

## Annual emerging infection surveillance report for 2022

February 2023

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## Key: Outcomes of the Emerging Infection Report analysis

Risk assessment	Colour	Decision/action
Very low	White	No further action No further action required at this time beyond the formal recording of the analysis and any subsequent recommendations for further or on-going review
Likely very low and/or insufficient information at this time	Grey	Minor changes to GDRI If new infectious agent, maintain awareness and gather additional information before taking any other action.
Low	Green	No specific additional action at this time Maintain awareness
Potential risk	Amber	Potential risk present Although a potential risk, the reports are currently either ad-hoc cases or increasing spread of known risk. Close watching brief for changes in incidence and spread of infectious agent. Ongoing review of the situation, which may be dealt with in the first instance by the Professional Director of JPAC and chairs of relevant SACs, but which may subsequently require action from SACTTI.
Potential risk	Red	Risk present Risk present and a full SACTTI risk assessment is required, together with possible immediate action. SaBTO involvement may be required. If immediate action is required, this to be discussed initially between Professional Director of JPAC and the Chairs of relevant SACs.
n/a	Blue	Relevant for organ donation.

A: EIRs with SACTTI actions

Month	Year	Infectious agent/disease	Country	Comment	SACTTI Review
Jan	2022	Babesia	France	In France a splenectomized patient, had a negative routine Babesia divergens PCR.	Action: For SACTTI parasite committee meeting
Jan	2022	Canine Leishmaniasis	UK	Qualitative assessment of the risk that canine leishmaniosis presents to the UK population	Action: For SACTTI parasite committee meeting
Feb	2022	WNV	Africa	Epidemiology of West Nile virus in Africa: An underestimated threat: Several WNV outbreaks in humans were registered in Africa from the 1950s. [Tunisia and Algeria listed in GDRI]	Action: Review Promed for WNV outbreaks/cases in humans in countries: Algeria 1 human case in 2012, South Korea ex Guinea 1 human case in 2012, Sierra Leone 1 human case in 2014, Tunisia 29 confirmed human cases in 2018, other outbreaks/cases in 2012. No further action required at this stage as > 3 years since first reports in Tunisia. Continue to monitor reports through horizon scanning
Feb	2022	Zika	Global	Zika epidemiology update - February 2022. Since the last update in 2019, France and Kenya have been added to the list of countries with evidence of autochthonous, mosquito-borne transmission, based on peer-reviewed published data.	Action: 3 cases in France - no further cases. NO changes to GDRI required at this stage. Monitor for further reports
Mar	2022	Japanese encephalitis	Australia	As of 14 March 2022, the Australian Department of Health reported 18 cases, including two deaths, of Japanese encephalitis virus (JEV) across the states of New South Wales, Queensland, South Australia and Victoria.	Action: Monitor the situation of arbovirus infections in Australia (increase may be influenced by El Niño year). Discussed at EBA EID. Human cases do occur occasionally. To end of 2021 a total of 33 cases have been identified. There have been heavy rains and floods and large outbreaks in pig farms. There is no licenced test in Australia. They have a restriction in place for plasma for fractionation in dengue affected areas in Australia only. After risk assessment it was concluded that expanding restriction to JEV affected regions will cause blood shortages. Risk has been assessed as very low risk of transfusion transmission and level of risk is acceptable.
Mar	2022	Lassa fever	Togo	Lassa fever - situation update. On 26 February 2022, the Togolese authorities confirmed an outbreak of Lassa fever in Oti district.	Action: Monitor further reports to identify if risk entry needs applied to Togo. Malaria deferral mitigation (see CN 23-2022)

