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**List of Infectious Agents and Associated Traffic Lights**

Infectious Agent/Disease	Type of Agent	Threat Level	Action	Status Changed
Chronic wasting disease	Prion	<b>Green</b>	<p>A laboratory study using human cerebral organoids has concluded that humans are extremely unlikely to contract a prion disease because of inadvertently eating CWD-infected cervid meat. The organoids were directly exposed to high concentrations of CWD prions from white-tailed deer, mule deer or elk, and none became infected with CWD within 6 months. The positive control exposed to human CJD prions under the same conditions was infected. (Groverman B, Williams K, Race B, et al. Lack of transmission of chronic wasting disease prions to human cerebral organoids. Emerg Infect Dis. 2024 Jun; 30(6): 1193.)</p> <p>California reported its first detections of chronic wasting disease in May 2024. The samples were from two deer in separate counties.</p> <p>Washington state's first case of chronic wasting disease was confirmed in the Northwest region in a white-tailed deer in August 2024.</p> <p>A study from the US assessed the zoonotic potential of CWD prions detected in various raw and processed (including well-cooked) meat samples from a CWD-positive elk. None of the meat samples tested were able to induce conversion of human PrP<sup>C</sup> to PrP<sup>Sc</sup>. (Benavente R, Brydon F, Bravo-Risi F, et al. Detection of chronic wasting disease prions in raw, processed, and cooked elk meat, Texas, USA. Emerg Infect Dis. 2025 Feb; 31(2): 363-367.)</p>	
Sporadic, acquired and inherited forms of human prion diseases (other than vCJD)	Prion	<b>Green</b>	<p>Consistent with previous studies, a 28-year US lookback study of recipients of blood from donors who subsequently developed CJD did not identify any cases of transmission. Follow-up was available for 1,245 recipients of components from 84 donors, totalling 6,795 person-years of observation. From a total of 973 recipient deaths, 36 had a neurologic cause and none were due to CJD. This included 641 recipients transfused within 5 years of the donor's death and 438 who survived more than 5 years after transfusion; there were 182 recipients in both categories. The consensus of this and comparable studies is that the risk of transfusion transmission of classic CJD is extremely low, if it exists at all. (Crowder LA, Dodd RY, Schonberger LB. Absence of evidence of transfusion transmission risk of Creutzfeldt-Jakob disease in the United States: Results from a 28-year lookback study. Transfusion. 2024 Jun; 64(6): 980-985.)</p> <p>In a recent series of mouse experiments, humanised mice overexpressing the human prion protein were intracerebrally inoculated with brain homogenates containing atypical scrapie (AS) prions. Out of approximately 120 mice, none developed clinical disease or accumulated detectable PrP<sup>res</sup> in brain or spleen. When an additional group of 72 mice received intracerebral inoculation with brain homogenate pools from the original mice, one developed clinical disease with detectable PrP<sup>res</sup> in the brain. These adapted AS prions closely mimicked</p>	

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			<p>the phenotype of genuine human sporadic CJD prions but differed from them structurally. The conclusion of the experiments was that AS prions have a limited capacity to convert human PrP and thus the zoonotic risk is low, but rare adaptation may allow the emergence of prions resembling those spontaneously forming in humans. (Marín-Moreno A, Reine F, Herzog L, et al. Assessment of the zoonotic potential of atypical scrapie prions in humanized mice reveals rare phenotypic convergence but not identity with sporadic Creutzfeldt-Jakob disease prions. J Infect Dis. 2024 Jul; 230(1): 161-171.)</p> <p><a href="#">Following oral exposure to L-type BSE prions, two cynomolgus macaques remained asymptomatic until euthanasia at 75 months post-inoculation. Prions were not detected in any tissue by western blot or immunohistochemistry, but were detected in nerve and lymphoid tissues by protein misfolding cyclic amplification. (Imamura M, Hagiwara Ki, Tobiume M, et al. Administration of L-type bovine spongiform encephalopathy to macaques to evaluate zoonotic potential. Emerg Infect Dis. 2025; doi: 10.3201/eid3105.241257.)</a></p>	
vCJD	Prion	Green	<p>As of 31 May 2024, the European Medicines Agency Committee for Medicinal Products for Human Use no longer recommends a geographical UK deferral for vCJD risk for plasma for fractionation donors.</p> <p><a href="#">Countries that have lifted their geographical deferrals for vCJD risk for fresh products within the last few years include the US, Australia, Ireland, Hong Kong, Israel, Singapore, Canada and New Zealand.</a></p>	21/09/2011
Non-prion proteins associated with neurodegenerative diseases (tau, α-synuclein, amyloid-β)	Prion-like	Green	No significant developments to report.	
Arboviruses miscellaneous (not elsewhere included)	Viral	Green	<p>August 2024 update</p> <p>The first documented case of Yezo virus with simultaneous detection of the YEZV nairovirus in a patient's serum and the attached tick has been published. This supports the hypothesis of YEZV as a tickborne infection. (Ogata Y, Sato T, Kato K, Kikuchi K, Mitsuhashi K, Watari K, et al. A case of tick-borne Yezo virus infection: Concurrent detection in the patient and tick. Int J Infect Dis. 2024 Jun; 143: 107038.)</p> <p>Increasing numbers of acute encephalitis syndrome and associated deaths are occurring in the state of Gujarat, India. The cases are believed to be attributable to Chandipura virus, a sandfly-transmitted rhabdovirus. Chandipura virus is ubiquitous on the Indian subcontinent in humans and other mammals</p>	Added Aug 2019 by combining other entries

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			<p>and was considered benign until reports of encephalitis in 2004. During a period of 1-2 months, Gujarat has reported 133 suspected cases with 48 deaths.</p> <p>The Czech Republic reported approximately 1200 cases of Lyme disease and 162 of tick-borne encephalitis during the first half of 2024. There is reference to approximately double the number of cases reported in the same period of 2023, but it is unclear whether this relates to TBEV, Lyme or both.</p> <p>November 2024 update</p> <p>Between June and 16 August 2024, 245 cases of acute encephalitis syndrome were reported in India, with Chandipura virus (CHPV) confirmed in 64 cases.</p> <p>During November 2023–April 2024, the WEEV outbreak in Argentina and Uruguay resulted in 217 human cases, 12 of which were fatal, and 2,548 equine cases. A novel WEEV lineage was identified as the cause of three of the equine cases and is proposed to be called lineage C. (Campos AS, Franco AC, Godinho F, et al. Molecular epidemiology of Western equine encephalitis virus, South America, 2023–2024. <i>Emerg Infect Dis.</i> 2024 Sep; 30(9): 1834.)</p> <p>Wetland virus (WELV) is a tick-borne orthonairovirus that was discovered in 2019 in a febrile patient in China. Subsequent investigations revealed detectable WELV RNA in 20 (2.9%) of 682 patients at four sentinel facilities who developed acute fever after a tick bite, and WELV-specific antibodies in 12 (1.9%) of 640 healthy forest rangers. WELV RNA was also detected in five tick species (mostly <i>Haemaphysalis concinna</i>), sheep, horses, pigs and Transbaikalian voles (a type of rodent) in northeastern China. WELV is most closely related to Tofla virus in the Hazara genogroup. (Zhang X-A, Ma Y-D, Zhang Y-F, et al. A new orthonairovirus associated with human febrile illness. <i>N Engl J Med.</i> 2024 Sep; 391(9): 821-831.)</p> <p>Fort Sherman virus (FSV) is an orthobunyavirus that has been isolated from mosquitoes, symptomatic and healthy horses, and a soldier with acute febrile disease in Panama. Seroprevalence studies have also found evidence of past infection in humans (Argentina) and goats. A second human case report was published in September. The patient presented with febrile illness in Peru in March 2020. After other diagnostic testing was negative, the infection was eventually confirmed as FSV. (deOliveira-Filho E, Cabezas Sánchez CA, Manosalva DEV, et al. Fort Sherman virus infection in human, Peru, 2020. <i>Emerg Infect Dis.</i> 2024 Oct; 30(10): 2211-2214.)</p>	

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			<p>ECDC has assessed that the likelihood of TBEV being transmitted and leading to symptomatic disease via blood transfusion or organ transplant is very low, and low, respectively. (European Centre for Disease Prevention and Control. The risk of tick-borne encephalitis virus transmission via substances of human origin. 2024 Oct 2. <a href="https://www.ecdc.europa.eu/en/publications-data/risk-tick-borne-encephalitis-virus-transmission-substances-human-origin">https://www.ecdc.europa.eu/en/publications-data/risk-tick-borne-encephalitis-virus-transmission-substances-human-origin</a>)</p> <p>February 2025 update</p> <p>Sindbis virus was first detected in Spain in 2022 as an incidental finding during mosquito surveillance for WNV. Subsequent sampling and testing detected SINV in mosquitoes from five different provinces of Andalucía in southwestern Spain. (Gutiérrez-López R, Ruiz-López MJ, Ledesma J, et al. First isolation of the Sindbis virus in mosquitoes from southwestern Spain reveals a new recent introduction from Africa. One Health. 2025 Jun; 20: 100947.)</p> <p>A novel tickborne orthonairovirus proposed to be named Xue-Cheng virus (XCV) has been identified in 26 febrile patients and two <i>Haemaphysalis</i> tick species in northeastern China. All but one of the patients were negative for other tickborne infections on molecular testing. (Zhang M-Z, Bian C, Ye R-Z, et al. Human infection with a novel tickborne Orthonairovirus species in China. N Engl J Med. 2025 Jan; 392(2): 200-202.)</p> <p>A recent study found a nearly 2.6-fold increase in the incidence of neuroinvasive Toscana virus in Italy in 2022–23 (2.34 per million population) vs 2016–21 (0.92 per million population). (Fotakis EA, Di Maggio E, Del Manso M, et al. Human neuroinvasive Toscana virus infections in Italy from 2016 to 2023: Increased incidence in 2022 and 2023. Euro Surveill. 2025 Jan; 30(2): pii=2400203.)</p> <p><u>May 2025 update</u></p> <p><u>The first TBEV infections likely acquired in the UK were identified in 2019 and 2020. A retrospective review of all possible TBE cases in the UK during 2015-2023 identified two confirmed cases that were definitely or highly likely to have been acquired in the UK, both in 2022. (Callaby H, Beard KR, Wakerley D, et al. Tick-borne encephalitis: from tick surveillance to the first confirmed human cases, the United Kingdom, 2015 to 2023. Euro Surveill. 2025 Feb; 30(5): pii=2400404.)</u></p> <p><u>Oz virus is a tickborne orthomyxovirus previously identified in Japan. An animal prevalence study, also in Japan, found seroprevalence approx. 20-50% among wildlife, including non-human primates. Antibody positivity was also identified in companion animals, but at much lower levels: 2.9% in dogs and 0.9% in cats. None of the samples were positive by PCR. (Matsuo A, Tatemoto K, Ishijima K, et al.</u></p>	

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			<a href="#">Oz virus infection in 6 animal species, including macaques, bears, and companion animals, Japan. Emerg Infect Dis. 2025 Apr. 31(4): 720-727.</a>	
Arenaviruses	Viral	Green	No significant developments to report.	
Barmah Forest virus	Viral	Green	In 2024, there were 314 notifications of BFV infection, lower than both 2023 (344 notifications) and the five-year average (approximately 410).	25/05/2011
Bornaviruses (BoDV-1, VSBV-1)	Viral	Green	No significant developments to report.	
Chikungunya virus	Viral	Green	<p>August 2024 update</p> <p>An outbreak of CHIKV has been active in Senegal since July 2023. Characterisation of the circulating strains has identified a novel strain of the West African genotype, phylogenetically distinct from strains circulating in previous outbreaks. (Not yet peer reviewed: Padane A, Tegally H, Ramphal Y, et al. An emerging clade of chikungunya West African genotype discovered in real-time during 2023 outbreak in Senegal. medRxiv. 2023; doi: 10.1101/2023.11.14.23298527.)</p> <p>A matched cohort study of more than 140,000 CHIKV cases over 2015-2018 in Brazil concludes that CHIKV disease is associated with an increased risk of death for up to 84 days after symptom onset. The incidence rate ratio of death among cases compared to the unexposed was 8.4 within 7 days of symptom onset, decreasing to 2.26 at 57-84 days. Diabetes and ischaemic heart disease were significant causes of death within 28 days of symptom onset. (Cerqueira-Silva T, Pescarini JM, Cardim LL, et al. Risk of death following chikungunya virus disease in the 100 Million Brazilian Cohort, 2015-2018: a matched cohort study and self-controlled case series. Lancet Infect Dis. 2024 May; 24(5): 504-513.)</p> <p>Ixchiq (VLA1553) was granted marketing authorisation in the European Union in June 2024, making it the first CHIKV vaccine to be approved in Europe.</p> <p>The 95% limit of detection for CHIKV for the Roche cobas CHIKV/DENV assay is reported as 4.76 IU/mL (95% CI 3.08-8.94). (Gallian P, Dupont I, Lacoste M, Brisbarre N, Isnard C, Delouane I, et al. Evaluation of assays for nucleic acid testing for the prevention of chikungunya and dengue virus transmission by blood transfusion. Transfusion. 2024 Aug; 64(8): 1503-1508.)</p> <p>November 2024 update</p> <p>On 31 July 2024, France reported a confirmed, autochthonous case of chikungunya virus disease with suspected exposure in the Paris and Hauts-de-Seine Departments. The case had onset of symptoms on 18 July 2024. This is the first autochthonous CHIKV case reported in Europe since 2017.</p>	30/08/2016

