

Position Statement

May 2024

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Chikungunya Virus

Background

Chikungunya was first described in Tanzania in 1952. The name is derived from a local Tanzanian word meaning ‘that which bends up’, a reference to the stooped posture many patients develop as a result of painful inflammation of the joints commonly associated with the disease.

Chikungunya is a self-limiting febrile illness caused by an alpha virus spread by the same day-biting mosquito as dengue (usually of the *Aedes* species). It is characterised by arthralgia or arthritis typically in the knee, ankle and small joints of the extremities, which may be persistent, high fever, followed by a maculopapular rash. Buccal and palatal lesions can occur as may nausea and vomiting. Thrombocytopenia may be present leading to bleeding, especially in children. Rarely there may be fulminant liver failure and death. It is known from antibody studies that many infections are asymptomatic. Immunity is long lasting. The virus is known to infect humans, primates, other mammals and birds. There is no evidence of person-to-person transmission except through blood transfer. At present the only treatment available is symptomatic. No vaccine is available.

Although it is possible that chikungunya could be transmitted by transfusion, or by tissue or organ transplantation, the Standing Advisory Committee on Transfusion Transmitted Infections (SACTTI) is not aware of any proven instance of transmission by these routes.

Until relatively recently chikungunya had usually occurred in Africa and South and East Asia but affected areas have been increasing over recent years. In late 2004, large outbreaks of chikungunya fever in the Indian Ocean, including Reunion, Mauritius and the Seychelles, raised serious public health concerns. Commencing in 2011, countries and territories in the Pacific Island Region have also reported several chikungunya outbreaks.

Worldwide reported cases

In December 2013 islands in the Caribbean started reporting confirmed cases of chikungunya. By 2014 cases were being reported among U.S. travellers returning from affected areas in the Americas and local transmission was identified in Florida, Puerto Rico, and the U.S. Virgin Islands; surveillance for chikungunya infections was enhanced in the region and continues. Since 2014 only one locally acquired case, in Texas in 2015, has been identified in continental USA. Chikungunya is now well established in Central and South America and the islands of the Caribbean and local transmission has been identified in 45 countries or territories throughout the Americas with more than two million suspected cases reported. Annually, and since 2017, more than 90% of the cases reported in the Americas and the Caribbean are in Brazil. Although

the virus is widespread across the Americas region, cases are also reported in Asia and Africa with cases and outbreaks identified in more than 100 countries. Most cases were reported in Brazil and Thailand in 2020 and in Brazil and India in 2021. Although world-wide figures for chikungunya cases in 2022 have not yet been published, individual reports available online from the Americas, Thailand the Philippines all indicate increased numbers of cases above the levels in previous years with a high incidence of meningoencephalitis possibly associated to chikungunya reported by Paraguay. In 2023, approximately 500,000 chikungunya cases and 400 deaths had been reported worldwide. In the first two months of 2024, in the region of 70,000 cases have been reported in a total of 16 countries, the highest disease burden being in South and Central America (Brazil and Paraguay).

The first recognised outbreak in Europe occurred in the northeast of Italy in the summer of 2007; a result of an imported case from India. The vector mosquito has become widespread following importation through international trade. It was first noted in Albania in 1979 and by 2007 has been found as far north as Belgium. In September 2010 there were the first reported cases of indigenous infection in France: two 12-year-old schoolchildren resident in the south of France. Further small outbreaks occurred in the south of France in 2014 (11 cases) and 2017 (17 cases). The largest outbreak in Europe to date occurred in 2017 in central and southern Italy. Of the 277 confirmed cases, the majority were reported in the Lazio region (Rome, Lazio and Anzio) with a smaller focus of infection in Calabria (n=61). All autochthonous outbreaks of chikungunya in mainland EU/EEA have so far occurred between June and November although no autochthonous chikungunya cases have been reported in the EU/EEA since 2017.

Chikungunya in the UK

Indigenous infection does not occur in the United Kingdom, but several cases are reported each year in travellers returning from endemic areas which until recently were mostly acquired in the Indian sub-continent and Southeast Asia. However, of the 295 cases of chikungunya reported in England, Wales and Northern Ireland in 2014, 80% had been acquired in the Caribbean. Case numbers and probable source of infection for 2015 onwards are available from European Centre for Disease Prevention and Control (ECDC) in their Chikungunya Annual Epidemiological Reports. In the years 2015 to 2019 the number of UK cases reported are 106, 169, 104, 59 and 94 respectively; however, fully detailed information on the source countries is not available (ECDC, 2019 Chikungunya Annual Epidemiological Report).

The most recent available figures for the UK are provided by the UKHSA. In 2023, there were 45 chikungunya cases reported in England (zero in Wales and Northern Ireland). Of these 25 (56%) were confirmed and 20 (44%) were probable cases (cf. 8 and 28 respectively in 2022). Travel history was known for 43/45 of the 2023 cases, with the majority reporting travel to Southern Asia (28) and South-Eastern Asia (5). The most frequently reported country of travel was India (28), followed by Brazil (3) and Nigeria (3). In 2023, India reported a 20% increase in chikungunya cases including increases in Punjab and Uttar Pradesh, where English cases reported travelling to.

Chikungunya in Europe

The most recently published overall figures for Europe (ECDC, 2020 Annual Epidemiological Report, published June 2023) identified 12 cases of chikungunya disease in 2021, all of which were confirmed, and all travel related. This is the lowest number since 2017, but it is important to consider two factors. Firstly, that travel by European residents was dramatically reduced due to the coronavirus pandemic - cases of all travel related illnesses were reduced for that period. Secondly that figures from the UK are no longer included in ECDC reports and previously the UK was one of the top three EU countries reporting most cases. In 2021 Germany (4) and France (4) reported the highest number of cases. All cases were imported

with the most infections acquired in Africa and Asia. No autochthonous cases have been reported in continental Europe since 2017.

Deferral guidance

Visitors to some chikungunya affected areas will be excluded from donation for four months under current malaria guidelines. Visitors to chikungunya affected areas, which are not subject to longer deferral periods because of the presence of other infectious agents, should not donate blood or tissues for four weeks from their return to the UK if they have had no symptoms suggesting that they may have been infected with chikungunya, or for six months from their return if they have been diagnosed with chikungunya or had symptoms which may be suggestive of chikungunya infection.

Countries affected by chikungunya and any applicable time limits are shown in the Geographical Disease Risk Index (GDRI) and any associated Change Notifications.

Information about international outbreaks of chikungunya is available on the National Travel Health Network and Centre (NaTHNaC) website: <https://travelhealthpro.org.uk>



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