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Event Changing epidemiology of vector-borne disease in Europe; risk to travellers ahead of summer travel

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Contact Clinicians should contact their infection services to discuss possible vector-borne disease cases. Infection Specialists seeking advice can contact the UKHSA Imported Fever Service (IFS) on 0844 778 8990 (available 24/7).

Clinicians seeking advice regarding testing from the Rare and Imported Pathogens Laboratory (RIPL) should telephone 01980 612348 (available 9am to 5pm, Monday to Friday).

HPTs wishing to contact the national team regarding public health aspects of imported vector borne disease can contact travelhealth@ukhsa.gov.uk (in working hours)

IRP Level N/A (non-incident communication)

Incident Lead N/A (non-incident communication)

Instructions for Cascade

- NHS Acute Trusts, to cascade to Emergency Departments, Acute Medical Services, infectious diseases, microbiology and virology, and infection prevention and control
- UKHSA microbiologists, to cascade to local NHS infection services and NHS and private laboratories
- Devolved Administrations to cascade to Medical Directors and other DA teams as appropriate to their local arrangements
- Regional Deputy Directors to cascade to Directors of Public Health



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- Royal College of General Practitioners - Chair-RCGP@rcgp.org.uk
- Royal College of Emergency Medicine - president@rcem.ac.uk
- Royal College of Pathologists - president@rcpath.org

Summary:

This summer, many people will travel to Europe on holiday, including to the Olympics and Paralympics. Some popular European travel destinations now carry a small risk of vector-borne disease transmission, such as dengue fever.

The overall risk of vector-borne disease for UK travellers in Europe remains low and is considerably lower than travel to other endemic regions of the world. However, there is a risk that patients and clinicians will not be aware of recent changes in epidemiology with regard to differential diagnosis of illnesses.

All clinicians are reminded:

- To ensure that a travel history is taken from patients with relevant clinical syndromes – particularly fever and rash or meningoencephalitis. A 'significant' travel history for vector-borne disease should now include countries in Europe and patients may not mention travel to European destinations un-prompted as there may not be a perception of risk.
- Of the requirement to notify certain [infectious diseases](#) on clinical suspicion to UKHSA
- That input from infection services should be sought for febrile illness or other clinically compatible infection syndromes in returning travellers including travellers returning from countries in Europe without an identified cause through routine investigations.
- To consider VBDs such as dengue, West Nile virus and Congo-Crimean haemorrhagic fever (CCHF) in returned travellers from regions in Europe that are endemic for these infections or where recent locally acquired cases have been reported, where there is a compatible clinical syndrome.

Background:

Many UK travellers visit European countries each summer. In 2023 there were over 66 million visits from the UK to other countries in Europe; Spain and France are the two most frequent destinations. A higher number of UK visitors to France this summer is anticipated, as the 2024 Olympic Games will



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take place in Paris from 26th July to 11th August, followed by the Paralympic Games from 28th August to 8th September. An estimated 15 million visitors from at least 197 countries are expected to enter Paris during the Games.

In June 2024 the [ECDC](#) highlighted the increasing spread of mosquito-borne diseases in EU/EEA countries. Climate change has resulted in larger geographic areas hospitable to breeding populations of mosquitoes and ticks. Diseases spread by ticks and mosquitoes are most frequently diagnosed in the summer months.

Locally acquired cases of mosquito-borne flaviviridae including dengue fever, West Nile virus, Chikungunya virus and Zika virus have been reported in Europe over the last decade. Viral tick-borne diseases such as Crimean-Congo haemorrhagic fever (CCHF) and tick-borne encephalitis have also increased across Europe.

Clinicians seeing patients returning from European travel this summer are asked to consider the following:

Mosquito-borne infections:

- **Dengue fever**- while most cases diagnosed in the UK are acquired outside of Europe, locally acquired cases have been reported in Italy (82), France (45) and Spain (3) in 2023, including the first cases of local transmission as far north as Paris. Global case numbers of dengue fever are very high due to a large outbreak in South America and the Caribbean, which is expected to result in more cases imported to Europe, and consequently the potential for higher numbers of locally transmitted cases this summer. In July 2024, France reported its first locally acquired case of the season in Herault province.
- **West Nile virus (WNV)** - has now spread geographically within Europe, with 713 locally acquired infections across 123 regions of 9 EU countries, including 22 regions where not previously been detected last year. In 2024 to date, 3 EU countries (Italy, Spain and Greece) have reported human cases of WNV infection.
- Cases of locally transmitted **Zika virus** and **Chikungunya** virus in Europe are rare; the last cases of locally acquired Zika and Chikungunya were in 2019 (France) and 2017 (Italy and France) respectively.