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			<p>Six autochthonous cases of CHIKV were reported in August and September from Reunion, which has a flavivirus deferral.</p> <p>February 2025 update</p> <p>There were 68 notifications of CHIKV infection in Australia in 2024, higher than both 2023 (42 notifications) and the five-year average (approximately 41).</p> <p>The outbreak of CHIKV in Reunion is ongoing. Between 22 Aug 2024 and 21 Jan 2025, 256 indigenous (autochthonous) cases were recorded. There are seven active areas, with isolated cases in some other municipalities.</p> <p><a href="#">May 2025 update</a></p> <p><a href="#">One autochthonous case of CHIKV was recorded in Mayotte in the week 22-28 March.</a></p> <p><a href="#">As of 30 March, Reunion had recorded 27,668 autochthonous cases of CHIKV in 2025. France implemented blood safety measures in April (CHIKV NAT in Reunion, NAT or 28-day deferral following travel to Reunion for other areas of France).</a></p> <p><a href="#">In February, the FDA approved VIMKUNYA, a chikungunya vaccine by Bavarian Nordic.</a></p>	
Crimean-Congo haemorrhagic fever virus	Viral	Green	<p>In 2024, CCHFV was reported to be detected in ticks from France, its territorial collectivity Corsica, Israel (first known detection, also in cattle) and Spain. Human cases were reported from Iraq, Pakistan and Portugal (the first known case in this country). <a href="#">(Later published: Zé-Zé L, Nunes C, Sousa M, et al. Fatal case of Crimean-Congo hemorrhagic fever, Portugal, 2024. Emerg Infect Dis. 2025 Jan; 31(1): 139-143.)</a></p> <p>During 2013-2023, inclusive, 51 human infections with CCHFV were reported by EU/EEA countries, all of which were acquired in either Bulgaria (39 cases) or Spain (12).</p>	
Cytomegalovirus	Viral	Green	<p>The CMV vaccine candidate mRNA-1647 was found in a phase 1 trial to produce increased neutralising antibody, binding antibody, and antigen-specific cell-mediated responses among vaccinated participants, regardless of CMV serostatus. It also had an acceptable safety profile. The same vaccine candidate has also been shown to elicit long-lasting CMV-specific responses from several types of immune cells, outperforming a previous vaccine candidate on multiple measures.</p>	08/05/2015

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			<p>(Fierro C, Brune D, Shaw M, et al. Safety and immunogenicity of a messenger RNA-based cytomegalovirus vaccine in healthy adults: Results from a phase 1, randomized, clinical trial. J Infect Dis. 2024 Sep; 230(3): e668-e678.</p> <p>Hu X, Karthigeyan KP, Herbek S, et al. Human cytomegalovirus mRNA-1647 vaccine candidate elicits potent and broad neutralization and higher antibody-dependent cellular cytotoxicity responses than the gB/MF59 vaccine. J Infect Dis. 2024 Aug; 230(2): 455-466.)</p> <p><a href="#">A systematic review and meta-analysis of 26 studies of CMV infectivity in breast milk has been published. Compared to untreated milk, heat treatments reduced CMV transmission by 82% and freeze thawing by 53%. However, heat treatment significantly degraded bioactive elements. (Singh A, Bartlett A, Clifford V, et al. Strategies to reduce CMV infectivity in breastmilk to preterm babies – impact on transmission, nutrients, and bioactivity: a systematic review and meta-analysis. J Perinatol. 2025; doi: 10.1038/s41372-025-02254-9.)</a></p>	
Dengue viruses	Viral	Green	<p>August 2024 update</p> <p>A dengue outbreak occurred on Mer Island in the Torres Strait Regional Local Government Area between May and 26 July 2024. There were a total of 47 cases, plus one probable and one suspected case on Warraber Island (reported 13 June). Mer has around 450 inhabitants and is about 800kms north of Cairns. The risk to blood safety was low given the small population and isolation of the islands.</p> <p>A substantial increase in dengue cases has been reported globally in the last five years. More than 7.6 million dengue cases, including 3.4 million confirmed cases, were reported to WHO in 2024 to 30 April. There are 90 countries with known active dengue transmission in 2024. WHO assesses the overall risk at the global level as high. The Region of the Americas in particular is exceeding historical records; the case count in the first 19 weeks of 2024 represents an increase of 226% over the same period in 2023 and an increase of 416% over the five-year average. Also, Iran has recently reported its first known autochthonous cases.</p> <p>TAK-003 became the second dengue vaccine to receive WHO prequalification on 10 May 2024 and is recommended for children in settings with high dengue burden and transmission intensity. This live-attenuated quadrivalent vaccine is administered in a two-dose schedule with a three-month interval.</p> <p>A cohort study of children in Nicaragua found that primary ZIKV infection increased the risk of disease caused by DENV3 and DENV4. The relative risks of symptomatic infection for this group, compared to participants who were flavivirus-naïve, were 2.90 (95% CI 1.34-6.27) for DENV3 and 2.62 (95% CI</p>	04/09/2014

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			<p>1.48-4.63) for DENV4. (Zambrana JV, Hasund CM, Aogo RA, Bos S, Arguello S, Gonzalez K, et al. Primary exposure to Zika virus is linked with increased risk of symptomatic dengue virus infection with serotypes 2, 3, and 4, but not 1. <i>Sci Transl Med.</i> 2024; 16: eadn2199.)</p> <p>Limits of detection have been calculated for the DENV NAT assays manufactured by Roche (cobas CHIKV/DENV) and Grifols (Procleix Dengue). The only significant difference was that the Procleix assay was more sensitive for DENV-3. The 95% LODs in IU/mL (95% CI) for the cobas and Procleix assays, respectively, were as follows:</p> <ul style="list-style-type: none"> <li>• DENV-1: 5.33 (2.88-18.81) [cobas] vs 5.84 (3.84-10.77) [Procleix]</li> <li>• DENV-2: 4.1 (2.70-8.19) vs 4.98 (3.25-9.92)</li> <li>• DENV-3: 5.89 (3.84-11.11) vs 2.19 (1.53-3.83)</li> <li>• DENV-4: 7.07 (4.34-14.89) vs 5.11 (3.48-9.07).</li> </ul> <p>(Gallian P, Dupont I, Lacoste M, Brisbarre N, Isnard C, Delouane I, et al. Evaluation of assays for nucleic acid testing for the prevention of chikungunya and dengue virus transmission by blood transfusion. <i>Transfusion.</i> 2024 Aug; 64(8): 1503-1508.)</p> <p>November 2024 update</p> <p>The first autochthonous dengue case in Europe in 2024 was reported from France during 6-12 July. As of 23 October, locally acquired infections have been reported from France (82 cases from six departments), Italy (200 cases from six regions) and Spain (five cases in one region). (Later published: Sacco C, Liverani A, Venturi G, et al. Autochthonous dengue outbreak in Marche Region, Central Italy, August to October 2024. <i>Euro Surveill.</i> 2024 Nov; 29(47): pii=2400713)</p> <p>No restrictions for Australian blood donors are required for dengue outbreaks in Europe, even when the affected areas do not have a relevant geographical deferral. This is because the risk from donors travelling to areas with much larger outbreaks has been previously assessed and found to be negligible. (Coghlan A, Hoad V, Seed C, et al. Emerging infectious disease outbreaks: estimating disease risk in Australian blood donors travelling overseas. <i>Vox Sang.</i> 2018 Jan; 113(1): 21-30.)</p> <p>As of epidemiological week 36 of 2024, 47 countries and territories in the Americas Region have reported 11,732,921 dengue cases; this number is two and half times as high as the number recorded throughout 2023 (4,594,823 cases). All four DENV serotypes have been reported in the region.</p> <p>February 2025 update</p> <p>There were 2,366 notifications of DENV infection in Australia in 2024, higher than the previous peak of 2,241 in 2016. All were imported cases except for</p>	

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			<p>those associated with outbreaks in the Torres Strait during 2024: Mer Island (May), Warraber Island (June), Masig/Yorke Island (November) and Erub/Darnley Island (December). There were a total of 54 locally acquired cases in this region as of 3 December 2024.</p> <p>Two likely 'breakthrough' cases of locally acquired dengue in Townsville were reported to Lifeblood with onset in late December/early January. The blood safety risk was assessed as negligible owing to the inability of the <i>Wolbachia</i> program areas to sustain ongoing DENV transmission, the rarity of TT-DENV, the short lifespan of an infected mosquito, and Townsville being a plasma-only blood donor centre. Therefore, no additional restrictions were required.</p> <p>Argentina reported two cases of transplantation transmission of dengue virus in November, but no information on imputability was provided.</p> <p><u>May 2025 update</u></p> <p><u>Two additional cases of locally acquired dengue in Townsville were reported on 17 February, also assessed as breakthroughs by QLD Health. Lifeblood elected to implement a plasma for fractionation restriction for Townsville Donor Centre only. After additional cases, a full outbreak response was initiated by QLD Health around 12 March. As of 30 April 2025, the outbreak total stands at 16 cases which cluster geographically; the most recent date of onset is 20 March. The Lifeblood restriction was ceased on 1 May.</u></p> <p><u>Two locally acquired cases of dengue occurred in January in Madeira (Portugal).</u></p> <p><u>During 2024, 13 million cases of dengue were reported in the Region of the Americas from 50 countries and territories, with the most severely affected being Brazil, Argentina, Mexico, Colombia and Paraguay. Of the total, almost 7 million were laboratory confirmed and the case fatality rate was 0.063%. Cases in 2024 were the highest on record.</u></p>	
Eastern equine encephalitis virus	Viral	Green	During 2024, 19 human cases of EEEV were reported from 9 states in the US, including some states that had not reported cases for several years. Canada also reported a case in Ontario in September.	
Ebola virus (orthoebolaviruses)	Viral	Green	<p>February 2025 update</p> <p>It has previously been shown that the Ebola vaccine regimen consisting of first Ad26.ZEBOV and then MVA-BN-Filo administered 56 days apart is safe and immunogenic. The same findings have now been obtained for the agents given</p>	09/06/2016

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			<p>within a shorter interval and/or in reverse order: MVA-BN-Filo/Ad26.ZEBOV 14 days apart, and Ad26.ZEBOV/MVA-BN-Filo 28 days apart. (Mwesigwa B, Sawe F, Oyieko J, et al. Safety and immunogenicity of accelerated heterologous 2-dose Ebola vaccine regimens in adults with and without HIV in Africa. Clin Infect Dis. 2024 Oct; 79(4): 888-900.)</p> <p>An outbreak of Sudan virus was declared in Uganda on 30 January 2025. The index case had developed symptoms on 20/21 January. As of 3 February, three cases have been confirmed (the index and two of their relatives) and a ring vaccination clinical trial of an rVSV-based SUDV vaccine candidate has been launched.</p> <p><u>May 2025 update:</u></p> <p><u>The Sudan virus outbreak in Uganda was declared over on 26 April 2025. A total of 14 cases (12 confirmed and two probable cases) were recorded, including four deaths (CFR 29%).</u></p> <p><u>ChAdOx1 biEBOV, a bivalent Ebola and Sudan virus vectored vaccine, was tested in a phase 1 clinical trial. Results showed a single dose generated binding antibodies against the glycoproteins of both viruses. A phase 1b trial to further investigate the safety and immunogenicity of the vaccine is ongoing.</u> (Jenkin D, Makinson R, Sanders H, et al. Safety and immunogenicity of a bivalent Ebola virus and Sudan virus ChAdOx1 vectored vaccine in adults in the UK: an open-label, non-randomised, first-in-human, phase 1 clinical trial. Lancet Microbe. 2025; doi: 10.1016/j.lanmic.2024.101022.)</p>	
Enteroviruses	Viral	Green	<p>November 2024 update: Circulating vaccine-derived poliovirus (cVDPV) type 2 was detected in one wastewater sample collected from metropolitan Barcelona in mid-September and is the first report of a positive environmental sample in Spain. In French Guiana, cVDPV type 3 was detected in at least two wastewater samples from Cayenne in June and August. There is no evidence of transmission in either country.</p> <p>February 2025 update</p> <p>Four additional countries in the European region (Finland, Germany, Poland, and the UK) reported cVDPV2 detections in wastewater samples in 2024. These strains plus those from Spain form a separate cluster of the NIE-ZAS-1 cVDPV2 emergence in Africa. (Böttcher S, Kreibich J, Wilton T, et al. Detection of circulating vaccine-derived poliovirus type 2 (cVDPV2) in wastewater samples: a wake-up call, Finland, Germany, Poland, Spain, the United Kingdom, 2024. Euro Surveill. 2025 Jan; 30(3): pii=2500037.)</p>	

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			A Melbourne metropolitan wastewater sample tested positive for cVDPV2 in December 2024. The risk of disease transmission was considered very low.  <u>May 2025 update: In Spain, EV-C105, a rare genotype of EV species C was isolated from five patients demonstrating respiratory or neurological illness between 2019 and 2024. The isolation of EV-C105, along with the reported emergence of a novel EV-C105 clade (C1), are the first detections of their type in Spain. (Fernandez-Garcia MD, Camacho J, Diez-Fuertes F, et al. Detections of rare enterovirus C105 linked to an emerging novel clade, Spain, 2019 to 2024. Euro Surveill. 2025 Feb; 30(6): 2500073.)</u>	
Epstein-Barr virus	Viral	Green	No significant developments to report.	
Hantaviruses	Viral	Green	In 2021, a large outbreak of hantavirus disease occurred in Croatia, including in areas previously not considered endemic. There were 334 notified cases. Review of 254 cases treated at one centre found that 96.9% had antibodies against Puumala virus, 83.5% were residents of known endemic areas, 36.6% had occupational exposure and 37 (14.6%) had not been notified to the public health authorities. (Rončević Filipović M, Trobonjača Z, Cekinović Grbeša Đ, et al. Outbreak of hantavirus disease caused by Puumala virus, Croatia, 2021. Euro Surveill. 2025 Jan; 30(3): 2400127.)  <u>Sin Nombre virus (SNV) is the main pathogenic hantavirus in the Americas. Contrary to conventional wisdom, an extensive survey of wild-caught small mammals in New Mexico has established that multiple small mammal species act as reservoirs. SNV RNA was found in 27% of all animals, including multiple species of rats and mice, plus voles, pocket gophers and chipmunks. Live, infectious virus was isolated from several of these species. (Goodfellow SM, Nofchissey RA, Ye C, et al. A human pathogenic hantavirus circulates and is shed in taxonomically diverse rodent reservoirs. PLOS Pathogens. 2025 Jan; 21(1): e1012849.)</u>	27/11/2012
Hendra virus	Viral	Green	No significant developments to report.	20/11/2013
Hepatitis A virus	Viral	Green	August 2024 update:  A confirmed transfusion transmission of HAV occurred in the UK in 2023. The donor developed symptoms of acute hepatitis within two weeks of their most recent donation. The donor and the red cell recipient were both positive for HAV RNA with identical viral sequences and the recipient developed transaminitis. (Annual SHOT Report 2023, <a href="https://www.shotuk.org/shot-reports/">https://www.shotuk.org/shot-reports/</a> )  Kerala (India) is experiencing its worst outbreak of hepatitis A in several years. The number of confirmed cases Jan-May 2024 was higher than the number	03/03/2016

