Position Statement

September 2025

The contents of this document are believed to be current. Please continue to refer to the website for in-date versions.

Guidance for the addition and removal of an infectious disease risk entry in the Geographical Disease Risk Index (GDRI)

Background

Information relating to current and emerging infectious threats is assessed by the UK Blood Services surveillance process, through the JPAC Standing Advisory Committee on Transfusion Transmitted Infection (SACTTI) as described in the JPAC Position Statement 'Surveillance: Preparedness for emerging infectious agents'. In addition, the European Centre for Disease Prevention and Control (ECDC) produce rapid risk/outbreak assessments to support countries in the EU in their response to public health threats which include potential options for response, which are included in the surveillance process.

Specific transfusion safety measures for non-mandatory infectious diseases, with the exception of West Nile Virus, are not defined at EU/EEA level, therefore blood establishments devise their own strategies.

Temporary deferral, based on the answers to specific questions about recent travel history in an area endemic or epidemic for relevant microbiological agents, is the most frequent method used by UK Blood Services to minimise the risk of transmission of infection via blood transfusion and transplantation of tissues and stem cells. There are other possible measures but not all are used in the UK. These include nucleic acid screening of donor blood, pathogen inactivation of platelet and plasma products, and suspension of blood collection in affected areas with blood components supplied from unaffected areas.

The Geographical Disease Risk Index (GDRI) is a listing of countries/regions, indicating some of their known relevant disease endemicity, primarily those assessed to have direct relevance to blood safety. The GDRI does not hold information on all potential infectious risks in any given area, and its content varies on the basis of risk assessment carried out by SACTTI. It is used to assist in the deferral of donors according to potential infectious risks that are linked to certain geographical areas. The GDRI is compiled specifically to aid assessment of risks to the blood, tissue and tissue supply in the UK; it may differ from those used to guide protective measures for travellers, such as the need for pre-exposure vaccination.

This document summarises the process mechanism for the review and update of the entries in the GDRI.

Addition of a new infectious risk entry in the GDRI

Basic entry of infectious agents of interest, according to well established endemicity, is done on the basis of information gathered from widely recognised international sources such as the World Health Organization (WHO), Centers for Disease Prevention and Control (CDC), ECDC and UK sources such as the National Travel Health Network & Centre (NaTHNaC). For example, regions with established *Plasmodium* species endemicity have entries in the GDRI.

Given the moving scenario with infectious diseases, known pathogens may emerge in new areas or re-emerge in areas where transmission activity had not been seen for many years. The addition of these areas may therefore become necessary. Through the surveillance process, when an emerging or re-emerging infectious risk or outbreak is identified, SACTTI assesses whether the situation warrants a modification to donor selection criteria. This may lead to a specific risk being added to a country or region in the GDRI so that the appropriate donor deferrals can be applied.

Several factors can be taken into account to assist in the decision-making process, depending on the scenario. These include, for example:

- knowledge or likelihood of transmission through blood, tissues and cell
- knowledge or likelihood of harm to recipients in the event of a transmission
- existence of robust public heath infrastructure that will trigger appropriate control measures, including vector control, public awareness and increase in case ascertainment
- evidence of established competent vector in the area (in the case of a vector-borne infection)
- existence of efficient surveillance system in the affected area, that can monitor imported and autochthonous cases, with robust reporting pathways
- access to technical resources for accurate diagnosis and confirmation or exclusion of suspected cases
- availability of data that allows analysis of trajectory of the outbreak, number of proven cases, duration of activity, clinical impact
- consideration of measures taken by local blood (and other SoHo) establishments in response to the reported cases

Seasonal risks

Application of a seasonal risk can be considered if an infection is spread by a vector that is not active all year round. For example, West Nile Virus deferrals are only applied for travel to North America or Europe between 01 May and 30 November.

European outbreaks of Chikungunya and Dengue have only been reported in recent years between May to November (see ECDC weekly reports on seasonal surveillance for Chikungunya Virus and Dengue Virus) therefore risks for these viruses will only be applied between these months as of 2025.

The time period applied for a seasonal risk must be based on robust epidemiological data and should be reviewed regularly through the SACTTI horizon scanning process.

Regional risks

In regions with robust surveillance and reporting arrangements, a regional rather than an 'all country' approach can be taken. Risk should be applied to clearly defined geographical or administrative regions, enabling the creation of maps and ensuring that GDRI users are able to apply risks in a consistent way.

For European countries, regional risk should normally be applied at Nomenclature of Territorial Units for Statistics (NUTS) level 3. Local blood services in affected areas may apply measures at lower level (e.g. by town or district), but level 3 has proved a suitable choice for the GDRI when managing arbovirus outbreaks in Europe.

Removal of an infectious risk entry from the GDRI

Broadly, the considerations for the addition of an infectious risk entry to the GDRI can also be applied to assist in the decision-making process for removal of an infectious risk entry. The quality of accessible information is key, so that there is high level of confidence to revert changes.

For sporadic autochthonous outbreaks, removal of a risk entry may be done under certain conditions:

- at least two incubations periods after the last reported case have passed
- if an outbreak has officially been declared as over, e.g. by WHO, ECDC or a local Competent Authority such as the local Public Health Service
- measures instigated by the local Blood Service in response to an outbreak are stopped

After an established period of endemicity, epidemiological, demographical or climatic changes may lead to interruption of transmission, with possibility of re-emergence. Removal of a risk entry from the GDRI should be assessed, to avoid unnecessary deferral of donors.

For example, in the case of Zika virus, the WHO Zika Virus country classification scheme states 'the minimum timeline for determining transition to an interrupted state is 12 months after the last confirmed case, and no cases identified in travellers. Countries with a high capacity for diagnostic testing, consistent timely reporting of diagnostic results, a comprehensive arboviral surveillance system and/or a temperate climate or island setting, the interruption of vector-borne transmission is defined as the absence of ZIKV infection 3 months after the last confirmed case.'

On this basis, where established sources (e.g. WHO, ECDC, CDC) indicate interruption of a specific arbovirus transmission for 12 months or longer, the entry for the country or region can be considered for removal.

In practice, removal of a risk area (with previous prolonged period of active transmission) from the GDRI usually occurs after more than three years with no cases officially reported. For arboviruses, it must be confirmed that the country or region does not have any other arboviral risk of relevance to the GDRI before removal of its entry.

For more complex risk entries/removals, the Alliance of Blood Operators (ABO) Risk-Based Decision-Making Framework for Blood Safety can be used to assist in the decision-making process.

Dr Ines Ushiro-Lumb
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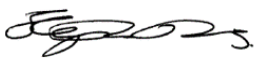

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