Country-specific information: Rationale

Epidemiological rationale for recommendations

The disease information that follows details the rationale and resources used for the NaTHNaC country-specific recommendations. The update dates below do not reflect when the last epidemiological review was completed but the most recent rationale for each disease.

NaTHNaC monitors and continues to respond to disease outbreaks posting information on the Outbreak Surveillance section of the website and will update country-specific recommendations accordingly.

Country-specific recommendations are based on collaborations with UKHSA.

Biting insects or ticks

Regional information about biting insects and ticks that transmit infections including African tick bite fever, Chikungunya, Crimean Congo haemorrhagic fever, leishmaniasis, Murray Valley encephalitis Rift Valley fever, Ross River virus, scrub typhus, trypanosomiasis and West Nile virus are included on the "other risk " section of the country information pages where appropriate.

A regional disease risk is included on a country information page, when there are reports of that disease in at least one country of that United Nations standard geographical sub-region according to the World Health Organization, national authorities or other verified sources.

Updated: July 2018

Cholera

Cholera is considered to represent a potential risk to travellers if:

- A country had reported ≥100 cases to the WHO in at least 3 out of 5 years, 2013 to 2017 inclusive.
- A country had reported an outbreak of ≥1000 cases to the WHO in at least one year, 2013 to 2017 inclusive.

When there had been sporadic or absent reporting to WHO between 2013 and 2017, a consensus opinion regarding risk was formed based on consideration of available data, including Public Health England data on imported cholera cases to the UK and World Health Organization water progress on household drinking water, sanitation and hygiene 2000-2017 [2].

Updated: October 2019

COVID-19

Most countries worldwide now present a potential risk of exposure to COVID-19 for travellers. Each country, territory or area has been reviewed and categorised according to:

- The risk that travel presents to individual travellers (based on the impact of the additional burden that COVID-19 cases place on healthcare capacity).
- The risk that travel presents to UK public health (based on the presence of known variants of concern, known emerging or high-risk variants under investigation, or because of very high or rapidly increasing and unexplained prevalence of COVID-19).

Countries have been categorised as either:

- A country considered to present a high risk of exposure to COVID-19 and where the additional burden of COVID-19 cases has had a considerable impact on healthcare capacity, which may affect the ability access to healthcare in emergencies. All travellers (even if fully vaccinated against COVID-19) are advised to avoid non-essential travel to these countries.
- Rest of the world countries; all travellers should ensure they have access to up to date information on COVID-19 and be prepared for rapid changes in guidance both before and during travel.

Some country pages may also have additional information regarding outbreaks or clusters of cases which are being carefully monitored by our surveillance teams.

At the current time there are no countries considered to present a high public health risk to the UK where all travellers (even if fully vaccinated against COVID-19) are advised to avoid non-essential travel (previously called 'red list' countries), but the situation is being monitored and could change at short notice.

There is no one indicator alone that will provide sufficient evidence on the epidemiology of COVID-19 in a country to inform the potential risks for travellers, and there are no agreed international standards for risk categorisation. Travellers and those advising travellers are therefore encouraged to read our risk assessment guidance when planning international travel.

Changes to categorisation will be made as required, in response to changes in risk.

Updated: March 2022

Dengue

NaTHNaC dengue recommendations are based on published data focussing on evidence of local mosquito-borne dengue transmission from January 2016 to July 2021 [1-23]. For part-endemic countries, further sub-national details have been provided where confirmed.

Updated: July 2021

Hepatitis A

NaTHNaC country-specific vaccine recommendations were based on a number of country variables including

- Endemicity in a country based on the age at midpoint of a population susceptibility to Hepatitis A (1).
- Incidence or risk of outbreaks defined as the number of cases per year obtained from Global Burden of Disease database 2019 (2).
- World Bank income status of a country (3).

When there had been sporadic, absent or conflicting reports, confirmed recent outbreaks, or return traveller case reports, national authorities were consulted and a consensus opinion was formed based on consideration of any additional available data for that country.

Updated: July 2023

Hepatitis B

NaTHNaC vaccine recommendations have been made for countries where 2% or more of the population were known to be persistently infected with the hepatitis B virus (intermediate/high prevalence) [1-4]. When there was limited information about hepatitis B prevalence in a country, a consensus opinion was formed based on consideration of the available data.