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Infectious Agent/Disease	Type of Agent	Threat Level	Action	Status Changed
			<p>reported in any entire calendar year back to at least 2017. Poor quality pipelines for water and waste are contributing factors.</p> <p>An outbreak of HAV associated with MSM is ongoing in Portugal. There were 71 confirmed cases between 7 Oct 2023 and 24 Apr 2024, identified as one of the strains from the 2016-2018 multi-country outbreak. (Rosenda E, von Schreeb S, Gomes A, et al. Ongoing outbreak of hepatitis A associated with sexual transmission among men who have sex with men, Portugal, October 2023 to April 2024. Euro Surveill. 2024 May; 29(21): pii=2400272.)</p> <p>A city in the Brazilian state of Paraná has identified 353 cases of hepatitis A in 2024 as of 21 June. The majority of infections are in young men, and transmission appears to be occurring via sexual contact.</p> <p>November 2024 update: The Scottish National Blood Transfusion Service introduced universal hepatitis A virus testing on 27 July 2024. The additional testing is part of their Plasma for Medicines programme, but all donation types will be tested.</p> <p>February 2025 update:</p> <p>There were 240 notifications of hepatitis A in Australia in 2024. This is consistent with the 216 notifications in 2023 and 244 in 2019, prior to the pandemic.</p> <p>A small outbreak of hepatitis A (12 cases) occurred in the Netherlands from November 2024, linked to frozen blueberries manufactured in Poland.</p> <p>Spain recorded 894 confirmed cases of hepatitis A during 2024, which marks the largest increase in cases in a decade. According to an earlier update, at least 720 were locally acquired and the highest increase has been observed among men aged 15-44 years. Some of the sequenced isolates belong to one of the strains involved in the 2016-2017 European MSM HAV outbreak.</p> <p><u>May 2025 update: As of 6 April 2025, all donations in Australia undergo HAV NAT for plasma quality assurance. Lifeblood is notified of any positive results.</u></p>	
Hepatitis B virus	Viral	Green	<p>August 2024 update</p> <p>In Germany, there were 11 instances of confirmed transfusion-transmitted HBV during 2001-2005 (0.39 per million transfused units). This decreased to 5 (0.07 per million) during 2007-2020, after the introduction of single anti-HBc donor testing. Germany conducts NAT testing in pools of 96. (Berg P, Heiden M, Müller S, Meyer B, Witzhausen C, Ruppert-Seipp G, et al. A national surveillance system for continuous</p>	30/08/2016

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Infectious Agent/Disease	Type of Agent	Threat Level	Action	Status Changed
			<p>monitoring of blood transfusion safety: German haemovigilance data. Vox Sang. 2024 Sep; 119(9): 953-962.)</p> <p>A patient in the UK who had received multiple recent transfusions developed acute HBV in 2023. The genotype was identified as recombinant D/E. Archive samples from two of the associated donors were positive for anti-HBc without detectable HBV DNA. One of the donors had low anti-HBs and originated from a region where the recombinant D/E genotype is prevalent. This donor was assessed as the most likely source of infection and the event was classified as a probable transfusion transmission. (Annual SHOT Report 2023, <a href="https://www.shotuk.org/shot-reports/">https://www.shotuk.org/shot-reports/</a>)</p> <p>November 2024 update: A modelling study using data from animal infectivity studies and Egyptian blood donors concluded that it is not safe to perform only ID-NAT for HBV (ie. discontinue HBsAg) in a population where HBV prevalence is too high to employ anti-HBc screening. The residual risk of TT-HBV in such a scenario was estimated as 1 in 16,774 red cell donations and 1 in 3,428 FFP donations. (El Ekiaby M, Tanaka J, van Drimmelen H, et al. Infectivity of hepatitis B virus surface antigen-positive plasma with undetectable HBV-DNA: can HBsAg screening be discontinued in Egyptian blood donors? J Viral Hepat. 2024 Nov; 31(11): 700-709.)</p> <p>February 2025 update: An international survey of blood establishments found that among the 13 countries (of 25 total) performing universal anti-HBc screening, anti-HBc prevalence was six times higher in new donors (1.2%) than repeat donors (0.2%). The collective OBI detection rate was five times higher in countries that did not perform universal anti-HBc screening (0.0125%) than countries that did (0.0024%), and this difference was significant (p &lt; 0.0001). This is due in part to higher HBV endemicity in the countries that have not adopted anti-HBc screening (median population HBsAg prevalence 2.4%) than countries that have (0.9%). There is a significant loss of donors from universal anti-HBc screening, but many countries have implemented it without a risk assessment to determine the optimal strategy. (Fu MX, Faddy HM, Candotti D, et al. International review of blood donation screening for anti-HBc and occult hepatitis B virus infection. Transfusion. 2024 Nov; 64(11): 2144-2156.)</p> <p><u>May 2025 update:</u>  <a href="#">A healthcare worker in the Birth Unit of Nepean Hospital was "infectious with hepatitis B" between 2013 and 2024. The NSW Health Blood Borne Viruses Advisory Panel determined that the risk of transmission was low and applies only to patients who underwent certain higher-risk procedures. There are no known transmissions.</a></p>	

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			<p><a href="#">See HIV for infection control breach in Sydney.</a></p> <p><a href="#">Japan has reported their ninth case of transfusion transmitted HBV since the introduction of ID-NAT. The transmission occurred via red cells from a window period donation. HBV genome sequences across two regions were shown to be identical in the donor and recipient. (Yamagishi N, Ando N, Yoshimasa T, et al. The first case of transfusion-transmitted hepatitis B virus genotype I in Japan. Transfusion. 2025 Apr; 65(4): 773-778.)</a></p>	
Hepatitis C virus	Viral	Green	<p>August 2024 update: Nosocomial HCV transmission is believed to have occurred in a Hong Kong hospital. A patient who was previously negative stayed in the same ward cubicle as another patient known to be a carrier, and subsequently developed infection. The isolates from both patients are identical.</p> <p>February 2025 update: There were 7,602 hepatitis C notifications in Australia in 2023, with 72% among males. There was a decline of 36% in the notification rate between 2014 (43.9 per 100,000 population) and 2022 (28.1). The estimated number of people living with hepatitis C has decreased from 162,590 in 2015 to 68,890 in 2023. Only 10,990 are estimated as undiagnosed. The incidence of hepatitis C among people tested at ACCESS primary care sites was 0.2 new infections per 100 person-years, down from 1.1 in 2014. (King J, Kwon J, McManus H, et al. HIV, viral hepatitis and sexually transmissible infections in Australia: Annual surveillance report 2024. 2024. Kirby Institute, UNSW Sydney.)</p> <p><a href="#">May 2025 update: See HIV for infection control breach in Sydney.</a></p>	(Added to traffic lights to track updates and surveillance in May 2017)
Hepatitis E virus	Viral	Green	<p>August 2024 update</p> <p>A renal transplant recipient in the UK was diagnosed with HEV infection in 2023. Following exclusion of infection in the transplanted organ, 86 donors associated with the blood components received (red cells and FFP) were identified. Archive samples from two tested positive for HEV RNA with viral load too low for sequencing. The event was classified as a probable transfusion transmission. (Annual SHOT Report 2023, <a href="https://www.shotuk.org/shot-reports/">https://www.shotuk.org/shot-reports/</a>)</p> <p>As of 2021/2022, 'human' HEV has the species name <i>Paslahepevirus balayani</i> and rat HEV is <i>Rocahepevirus rattii</i>, with both belonging to the subfamily <i>Orthohepevirinae</i>.</p> <p>In Spain, the diagnostic tests for rat HEV have been improved and 45 of 289 patients with acute hepatitis were confirmed as having <i>R. rattii</i> infection. <a href="#">A national survey found rat HEV in liver tissue of 125/481 rats, for a prevalence of 26% overall (25.6% and 29.8% in urban and farm settings, respectively).</a></p>	8/12/2016 (from red to yellow) 28/2/2019 (from yellow to green)

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			<p><u>Approximately half (45.5%) of infected rats shed virus in their faeces. <i>R. ratti</i> RNA was also detected in pigs for the first time.</u></p> <ol style="list-style-type: none"> <li>Caballero Gómez J, Ruiz Cáceres I, Pereira Pardo S, et al. High prevalence of rat hepatitis E virus after molecular diagnosis optimisation. In: ESCMID Global 2024. Abstract E0241. <a href="https://escmid.reg.key4events.com/AbstractList.aspx?e=21&amp;header=0&amp;&amp;ai=20778&amp;preview=1&amp;aig=1">https://escmid.reg.key4events.com/AbstractList.aspx?e=21&amp;header=0&amp;&amp;ai=20778&amp;preview=1&amp;aig=1</a></li> <li><u>Caballero-Gómez J, Fajardo-Alonso T, Ríos-Muñoz L, et al. National survey of the rat hepatitis E virus in rodents in Spain, 2022 to 2023. Euro Surveill. 2025 Mar; 30(12): pii=2400473.</u></li> <li>Ríos-Muñoz L, González M, Caballero-Gomez J, et al. Detection of rat hepatitis E virus in pigs, Spain, 2023. Emerg Infect Dis. 2024 Apr; 30(4): 823.</li> </ol> <p>One additional case of rat HEV infection in a kidney transplant recipient has been reported, bringing the total to six. The latest case is from Hong Kong. (Cheung CY, Chan KM, Sridhar S. Rat hepatitis E in kidney transplant recipients: Case studies and review of literature. Transpl Infect Dis. 2024; 26: e14266.)</p> <p>November 2024 update: An experimental study detected <i>Rocahepevirus ratti</i> viral material from the blood and stool of inoculated pigs after one week, and also demonstrated transmission to co-housed pigs that had not been inoculated. (Yadav KK, Boley PA, Lee CM, et al. Rat hepatitis E virus cross-species infection and transmission in pigs. PNAS Nexus. 2024 Jul; 3(7): pgae259.)</p> <p>February 2025 update</p> <p>There were 20 notifications of hepatitis E in Australia in 2024. This is lower than 2023 (36 notifications) and each of the 5 years prior to the pandemic (2015-2019, range 39 to 52 notifications per year).</p> <p>There were two cases of TT-HEV in late 2024 in Australia. Both transmissions were to infants from paediatric platelet splits secondary to a regular donor returning from Europe. A total of six platelets were given to four infants at a single hospital: two infants had transmission excluded, one had no symptoms and demonstrated cleared asymptomatic infection with negative HEV PCR, and one who was immunocompromised had a positive HEV PCR and commenced a 3-month course of ribavirin. The follow up sample was HEV PCR negative indicating response and clearance, although clearance cannot be definitively determined until after the ribavirin is ceased to ensure there is not a rebound treatment failure. The initial assessment is that these transmissions are in keeping with the previously published risk assessment. However, an updated report considering if any additional risk mitigations are required will be completed once the final outcome is determined.</p>	

**Deleted:** Rodent surveillance found 209/946 (22.1%) animals with detectable *R. ratti* RNA from 11/12 sampled regions, with higher prevalence in urban than non-urban areas.

**Deleted:** Caballero Gómez J, García Bocanegra I, Beato Benítez A, et al. Surveillance of the zoonotic rat hepatitis E virus in rodents in Spain. In: ESCMID Global 2024. Abstract P0051. <https://escmid.reg.key4events.com/AbstractList.aspx?e=21&header=0&&ai=21396&preview=1&aig=1>

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			<p>Recent studies include:</p> <ul style="list-style-type: none"> <li>Switzerland reports an incidence of 20.7 HEV-positive donations per 100,000, detected by minipool NAT over a period of five years. No transfusion-transmitted infections occurred during the same period. (Sericchio M, Gowland P, Widmer N, et al. HEV in blood donors in Switzerland: The route to safe blood products. Pathogens. 2024 Oct; 13(10): 911.)</li> <li>Demonstration of seroconversion one month after the first dose of a candidate HEV vaccine (HEV-239/Hecolin), with immune response still present six months after the third dose. (Kao CM, Rostad CA, Nolan LE, et al. A phase 1, double-blinded, placebo-controlled clinical trial to evaluate the safety and immunogenicity of HEV-239 (Hecolin) vaccine in healthy US adults. J Infect Dis. 2024 Nov; 230(5): 1093-1101.)</li> <li>Detection of HEV strains in wild boars in and around Barcelona that were closely related to patient strains from the same area. (Ruiz-Ponsell L, Monastiri A, López-Roig M, et al. Endemic maintenance of human-related hepatitis E virus strains in synurbic wild boars, Barcelona Metropolitan Area, Spain. Sci Total Environ. 2024 Dec; 955: 176871)</li> </ul>	
New hepatitis (NV-F) virus	Viral	Green	No significant developments to report.	
Herpes virus (other than CMV, EBV and HHV-8)	Viral	Green	No significant developments to report.	
HHV-8	Viral	Green	The first known case of HHV-8 encephalitis in a solid organ transplantation recipient was recently reported from the US. The patient was diagnosed with Kaposi's sarcoma post-transplant before developing neurological symptoms, including encephalitis. (Mann I, Morado-Aramburo O, Hasbun R. Emerging shadows: HHV-8-associated encephalitis unveiled in a solid organ transplant recipient. Transpl Infect Dis. 2024 Aug; 26(4): e14343.)	22/05/2013
HIV	Viral	Green	<p>August 2024 update</p> <p>Participants recruited for the HIV PrEP phase 3 trial involving women and adolescent girls in South Africa and Uganda were screened for HIV to obtain the background HIV incidence, which was 2.41 per 100 person-years. Those who were negative were randomised to twice-yearly injected lenacapavir, daily oral Descovy (tenofovir alafenamide fumarate/emtricitabine) or daily oral Truvada (tenofovir disoproxil fumarate/emtricitabine), with injected or oral placebo as applicable. The HIV incidence in the lenacapavir group (0 of 2,134) was significantly lower than the background HIV incidence; incidence in the Descovy group (2.02 per 100 person-years) was not. Twice-yearly lenacapavir was also statistically superior to daily oral Truvada. The blinded phase of the</p>	<p>17/3/2010</p> <p>(Broadened to HIV general to track updates and surveillance in May 2017)</p>

