Issued by JPAC: 26 April 2022	**Implementation:** To be determined by each Service

Change Notification UK National Blood Services No. 21 - 2022

Yellow Fever

These changes apply to Deceased Tissue Donor Selection Guidelines, Live Tissue Donor Selection Guidelines and Whole Blood and Component Donor Selection Guidelines.

Please amend the following entries.

21.1 Tropical Viruses

Includes	Chikungunya Virus, also known as CHIKV Dengue Virus, also known as Dengue Fever Yellow Fever, also known as YF Zika Virus, also known as ZIKV, and Zika Virus Fever
Definitions	~~To include Dengue Virus, Dengue Fever and Chikungunya Virus, also known as CHIKV, Zika Virus and Zika Virus Fever.~~ **Tropical Virus Endemic Areas:** are shown in the 'Geographical Disease Risk Index' (GDRI) as a Tropical Virus Risk.
Obligatory	**Must not donate if:** a) It is less than six months from a donor's return from a Tropical Virus Risk endemic area and the donor has been diagnosed with Chikungunya, Dengue, Yellow Fever or Zika virus infection whilst there or following their return to the UK. b) It is less than six months from a donor's return from a Tropical Virus Risk endemic area and the donor has either had a history of symptoms suggestive of Chikungunya, Dengue, Yellow Fever or Zika virus infection whilst there or following their return to the UK. c) In other cases it is less than four weeks from a donor's return from a Tropical Virus Risk endemic area. d) The donor has had sex in the last 28 days with someone who has had a confirmed Zika Virus infection in the three months preceding the sexual contact.

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Additional Information	Chikungunya is an alpha virus that can cause a wide spectrum of disease. This may range from no or minimal symptoms to death. Most commonly it causes arthritis (typically in the knee, ankle and small joints of the extremities), high fever and a maculopapular rash. It is geographically widespread but since 2005 it has reached epidemic proportions in parts of India and islands in the Indian Ocean. It is known to be spread by blood in symptomatic cases and on theoretical grounds could be spread by transfusion and transplantation of tissues and organs from people with pre-symptomatic or asymptomatic disease. A number of visitors returning from endemic areas to the UK have been diagnosed with this infection. Dengue Virus is a flavivirus that typically gives rise to abrupt high fever with a range of accompanying symptoms. Dengue fever (DF) is the most common arthropod borne disease worldwide. Dengue is currently considered endemic in approximately 128 countries. Overall, 15-90% of cases may have an asymptomatic course of infection, but clinical presentation varies with age group. However, there is a risk of change in disease presentation and potential for increased incidence of more severe disease in older age groups due to co-circulation of different dengue types and emergence of new types in endemic areas patterns. Yellow Fever Virus is a Flavivirus. Symptoms of Yellow Fever include high temperature, headache, nausea and vomiting, muscle pains and backache. One in four individuals may suffer from jaundice and bleeding from the gastrointestinal tract and other sites. Zika virus is a flavivirus that is transmitted to humans through the bite of a carrier mosquito. Zika Virus can also be transmitted human to human through sexual contact. Zika infection is a rapid acute infection that in the majority of cases is asymptomatic or has very mild general symptoms. A small number of cases may have more apparent symptoms but hospitalisation is rare. Zika infection may be mistaken for Chikungunya or Dengue infections as the virus often co-circulate. The main vector for these viruses ~~Chikungunya Virus, Dengue Virus and Zika Virus~~ is Aedes aegypti (Aedes albopictus is another emerging vector), which is found worldwide between latitudes 35ºN and 35ºS. There is no epidemiologically important animal reservoir for these viruses ~~Chikungunya Virus, Dengue Virus and Zika Virus~~ The main geographical areas affected by ~~all 3~~ these viruses include the Caribbean, South and Central America, Mexico, Africa, the Pacific Islands, SE Asia, Indian sub-continent, Hawaii. Additionally, Dengue fever has been reported in Australia and there have been outbreaks of Dengue and Chikungunya in Europe.

	~~As the problem can vary both in relation to geography and time of the year it is not possible to state areas from which donors need to be deferred or dates of disease activity. These are provided in the Geographical Disease Risk Index.~~ Position statements are available in the JPAC Document Library.
Reason for change	~~The deferral for sexual contact with an individual with confirmed Zika virus infection has been changed and now applies to partners with confirmed Zika infection in the last three months.~~ ~~Additional information now contains reference to European outbreaks.~~ The scope of this entry has been extended to include Yellow Fever.