Month	Year	Infectious agent/disease	Country	Comment	SACTTI Review
Mar	2022	Orthohepevirus C infection	Spain	<b>Orthohepevirus C infection as an emerging cause of acute hepatitis.</b> Rat hepatitis E virus (HEV-C) is divergent from other HEV variants infecting humans that belong to Orthohepevirus species A (HEV-A).	<b>Action:</b> Discussed at EBA EID. Not reactive in the HEV RNA screening assays. Salvador Oyonarte informed EBA EID that the findings will be discussed with the Ministry of Health in Spain. If more information becomes available, it will be shared with EBA EID members.
Mar	2022	TBEV	Germany	<b>In Germany, there is a risk of TBE infection primarily in Bavaria and Baden-Württemberg</b>	<b>Action:</b> Monitor spread of TBEV in Europe
Mar	2022	Various	Australia	<b>The southeast of Australia is currently experiencing a La Nina weather pattern, which increases the risk of mosquito borne diseases, including flavivirus infection.</b>	<b>Action:</b> Monitor the situation of arbovirus infections in Australia (increase may be influenced by El Niño year). Risk has been assessed In Australia as very low risk of transfusion transmission
Apr	2022	Lassa fever	Guinea	<b>The Ministry of Health in Guinea has declared an epidemic following a confirmed case in the Kassadou subrefracture (region).</b>	<b>Action:</b> Monitor for further reports
Apr	2022	Lassa fever	Togo	<b>Lassa fever - situation update; Togo.</b> WHO was notified of an outbreak of Lassa fever in Togo following the confirmation of a case on 26 February 2022.	<b>Action:</b> CN23-2022. VHF risk applied
May	2022	Monkey Pox	England	<b>UKHSA update for 27 May: The latest cases, as of 26 May, bring the total number confirmed in England since 7 May to 101.</b>	<b>Action:</b> Position statement prepared and on JPAC website. Risk assessment to be prepared.
Jun	2022	Malaria	Thailand	<b>On 24 May 2022, Thai media reported that the Department of Disease Control in the country had identified 70 cases of Plasmodium knowlesi malaria in Ranong, Songkhla and Trat Provinces</b> between 1 October 2021 and 31 March 2022, with nine of these cases being reported from the island of Koh Chang. <b>[GDRI excludes islands of Ko Samui and Ko Chang]</b>	<b>Action:</b> Low risk but malaria flag added after discussion at SACTTI parasite meeting (tourist destination).
Jun	2022	Malaria	Thailand	<b>Health officials in Southern Thailand are on high alert after 11people became infected with P. knowlesi.</b> Koh Chang has reported 9 of the infections, with the rest being reported from Bo Rai. According to the governor, most of the patients lived and/or worked near forests inhabited by the macaque monkey. <b>[GDRI excludes islands of Ko Samui and Ko Chang]</b>	<b>Action:</b> Contact Chair of SACTTI Parasite committee to ascertain if possible to obtain P. knowlesi single infected samples to ensure detection with current malaria screening assay.
Jun	2022	Monkeypox	Global	<b>Various reports</b>	<b>Action:</b> Contact Chair of SACCCSD and suggest that information is provided to donor staff for awareness

Month	Year	Infectious agent/disease	Country	Comment	SACTTI Review
Jul	2022	Marburg virus disease	Ghana	In July 2022, Ghana reported two fatal cases of Marburg virus in the Ashanti region.	Action: Maintain watching brief. Malaria mitigation
Jul	2022	Dengue	Cuba	On 14 July 2022, the Cuban Minister of Public Health reported that, as of 10 July, 3,036 cases of dengue were confirmed in the country, with serotypes 1,2 and 3 circulating.	Action: Apply Dengue risk to GDRI (TV already in place for Zika)
Aug	2022	Dengue	France	In 2022 and as of 10 August 2022, two autochthonous cases of dengue have been reported in France.	Action: Monitor for further reports
Aug	2022	HEV-C1	Hong Kong	Hepatitis E Virus Species C Infection in Humans, Hong Kong.	Action: For discussion at SACTTI. Monitor for further reports
Aug	2022	HIV	Cyprus	Scientists from the University of Cyprus have discovered a new recombinant strain of the human immunodeficiency virus (HIV).	Action: Contact Grifols and Roche (both replied to indicate that their current NAT assays should detect the new recombinant strain)
Aug	2022	Japanese encephalitis	Australia	Japanese Encephalitis in Australia – A Sentinel Case. On March 4, 2022, Japanese encephalitis was identified as a “communicable disease incident of national significance” in Australia.	Action: Maintain watching brief
Aug	2022	Langya henipavirus	China	NEJM first reported Langya virus on 4 August 2022. ECDC assess risk of infection for EU citizens in Europe as very low and the risk for EU citizens visiting or residing in the Shandong and Henan provinces of China, where the virus was reported, as very low	Action: Maintain watching brief. Further data required to understand transmission of Langya virus
Aug	2022	Marburg virus disease	Ghana	Marburg virus disease - recovery of third case :	Action: Maintain watching brief (Note: outbreak declared over 16/09/2022- One household, 3 cases). First cases in Ghana
Aug	2022	Monkeypox	France	Early postexposure ring vaccination was well tolerated and effective against monkeypox but did not completely prevent breakthrough infections.	Action: Retain 21-day deferral for IMVANEX vaccination (CN04-2023)
Aug	2022	WNV	Europe	Since the beginning of the 2022 transmission season and as of 31 August 2022, EU/EEA countries reported 442 human cases of WNV infection in Italy (301), Greece (118), Romania (18), Austria (2), Germany (1), Hungary (1) and Slovakia (1). [Slovakia not covered by GDRI]	Action: Monitor for further reports for Slovakia
Sep	2022	Dengue	USA	State health officials now report 19 cases of locally acquired dengue after five additional cases were reported in Miami-Dade County, Florida.	Action: Monitor for further reports