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			<p>study has closed following this interim analysis and all participants are being offered lenacapavir. (Bekker L-G, Das M, Karim QA, et al. Twice-yearly lenacapavir or daily F/TAF for HIV prevention in cisgender women. N Engl J Med. 2024 Oct; 391(13): 1179-1192.)</p> <p>A seventh case of HIV remission following stem cell transplant has been announced and dubbed the "next Berlin patient". The patient is a 60-year-old man who was first diagnosed with HIV in 2009, received a bone marrow transplant for leukaemia in 2015 and stopped HIV ART in late 2018. The case is notable because the stem cells were CCR5Δ32 heterozygous only, unlike previous remissions associated with CCR5Δ32 stem cells, which were homozygous. <a href="https://programme.aids2024.org/Abstract/Abstract/?abstractid=12163">https://programme.aids2024.org/Abstract/Abstract/?abstractid=12163</a></p> <p>November 2024 update</p> <p>The Kirby Institute reports that there were 722 new HIV diagnoses in Australia in 2023. This is higher than the 553 reported in 2022, but lower than the annual pre-pandemic levels, and the long-term trend continues to be one of decline. Overall, HIV diagnoses have reduced by 33% over the last decade, with particularly significant reductions among Australian-born gay and bisexual men, where diagnoses have reduced by 64%.</p> <p>A llama-human chimera antibody against HIV has been created by fusing a broadly neutralising human antibody and the most potent HIV-specific nanobodies (extra-small antibodies) from an immunised llama. The chimera was "ultrapotent", with the modelled ability to suppress 96% of 208 HIV strains in vitro. (Xu J, Zhou T, McKee K, et al. Ultrapotent broadly neutralizing human-llama bispecific antibodies against HIV-1. Advanced Science. 2024 Jul; 11(26): 2309268.)</p> <p>A recent study used three Ag/Ab assays (Alinity s, Roche Elecsys and Ortho VITROS) and one NAT assay (Roche cobas MPX) to test samples from people in HIV studies. One aspect of the study found that among seroconverters from PrEP trials, those who had been assigned to PrEP were more likely to test positive on these assays in the 8 weeks prior to detection by rapid diagnostic tests (RDTs) than those had been assigned to placebo. There was no difference in NAT Ct values. A second aspect found that people with (initially) NAT-positive HIV infection who initiated ART in Fiebig stages 1 or 2 (earlier stages of infection) were less likely to have detectable antibodies during the next 24 weeks than those who initiated ART in Fiebig stages 3 or 4. Some cases of seroreversion were also identified. At 12 weeks after initiation, 36% (20/55) people were negative on both NAT and Ag/Ab tests, decreasing to 25% (14/5) at 24 weeks; blood donation screening may have missed these</p>	

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			<p>infections. By contrast, participants who started treatment in stages 4 or 5 were reactive for Ag/Ab at all timepoints after ART initiation. These findings a) suggest that PrEP increases the likelihood that antibody-only RDTs will be falsely negative, and b) confirm that very early initiation of ART reduces detectability by Ag/Ab screening. (Avelino-Silva VI, Stone M, Bakkour S, et al. Suppressed HIV antibody responses following exposure to antiretrovirals - evidence from PrEP randomized trials and early antiretroviral treatment initiation studies. Int J Infect Dis. 2024 Nov; 148: 107222)</p> <p>February 2025 update</p> <p>A woman from France is the most recently reported case of potential HIV cure following CCR5Δ35-homozygous stem cell transplant. (Zaegel-Faucher O, Boschi C, Benkouiten S, et al. [Abstract P206] Absence of viral rebound without antiretrovirals after CCR5Δ32/Δ32 allogeneic hematopoietic stem cell transplantation: a new case of a potential cure of HIV? J Int AIDS Soc. 2024 Nov; 27(S6): e26370.)</p> <p>There were 722 HIV notifications in Australia in 2023, representing a 33% decline since 2014 (1,079 notifications). Male-to-male sex (+/- injecting drug use) continues to be the major HIV risk exposure in Australia, accounting for 456 (63%) notifications. However, notifications attributed to male-to-male sex decreased among men born in all regions of birth except Asia (which increased) since 2014. Heterosexual sex was reported as the risk exposure for 205 (28%) notifications, and injection drug use for 17 (2%) notifications. There were an estimated 2,360 people living with HIV in Australia in 2023 who were unaware of their HIV status, of whom 1,270 were men who have sex with men. This is a decrease from 1,420 in 2023. For the first time, the undiagnosed estimate for MSM was split up into Australian-born (320) and overseas-born (780); due to the method used, the sum of sub-populations can be different from the total estimate. (King J, Kwon J, McManus H, et al. HIV, viral hepatitis and sexually transmissible infections in Australia: Annual surveillance report 2024. 2024. Kirby Institute, UNSW Sydney.)</p> <p><u>May 2025 update</u></p> <p><u>Ketthip Beauty Clinic in Sydney was issued with a prohibition order in March 2025 after their practices were found to pose a risk of exposure to blood-borne viruses (multiple issues of concern). A public warning was issued advising anyone who received infusions, injections or underwent any invasive procedure at this clinic to seek testing.</u></p> <p><u>In Fiji, more than 1,000 cases of HIV were notified in 2024, which is a 3-fold increase on 2023 and 9-fold on 2019. After the Philippines, Fiji has the fast-growing HIV epidemic in the Asia-Pacific region. Approximately half of new</u></p>	

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			<p><u>cases are attributed to injecting drug use, including drug sharing by direct blood-to-blood contact.</u></p> <p><u>Following the implementation of individual risk assessment in Brazil, HIV incidence in repeat donors did not increase, and HIV NAT yield rates in both repeat and new donors either decreased or remained the same. HIV prevalence in new donors increased from 79 to 100 per 100,000 first-time donations. (Buccheri R, Warden DE, Oikawa M, et al. Assessing HIV trends among blood donors in five Brazilian blood centers: The impact of individual donor assessment. Transfusion. 2025 Apr; 65(4): 685-695.)</u></p>	
HTLV	Viral	<b>Green</b>	<p>August 2024 update</p> <p>A study in cynomolgus macaques found that a vaccine inducing anti-HTLV-1 Env antibodies produced anti-HTLV-1 neutralising antibodies in 8 of 10 vaccinated animals. When challenged with HTLV-1-producing cells intravenously, these 8 animals were protected from infection, while the 2 non-responders and 10 unvaccinated controls were infected and showed detectable proviral load. (Nakamura-Hoshi M, Ishii H, Nomura T, et al. Prophylactic vaccination inducing anti-Env antibodies can result in protection against HTLV-1 challenge in macaques. Mol Ther. 2024 Jul; 32(7): 2328-2339.)</p> <p>In vitro studies have demonstrated that antiretrovirals commonly used as HIV PrEP effectively inhibit HTLV-1 cell culture transmission without affecting cell viability. This was shown for the nucleoside reverse transcriptase inhibitor (NRTI) tenofovir (in both TDF and TAF forms), the first-generation integrase strand transfer inhibitor (INSTI) raltegravir, and the second-generation INSTIs bictegravir, cabotegravir and dolutegravir. The INSTIs appear to be equally as potent against HTLV as HIV. An open letter to the drug manufacturers advocates for the inclusion of HTLV-1 transmission incidence as an outcome measure in clinical trials of these antiretrovirals. (Kalemera MD, Maher AK, Dominguez-Villar M, et al. Cell culture evaluation hints widely available HIV drugs are primed for success if repurposed for HTLV-1 prevention. Pharmaceuticals. 2024 Jun; 17(6): 730. Maertens GN, Purcell DFJ, Rosadas C, et al. Why not eliminate HTLV-1 while eliminating HIV-1? The Lancet. 2024 May; 403(10441): 2288-2289.)</p> <p>November 2024 update: The first known transplant of an HTLV-positive kidney without evidence of transmission to a negative recipient on antiretroviral therapy (ART) has been reported. However, the efficacy of ART in this context remains unclear, as review of published cases identified at least two cases where transmission occurred even with commencement of ART immediately after transplant. (Monforte A, Los-Arcos I, Rando A, et al. Does antiretroviral therapy prevent</p>	<p>12/5/2010</p> <p>(Broadened to HTLV general to track updates and surveillance in May 2017)</p>

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			<p>human T-lymphotropic virus 1 transmission from a seropositive donor to a kidney transplant recipient? A case report and literature review. Exp Clin Transplant. 2024 Aug; 22(8): 641-646.)</p> <p><u>May 2025 update: Until now, HTLV-1 proviral load in carriers has been assumed to remain unchanged. A prospective observational study of 252 carriers in Japan who did not develop adult T-cell leukaemia/lymphoma observed a positive correlation between proviral load and age. Modelling of long-term kinetics found that proviral load increased linearly with age only if the initial value was high; otherwise, there was no significant change over time. (Jimbo K, Nojima M, Toriuchi K, et al. Long-term kinetics of proviral load in HTLV-1 carriers: defining risk for the development of adult T-cell leukemia/lymphoma. Biomarker Research. 2025 Feb; 13(1): 34.)</u></p>	
Human parvovirus B19	Viral	<b>Green</b>	<p>August 2024 update: Between March and early June 2024, nine EU/EEA countries reported increased detections of B19V, mostly during late 2023 and early 2024. Ten countries reported an increase in reactive tests for B19V in blood or plasma donors during the first months of 2024 compared to the same period in 2023. ECDC assessed the risk as low for the general population. Advice for the substance of human origin (SoHO) sectors is that additional testing of donors is not required. However, blood components from donors with suspected or confirmed B19V infection should not be transfused to patients susceptible to severe clinical outcomes of infection. (European Centre for Disease Prevention and Control. Risks posed by reported increased circulation of human parvovirus B19 in the EU/EEA. 2024 Jun 5, <a href="https://www.ecdc.europa.eu/en/publications-data/risks-posed-reported-increased-circulation-human-parvovirus-b19-eueea">https://www.ecdc.europa.eu/en/publications-data/risks-posed-reported-increased-circulation-human-parvovirus-b19-eueea</a>)</p> <p>November 2024 update</p> <p>The Scottish National Blood Transfusion Service introduced universal B19V testing on 27 July 2024.</p> <p>NAT testing of plasma donations in Central Europe and the United States has confirmed that there has been a marked increase in B19V incidence in these countries. The positivity rate in both areas was similar during June 2018 to February 2020 (0.006% in Europe, 0.005% in the US), followed by very little activity during the pandemic, then a rebound from May 2023. Marked increases were seen more recently: 0.11% in Europe during November 2023 to May 2024, and 0.04% in the US during March 2024 to May 2024. (Farcet MR, Karbiener M, Aberham C, et al. Parvovirus B19 rebound outbreak 2024 and implications for blood and plasma-product safety. Transfusion. 2024 Dec; 64(12): 2218-2221.)</p> <p>Countries that have reported NAT plasma testing positivity have returned to or are trending back towards baseline.</p>	17/04/2012

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			<p>February 2025 update: Whilst B19V is not a notifiable disease in Australia, there have been no externally reported signals that Australia has a similar rebound outbreak as occurred in the US and Europe. However, it is noted that there were 23 deferrals in 2024 in blood donors compared to 5 each in 2021 and 2022 and 8 in 2023.</p> <p><u><a href="#">May 2025 update: As of 6 April 2025, all donations in Australia undergo parvovirus B19 NAT for plasma quality assurance. Lifeblood is notified of any positive results.</a></u></p>	
PARV-4	Viral	Green	No significant developments to report.	24/07/2012
Influenza A and B viruses (other than H5N1, H7N9 and H10N8)	Viral	Green	<p>Influenza A virus variant infections in humans in 2024 include: H1N1 (Spain, USA, Vietnam), H1N2 (USA), H3N2 (Canada, USA), H5N2 (Mexico, first known human infection), H5N6 (China), H9N2 (China [Hong Kong and mainland], Ghana, India), H10N3 (China), H10N5 (China, first known human infection).</p> <p>In Australia, there were 361,625 influenza notifications during 2024 to 15 December, for an overall rate of 1,357.5 per 100,000 population. This was consistent with the last five recording years (excludes 2020 and 2021). Influenza A accounted for the majority of influenza notifications in 2024 across all jurisdictions. Estimated vaccine effectiveness was higher in 2024 than historical estimates. (Australian Respiratory Surveillance Report 17. 2024 Dec 20. Available from: <a href="https://www.health.gov.au/resources/collections/australian-respiratory-surveillance-reports-2024">https://www.health.gov.au/resources/collections/australian-respiratory-surveillance-reports-2024</a>)</p> <p><u><a href="#">Influenza A virus variant infections in humans in 2025 include: H1N2 (USA), H9N2 (China).</a></u></p>	20/11/2013
Influenza A virus H5N1 – avian influenza	Viral	Green	<p>August 2024 update</p> <p>Developments since the last update include:</p> <ul style="list-style-type: none"> <li>• First human case detected in Australia (acquired in India).</li> <li>• Two human cases in Cambodia.</li> <li>• The total number of infected US dairy workers increased to four (one with respiratory symptoms, three with eye symptoms only).</li> <li>• A small number of H5N1 infections among workers responding to an outbreak at a commercial egg layer in the US. The risk for occupationally exposed individuals in the Americas is assessed as low to moderate.</li> </ul>	19/08/2015

**List of Infectious Agents and Associated Traffic Lights**

Infectious Agent/Disease	Type of Agent	Threat Level	Action	Status Changed
			<ul style="list-style-type: none"> <li>• First detections of H5N1 in wastewater in several Texan cities.</li> <li>• First detections of H5N1 in alpacas, domestic cats and house mice (US).</li> </ul> <p>Additionally, study findings included:</p> <ul style="list-style-type: none"> <li>• Mice consuming raw milk from dairy cows infected with H5N1 experienced high virus levels in their respiratory organs and lower virus levels in other vital organs [1].</li> <li>• The amount of infectious H5N1 in raw milk rapidly decreases with heat treatment, but standard pasteurisation methods may not completely remove infectious virus when viral load is high [1,2]. Regulatory bodies such as the FDA assess that the commercial (pasteurised) milk supply remains safe to consume.</li> <li>• Analysis of currently circulating H5N1 viruses revealed broad susceptibility to antiviral drugs (neuraminidase inhibitors and baloxavir) [3].</li> <li>• Bovine H5N1 viruses may possess features that could facilitate infection and transmission among mammals. However, they currently do not appear capable of efficient respiratory transmission between animals or people [4].</li> </ul> <ol style="list-style-type: none"> <li>1. Guan L, Eisfeld AJ, Pattinson D, et al. Cow's milk containing avian influenza A(H5N1) virus — heat inactivation and infectivity in mice. <i>N Engl J Med.</i> 2024 Jul; 391(1): 87-90.</li> <li>2. Kaiser F, Morris DH, Wickenhagen A, Mukesh R, Gallogly S, Yinda KC, et al. Inactivation of avian influenza A(H5N1) virus in raw milk at 63 degrees C and 72 degrees C. <i>N Engl J Med.</i> 2024 Jul; 391(1): 90-92.</li> <li>3. Andreev K, Jones JC, Seiler P, Kandeil A, Turner JCM, Barman S, et al. Antiviral susceptibility of highly pathogenic avian influenza A(H5N1) viruses circulating globally in 2022–2023. <i>J Infect Dis.</i> 2024 Jun; 229: 1830-1835.</li> <li>4. Eisfeld AJ, Biswas A, Guan L, Gu C, Maemura T, Trifkovic S, et al. Pathogenicity and transmissibility of bovine H5N1 influenza virus. <i>Nature.</i> 2024 Sep; 633(8029): 426-432.</li> </ol> <p>November 2024 update</p> <p>Developments since the last update include:</p> <ul style="list-style-type: none"> <li>• Three human cases of H5N1 infection in Cambodia.</li> <li>• Total of 36 confirmed human H5 infections in the US in 2024 as of 29 Oct, of which 16 have been typed as H5N1.</li> <li>• First human infection in the US without known occupational exposure to sick or infected animals.</li> </ul>	