A-Z index changes

- **Yellow Fever – Infection: Change this index entry to direct the user to the 'Tropical Viruses entry'**
- **Add 'YF' as an index entry for this topic**

21.2 Tropical Viruses

Revised Bone Marrow and Peripheral Blood Stem Cell DSG entry for Tropical Viruses

Includes	Chikungunya Virus, also known as CHIKV Dengue Virus, also known as Dengue Fever Yellow Fever, also known as YF Zika Virus, also known as ZIKV, and Zika Virus Fever
Definitions	~~To include Dengue Virus, Dengue Fever and Chikungunya Virus, also known as CHIKV, Zika Virus and Zika Virus Fever.~~ **Tropical Virus Endemic Areas:** are shown in the 'Geographical Disease Risk Index' (GDRI) as a Tropical Virus Risk.
Obligatory	**Must not donate if:** a) It is less than six months from a donor's return from a Tropical Virus Risk endemic area and the donor has been diagnosed with Chikungunya, Dengue, Yellow Fever or Zika virus infection whilst there or following their return to the UK. b) It is less than six months from a donor's return from a Tropical Virus Risk endemic area and the donor has either had a history of symptoms suggestive of Chikungunya, Dengue, Yellow Fever or Zika virus infection whilst there or

	following their return to the UK. c) In other cases it is less than four weeks from a donor's return from a Tropical Virus Risk endemic area.
Additional Information	Chikungunya is an alpha virus that can cause a wide spectrum of disease. This may range from no or minimal symptoms to death. Most commonly it causes arthritis (typically in the knee, ankle and small joints of the extremities), high fever and a maculopapular rash. It is geographically widespread but since 2005 it has reached epidemic proportions in parts of India and islands in the Indian Ocean. It is known to be spread by blood in symptomatic cases and on theoretical grounds could be spread by transfusion and transplantation of tissues and organs from people with pre-symptomatic or asymptomatic disease. A number of visitors returning from endemic areas to the UK have been diagnosed with this infection. Dengue Virus is a flavivirus that typically gives rise to abrupt high fever with a range of accompanying symptoms. Dengue fever (DF) is the most common arthropod borne disease worldwide. Dengue is currently considered endemic in approximately 128 countries. Overall, 15-90% of cases may have an asymptomatic course of infection, but clinical presentation varies with age group. However, there is a risk of change in disease presentation and potential for increased incidence of more severe disease in older age groups due to co-circulation of different dengue types and emergence of new types in endemic areas patterns. Yellow Fever Virus is a Flavivirus. Symptoms of Yellow Fever include high temperature, headache, nausea and vomiting, muscle pains and backache. One in four individuals may suffer from jaundice and bleeding from the gastrointestinal tract and other sites. Zika virus is a flavivirus that is transmitted to humans through the bite of a carrier mosquito. Zika Virus can also be transmitted human to human through sexual contact. Zika infection is a rapid acute infection that in the majority of cases is asymptomatic or has very mild general symptoms. A small number of cases may have more apparent symptoms but hospitalisation is rare. Zika infection may be mistaken for Chikungunya or Dengue infections as the virus often co-circulate. The main vector for these viruses ~~Chikungunya Virus, Dengue Virus and Zika Virus~~ is Aedes aegypti (Aedes albopictus is another emerging vector), which is found worldwide between latitudes 35ºN and 35ºS. There is no epidemiologically important animal reservoir for these viruses ~~Chikungunya Virus, Dengue Virus and Zika~~

	~~Virus~~ The main geographical areas affected by ~~all~~ ~~3~~ these viruses include the Caribbean, South and Central America, Mexico, Africa, the Pacific Islands, SE Asia, Indian sub-continent, Hawaii. Additionally, Dengue fever has been reported in Australia and there have been outbreaks of Dengue and Chikungunya in Europe. ~~As the problem can vary both in relation to geography and time of the year it is not possible to state areas from which donors need to be deferred or dates of disease activity. These are provided in the Geographical Disease Risk Index.~~ Position statements are available in the JPAC Document Library.
Reason for change	~~Information about Zika virus has been added.~~ The scope of this entry has been extended to include Yellow Fever.

A-Z index changes

- **Yellow Fever – Infection: Change this index entry to direct the user to the 'Tropical Viruses entry'**

21.3 Tropical Viruses

Revised Cord Blood DSG entry for Tropical Viruses

Includes	Chikungunya Virus, also known as CHIKV Dengue Virus, also known as Dengue Fever Yellow Fever, also known as YF Zika Virus, also known as ZIKV, and Zika Virus Fever
Definitions	~~To include Dengue Virus, Dengue Fever and Chikungunya Virus, also known as CHIKV, Zika Virus and Zika Virus Fever.~~ **Tropical Virus Endemic Areas:** are shown in the 'Geographical Disease Risk Index' (GDRI) as a Tropical Virus Risk.
Obligatory	**Must not donate if:** a) A mother has been diagnosed with chikungunya, dengue, yellow fever or zika virus infection whilst in an endemic area or following her return to the UK during this pregnancy. b) A mother has either had a history of symptoms suggestive of chikungunya, dengue, yellow fever or zika virus infection whilst in an endemic area or following her return to the UK during this pregnancy. c) In other cases it is less than four weeks from a mother's return from a Tropical Virus Risk endemic area.