Month	Year	Infectious agent/disease	Country	Comment	SACTTI Review
Sep	2022	WNV	Europe	Since the beginning of the 2022 transmission season and as of 28 September 2022, EU/EEA countries have reported 851 human cases of WNV infection (Tarragona in Spain not covered by GDRI).	Action: 2 cases reported in Tarragona. Monitor for further reports
Sep	2022	Dengue	France	Dengue - locally acquired infections - situation update in France. In 2022, five outbreaks with a total of 36 locally-acquired cases of dengue.	Action: Dengue risk applied to 5 departments in France (urgent CN 60) 21st September 2022
Sep	2022	Ebola virus	DRC	On 27 September 2022, the Ministry of Health (MoH) of the Democratic Republic of the Congo declared the end of the Ebola virus disease (EVD)	Action: VHF risk applied in GDRI. Review Ebola outbreaks (declaration/end) for SACCS D
Sep	2022	Ebola virus	Uganda	On 20 September 2022, health authorities in Uganda declared an outbreak of Ebola virus disease (EVD) following confirmation of a case, in the Mubende District, central Uganda.	Action: VHF risk already applied - start of outbreak noted in GDRI (CN 05-2023)
Sep	2022	Malaria	Global	Transfusion-Transmitted Malaria and Mitigation Strategies in Nonendemic Regions	Action: For SACTTI parasite committee meeting (review of malaria NAT assays)
Sep	2022	T. cruzi	USA	Evidence of likely autochthonous Chagas disease in the southwestern United States:	Action: low numbers of locally acquired cases for many years. Monitor for further reports.
Oct	2022	Dengue	France	Nine dengue transmission sites, totalling 65 autochthonous dengue cases, have been identified as of 16 October 2022	Action: Dengue risk applied to 5 departments in France (urgent CN 60) 21st September 2022. Monitor for reports of further cases in Corsica
Oct	2022	Dengue	Pakistan	International transmission of dengue fever between Pakistan and bordering countries (in particular, Afghanistan and the Islamic Republic of Iran) cannot be ruled out [Iran not covered by GDRI]	Action: Monitor reports for evidence of outbreaks
Oct	2022	WNV	Europe	The following regions reported human cases of WNV infection for the first time ever[(Bouches-du-Rhône in France, Tarragona and Córdoba in Spain not covered by GDRI).	Action: Contact Chair of SACCS D: TV/WNV deferral to be applied to Bouches du Rhone as neighboring departments have Dengue/WNV risk applied. No action for Tarragona at this stage (2 cases). Monitor for further reports
Oct	2022	malaria	Malaysia	Spatio-temporal distribution and hotspots of Plasmodium knowlesi infections in Sarawak, Malaysian Borneo.	Action: For SACTTI parasite committee meeting
Oct	2022	Usutu virus	UK	Evidence for overwintering and autochthonous transmission of Usutu virus to wild birds following its redetection in the United Kingdom.	Action: For Usutu virus RA. No human cases in UK. Monitor

Month	Year	Infectious agent/disease	Country	Comment	SACTTI Review
Nov	2022	Dengue	France	France faced an unusual situation of dengue transmission in 2022, with 65 autochthonous cases spread over nine transmission events by 21 October.	<b>Action:</b> CN 01-2023. Monitor Corsica (2 cases), Tarn-et-Garonne (1 case). Monitor
Nov	2022	T cruzi	Italy	<b>Chagas Disease and Transfusion Risk in Italy:</b> The Results of a National Survey. 15 donors were confirmed positive (0.4 out of 100,000 donors).	<b>Action:</b> Quality of data for survey can not be confirmed? Send report to EBA EID Monitor for comment from Italy.
Dec	2022	Dengue	Spain	On 21 December 2022, media reported the first autochthonous case of dengue in Cordoba, Spain.	<b>Action:</b> Monitor for further case reports
Dec	2022	Dengue	USA	Florida health officials reported 59 locally acquired dengue fever cases in Miami-Dade County and 63 statewide in 2022	<b>Action:</b> Monitor situation in Miami-Dade
Dec	2022	Lassa	Liberia	From 1 January to 1 December 2022, Liberia has experienced 7 Lassa fever outbreaks resulting in 67 laboratory confirmed cases including 22 deaths (case fatality rate of 32.8%).	<b>Action:</b> SACTTI to review outbreak dates (declaration/end) for other VHF agents other than Ebola) for GDRI.