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**List of Infectious Agents and Associated Traffic Lights**

Infectious Agent/Disease	Type of Agent	Threat Level	Action	Status Changed
			<ul style="list-style-type: none"> <li>• Infection of domestic cats in an area of the US with high abundance of virus, most of which did not reside at dairy facilities.</li> <li>• The Food Safety and Inspection Service in the US added H5N1 influenza A monitoring of muscle samples from dairy cows at slaughter to its existing surveillance programs on 16 September 2024.</li> </ul> <p>Additionally, study findings included:</p> <ul style="list-style-type: none"> <li>• Two retail sampling surveys of influenza A(H5N1) in dairy products in the US by the FDA/USDA concluded that commercial dairy products are safe. (<a href="https://www.fda.gov/food/alerts-advisories-safety-information/updates-highly-pathogenic-avian-influenza-hpai">https://www.fda.gov/food/alerts-advisories-safety-information/updates-highly-pathogenic-avian-influenza-hpai</a>)</li> <li>• Whole genome sequencing of viral strains demonstrated that when infected cows were relocated to a new area in the US, H5N1 was transmitted to uninfected cows, cats, a raccoon and wild birds. This is evidence for efficient and sustained mammalian-to-mammalian transmission of H5N1. (Caserta LC, Frye EA, Butt SL, et al. Spillover of highly pathogenic avian influenza H5N1 virus to dairy cattle. Nature. 2024 Oct; 634(8034): 669-676.)</li> </ul> <p>February 2025 update</p> <p>Regarding influenza A(H5N1) in the Region of the Americas in 2024:</p> <ul style="list-style-type: none"> <li>• 65 human cases were reported of which all but one (in Canada) occurred in the US.</li> <li>• Eight countries and territories reported outbreaks in both domestic and wild birds.</li> <li>• Four countries and territories reported outbreaks of avian influenza in mammals.</li> </ul> <p>Recent study findings include:</p> <ul style="list-style-type: none"> <li>• Demonstration that H5N1 isolated from the eye of a person with bovine-source infection was lethal in mice and ferrets infected in a high-containment laboratory environment. (Gu C, Maemura T, Guan L, et al. A human isolate of bovine H5N1 is transmissible and lethal in animal models. Nature. 2024 Dec; 636(8043): 711-718.)</li> <li>• Serologic evidence of recent infection with influenza A(H5) in 7% of dairy farm workers in two US states with outbreaks. (Mellis AM, Coyle J, Marshall KE, et al. Serologic evidence of recent infection with highly pathogenic avian influenza A(H5) virus among dairy workers - Michigan and Colorado, June-August 2024. MMWR Morb Mortal Wkly Rep. 2024 Nov; 73(44): 1004-1009.)</li> </ul>	

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Infectious Agent/Disease	Type of Agent	Threat Level	Action	Status Changed
			<ul style="list-style-type: none"> <li>Serologic evidence of H5N1 virus infection in horses in Mongolia. Equine influenza viruses are endemic in many countries (theoretical potential for reassortment). (Damdinjav B, Raveendran S, Mojsiejczuk L, et al. Evidence of influenza A(H5N1) spillover infections in horses, Mongolia. Emerg Infect Dis. 2025 Jan; 31(1): 183.)</li> </ul> <p>At the present time, the global public health risk of H5N1 is low, while the risk of infection for occupationally exposed persons is low to moderate. (Updated joint FAO/WHO/WOAH public health assessment of recent influenza A(H5) virus events in animals and people. 2024 Dec 20. Available from: <a href="https://www.who.int/publications/m/item/updated-joint-fao-who-woah-assessment-of-recent-influenza-a(h5n1)-virus-events-in-animals-and-people_dec2024">https://www.who.int/publications/m/item/updated-joint-fao-who-woah-assessment-of-recent-influenza-a(h5n1)-virus-events-in-animals-and-people_dec2024</a>)</p> <p><u>May 2025 update</u></p> <p><u>Developments since the last update:</u></p> <ul style="list-style-type: none"> <li><u>Sporadic human cases in Cambodia and India in 2025. First human case in Mexico.</u></li> <li><u>Since 2024 and as of 16 April 2025, 70 human cases have been reported in the US, the vast majority of whom had occupational exposure to infected animals.</u></li> <li><u>Emergence of H5N1 strain D1.1 in cattle herds in the US. Previous cattle infections were caused by the B3.13 strain. This suggests that spillover of avian influenza to cows is not rare.</u></li> <li><u>First confirmation of H5N1 infection in a sheep. Detected in the UK on a farm where there had been an avian outbreak.</u></li> <li><u>Evidence of recent infection with influenza A(H5) in 3/150 bovine veterinary practitioners in the US, none of whom had exposure to animals with known or suspected H5 infection. (Leonard J, Harker EJ, Szablewski CM, et al. Notes from the Field: Seroprevalence of highly pathogenic avian influenza A(H5) virus infections among bovine veterinary practitioners - United States, September 2024. MMWR Morb Mortal Wkly Rep. 2025 Feb; 74(4): 50-52.)</u></li> </ul>	
Influenza A virus H7 subtypes	Viral	Green	<p>The most recent risk assessment by WHO regarding influenza A(H7N9) was issued in February 2015.</p> <p><u>In 2024, there were several outbreaks of H7 influenza subtypes among birds in Australia. This included H7N3 and H7N9 in VIC, and H7N8 in NSW/ACT. In early February 2025, Australia both declared itself free of H7 avian influenza and then detected a separate H7N8 outbreak in VIC. Controls remain in place as of 24 April 2025, but no new detections have occurred since late February.</u></p>	19/08/2015  (Broadened to all H7 subtypes in May 2025)
Influenza A virus H10N8	Viral	Green	No significant developments to report.	19/08/2015

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Infectious Agent/Disease	Type of Agent	Threat Level	Action	Status Changed
Japanese encephalitis virus	Viral	<b>Green</b>	<p>November 2024 update: Increased JEV transmission has been occurring in India and Nepal since the August update.</p> <p>February 2025 update</p> <p>Routine surveillance of mosquitoes, sentinel chickens and feral pigs detected JEV activity in the Kimberley region of WA (from October 2024), various regions of NSW (from December 2024), <u>and</u> northern Victoria (from December). There was one human case in 2024, which was locally acquired in Victoria in late December.</p> <p>One human case was also reported in Queensland with onset in the week prior to 13 January 2025. It was likely acquired in the Darling Downs region.</p> <p><u>May 2025 update: JEV has continued to be detected in piggeries and mosquitoes in Australia's eastern states. Five additional local government areas in NSW were classified as 'high JEV concern' in April. As of 1 May 2025, there have been 8 JEV notifications in humans nationally.</u></p>	<p>15/11/2011</p> <p>11/3/2022 (from green to yellow)</p> <p>12/5/2023 (from yellow to green)</p>
Kunjin virus (subtype of West Nile virus)	Viral	<b>Green</b>	<p>There were two Kunjin virus notifications in Australia in 2024, both from Queensland. In the last five years, annual cases have varied from 0 to 2.</p>	24/07/2012
Kyasanur Forest disease virus	Viral	<b>Green</b>	<p>In India, Karnataka state reported 303 confirmed cases of Kyasanur Forest disease in 2024, with 14 deaths.</p>	Added May 2017
Lassa virus	Viral	<b>Green</b>	<p>In Nigeria in 2024, there were 1,187 confirmed cases of Lassa fever with 191 deaths (CFR 16.1%) from 28 states. The majority of confirmed cases were reported from three states.</p> <p>A vaccine candidate against Lassa fever virus (LASV) has been developed using an inactivated rabies virus-based vaccine that includes a LASV protein. The vaccine, LASSARAB, was effective in nonhuman primates given a two-dose regimen and is assessed as a good candidate for clinical trials. (Scher G, Yankowski C, Kurup D, et al. Inactivated rabies-based Lassa fever virus vaccine candidate LASSARAB protects nonhuman primates from lethal disease. npj Vaccines. 2024 Aug; 9(1): 143.)</p> <p><u>In 2024, three African Union member states (Guinea, Liberia and Nigeria) reported 11,712 cases of Lassa fever, of which 1,313 were confirmed and 227 were fatal (CFR 19.1%).</u></p> <p><u>In 2025 as of 18 February, four African Union member states (Guinea, Liberia, Nigeria and Sierra Leone) have reported 1,929 cases of Lassa fever, of which 362 were confirmed and 72 were fatal (CFR 19.9%).</u></p>	

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Lujo virus	Viral	Green	No significant developments to report.	17/3/2010
Lymphocytic choriomeningitis virus	Viral	Green	No significant developments to report.	
Lyssavirus	Viral	Green	No significant developments to report.	12/5/2010
Madariaga virus (MADV)	Viral	Green	No significant developments to report.	Separated from EEEV 28/2/2019
Marburg virus	Viral	Green	<p>November 2024 update</p> <p>An outbreak of Marburg virus disease (MVD) was declared in Rwanda (which has a malaria deferral) on 27 September 2024. This is the first time MVD has been reported in Rwanda. The index case had a history of exposure to bats in a cave. As of 24 October 2024, 64 cases have been confirmed, including 15 deaths (CFR 23.4%). Most cases have been reported from three districts within Kigali, with health workers from two facilities accounting for more than 80% of confirmed cases. WHO assesses the risk as very high at the national level, high at the regional level, and low at the global level.</p> <p>The Sabin Vaccine Institute's investigational vaccine cAd3-Marburg is undergoing a phase 2 trial in Uganda and Kenya. Doses have also been provided to Rwanda for "a rapid-response phase 2 open-label study targeting at-risk adults, beginning with health workers".</p> <p>February 2025 update</p> <p>The MVD outbreak in Rwanda was declared over on 20 December 2024. A total of 66 confirmed cases with 15 deaths (CFR 23%) were recorded between 27 September and 30 October.</p> <p>An outbreak of MVD was declared in Tanzania (which has an Ebola/Marburg malaria deferral) on 20 January 2025. As of 24 Jan 2025, two confirmed and eight probable cases have been recorded in the northwestern Kagera region, with nine deaths.</p> <p><u>May 2025 update: The MVD outbreak in Tanzania was declared over on 13 March 2025. Between declaration of the outbreak on 20 Jan and detection of the last confirmed case on 28 Jan 2025, a total of two confirmed and eight probable cases were recorded, with 100% CFR.</u></p>	27/11/2012

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Mayaro virus	Viral	Green	During 2018-2021, 3.4% of febrile patients (28/822) from Roraima State, Brazil, tested positive for MAYV RNA. (Forato J, Meira C, Claro I, et al. Molecular epidemiology of Mayaro virus among febrile patients, Roraima State, Brazil, 2018–2021. Emerg Infect Dis. 2024 May; 30(5): 1013)	Added August 2017
Middle Eastern respiratory syndrome coronavirus (MERS-CoV)	Viral	Green	In September 2024, Saudi Arabia reported a human case of MERS-CoV in a patient with underlying health conditions who had not had any contact with camels. This is Saudi Arabia's fifth case in 2024.  <u>May 2025 update: Saudi Arabia reported four human cases of confirmed MERS-CoV from 6 September 2024 to 28 February 2025. One of these (in November) was a secondary case resulting from nosocomial transmission. No additional secondary cases have been detected.</u>	18/11/2014
Monkeypox virus	Viral	Green	August 2024 update  In May 2024, a total of 646 new laboratory-confirmed cases of mpox and 15 deaths were reported from 26 countries. During the month, 15 of these countries showed an increase in cases compared to April. Among countries in the Western Pacific Region, Australia had the highest relative increase.  In 2024 as of 8 August, 206 cases of mpox in Australia had been notified to NNDSS. Most cases were notified from VIC (97), followed by NSW (75) and QLD (18). Local transmission accounts for the majority of cases in Victoria and NSW, who have expanded vaccination access. MSM continue to be the group most affected.  In DR Congo nationally, 22/26 provinces have reported 7,851 cases of mpox in 2024 as of 26 May, including 384 deaths (confirmed CFR 4.9%). The outbreak of the new variant of clade 1 MPXV (clade 1b) in South Kivu has spread within the province and to the neighbouring province of North Kivu. Its mutations indicate adaptation of the virus due to circulation among humans and affect diagnostic testing.  November 2024 update  The upsurge of mpox in DR Congo and other African countries was declared a Public Health Emergency of Continental Security (PHECS) by Africa CDC on 13 August and <b>a public health emergency of international concern</b> by WHO on 14 August. The risk is assessed as high in the eastern DR Congo and neighbouring countries, high in endemic areas of DR Congo, and moderate in all other countries in Africa and globally. WHO prequalified the MVA-BN	