Tick-borne infections:



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- **Crimean-Congo haemorrhagic fever (CCHF)** - a viral haemorrhagic fever spread by mostly by infected ticks but that can also be associated with animal slaughter. In the last 6 years, Bulgaria and Spain have reported locally acquired CCHF infections; in 2024 to date Spain has reported 1 fatal case of CCHF. Larger areas of Europe are expected to become ecologically suitable for CCHF transmission.
- **Tick-borne encephalitis (TBE)** - there were 3650 cases of tick-borne encephalitis (TBE), across 20 EU/EEA countries in 2022. Incidence has risen over the last 15 years as TBEV extends to new areas and altitudes, including detection in the UK.

Implications & Recommendations for NHS

Primary care and travel medicine providers should advise patients pre-travel in line with country-specific guidance available at [NaTHNaC - Country List \(travelhealthpro.org.uk\)](https://www.travelhealthpro.org.uk). Patients travelling to areas with a risk of tick-borne or mosquito-borne infections should receive advice on [bite avoidance](#).

Primary and secondary care clinicians should as stated previously, take a travel history from patients with infection syndromes and discuss clinical queries with local infection services. Input should be sought for returning travellers from countries in Europe, without an identified cause through routine investigations, and VBDs like Dengue, WNV and CCHF should be considered in the context of a compatible clinical syndrome and recent travel to endemic regions in Europe, or regions with recent locally acquired cases.

Specialist advice on imported infections is available from the UKHSA Imported Fever Service on 0844 778 8990 (available 24/7)

Information on current outbreaks is available on the travel health website [NaTHNaC - Outbreak Surveillance \(travelhealthpro.org.uk\)](https://www.travelhealthpro.org.uk). For up-to date information on the epidemiology of vector-borne diseases in Europe, please see the [ECDC webpages](#).

Implications and recommendations for laboratories

Clinical microbiology and virology laboratories should be aware of the possibility of European acquisition of vector-borne diseases and should ensure that sample referral pathways are in place to ensure timely dispatch of samples to RIPL where testing is required for compatible clinical syndromes. Further advice is available through UKHSA RIPL.

Implications & Recommendations for UKHSA Regions



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UKHSA Health Protection Teams and CPHIs should be aware of the potential for vector-borne disease cases acquired in Europe, in addition to the established risk of infection in endemic countries. Unusual or complex situations can be discussed as needed with the Travel Health team travelhealth@ukhsa.gov.uk

Sources of information: updates on distribution of disease

ECDC Weekly communicable threat reports [Weekly threats reports \(CDTR\) \(europa.eu\)](#)

ECDC Weekly updates on WNV epidemiology- [Weekly updates: 2024 West Nile virus transmission season \(europa.eu\)](#)

NaTHNaC outbreaks webpage: <https://travelhealthpro.org.uk/outbreaks>

ECDC Mosquito and tick maps [Surveillance and disease data for disease vectors \(europa.eu\)](#)

Sources of information: background reading

UKHSA Briefing Note 2023/038- Changing epidemiology of zoonotic and vector-borne infections: [available via UKHSA intranet](#)

NaTHNaC country specific webpages: <https://travelhealthpro.org.uk/countries>

World Health Organization (30 May 2024). Disease Outbreak News; Dengue – Global Situation Available at:

<https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON518>

ECDC page on mosquito borne infections [Mosquito-borne diseases \(europa.eu\)](#)

ECDC Page on CCHF in Europe- [Crimean-Congo haemorrhagic fever \(europa.eu\)](#)

ECDC page on TBE [Tick-borne encephalitis \(europa.eu\)](#)

Notifiable diseases and causative organisms: how to report - [GOV.UK](#)