B: Selected examples of EIRs with no SACTTI action

Month	Year	Infectious agent/disease	Country	Comment	SACTTI Review
Jan	2022	Middelburg virus	South Africa	<b>Study suggests Middelburg virus (MIDV) may be associated with unsolved neurological disease in humans in Africa.</b> MIDV is an Old World alphavirus previously associated with neurological disease and fatalities in horses and wildlife in southern Africa	<b>No action:</b> At this time point initial screen not required. Not linked to disease in humans
Jan	2022	Oz Virus	Japan	<b>Zoonotic Infection with Oz Virus, a Novel Thogotovirus:</b> Oz virus is a novel thogotovirus isolated from ticks that causes lethal infection in mice.	<b>No action:</b> 2/24 hunters with antibodies. Further investigation is needed to determine whether Oz virus is a zoonotic pathogen At this point initial screen not required
Feb	2022	Ebola virus disease	Sierra Leone	<b>Ebola Virus Glycoprotein IgG Seroprevalence in Community Previously Affected by Ebola.</b> Among 1,282 adults and children from a community affected by the 2014–2016 Ebola outbreak in Sierra Leone, 8% were seropositive for virus antibodies but never experienced disease symptoms.	<b>No action:</b> For Ebola risk assessment
Feb	2022	Ebola virus disease	USA	<b>Ebola virus persistence and disease recrudescence in the brains of antibody-treated nonhuman primate survivors.</b>	<b>No action:</b> For Ebola risk assessment
Feb	2022	WNV	Russia	<b>Spatial patterns of West Nile virus distribution in the Volgograd region of Russia, a territory with long-existing foci.</b>	<b>No action:</b> Areas of Russia with WNV risk have risk applied in GDRI
Mar	2022	Chikungunya	Global	<b>Chikungunya - Monitoring global outbreaks.</b>	<b>No action:</b> All countries with cases have Chik risk in GDRI
Mar	2022	Crimean-Congo haemorrhagic fever (CCHF)	UK	<b>The UK Health Security Agency (UKHSA) can confirm that a case of Crimean-Congo haemorrhagic fever (CCHF) has been confirmed in England. The woman had recently travelled to Central Asia.</b>	<b>No action:</b> CCHF risk assessment in place
Mar	2022	Dengue	Global	<b>Dengue Monitoring global outbreaks.</b>	<b>No action:</b> All countries have Dengue risk entry in GDRI
Mar	2022	Leishmania	Pakistan	<b>An outbreak of leishmaniasis [cutaneous], a skin disease caused by the bite of a sandfly, has been reported in parts of the Balochistan province.</b>	<b>No action:</b> Leishmaniasis risk assessment in place. In addition 4-month malaria deferral for Pakistan
Mar	2022	Monkey Pox	Cameroon	<b>Monkeypox - outbreak;</b> A monkeypox outbreak was reported on 15 December 2021.	<b>No action:</b> Mitigation from tropical virus and malaria risk in GDRI for Cameroon
Mar	2022	syphilis	Japan	<b>Bejel: Sometimes a Venereal Nonvenereal Treponematosi—and in Places You Might Not Expect</b> distribution of sexually transmitted bejel is much greater than currently known.	<b>No action:</b> sub species of <i>T. pallidum</i> that would be detected by existing serology

May	2022	<b>Dengue</b>	Egypt	<b>Dengue fever as a re-emerging disease in upper Egypt</b>	<b>No action:</b> Last dengue outbreak reported in 2016
May	2022	<b>WNV</b>	Germany	<b>East Germany, along with Bavaria, is a focal point for the spread of WNV.</b>	<b>No action:</b> WNV risk applied to Germany
Jun	2022	<b>HTLV</b>	Argentina	<b>Seronegative HTLV-1 carriers in blood banks: A potential viral source for silent transmission?</b>	<b>No action:</b> Leucodepletion will significantly reduce risk of transmission
Jul	2022	<b>Dengue</b>	Italy	<b>Media reports that two cases of dengue have been confirmed in Tuscany in the province of Pisa, while a third suspected case has been reported in Brescia</b>	<b>No action:</b> imported cases
Aug	2022	<b>COVID-19</b>	USA	<b>Frequent detection but lack of infectivity of SARS-CoV-2 RNA in presymptomatic, infected blood donor plasma.</b>	<b>No action:</b> For SARS-CoV-2 risk assessment
Aug	2022	<b>HEV</b>	England	<b>Fulminant Transfusion-Associated Hepatitis E Virus Infection Despite Screening, England, 2016-2020.</b>	<b>No action:</b> SaBTO have reviewed HEV screening in UK Blood Services
Aug	2022	<b>Usutu</b>	Austria	<b>The First Case of Usutu Virus Neuroinvasive Disease in Austria, 2021.</b> Of primary importance is the implementation of molecular diagnostics, particularly for screening donor blood, to ensure both USUV and WNV are capable of being detected.	<b>No action:</b> For Usutu risk assessment
Oct	2022	<b>Malaria</b>	Azerbaijan	<b>On 4 October 2022, media reported that Azerbaijan is expected to be certified by the World Health Organization as a “malaria-free” country.</b>	<b>No action:</b> Remove deferral when status confirmed by WHO
Nov	2022	<b>Usutu</b>	France	<b>On 18 October, French authorities confirmed a case of usutu virus in an individual who had not left metropolitan France for the period before symptom onset.</b> The case is considered autochthonous.	<b>No Action:</b> CN-01-2023 extends WNV regions to include Marseilles. For Usutu virus risk assessment
Dec	2022	<b>WNV</b>	Africa	<b>An African West Nile virus risk map: WNV infections are widely spread across Africa. Popular tourist destinations such as Morocco, Tunisia, and South Africa, are high-risk areas for WNV infection. [GDRI doesnt cover Morocco]</b>	<b>No action:</b> Paper is a review of literature - only Cameroon and Zambia with cases of human WNV infection reported (no information on cases etc).