Updated: July 2024

Japanese encephalitis

NaTHNaC country-specific recommendations are based on the World Health Organization reported cases in 2013 to 2017 [1]. In addition, a literature review focussing on national ministry of health vaccine and mosquito control programmes reports, serological surveys and traveller case reports was completed [2-20].

Where no or limited data was available, NaTHNaC worked with UKHSA to form a consensus opinion based upon the best available evidence.

Updated: February 2019

Malaria

NaTHNaC malaria recommendations follow current United Kingdom Health Security Agency Malaria prevention guidelines for travellers from England, Wales and Northern Ireland [1].

Updated: May 2024

Measles

NaTHNaC country information pages include measles as a risk in all countries. All travellers should have received two measles containing vaccines in their lifetime or be immune because of measles disease, even if the country is declared by the World Health Organization to have eliminated measles.

Updated: October 2019

Meningococcal meningitis

NaTHNaC country-specific vaccine recommendations for meningococcal ACWY have been made if a country lies within the extended meningitis "belt" of sub-Saharan Africa, as defined by the World Health Organization. Additional vaccine recommendations for Saudi Arabia are made in accordance with the annual requirements of the Ministry of Health of the Kingdom of Saudi Arabia for those who will perform Hajj, Umrah or undertake seasonal work.

Updated: January 2021

Middle East respiratory syndrome coronavirus

NaTHNaC country-specific recommendations for countries with a known risk of Middle East respiratory syndrome coronavirus (MERS-CoV) are based on human cases reported globally to the World Health Organization (WHO) from January 2015 to July 2024.

Recommendations for countries with a presumed risk of MERS-CoV are based on expert opinion and proximity to a country with reported cases.

Updated: 2 August 2024

Polio

NaTHNaC monitors the global polio situation, as detailed by the Global Polio Eradication Initiative (GPEI) and World Health Organization (WHO), and makes changes to country-specific recommendations as new information becomes available.

Some travellers to countries infected with **wild poliovirus type1 (WPV1), circulating vaccine-derived poliovirus type 1 (cVDPV1) or type 3 (cVDPV3)** should receive a booster dose of polio-containing vaccine if they are:

- Immunosuppressed individuals and their household contacts, pregnant women, or others for whom live oral polio vaccine is contraindicated, who plan to travel to these countries for 4 weeks or more, if they have not had a polio containing vaccine within 12 months of their planned departure from the affected country.
- Travellers to settings with extremely poor hygiene (e.g. refugee camps), or likely to be in close proximity with cases (e.g. healthcare workers) if they had not received vaccination in the past 12 months.

A booster dose of IPV-containing vaccine should also be considered for immunosuppressed individuals travelling for less than 4 weeks to an area with circulating wild or vaccine-derived virus if they have not received a dose within the previous 10 years.

Some travellers to **countries infected with cVDPV2**, with or without evidence of local transmission should receive a booster dose of polio-containing vaccine if they are:

- Travelling to settings with extremely poor hygiene (e.g. refugee camps) or likely close proximity with cases (e.g. healthcare workers) if they have not received a dose in the last 12 months.
- A booster dose should also be considered for immunocompromised travellers to areas with cVDPV if they have not received a dose in the last 10 years.

Travellers to countries considered by the WHO as no longer infected with either WPV or cVDPV, but which remain vulnerable to re-infection should ensure they are up to date with routine vaccination courses and boosters as recommended in the UK.

In a small number of countries, there may be variation of the recommendations above. This may be when new cases have been reported and we are waiting for guidance from World Health Organization, or environmental samples have detected cVDPV in specific areas.

Updated: May 2023

Rabies

NaTHNaC worked with UK Health Security Agency to identify countries where rabies was currently a risk by reviewing data from the World Organisation for Animal Health until December 2019. Reports on the Outbreak Surveillance database were reviewed regarding known or presumed cases in indigenous domestic and/or wild animals. Where data was lacking for a country, other verifiable sources were sought including personal communications with the national authorities. Where no or limited data was available, a consensus opinion was formed based upon the best available evidence. Updates to these recommendations are made as required based on additional information as it becomes available.