See if Relevant	Infection - General Malaria South American Trypanosomiasis The 'Geographical Disease Risk Index'
Additional Information	Chikungunya is an alpha virus that can cause a wide spectrum of disease. This may range from no or minimal symptoms to death. Most commonly it causes arthritis (typically in the knee, ankle and small joints of the extremities), high fever and a maculopapular rash. It is geographically widespread but since 2005 it has reached epidemic proportions in parts of India and islands in the Indian Ocean. It is known to be spread by blood in symptomatic cases and on theoretical grounds could be spread by transfusion and transplantation of tissues and organs from people with pre-symptomatic or asymptomatic disease. A number of visitors returning from endemic areas to the UK have been diagnosed with this infection. Dengue Virus is a flavivirus that typically gives rise to abrupt high fever with a range of accompanying symptoms. Dengue fever (DF) is the most common arthropod borne disease worldwide. Dengue is currently considered endemic in approximately 128 countries. Overall, 15-90% of cases may have an asymptomatic course of infection, but clinical presentation varies with age group. However, there is a risk of change in disease presentation and potential for increased incidence of more severe disease in older age groups due to co-circulation of different dengue types and emergence of new types in endemic areas patterns. Yellow Fever Virus is a Flavivirus. Symptoms of Yellow Fever include high temperature, headache, nausea and vomiting, muscle pains and backache. One in four individuals may suffer from jaundice and bleeding from the gastrointestinal tract and other sites. Zika virus is a flavivirus that is transmitted to humans through the bite of a carrier mosquito. Zika infection is a rapid acute infection that in the majority of cases is asymptomatic or has very mild general symptoms. A small number of cases may have more apparent symptoms but hospitalisation is rare. Zika infection may be mistaken for Chikungunya or Dengue infections as the virus often co-circulate. The main vector for these viruses ~~Chikungunya Virus, Dengue Virus and Zika Virus~~ is Aedes aegypti (Aedes albopictus is another emerging vector), which is found worldwide between latitudes 35ºN and 35ºS. There is no epidemiologically important animal reservoir for these viruses ~~Chikungunya Virus, Dengue Virus and Zika~~

	~~Virus~~ The main geographical areas affected by ~~all 3~~ these viruses include the Caribbean, South and Central America, Mexico, Africa, the Pacific Islands, SE Asia, Indian sub-continent, Hawaii. Additionally, Dengue fever has been reported in Australia and there have been outbreaks of Dengue and Chikungunya in Europe. ~~As the problem can vary both in relation to geography and time of the year it is not possible to state areas from which donors need to be deferred or dates of disease activity. These are provided in the Geographical Disease Risk Index.~~ Position statements are available in the JPAC Document Library.
Reason for change	~~Information about Zika virus has been added~~ The scope of this entry has been extended to include Yellow Fever.

A-Z index changes

- **Yellow Fever – Infection: Change this index entry to direct the user to the 'Tropical Viruses entry'**

21.4 GDRI

Please amend the Tropical Virus Risk entries for the following countries, to include a Yellow Fever risk. (See example below)

Angola
Argentina
Benin
Bolivia
Brazil
Burkina Faso
Burundi
Cameroon
Central African Republic
Chad
Colombia
Congo
Cote D'Ivoire
Democratic Republic of Congo
Ecuador
Equatorial Guinea
Eritrea
Ethiopia
Gabon
Gambia (The)
Ghana
Guinea
Guyana

Kenya
Liberia
Mali
Mauritania
Niger
Nigeria
Panama
Paraguay
Peru
Sao Tome and Principe
Senegal
Sierra Leone
Somalia
South Sudan
Sudan
Suriname
Tanzania
Togo
Trinidad and Tobago
Uganda
Venezuela
Zambia

Example GDRI entry with YF risk

Benin

Malaria	**Yes** All year in whole country
Malaria Risk Category	**A**
Trypanosoma Cruzi Risk	No
Sub Saharan Africa	**Yes**
West Nile Virus Risk	No
Tropical Virus Risk	**Yes** Chikungunya Virus, ~~and~~ Dengue Virus and Yellow Fever

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