## C: EIRs for Organ Donation information

Month	Year	Infectious agent/disease	Country	Comment	SACTTI Review
Jan	2022	HEV	Turkey	<b>Hepatitis E Infection in Solid Organ Transplant Recipients in Turkey:</b> Eating raw meat was the only independent variable associated with hepatitis E virus seropositivity.	<b>No action:</b> For ODT information
Jan	2022	Trichinella	Romania	<b>Seroprevalence and Risk Factors of Trichinella spiralis Infection in Blood Donors from Western Romania:</b> Eating raw and/or undercooked meat, from pigs or wild boars, was found to be the main risk factor	<b>No action:</b> For ODT information
Jan	2022	Various	UK	<b>Editorial on the Risk of Transmission of Infections to Others After Donor-Derived Infection Transmissions in Organs:</b>	<b>No action:</b> For ODT information
Feb	2022	BK polyomavirus	USA	<b>Association of donor hepatitis C virus infection status and risk of BK polyomavirus viremia after kidney transplantation.</b>	<b>No action:</b> For ODT information
Feb	2022	BK polyomavirus	USA	<b>Risk factors and outcomes of BK viremia among deceased donor kidney transplant recipients based on donor characteristics.</b>	<b>No action:</b> For ODT information
Feb	2022	CMV	USA	<b>Unexpected CMV Replication Kinetics in CMV Donor-Seropositive, Recipient-Seronegative Liver Transplant Recipients Receiving Pre-emptive Antiviral Therapy.</b>	<b>No action:</b> For ODT information
Feb	2022	Rabies	Spain	<b>On Wed 23 Feb 2022, a new case of rabies in a dog was confirmed in Melilla.</b>	<b>No action:</b> For ODT information
Feb	2022	syphilis	USA	<b>Delayed diagnosis and treatment of secondary syphilis in pancreas-kidney transplant recipient: Need for increased awareness of STIs in solid organ transplantation.</b>	<b>No action:</b> For ODT information
Mar	2022	Erlichiosis	USA	<b>Donor-derived Ehrlichiosis: 2 Clusters Following Solid Organ Transplantation.</b>	<b>No action:</b> For ODT information
Mar	2022	HIV	USA	<b>A multicenter study of HIV+ donor to HIV+ recipient liver transplantation under the HOPE Act shows that patient and graft survival were better than historical cohorts</b>	<b>No action:</b> For ODT information
Mar	2022	Prion	USA	<b>Creutzfeldt-Jakob Disease Following Kidney Transplantation:</b>	<b>No action:</b> For ODT information
Mar	2022	WNV	USA	<b>During 2018 WNV was transmitted through a solid organ transplant; two recipients developed neuroinvasive symptoms.</b>	<b>No action:</b> For ODT information