Updated: April 2023

Schistosomiasis

NaTHNaC reviewed available information in order to identify countries where schistosomiasis may pose a risk to travellers. The primary resource used was the World Health Organization (WHO) report on the status of schistosomiasis in endemic countries in 2021 [1]. Where reporting was sporadic or absent additional information was sought [2-6], UK returned traveller data considered and expert opinion sought, based on review of the available data.

Updated: August 2023

Tick-borne encephalitis

NaTHNaC country-specific recommendations for tick-borne encephalitis (TBE) are based on:

- Confirmed and reported human and animal TBE cases.
- Serological (blood testing) data in humans and animals.
- TBE virus identified in animals and/or ticks.
- National surveillance and TBE vaccination programmes.

In addition, information about animal/tick habitats, and proximity to known outbreak areas were used to interpret epidemiological data. If limited information was available for a country, vaccine recommendations were formed by consensus opinion, including geographical proximity to TBE endemic countries, based on most recent available information.

TBE country vaccine criteria and risk classification September 2023

Risk - countries with risk of TBE in all areas.
Human cases are reported annually, there is a national vaccination programme: vaccination is recommended for some travellers.

Some risk - there is a risk of TBE in some areas of this country.
Sporadic human cases are reported: vaccination is not usually advised but may be considered for some travellers.

Possible risk - human cases of TBE for this country are rare or not reported, but there is evidence of a possible risk.
Human cases are rare or have never been reported, but human sero-survey data or non-human TBE virus circulation has been identified and the country is adjacent to a known risk area: tick bite avoidance is recommended.

Updated: September 2023

Tuberculosis

There is an increased risk of acquiring tuberculosis (TB) in countries where the annual incidence of

all forms of TB is ≥40 cases per 100,000 population and/or where the risk of Multi Drug Resistant -TB (MDR-TB) is high.

NaTHNaC reviewed the annual incidence of TB between 2017 and 2021 from the World Health Organization (WHO).

BCG vaccine may be recommended for some travellers when a country has:

- Reported an annual incidence of TB of ≥40 cases per 100,000 population at least once in the last five years (2017-2021).

BCG vaccine may be recommended for some travellers to some countries where the burden of Multi Drug Resistant-TB (MDR-TB) is considered as high according to the WHO global lists of high burden countries for tuberculosis (TB), TB/HIV and multidrug/rifampicin-resistant TB (MDR/RR-TB) 2021 - 2025.

Where no or limited data is available for a country, expert consensus opinion is formed using the best available information. If the annual incidence is presumed to be ≥40 cases per 100,000 population, there is a recommendation for BCG vaccination for some travellers to that country in line with UKHSA Immunisation against Infectious Disease.

Updated: September 2023

Typhoid

NaTHNaC typhoid vaccine recommendations were based on a review of country-specific burden of typhoid disease using available resources [1-4] and Public Health England imported typhoid disease data. Where information was unavailable, the national authorities of a country were contacted for information and a consensus opinion was formed based on consideration of all available data for that country.

For those countries with typhoid disease incidence classified as "medium" the additional factor of sanitation levels in rural populations was considered to assess the need for a vaccine recommendation [1, 5].

Vaccine was recommended for some travellers to a country, if the percentage of the rural population with access to improved sanitation was ≥ 80% as detailed in the WHO Progress on Drinking Water and Sanitation Report 2015. All other countries with "medium" disease incidence, where the access to improved sanitation was < 80%, vaccine was recommended for most travellers.

Updated: December 2018

Yellow fever

NaTHNaC yellow fever vaccine recommendations are based on current WHO guidance on countries with a risk of yellow fever transmission [1, 2].

Updated: July 2017

Zika

NaTHNaC country-specific Zika recommendations are based on a formal Zika evidence review, supplemented by additional information from the World Health Organization, the European Centre for Disease Prevention and Control and the US Centers for Disease Prevention and Control [1-3].

Additional sources of information included UK Health Security Agency returned traveller data and further country specific literature searches. If limited information was available for a country, categorisation was agreed by consensus opinion, taking into account risk in bordering countries or areas.

Updated: December 2023

REFERENCES

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