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Infectious Agent/Disease	Type of Agent	Threat Level	Action	Status Changed
			<p>vaccine in September 2024, making it the first mpox vaccine on the prequalification list.</p> <p>In Africa, 18 countries reported 9,320 confirmed cases of mpox in 2024 as of 20 October, with 14 countries reporting cases in the last six weeks. The highest case numbers are reported by DR Congo (7,534 confirmed and 35,925 suspected cases), Burundi (1,287 confirmed) and Uganda (153). Clade 1b has been associated with sustained human-to-human transmission and community transmission is occurring in DR Congo, Burundi and Uganda.</p> <p>Globally, there were 109,699 confirmed mpox cases reported from 123 countries between 1 January 2022 and 30 September 2024. As of 26 October, there have been four detections of clade 1b outside Africa: three were infected in Africa and one possibly in the United Arab Emirates.</p> <p>(Later published:            1. Treutiger C-J, Filén F, Rehn M, et al. First case of mpox with monkeypox virus clade 1b outside Africa in a returning traveller, Sweden, August 2024: public health measures. <i>Eurosurveillance</i>. 2024 Nov; 29(48): pii=2400740.            2. de Jong R, Schauer J, Kossow A, et al. Response of the German public health service to the first imported mpox clade 1b case in Germany, October 2024. <i>Eurosurveillance</i>. 2024 Nov; 29(48): pii=2400743.)</p> <p>Australia reported the highest number of confirmed cases outside of Africa in September 2024. Year to date, there have been 1,084 mpox notifications as of 30 October, mainly among MSM. The majority have been reported from NSW (581 cases) and VIC (373).</p> <p>In 2022, an assessment by the Plasma Protein Therapeutics Association concluded that the MPXV outbreak is not a concern for plasma protein therapies manufactured by PPTA member companies. This assessment and its rationale (see link) remains current. (<a href="https://www.pptaglobal.org/material/monkeypox-virus-and-plasma-protein-therapies">https://www.pptaglobal.org/material/monkeypox-virus-and-plasma-protein-therapies</a>)</p> <p>February 2025 update</p> <p>The mpox PHEIC was upheld at the IHR Emergency Committee meeting on 22 November 2024.</p> <p>Globally, a total of 3,831 confirmed mpox cases were reported in December 2024, mostly (86.2%) from the African Region. Compared to November, cases rose by 6% in the African Region, remained the same in the Eastern Mediterranean Region, and decreased between 23% and 62% in all other regions. To date, community transmission of clade 1b has been recorded in DRC, Burundi, Kenya, Rwanda and Uganda. It has also been detected in 11</p>	

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			<p>countries outside of Africa, of which most were directly or indirectly linked to travel to affected countries in Africa; isolated cases in India and Pakistan had travelled only from the United Arab Emirates, which itself has not reported any clade 1b cases.</p> <p>As of December 2024, Australia has continued to report the highest number of confirmed cases of mpox outside of Africa in 2024, noting the 2022 outbreaks in other countries exceeded these numbers significantly. In 2024, there were 1,412 notifications.</p> <p>LC16m8, a vaccine developed and manufactured by KM Biologics in Japan, has received Emergency Use Listing for the prevention of mpox. It is the second mpox vaccine to be supported by WHO.</p> <p><a href="#">May 2025 update</a></p> <p><a href="#">The mpox PHEIC was upheld at the IHR Emergency Committee meeting on 25 February 2025, although the assessment of global public health risk has been reduced to moderate.</a></p> <p><a href="#">The countries most affected by the outbreak in the first quarter of 2025 were the DRC (3,924 confirmed cases), Uganda (3,528) and Burundi (779). As of 11 April, testing capacity in the DRC is limited and Uganda is reporting the highest numbers of confirmed cases on a weekly basis. Community transmission of clade 1b MPXV is present in nine African countries and likely also in the United Arab Emirates. Cases following travel to these areas continue to be detected in multiple other countries. In the UK, the first case of clade 1b infection without any history of travel or known contact with travellers was identified in March: the source of infection remains unknown.</a></p> <p><a href="#">Globally, 3,191 new confirmed cases of mpox were reported in February 2025. Compared to January, cases decreased both overall and in every WHO region but one. In the Eastern Mediterranean, cases increased but remained less than 10.</a></p> <p><a href="#">Australia has recorded 133 cases of mpox in 2025 as of 1 May, compared to 1,409 for calendar year 2024.</a></p>	
Morbillivirus (measles)	Viral	<b>Green</b>	<p>August 2024 update:</p> <p>As of 8 May 2024, 166 countries from all six of the WHO regions had reported 178,768 suspected cases of measles in 2024, of which 121,413 (68%) were</p>	24/01/2012

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		<b>Green</b>	<p>confirmed. This represents an increase of 94% compared to the same period in 2023.</p> <p>Measles-specific IgG antibodies in samples collected from Australian plasmapheresis donors in 2019 were quantified. Mean antibody levels progressively decreased from older to younger birth cohorts, with optical densities of 2.09 and 0.58 in the oldest and youngest groups, respectively. Current normal human immunoglobulin (NHIG) policies target older donors, but measles-specific antibody concentrations in NHIG will progressively reduce with the aging of the donor population. Monitoring is recommended. (Williamson KM, Faddy H, Nicholson S, et al. A cross-sectional study of measles-specific antibody levels in Australian blood donors—implications for measles post-elimination countries. <i>Vaccines</i>. 2024 Jul; 12(7): 818.)</p> <p>February 2025 update:</p> <p>In 2023, cases of measles worldwide increased by 20% compared to 2022. All WHO regions except the Americas experienced a substantial upsurge in cases, and 57 countries experienced large or disruptive measles outbreaks. (Minta AA, Ferrari M, Antoni S, et al. Progress toward measles elimination - worldwide, 2000-2023. <i>MMWR Morb Mortal Wkly Rep</i>. 2024 Nov; 73(45): 1036-1042.)</p> <p>In 2024, Australia recorded 57 measles cases, which remains lower than the pre-pandemic five-year average of approximately 128 cases.</p> <p><u><a href="#">May 2025 update</a></u></p> <p><u><a href="#">WA recorded 15 measles cases between 19 March and 22 April 2025, most of which were associated with a local outbreak involving Hakea Prison, Bunbury Regional Prison and Bunbury Regional Hospital. Victoria is also experiencing a locally acquired measles outbreak in the greater Melbourne area.</a></u></p> <p><u><a href="#">Measles activity in the Region of the Americas in 2025 to epidemiological week 11 is 5.5-fold higher than the same period in 2024. Of the total 507 cases, most occurred in the US (301) and Canada (173).</a></u></p> <p><u><a href="#">Measles cases in the European Region in 2024 were the highest reported since 1997 and double those in 2023.</a></u></p>	
Mumps virus	Viral	<b>Green</b>	<p>There were 188 mumps notifications in Australia during 2024, with NSW reporting the highest number (83 cases). This is higher than recent years but remains lower than the pre-pandemic baseline.</p>	

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Murray Valley encephalitis virus	Viral	Green	<p>August 2024 update: Since the last update, four human cases of MVEV have been reported from Western Australia in the Pilbara region. The Department of Health reports elevated mosquito-borne disease risk across a wide area of northern WA.</p> <p>February 2025 update: MVEV was detected in sentinel chickens in NSW in December 2024. There were 4 human cases in Australia in 2024, all from WA. Apart from the outbreak in 2023 (26 cases), single cases had been sporadically reported for the last several years.</p> <p><u>May 2025 update: The first human cases of MVEV for 2025 and the 2024/25 wet season were reported in February. As of 1 May, there have been 3 cases in WA and 1 in QLD.</u></p>	24/07/2012
Nipah virus	Viral	Green	<p>August 2024 update: In India, one person in the state of Kerala tested positive for Nipah virus in July.</p> <p>November 2024 update: Two suspected cases of Nipah virus infection in one family occurred in Kerala (India) in August. An additional unrelated case was confirmed in September.</p> <p>February 2025 update: A total of 5 Nipah virus cases were detected in 2024 in Bangladesh, all of whom died from the disease.</p>	22/02/2013
Norovirus	Viral	Green	Added to traffic lights for consistency with EREEIDs. No significant developments to report.	Added 8/3/2024
Oropouche virus	Viral	Green	<p>August 2024 update</p> <p>In the Region of the Americas, a total of 7,688 confirmed cases of OROV infection have been reported as of 16 July 2024, including recent cases from areas and countries where autochthonous cases had not previously been reported. The vast majority of cases and newly affected regions are in Brazil (6,976 cases); the remaining four countries that have reported cases are Bolivia (313 cases), Colombia (38), Cuba (74, first known outbreak in the country) and Peru (287). Brazil has also recently reported the first known OROV-associated deaths. (Later published: Bandeira AC, Pereira FM, Leal A, et al. Fatal Oropouche virus infections in nonendemic region, Brazil, 2024. Emerg Infect Dis. 2024 Nov; 30(11): 2370-2374.)</p> <p>A vertical transmission event is also under investigation in Brazil as of July. Two pregnant women developed symptomatic infection with detectable OROV RNA, with fetal death or miscarriage unfortunately occurring shortly thereafter.</p>	Added August 2017

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			<p>In the first case (presumed vertical transmission), fetal death occurred at 30 weeks gestation, with OROV RNA detected in umbilical cord blood and organ tissue samples. The second woman miscarried in the eighth week of gestation (suspected vertical transmission). Retrospective testing of samples from a collection negative for the most common arboviruses also identified four samples from newborns with microcephaly that were positive for IgM antibodies against OROV.</p> <p>November 2024 update</p> <p>PAHO/WHO updated their assessment of the public health risk from OROV in the Americas at the regional level to high in early August 2024 (with global risk remaining low). This was justified by the:</p> <ul style="list-style-type: none"> <li>• recent increase and expansion of cases in newly recorded areas, outside of the regions previously considered to be endemic for OROV</li> <li>• first-ever reported occurrence of deaths associated with OROV infection</li> <li>• identification of potential cases of vertical transmission related to fetal deaths and newborn microcephaly cases.</li> </ul> <p>Between epidemiological weeks 1 and 40 in 2024, a total of 10,275 confirmed OROV infections have been recorded in the Region of the Americas. Seven countries have reported autochthonous transmission. Other developments include:</p> <ul style="list-style-type: none"> <li>• identification of a novel reassortant lineage, BR-2015-2024, in Brazil</li> <li>• association of Guillain-Barré syndrome with OROV infection in Cuba</li> <li>• case report of OROV RNA detected in whole blood, serum, urine, and semen; virus isolated from semen 16 days after symptom onset was replication-competent.</li> </ul> <p>(Naveca FG, Almeida TAPd, Souza V, et al. Human outbreaks of a novel reassortant Oropouche virus in the Brazilian Amazon region. Nat Med. 2024 Dec; 30(12): 3509-3521. de Armas Fernández JR, Peña García CE, Acosta Herrera B, et al. Report of an unusual association of Oropouche fever with Guillain-Barré syndrome in Cuba, 2024. Eur J Clin Microbiol Infect Dis. 2024 Nov; 43(11): 2233-2237. Castilletti C, Huits R, Mantovani RP, et al. Replication-competent Oropouche virus in semen of traveler returning to Italy from Cuba, 2024. Emerg Infect Dis. 2024 Dec; 30(12): 2684-2686.)</p> <p>February 2025 update: Since the last update, four additional countries/territories (11 in total) in the Region of the Americas reported autochthonous OROV transmission. The presumed vertical transmission in</p>	

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			<p>Brazil in August 2024 has been confirmed and a case report published. (Filho CG, Neto ASL, Maia AMPC, et al. A case of vertical transmission of Oropouche virus in Brazil. New England Journal of Medicine. 2024 Nov 28; 391(21): 2055-2057.)</p> <p><u><a href="#">May 2025 update</a></u></p> <p><u><a href="#">In the Region of the Americas in 2024, 16,239 confirmed cases of OROV infection with four deaths were reported from 12 countries/territories, of which nine recorded autochthonous transmission. There were five confirmed cases of vertical transmission, all from Brazil; several other cases remain under investigation. It is also noted that three countries in the European Region identified 30 imported cases, collectively.</a></u></p> <p><u><a href="#">In the first four epidemiological weeks of 2025, there were 3,765 confirmed OROV cases reported in six countries in the Americas Region.</a></u></p> <p><u><a href="#">A large seroprevalence study with more than 9,000 samples collected from Bolivia, Brazil, Colombia, Costa Rica, Ecuador, and Peru found an overall OROV-specific IgG prevalence of 6.3% (95% CI 5.8–6.8). There was significant variation between countries and ecological regions, with seroprevalence as high as 10% in the Amazon region. (Fischer C, Frühauf A, Inchauste L, et al. The spatiotemporal ecology of Oropouche virus across Latin America: a multidisciplinary, laboratory-based, modelling study. Lancet Infect Dis. 2025; doi: 10.1016/S1473-3099(25)00110-0.)</a></u></p>	
Papillomaviruses	Viral	Green	No significant developments to report.	
Pegivirus A or human pegivirus HPgV (includes the viruses previously referred to as GBV-C/hepatitis G virus (HGV), GBV-A (new world primates) and homologues infecting chimpanzees and Old World monkey species)	Viral	Green	No significant developments to report.	
Pegivirus, novel human (HPgV-2, also known as HHpgV-1)	Viral	Green	No significant developments to report.	
Polyomaviruses	Viral	Green	No significant developments to report.	