Month	Year	Infectious agent/disease	Country	Comment	SACTTI Review
Apr	2022	Torque teno-virus	Spain	The present review summarizes the available studies supporting the use of post-transplant TTV viremia to predict patient and graft outcomes after SOT and allo-HSCT.	No action: For ODT information
May	2022	Rabies	South Africa	The National Institute for Communicable Diseases (NICD) has reported continuing incidences of rabies in South Africa	No action: For ODT information
Jun	2022	HIV	USA	A prospective study of donors with HIV-positive and HIV false-positive (FP) test results within the HIV Organ Policy Equity (HOPE) Act in Action studies of HIV D+/R+ transplantation	No action: For ODT information
Jun	2022	Human granulocytic anaplasmosis (HGA)	Canada	Human granulocytic anaplasmosis (HGA) discovered in Québec:	No action: For ODT information
Aug	2022	COVID-19	USA	Organ transplantation using COVID-19-positive deceased donors. Survival of patients receiving grafts from COVID-19-positive donors is equivalent to those receiving grafts from COVID-19-negative donors	No action: For SARS-CoV-2 risk assessment and ODT information
Aug	2022	COVID-19	USA	Utilization and outcomes of deceased donor SARS-CoV-2-positive organs for solid organ transplantation in the United States. No evidence of reduced recipient graft survival with variations in practice over time.	No action: For SARS-CoV-2 risk assessment and ODT information
Aug	2022	Various	USA	Donor-Derived Infections: Monitoring of Posttransplant Infections and Safety Lessons From the Opioid Epidemic.	No action: For ODT information
Aug	2022	Various	USA	Updated U.S. Public Health Service Guideline for testing of transplant candidates aged <12 years for infection with HIV, hepatitis B virus, and hepatitis C virus - United States, 2022.	No action: For ODT information
Sep	2022	Acute Myeloid Leukaemia	USA	Donor-derived acute myeloid leukemia in solid organ transplantation. We report the transmission of acute myeloid leukemia (AML) undetected at donation from a deceased organ donor to two kidneys and one liver recipients.	No action: For ODT information
Sep	2022	HCV	USA	Long-term follow-up of acute and chronic rejection in heart transplant recipients from hepatitis C viremic (NAT+) donors	No action: For ODT information
Sep	2022	Various	USA	Donor-Derived Infections: Monitoring of Posttransplant Infections and Safety Lessons From the Opioid Epidemic:	No action: For ODT information

Month	Year	Infectious agent/disease	Country	Comment	SACTTI Review
Nov	2022	mpox	USA	Data suggesting the risk for acquiring monkeypox among U.S. healthcare providers is very low- reassuring data for organ procurement teams	No action: For ODT information
Dec	2022	Human circovirus 1	France	Circovirus Hepatitis Infection in Heart-Lung Transplant Patient, France:	No action: For ODT information
Dec	2022	AML	Italy	Donor-derived acute myeloid leukemia in solid organ transplantation.	No action: For ODT information

## D: Review of sources 2022

### Purpose

The purpose of this report is to feedback on the joint NHSBT/UKHSA Epidemiology team's review of resources used in the monthly Emerging Infectious Agent Report (EIAR). This is the second of a regular annual end to end review of sources to meet the recommendation of the 2021 audit of the UK blood services horizon scanning process carried out by the Government Internal Audit Agency. An SOP has been produced by the team to guide this annual review of sources. This report will feed into the annual review of the JPAC Position statement on Horizon scanning.

This document aims to:

1. Review and document sources used and their relevance to the monthly emerging report
2. Confirm UKHSA EpiIntel sources used and any changes that may impact on relevance and timeliness for items of interest to the UK blood services
3. Receive recommendations for improving the surveillance system for increased usability for stakeholders
4. Document any changes to sources and process for producing the EIR

### Summary

1. Review and document sources used and their relevance to the monthly EIR (Table 1)

Top 5 sources contributing most to the monthly EIR:

- PubMed
- ECDC weekly reports
- EpiIntel Blood weekly reports
- ProMed
- Outbreak News

Sources not used:

- Epidemiology and Infections journal
- PLOS Pathogens

European Blood Alliance (EBA) alerted SACTTI directly to Dengue spread in France prior to UKHSA reporting.

UKHSA provided SACTTI directly with an update on imported dengue data.

2. Confirm UKHSA EpiIntel sources used and any changes that may impact on relevance and timeliness for items of interest to the UK blood services

UKHSA confirmed that they have successfully migrated to using the WHO platform providing as complete and timely coverage as seen prior to Brexit.

- Receive recommendations for improving the surveillance system for increased usability for stakeholders

Items not required: USA Deer tick alerts [feedback0122], FDA MSM condom approval, E. anophelia [feedback 0322] T. cruzi care models, shigella [feedback 0422], non-viral hepatitis not relevant, bartonella, TB in transplantation [feedback 0522], diphtheria outbreak among asylum seekers [Feedback 1222].

- Document any changes to sources and process for producing the EIR
  - Added UKHSA weekly special report, advised to put items in Europe at the top following Dengue outbreak in France
  - Added UKHSA daily activity report (November 22), requested for timely awareness of hepatitis A outbreaks
  - Added Cumulative tab (September 22) to help identify growing concerns
  - Additional Mpox daily and weekly reports sent to SACTTI Chair while outbreak developed.
  - Paused Health Protection Scotland reports (July 2022): Other sources provide information that might have been reported here.
  - Paused UKHSA EpiIntel monthly reports (June 2022): covered by the daily and weekly EpiIntel reporting
  - Continued using Feedly platform in parallel with other horizon scanning sources

### 1. Review of sources used by epidemiology team during 2024 (January to November)

During 2022, 39 sources were used to compile the monthly emerging report for SACTTI. Of 810 entries there were 770 for information items, 33 potential review items and 7 initial screenings highlighted (Table 1).

