
• Kazakhstan confirmed 1 case near the border of Uzbekistan at the beginning of August
• Pakistan reported 3 cases (with 1 death) of CCHF. According to a media report a further 6 cases have been confirmed in Quetta
• Russia’s Rostov region reported 16 cases
• The province of Salamanca, Spain, confirmed its third case (fatal) of CCHF for 2020 in mid-August. The autonomous community of Castilla y León had already notified 2 other cases in June and July. All 3 cases lived in rural areas of the south of the province of Salamanca
• Senegal reported 1 case in August</td></tr>
</table>

<table>
<tr><td rowspan="3">Ebola virus disease</td><td>Sporadic outbreaks in Western, Central and Eastern Africa.</td><td>• contact/consumption of infected animal tissue (such as, bushmeat)
• contact with infected human blood or body fluids</td><td>Four confirmed cases (1 lab-acquired in UK in 1976; 3 HCWs associated with West African epidemic 2014 to 2015).</td><td>VERY LOW – Other than during the West Africa outbreak, exported cases are extremely rare.</td></tr>
<tr><td colspan="4">DRC - outbreak in Equateur province
The Ebola virus disease (EVD) outbreak declared on 1 June 2020 in Equateur province is ongoing. By the end of August a total of 109 cases (103 confirmed and 6 probable) including 47 deaths (43.15% CFR) had been reported. The number of affected health care workers remains at 3. Since the start of this 11th outbreak 36 health areas that have reported at least 1 confirmed or probable case of EVD in 11 of the 18 health zones in the province.

Challenges encountered in August were continued insufficient funds for the response and inadequate human resources in community engagement and risk communication, particularly in hotspot areas. According to the WHO the capacity of Ebola treatment centres in the province needs to be improved as case numbers rise. Strike action by responders across multiple disciplines and areas were reported in August over salary payments and a yet to be agreed Ministry of Health standardised pay-scale for all response workers. These strikes continued in September and have impacted detection, isolation, testing and reporting of cases, making accurate interpretation of reported data difficult.</td></tr>
<tr><td>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>Fourteen 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>
</table>

<table>
<tr><td></td><td colspan="4">Recent cases/outbreaks:
• Nigeria: over the last month, a slight increase in confirmed cases has been noted, with 20 confirmed cases in Ondo and Edo states mostly in August. The total number of confirmed cases to 30 August 2020 was 1,074</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>
</table>

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-to-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 August			
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-to-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 August			
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	Five 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).

<table>
<tr><td></td><td colspan="4">Recent cases/outbreaks:
• No new cases were reported in August 2020 and the 2020 total remains unchanged with 57 in Saudi Arabia (including 20 deaths), 2 in the United Arab Emirates and 1 in Qatar. It has been more than 60 days since the last cases was reported in Saudi Arabia.</td></tr>
<tr><td rowspan="2">Monkeypox virus</td><td>West and Central Africa</td><td>• close contact with infected animal or human
• indirect contact with contaminated material, such as bed linen</td><td>Three cases in total; 2 imported (both 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 reported 189 suspected cases including 7 deaths at the beginning of August. A total of 3,567 suspected cases (132 deaths) had been reported thus far in 2020. While the number of cases is only slightly higher in 2020 than 2019 (3,289 cases by end of August 2019), the number of reported deaths (64 deaths by end of August 2019) and thus the case fatality rate (2020 – 3.7%, 2019 – 1.9%) are notable higher for 2020. The reason for the increased case fatality rate is unknown at this stage.</td></tr>
</table>

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 reported in August			
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: • DRC's Ituri province continues to report an increase in plague cases in a single health zone. Since the beginning of 2020 to early August (last update available), Ituri Province has reported a total of 91 cases and 17 deaths (CFR 18.7%) in 5 health zones. For 2019 (full year), 48 cases of bubonic plague including 8 deaths have been reported.			
Severe acute respiratory syndrome (SARS)	Currently none; 2 outbreaks originating from China 2002 and 2004.	• 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.	• 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 cases were reported in August			
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 cases were reported in August			
Lujo virus disease	Single case acquired in Zambia lead to a cluster in South Africa in 2008.	• presumed rodent contact (excreta, or materials	No known cases in UK.	EXCEPTIONALLY LOW – a single travel related case; not

		contaminated with excreta of infected rodent) • person-to-person via body fluids		reported anywhere since 2008.
	Recent cases/outbreaks: • no confirmed or suspected human cases reported since 2008			
Severe fever with thrombocytopenia syndrome (SFTS)	Mainly reported from China (southeastern), Japan and Korea; first ever cases reported in Vietnam and Taiwan in 2019.	• 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: • China: the media did not report any new cases in August			

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: • no confirmed or suspected cases were reported in August			
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 August			
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-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 August			