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Porcine endogenous retrovirus (PERV)	Viral	Green	No significant developments to report.	
Porcine parvovirus	Viral	Green	No significant developments to report.	
Rhabdovirus (rabies)	Viral	Green	<p>PVRV-NG2 is a next-generation Vero cell rabies vaccine based on the same virus strain as the licensed vaccines Verorab and Imovax. A phase 3 study has demonstrated that all three vaccines are equivalent when administered concomitantly with human rabies immunoglobulin, based on the proportion of participants achieving rabies virus neutralising antibody titres of 0.5 IU/mL or more. Geometric mean antibody titres were also similar between groups at all time points. (Pineda-Peña A-C, Jiang Q, Petit C, Korejwo-Peyramond J, Donazzolo Y, Latreille M, et al. Immunogenicity and safety of a purified Vero rabies vaccine—serum free, compared with 2 licensed vaccines, in a simulated rabies post-exposure regimen in healthy adults in France: A randomized, controlled, phase 3 trial. Clin Infect Dis. 2024 Jun; 78: 1748-1756.)</p> <p>South Africa reported the first documented outbreak of rabies in a marine mammal population (Cape fur seals) in September 2024. There are plans to vaccinate Cape fur seals that have regular contact with humans, plus seals of other species that visit the shores of southern Africa.</p> <p><u><a href="#">A confirmed transmission of rabies via kidney transplant occurred in the US in December 2024. The donor did not have any symptoms at the time of death. Three other recipients who received corneal grafts from the same donor have received post-exposure prophylaxis and remain well.</a></u></p>	17/3/2010
Ross River virus	Viral	Green	During 2024, there were 3,361 notifications of RRV infection, which is higher than 2023 (1,709 notifications) but within the five-year average (approximately 3,408).	03/03/2016
Novel coronaviruses	Viral	Green	<p><u><a href="#">Recent identifications of novel coronaviruses include:</a></u></p> <ul style="list-style-type: none"> <li><u><a href="#">Human, Korea – novel virus identified in clinical samples from an infant with human parainfluenza virus and rhinovirus coinfection and transient liver dysfunction. Closely related to alphacoronaviruses carried by rats and mice in Korea and China. (Park K, Shin M, Natasha A, et al. Novel human coronavirus in an infant patient with pneumonia, Republic of Korea. Emerg Microbes Infect. 2025 Feb; 14(1): 2466705.)</a></u></li> <li><u><a href="#">Bats, China – second lineage of Pipistrellus bat coronavirus HKU5 (a merbecovirus). Binds more efficiently to human cell receptors than lineage 1. (Chen J, Zhang W, Li Y, et al. Bat-infecting merbecovirus HKU5-CoV lineage 2 can use human ACE2 as a cell entry receptor. Cell. 2025 Mar; 188(6): 1729-1742 e16.)</a></u></li> </ul>	(Broadened from SARS to novel coronaviruses in Feb 2022)

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			<ul style="list-style-type: none"> <li><a href="#">Bats, Brazil – novel virus with 71.9% nucleotide identity to MERS-CoV. (Silvério BS, Guillard MD, Martins JO, et al. Coronavirus cryptic landscape and draft genome of a novel CoV clade related to MERS from bats circulating in northeastern Brazil. J Med Virol. 2025 Jan; 97(1): e70173.)</a></li> </ul>	
SARS-CoV-2 (formerly 2019-nCoV)	Viral	<b>Green</b>	<p>August 2024 update</p> <p>The WHO Technical Advisory Group on COVID-19 Vaccine Composition advises the use of a monovalent JN.1 lineage as the antigen in future formulations of COVID-19 vaccines, because SARS-CoV-2 is expected to continue to evolve from JN.1.</p> <p>Four JN.1 descendant lineages (JN.1.7, JN.1.18, KP.2 and KP.3) were added as variants under monitoring during April/May, while two variants of interest (XBB.1.5 and XBB.1.16) were removed in June.</p> <p>November 2024 update</p> <p>In August, the FDA updated their recommendation for the preferred lineage in the 2024-2025 COVID vaccine formula from JN.1 to KP.2 specifically.</p> <p>Two JN.1 descendant lineages (KP.3.1.1 and LB.1) were added as variants under monitoring by WHO in August, while one variant of interest (EG.5) was removed.</p> <p>Sampling of 23 wildlife species in Virginia and the District of Columbia (USA) during 2022 and 2023 detected SARS-CoV-2 RNA in six (the deer mouse, Virginia opossum, raccoon, groundhog, Eastern cottontail [rabbit], and Eastern red bat). Sites with high human activity had three times higher seroprevalence than low human-use areas. Nine genomic sequences closely matched variants circulating in humans at the time and suggest at least seven recent human-to-animal transmission events. (Goldberg AR, Langwig KE, Brown KL, et al. Widespread exposure to SARS-CoV-2 in wildlife communities. Nat Commun. 2024 Jul; 15(1): 6210.)</p> <p>February 2025 update: The JN.1 descendant lineage XEC was added as a variant under monitoring by WHO in October 2024.</p> <p><a href="#">May 2025 update</a></p> <p><a href="#">As of 12 March 2025, there is one SARS-CoV-2 variant of interest (JN.1) and seven variants under monitoring (JN.1.18, KP.2, KP.3, KP.3.1.1, LB.1, XEC and LP.8.1, all of which are JN.1 descendent lineages).</a></p> <p><a href="#">Analysis of more than 8,500 hospitalisations in the US showed no difference in outcomes for patients who received plasma or platelets from donors previously</a></p>	<p>Added Feb 2020 (yellow)</p> <p>10/11/2022 (from yellow to green)</p>

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			<a href="#">infected with or vaccinated against SARS-CoV-2, compared to those who received products from uninfected or unvaccinated donors. (Roubinian NH, Greene J, Spencer BR, et al. Blood donor SARS-CoV-2 infection or vaccination and adverse outcomes in plasma and platelet transfusion recipients. Transfusion. 2025 Mar; 65(3): 485-495.)</a>	
Severe fever with thrombocytopenia syndrome virus (SFTSV)	Viral	Green	No significant developments to report.	18/03/2013
Spumavirus (simian foamy virus)	Viral	Green	No significant developments to report.	17/3/2010
St Louis encephalitis virus	Viral	Green	No significant developments to report.	
Torque teno virus (TTV complex)	Viral	Green	No significant developments to report.	
Usutu virus	Viral	Green	The THERAFLEX UV-Platelets system (UVC illumination) has been shown to inactivate USUV in spiked platelet concentrates in a dose-dependent manner. (Gravemann U, Boelke M, Könenkamp L, et al. West Nile and Usutu viruses are efficiently inactivated in platelet concentrates by UVC light using the THERAFLEX UV-Platelets system. Vox Sang. 2024 Aug; 119(8): 827-833.)  Denmark reported its first detection of Usutu virus in birds (three blackbirds) in September 2024. Symptoms consistent with USUV infection have also been observed in blackbirds elsewhere in the country.	Added May 2017
Vaccinia virus and miscellaneous poxviruses (not elsewhere included)	Viral	Green	Israeli <i>Roussettus aegyptiacus</i> pox virus (IsrRAPXV) is a novel poxvirus that has been shown to cause high morbidity and mortality in bats [1]. A human case was recently identified [2] in a volunteer at a bat shelter who developed systemic symptoms and skin lesions on her hands. IsrRAPXV was isolated from swabs of the lesions and was identical to strains isolated from fruit bats. This suggests that the virus is zoonotic. (1. David D, Davidson I, Karniely S, et al. Israeli Roussettus aegyptiacus pox virus (IsrRAPXV) infection in juvenile Egyptian fruit bat ( <i>Roussettus aegyptiacus</i> ): Clinical findings and molecular detection. Viruses. 2021 Mar; 13(3): 407. 2. Paran Y, David D, Rudoler N, et al. Human infection with IsrRAPXV, a novel zoonotic bat-derived poxvirus. J Infect Dis. 2025 Feb; 231(2): 495-500.)	(Broadened to general poxviruses Sep 2024)
Varicella zoster virus	Viral	Green	Added to traffic lights for consistency with EREEIDs. No significant developments to report.	Added 8/3/2024
Vesivirus	Viral	Green	No significant developments to report.	

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West Nile virus	Viral	<b>Green</b>	<p>August 2024 update</p> <p>The 2024 European WNV transmission season has commenced. Cases identified to date had symptom onset from June onwards, apart from one early case in Spain. As of 31 July 2024, human cases have been reported from Austria, France, Greece, Hungary, Italy, Romania, Serbia and Spain, with approximately half of the affected regions not having previously reported human cases. There appear to be 55 cases but this needs to be confirmed.</p> <p>Additionally, as of 11 July 2024, Israel has recorded 356 human cases of WNV infection since the beginning of May. The 125 cases recorded in June 2024 are unusual compared to the 2014-2023 average of 4 cases in June. However, none of these appear to have been reported to the European Surveillance System (TESSy). (Mor Z, Omari H, Indenbaum V, et al. Early rise of West Nile fever in Israel, June 2024. Euro Surveill. 2024 Jul; 29(30): pii=2400457.)</p> <p>Jordan detected its first clinical case of human WNV infection in late July.</p> <p>The THERAFLEX UV-Platelets system (UVC illumination) has been shown to inactivate WNV in spiked platelet concentrates in a dose-dependent manner. (Gravemann U, Boelke M, Könenkamp L, et al. West Nile and Usutu viruses are efficiently inactivated in platelet concentrates by UVC light using the THERAFLEX UV-Platelets system. Vox Sang. 2024 Aug; 119(8): 827-833.)</p> <p>November 2024 update</p> <p>Locally acquired human cases of WNV have been reported from 186 regions in 19 European countries in 2024: Albania, Austria, Bulgaria, Croatia, Cyprus, Czechia, France, Germany, Greece, Hungary, Italy, Kosovo, North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain and Türkiye. As of 2 October 2024, total (n = 1,202) and monthly case numbers remain higher than recent years but lower than 2018. The geographical distribution of WNV in 2024 is the largest ever reported in a year, with multiple regions reporting locally acquired cases for the first time. Lifeblood's trigger point to consider risk modelling (325 cases in one week) was not reached, with the highest recorded weekly totals around 150 in July/August.</p> <p>Barbados reported its first confirmed human infection with WNV on 13 September 2024, despite never detecting WNV in birds or horses. Blood donors returning to Australia from Barbados are subject to a flavivirus deferral.</p>	18/11/2014

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			February 2025 update: The European WNV transmission season has ceased; the latest date of onset was 25 October 2024. In total, 1,436 locally acquired cases were reported during the 2024 season.	
Yellow fever virus	Viral	<b>Green</b>	<p>November 2024 update: Up to epidemiological week 35 in 2024, 38 confirmed cases of yellow fever, including 19 deaths, were reported in the Region of the Americas. The five affected countries are Bolivia, Brazil, Colombia, Guyana and Peru, all of which have a malaria deferral.</p> <p><u>May 2025 update: PAHO/WHO assessed the yellow fever risk as high for the Region of the Americas in February. Of the 131 confirmed cases up to epidemiological week 12, most were outside the Amazon region, where yellow fever has historically been reported. A projection model developed by the Brazilian Ministry of Health estimates that virus spread may occur this season to the southern states of Brazil and countries such as Argentina and Paraguay.</u></p>	20/2/2015
Zika virus	Viral	<b>Green</b>	<p>August 2024 update: The FDA has determined that ZIKV is no longer a relevant communicable disease agent or disease for human cells, tissues or cellular/tissue-based products. Establishments may discontinue screening donors of these products for ZIKV.</p> <p>February 2025 update</p> <p>India reported 151 cases of Zika virus disease in 2024, mostly from Maharashtra state. This is unusual, as the state reported less than 20 cases in each year between 2021-2023. There have not been any associated cases of microcephaly or Guillain-Barré syndrome.</p> <p>A simulation study from Canada modelled the risk of introducing ZIKV to the cord blood supply, with parameters including probabilities relating to exposure, infection and transmission. The risk in the most likely scenario was estimated at 0.9 ZIKV-positive cord blood donations per million donations. It was concluded that the risk is too small to justify maintaining the current policy relating to ZIKV risk factors. (Lewin A, O'Brien SF, Seftel M, et al. Risk of introducing Zika virus in the Canadian cord blood supply: A risk analysis. Transfusion. 2024 Dec; 64(12): 2228-2232.)</p>	03/03/2016 23/8/2017 (changed to green)
<i>Anaplasma</i> species (anaplasmosis)	Rickettsial	<b>Green</b>	No significant developments to report.	8/7/2010 (Broadened to general)

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				<i>Anaplasma</i> spp. in Nov 2022)
<i>Coxiella burnetii</i> (Q fever)	Rickettsial	Green	In 2024, 851 cases of Q fever were reported nationally, with the highest number (432 notifications) from QLD. This is the highest national count in more than 20 years; the five-year average is approximately 523.	17/3/2010
<i>Ehrlichia</i> species (ehrlichiosis)	Rickettsial	Green	A case of <i>Ehrlichia canis</i> (the causative agent of canine ehrlichiosis) was reported in a patient who had been hiking in southern Italy. An identical strain was isolated from an attached tick. Human infection with this agent is uncommon. (Sgroi G, D'Alessio N, Veneziano V, et al. <i>Ehrlichia canis</i> in human and tick, Italy, 2023. <i>Emerg Infect Dis.</i> 2024 Dec; 30(12): 2651)	(Broadened to all <i>Ehrlichia</i> species for consistency with EREEID in August 2018)
<i>Orientia</i> species causing scrub typhus	Rickettsial	Green	No significant developments to report.	(Broadened to all <i>Orientia</i> species causing scrub typhus in August 2023)
<i>Rickettsia</i> species	Rickettsial	Green	Connecticut reported its first locally acquired human case of rickettsiosis caused by <i>Rickettsia parkeri</i> in October 2024, which is also the first case in the northeastern US. <i>R. parkeri</i> is transmitted by the Gulf Coast tick ( <i>Amblyomma maculatum</i> ), which has been gradually spreading north.  Six cases of Rocky Mountain spotted fever caused by <i>Rickettsia rickettsii</i> were identified in California in a recent six-month period. They had all been exposed in Tecate, Mexico, which was not previously considered to be a high-risk area for Rocky Mountain spotted fever. (Kjemtrup AM, Hacker JK, Monroe M, et al. Severe and fatal Rocky Mountain spotted fever after exposure in Tecate, Mexico - California, July 2023-January 2024. <i>MMWR Morb Mortal Wkly Rep.</i> 2024 Nov; 73(47): 1069-1075.)	
<i>Bacillus anthracis</i> (anthrax) and anthrax-like disease caused by other <i>Bacillus</i> spp.	Bacterial	Green	No significant developments to report.	
<i>Bartonella</i> species ( <i>B. henselae</i> – cat scratch fever, <i>B. quintana</i> – Trench fever, <i>B. bacilliformis</i> – Carrion's disease)	Bacterial	Green	No significant developments to report.	