Table 1. Count of sources used for the EIR in 2022

Source Review		Status		
Source	Frequency (n)	Information Only	May require review	Initial Screening
Pubmed	160	155	4	1
UKHSA EpiIntel	130	109	13	3
ECDC	75	71	4	0
ProMED	36	33	2	1
Outbreak News	32	29	2	1
PLOS NTDs	23	21	2	0
EID	24	22	1	1
HPS	21	20	1	0
CID	21	21	0	0
JID	18	18	0	0
WHO	13	12	1	0
UKHSA HPR	12	12	0	0
Transfusion	12	12	0	0
Euro surveillance	11	11	0	0

Vox Sanguinis	11	0	0	0
Transfusion Medicine	7	7	0	0
AABB News	7	7	0	0
Trans Medicine	7	7	0	0
MMWR	7	7	0	0
NEJM	6	6	0	0
AM J Transplant	7	6	0	0
ACDP	6	6	0	0
HAIRS	5	5	0	0
Parasites and vectors	5	5	0	0
Transplant Inf Dis	5	5	0	0
Lancet Inf Dis	5	4	1	0
NaTHNAc	4	4	0	0
UKHSA	3	3	0	0
Nature	2	2	0	0
CDC Travel Advisory	2	2	0	0
UKHSA Lit Review	1	1	0	0
FDA	1	1	0	0
BMC Inf Dis	1	1	0	0
IPFA slides	1	1	0	0
Media	1	1	1	0
Plos One	1	1	0	0
Red Cross	1	1	0	0
Blood Transfusion	1	1	1	0

Two previous sources did not provide any items for the emerging report in 2022: Epidemiology and Infections journal and PLOS Pathogens.

*Table 2. List of sources used for identifying initial screen or review required (note duplication where review listed by the same source and area have been removed).*

Source	Infectious agent	Area	Country	STATUS (for SACTTI consideration)
UKHSA EpiIntel	Human circovirus 1	Europe	France	Initial screen required
UKHSA EpiIntel	Langya henipavirus	Asia	China	Initial screen required
UKHSA EpiIntel	Middelburg virus	Africa	South Africa	Initial screen required
Pubmed	Batai Orthobunyavirus	Europe	Europe	Initial screen required
Promed	Karshi Virus	Asia	China	Initial screen required
Outbreak News	Lloviu virus	Europe	Hungary	Initial screen required
EID	Oz Virus	Asia	Japan	Initial screen required
UKHSA EpiIntel	Alongshan Virus (ALSV)	Europe	Switzerland	Update: may require review

Source	Infectious agent	Area	Country	STATUS (for SACTTI consideration)
UKHSA EpiIntel	Argentine haemorrhagic fever	Americas	Argentina	Update: may require review
UKHSA EpiIntel	Crimean-Congo haemorrhagic fever	Asia	Iraq	Update: may require review
UKHSA EpiIntel	Crimean-Congo haemorrhagic fever	Asia	Afghanistan	Update: may require review
UKHSA EpiIntel	Dengue	Europe	Spain	Update: may require review
UKHSA EpiIntel	Dengue	Americas	USA	Update: may require review
UKHSA EpiIntel	Dengue	Africa	Egypt	Update: may require review
UKHSA EpiIntel	Malaria	Asia	Azerbaijan	Update: may require review
UKHSA EpiIntel	Marburg virus disease	Africa	Ghana	Update: may require review
UKHSA EpiIntel	Usutu virus	Europe	Italy	Update: may require review
UKHSA EpiIntel	Usutu virus	Europe	France	Update: may require review
UKHSA EpiIntel	WNV	Africa	Africa	Update: may require review
UKHSA EpiIntel	WNV	Europe	Spain	Update: may require review
ECDC	Dengue	Europe	France	Update: may require review
ECDC	WNV	Europe	Europe	Update: may require review
Pubmed	Cache Valley virus	Americas	USA	Update: may require review
Pubmed	Prion	UK	UK	Update: may require review
Pubmed	WNV	Americas	Brazil	Update: may require review
Promed	Dengue	Africa	Egypt	Update: may require review
Promed	Malaria	Asia	Thailand	Update: may require review
PLOS NTD	CHIKV and ZIKV	Americas	Porta Rico	Update: may require review
PLOS NTD	WNV	Africa	Africa	Update: may require review
Outbreak News	Congo-Crimean haemorrhagic fever	Middle East	Iran	Update: may require review
Outbreak News	Dengue	Americas	USA	Update: may require review
Media	Influenza seasonal	UK	UK	Update: may require review
Lancet Infectious Diseases	Mpox	Europe	Spain	Update: may require review
HPS	Malaria	Asia	Thailand	Update: may require review
EID	Mpox	Europe	France	Update: may require review
WHO Outbreaks and Emergencies bulletin	Dengue	Middle East	Pakistan	Update: may require review

## 2. Confirm sources and any changes with UKHSA EpiIntel

The UKHSA EpiIntel are an important resource for the Epidemiology team and provide daily, weekly and monthly horizon scanning reports that form the foundation of the blood service monthly Emerging Infection Report. It is therefore vital to review this process regularly to ensure that the report for SACTTI supports decision making for safe blood donations in the United Kingdom as necessary.