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<i>Borrelia burgdorferi</i> (Lyme disease)	Bacterial	Green	The Czech Republic reported approximately 1200 cases of Lyme disease and 162 of tick-borne encephalitis during the first half of 2024. There is reference to approximately double the number of cases reported in the same period of 2023, but it is unclear whether this relates to TBEV, Lyme or both.	17/3/2010
Potential tick-borne pathogen and Lyme-like disease in Australia	Unidentified	Green	No significant developments to report.	
<i>Borrelia</i> species (borreliosis)	Bacterial	Green	No significant developments to report.	
<i>Brucella</i> species (brucellosis)	Bacterial	Green	No significant developments to report.	
<i>Burkholderia pseudomallei</i> (melioidosis)	Bacterial	Green	November 2024 update Taiwan recorded 96 confirmed cases of melioidosis in 2024 to 14 Oct, of which 69 occurred after Typhoon Gaemi (late July). As of mid-October, 18 cases of melioidosis have been recorded in Hong Kong in 2024, compared to 17 in the whole year 2023. <u>May 2025 update: Cases of melioidosis in QLD significantly increased in the first few months of 2025, attributable to heavy rainfall and flooding. As of 22 April, 205 cases had been recorded, more than three times the number from the same period in 2024. Most cases occurred in Cairns and Townsville.</u>	21/09/2011
<i>Chlamydia pneumoniae</i>	Bacterial	Green	No significant developments to report.	
Chlamydia (Lymphogranuloma venereum in MSM)	Bacterial	Green	France has a sentinel network for lymphogranuloma venereum (LGV) whereby laboratories perform routine testing for <i>Chlamydia trachomatis</i> in anorectal specimens and send those that are positive to a national reference laboratory. Since 2016, LGV screening of these samples has been limited to those from people living with HIV and/or with anorectal symptoms. A temporary period of screening all <i>C. trachomatis</i> -positive anorectal specimens for LGV found that LGV cases were more often asymptomatic than in the past, and the proportion of HIV-negative cases was higher compared with those living with HIV. The authors recommend screening all <i>C. trachomatis</i> -positive anorectal specimens for LGV. (Peuchant O, Laurier-Nadalié C, Albuher L, et al. Anorectal lymphogranuloma venereum among men who have sex with men: a 3-year nationwide survey, France, 2020 to 2022. Euro Surveill. 2024 May; 29(19): pii=2300520.)	17/3/2010

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<i>Francisella tularensis</i> (tularemia)	Bacterial	Green	<i>Francisella tularensis</i> is considered to be absent from the UK, but local acquisition could not be ruled out for a resident diagnosed with tularemia in July 2023. The UK has several mammalian and arthropod species that would be capable of acting as reservoirs or vectors. (Thompson A, Brooks T, Houlihan C, et al. Investigation of a human case of Francisella tularensis infection, United Kingdom, 2023. Emerg Infect Dis. 2024 Oct; 30(10): 2188-2190.)  During 2011–2022, 47 states in the US reported 2,462 tularemia cases (0.064 per 100,000 population). This represents a 56% increase in incidence compared with 2001-2010. (Rich SN, Hinckley AF, Earley A, et al. Tularemia - United States, 2011-2022. MMWR Morb Mortal Wkly Rep. 2025 Jan; 73(5152): 1152-1156.)	
<i>Leptospira</i> species	Bacterial	Green	Added to traffic lights for consistency with EREEIDs. No significant developments to report.	Added 8/3/2024
<i>Listeria monocytogenes</i> (listeriosis)	Bacterial	Green	An outbreak of listeriosis in Switzerland with 34 cases between April 2022 and June 2024 was traced to a persisting production line contamination in a factory producing baker's yeast. Whole-genome sequencing confirmed the match between clinical and product sample <i>Listeria monocytogenes</i> isolates. (Stephan R, Horibog JA, Nuesch-Inderbinen M, et al. Outbreak of listeriosis likely associated with baker's yeast products, Switzerland, 2022–2024. Emerg Infect Dis. 2024 Nov; 30(11): 2424-2426.)  <a href="#">An outbreak of listeriosis in the US with 38 cases from 21 states between 2018 and 2025 was linked in February 2025 to supplement shakes that are available only to institutional settings such as long-term care facilities.</a>  <a href="#">An outbreak with two separate strains of <i>Listeria monocytogenes</i> has been ongoing since 2018, with 27 cases in Denmark and a few more in nearby countries. The outbreak was recently linked to a Danish fish producer after the implicated strains were found in environmental and product samples.</a>	22/05/2013
<i>Mycobacterium tuberculosis</i> transmitted by human cells or tissues	Bacterial	Green	No significant developments to report.	Added 2/11/2023
Non-tuberculous mycobacteria, eg. <i>Mycobacterium ulcerans</i> (Buruli ulcer)	Bacterial	Green	August 2024 update: Three <i>Mycobacterium abscessus</i> infections were identified in Colorado USA between Nov 2022 and May 2023. They were linked to receiving donor embryonic stem cell injections in Mexico, although at different clinics in different geographical areas. Sequencing of patient isolates suggested a common infected source, but this was not found. (Nguyen MH, Hasan NA, De Moura VCN, et al. Notes from the Field: Potential outbreak of extrapulmonary <i>Mycobacterium abscessus</i> subspecies massiliense infections from stem cell treatment clinics in Mexico - Arizona and Colorado, 2022. MMWR Morb Mortal Wkly Rep. 2024 May; 73(18): 420-422.)	25/05/2011

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			February 2025 update: <i>Mycobacterium ulcerans</i> has been spreading geographically across Victoria for the past few years, but cases have remained relatively stable since 2022. In 2024, 344 cases of Buruli ulcer had been notified in the state as of 17 December, compared to the same time in 2023 (362 cases) and 2022 (338 cases).	
<i>Treponema pallidum</i> (syphilis)	Bacterial	Green	<p>August 2024 update: Lifeblood has used sequential immunoassays for syphilis screening since late 2018, which has improved the efficiency of screening. Two years' experience show that the false-positive rate for the Alinity s Syphilis CMIA was 0.08% and the common false-positive rate with the secondary assay, the cobas Elecsys Syphilis ECLIA, was 3.83%. (Cheng A, Das A, Styles CE, et al. Improved efficiency using sequential automated immunoassays for syphilis screening in blood donors. <i>Journal of Clinical Microbiology</i>. 2024 Aug; 62(8): e0047624.)</p> <p>November 2024 update: An analysis of Australian notifications found that the rate of infectious syphilis rose by more than 500% in women aged 15–44 years between 2011 and 2021. Congenital syphilis cases rose from a median of four cases per year during 2011-2019 to 16 during 2020-2023. Among the birthing parents of these cases, nearly half had no record of receiving any antenatal care and less than 40% were tested for syphilis in pregnancy. (Hengel B, McManus H, Monaghan R, et al. Notification rates for syphilis in women of reproductive age and congenital syphilis in Australia, 2011-2021: a retrospective cohort analysis of national notifications data. <i>Med J Aust</i>. 2024 Aug; 221(4): 201-208.)</p> <p>February 2025 update: In Australia in 2023, there were 6,390 infectious syphilis notifications, with the majority (80%) among males. The notification rate increased more than 200% between 2014 (8.8 per 100,000 population) and 2023 (24.4). Overall, the national infectious syphilis notification rate was more than four times as high among men as women, although the rate in women has increased almost seven-fold since 2014. There were 20 congenital syphilis cases in 2023. (King J, Kwon J, McManus H, et al. HIV, viral hepatitis and sexually transmissible infections in Australia: Annual surveillance report 2024. 2024. Kirby Institute, UNSW Sydney.)</p> <p><a href="#">May 2025 update</a></p> <p><a href="#">Syphilis in Europe increased 13% over 2022 in 2023, with 41,051 confirmed cases. Of these, 72% of cases occurred in MSM, but rates of syphilis increased among women of all age groups.</a> (European Centre for Disease Prevention and Control. <i>Syphilis – Annual Epidemiological Report for 2023</i>. 2025 Feb 10. Available from: <a href="https://www.ecdc.europa.eu/en/publications-data/syphilis-annual-epidemiological-report-2023">https://www.ecdc.europa.eu/en/publications-data/syphilis-annual-epidemiological-report-2023</a>)</p>	(Added to traffic lights to track updates and surveillance in May 2017)

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Infectious Agent/Disease	Type of Agent	Threat Level	Action	Status Changed
			<a href="#">Meta-analysis of randomised controlled trials found that doxycycline postexposure prophylaxis (doxy-PEP) significantly reduces the incidence of syphilis among MSM and transgender women. The risk ratio for participants using doxy-PEP, compared to those not using it, was 0.23 (95% CI 0.14-0.36). (Szondy I, Meznerics FA, Lorincz K, et al. Doxycycline prophylaxis for the prevention of sexually transmitted infections: A systematic review and meta-analysis of randomized controlled trials. Int J Infect Dis. 2024 Oct; 147: 107186.)</a>	
<i>Yersinia enterocolitica</i> (yersiniosis)	Bacterial	Green	An outbreak of <i>Yersinia enterocolitica</i> biotype 2, serotype O:9 in France is associated with raw milk goat's cheese. The implicated product is widely distributed but most cases (133) have occurred in France; Belgium, Luxembourg and Norway have all reported one case each. <a href="#">(Reported Aug 2024)</a>	
<i>Yersinia pestis</i> (plague)	Bacterial	Green	No significant developments to report.	
<i>Babesia</i> species (babesiosis)	Protozoan	Green	Estonia reported its first human cases of babesiosis in June 2024.	27/11/2012
Filariae	Nematode	Green	Brazil was validated as having eliminated lymphatic filariasis as a public health problem in October 2024. It is the 20th country to do so.	
<i>Leishmania</i> species (leishmaniasis)	Protozoan	Green	No significant developments to report.	
<i>Plasmodium</i> species (malaria) including relapsing vivax	Protozoan	Green	<p>August 2024 update</p> <p>A recipient of multiple red cell transfusions in the UK was diagnosed with malaria in 2023 and had no other risk factors. The associated donations were all negative for malaria antibodies, but further testing of six donors based on their clinical history identified one with detectable <i>Plasmodium malariae</i> DNA. This donation was the likely source of transmission and the event was confirmed as transfusion transmitted malaria. (Annual SHOT Report 2023, <a href="https://www.shotuk.org/shot-reports/">https://www.shotuk.org/shot-reports/</a>)</p> <p>Recent developments regarding malaria prevention include:</p> <ul style="list-style-type: none"> <li>A single injection of the monoclonal antibody L9LS, which targets sporozoites, was 77% effective against symptomatic malaria in a phase 2 clinical trial in children in Mali during malaria season. (Kayentao K, Ongoiba A, Preston AC, et al. Subcutaneous administration of a monoclonal antibody to prevent malaria. N Engl J Med. 2024 Apr; 390(17): 1549-1559.)</li> <li>Rollout of both approved malaria vaccines (RTS,S and R21/Matrix M) in various African countries.</li> </ul>	24/01/2012

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**List of Infectious Agents and Associated Traffic Lights**

Infectious Agent/Disease	Type of Agent	Threat Level	Action	Status Changed
			<p>Lifeblood modelling studies recommend a change to the malaria testing/deferral strategy. All residents of and visitors to malaria-endemic areas would continue to be restricted to plasma for fractionation for 120 days, but only residents would require testing after this period. Compared to the current strategy, the recommended strategy had equivalent risk, improved cost-effectiveness and reduced operational complexity.                      (Schenberg K, Hoad VC, Harley R, et al. Managing the risk of transfusion-transmitted malaria from Australian blood donations: Recommendation of a new screening strategy. Vox Sanguinis. 2024 Sep; 119(9): 945-952.                      Cheng Q, Hoad VC, Bentley P, et al. Optimal malarial screening strategy in Australian blood donors: A cost-effectiveness analysis. Vox Sanguinis. 2024 Sep; 119(9): 936-944.)</p> <p>November 2024 update                      Egypt was awarded malaria-free certification by WHO in October.</p> <p>Inactivation of <i>Plasmodium falciparum</i> in spiked red cell units by ultraviolet light has been demonstrated, with dose-dependent capacity. Complete inactivation was achieved in two out of three experiments using 4.5 J/cm<sup>2</sup> UVC, which led to ≥5.3 log unit reduction. (Fischer S, Zilkenat S, Rosse M, et al. Dose-dependent inactivation of Plasmodium falciparum in red blood cell concentrates by treatment with short-wavelength ultraviolet light. Vox Sang. 2024 Oct; 119(10): 1082-1089.)</p> <p>February 2025 update                      Georgia was certified as malaria-free by WHO in January 2025.</p> <p>As <i>Plasmodium</i> is an intraerythrocytic parasite, most cases of transfusion transmitted malaria have occurred with whole blood or red blood cell (RBC) component transfusions. However, plasma and platelet components may contain small numbers of RBCs. A study in which plasma was spiked with <i>P. falciparum</i>-infected RBCs found that parasites remained viable for maximum periods as follows: 7 days at 22°C, 3 days at 4°C, 1 day at -20°C and longer than the maximum follow-up (176 days) at -80°C. (Lavrentieva A, Oakley MS, Hayashi CTH, et al. Viability of Plasmodium falciparum parasites in human plasma under different storage conditions. Vox Sang. 2025 Feb; 120(2): 149-154.)</p>	
<i>Sarcocystis</i> species (sarcocystosis)	Protozoan	Green	No significant developments to report.	6/2/2012
<i>Schistosoma</i> species (schistosomiasis)	Trematode	Green	No significant developments to report.	(Added to traffic lights to track updates and

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### List of Infectious Agents and Associated Traffic Lights

Infectious Agent/Disease	Type of Agent	Threat Level	Action	Status Changed
				surveillance in May 2017)
<i>Strongyloides</i> (strongyloidiasis)	Nematode	Green	No significant developments to report.	
<i>Toxoplasma gondii</i> (toxoplasmosis)	Protozoan	Green	No significant developments to report.	
<i>Trypanosoma brucei</i> (sleeping sickness)	Protozoan	Green	Chad was recognised by WHO in June 2024 for eliminating the gambiense form of human African trypanosomiasis as a public health problem. It is the seventh country to do so.  <a href="#">Guinea was recognised by WHO in January 2025 for eliminating the gambiense form of human African trypanosomiasis as a public health problem.</a>	
<i>Trypanosoma cruzi</i> (Chagas' disease)	Protozoan	Green	August 2024 update: An international survey found that among 22 responding blood services from regions non-endemic for <i>Trypanosoma cruzi</i> , only 8 tested donors whose only risk factor for Chagas disease was travel to an endemic country (at-risk stay alone). At-risk stay alone was shown not to be a significant risk factor for infection by the fact that respondents reported only two confirmed <i>T. cruzi</i> infections among donors with at-risk stay alone, compared to 299 among donors with other risk factors. (Lewin A, Tonnetti L, Renaud C, Drews SJ, Bloch EM, O'Brien SF, et al. Deferral of blood donors who have ever stayed in a <i>Trypanosoma cruzi</i> endemic area: An international survey. Vox Sang. 2024 Sep; 119(9): 921-926.)	24/07/2012

**Red traffic light** – Present threat to the blood supply. Commence formal risk assessment and develop plans for possible action.

**Yellow traffic light** – Evidence of a potential threat to the safety of the blood supply. Enhanced surveillance through literature search and local and international contacts. Perform additional literature searches as appropriate until the threat level is upgraded/downgraded.

**Green traffic light** – A potential but not current threat to the safety of the blood supply. Subject to routine surveillance primarily by DPU.

**NOTE: The traffic light designation for any specified infectious agent is focused on the blood safety risk impact. Blood product sufficiency impacts are considered separately outside of the Emerging, Re-emerging and Emerged Infectious Diseases (EREEID) framework.**