During 2020 and 2021 the monthly EpiIntel report was interrupted but the daily reports which feed into the monthly report continued. Monthly reports were resumed in September 2021 but were paused again during the Mpox outbreak in 2022.

The Epidemiology team discussed current sources with Michael Reynolds of the EIZ team by email for updates regarding any changes to the EpiIntel resources being used and any changes to the department's process as of 06/12/2022. The Epidemiology team also confirmed the items of interest for the UK blood services as per the SOP and confirmed the benefit of the addition EpiIntel Weekly Blood Report introduced in late 2021.

The EIZ team confirmed they had recently reviewed and updated their sources following Brexit:

- **Migration to using WHO Epidemic Sources with access to around 14,000 sources**

The EIZ team have now fully integrated WHO's Epidemic Intelligence from Open Sources platform into their horizon scanning work. Additionally, the team scan a few additional sources outside of the platform to maximise coverage for signal detection (e.g. journals). EIZ confirmed that migration to this platform has been successful. The same risks for emerging infections are being collected and reported as previously with no delays to incidents being identified and included in daily feeds to the joint unit.

The impact of changes to EpiIntel sources so far appears to be positive. No major incidents have been identified that were missed throughout the reporting year. Reporting is timely and accurate. The new specialised Weekly Blood report provided by EpiIntel has provided a number of useful updates that have been flagged to SACTTI for review throughout the 2022 period.

### **3. Receive recommendations for improving the surveillance system for increased usability for stakeholders**

Chair of SACTTI provided feedback on EIRs throughout the year: Noted below in 4b changes to SOP.

### **4. Document any changes to sources and process for producing the EIR**

#### **a) Amendments to SOP for sources**

ADDED: UKHSA National Situational Awareness Cell (NSAC) daily report (November 2022).  
Hepatitis A virus of particular interest

PAUSED: Health Protection Scotland reports (July 2022): Other sources provide information that might have been reported here.

PAUSED: UKHSA EpiIntel monthly reports (June 2022): covered by the daily and weekly EpiIntel reporting

CONTINUED: Unit using Feedly platform in parallel with other horizon scanning sources rather than replacing them. Feedly [<https://feedly.com/>] aggregates information from around the web into one place. It can be used to view updates on any topic of interest, whether from the news, blogs, social media posts, RSS feeds, or other sources. The unit started using the platform in 2021 and it has been useful in gathering news articles, journals and additional ad-hoc articles to inform emerging report preparation

#### **b) Amendments to SOP for process**

Exclude: USA Deer tick alerts [feedback0122], FDA MSM condom approval, E. anophelia [feedback 0322] T. cruzi care models, shigella [feedback 0422], non-viral hepatitis not relevant, bartonella, TB in transplantation [feedback 0522], diphtheria outbreak among asylum seekers [Feedback 1222].

Watching brief to be maintained for: Mpox updates for spread not covered by donor selection criteria; Babesia; Usutu virus UK; WNV spread in Europe especially Spain; Zika spread to Europe; TBEV spread in Europe; JEV and arboviruses in Australia; HEV-C in humans; Langya virus transmission; Lassa fever, Marburg virus and EBV in Africa; malaria Thailand; dengue spread especially in USA and Cuba; T. cruzi USA.

**c) Changes to staff**

The EIAR is currently being run by 3 members of the team to provide cover, Claire Reynolds, Ruth Wilkie and Chloe Davison. Tali Yawitch has temporarily left the team in September 2022 for a 12-month study break.

**Summary of annual EIAR sources review**

UKHSA were able to provide assurance that ongoing pandemic and recent mpox outbreak have not impacted on timeliness and completeness of relevant reporting. Daily UKHSA NSAC source was added for timely identification of hepatitis A outbreaks in England. EBA direct reporting to SACTTI chair remains crucial for timely information on outbreaks in Europe. During the Mpox outbreak the unit was able to provide extra reporting based on UKHSA updates. A cumulative tab was instigated to identify growing concerns. SACTTI have provided feedback which has been incorporated into the EIAR SOP.