

## YELLOW FEVER TRAVEL ADVISORY

### INTRODUCTION

Yellow fever is an acute infectious disease. There are two epidemiological forms of Yellow fever i.e. urban and jungle. Urban Yellow Fever occurs in cities and is spread from mosquito to human. In the jungle form, Yellow Fever is spread from mosquitoes to monkeys and also to humans (zoonosis). Although reported cases of human disease is the principal indicator of disease risk, they may be absent (because of a high level of immunity in population) or not detected as a result of poor surveillance.

Travellers are at risk when going to endemic areas of Africa and South/Central America. The presence of the suitable vector, Aedes mosquito in Asia may contribute to its potential occurrence. Malaysia is vulnerable and receptive to Yellow Fever transmission.

**Causative agent** : Arbovirus of the Genus Flavivirus and family Flaviviridae.

**Mode of Transmission** : through the bite of infective Aedes aegypti mosquitoes

**Incubation Period** : 3 - 6 days (or longer) after the bite of an infected mosquito

### COUNTRIES WITH RISK OF YELLOW FEVER TRANSMISSION

#### AFRICA (29 COUNTRIES)

Angola	Guinea
Benin	Guinea Bissau
Burkina Faso	Kenya
Burundi	Liberia
Cameroon	Mali
Central Africa Republic	Mauritania
Chad	Niger
Congo	Nigeria
Côte d'Ivoire	Senegal

Democratic Republic Of Congo	Sierra Leone
Equatorial Guinea	South Sudan
Ethiopia	Sudan
Gabon	Togo
Gambia	Uganda
Ghana	

### **SOUTH & CENTRAL AMERICA (13 COUNTRIES)**

Argentina	French Guiana	Suriname
Bolivia	Guyana	Trinidad & Tobago
Brazil	Panama	Venezuela
Colombia	Paraguay	
Ecuador	Peru	

Note: The list of countries with risk of yellow fever transmission will be updated by Ministry of Health Malaysia regularly based on WHO list.

### **SIGN & SYMPTOMS**

Some are asymptomatic but most lead to an acute illness characterized by two phases. Initially there is fever, muscular pain, headache, chills, anorexia, nausea and/or vomiting, often with bradycardia.

About 15% of patients progress to a second phase after a few days, with resurgence of fever, development of jaundice, abdominal pain, vomiting and haemorrhagic manifestations.

Death may occur 10 - 14 days after the onset of illness.

### **COMPLICATIONS**

Haemorrhagic manifestation including epistaxis, gingival bleeding, haematemesis (coffee ground or black), melaena, and liver and renal failure. Up to 50% are fatal.

## TREATMENT

Symptomatic treatment: Advise rest, drink plenty of fluids and take regular painkillers (eg. paracetamol or Ibuprofen) to relieve symptoms of fever or aching.

Specific treatment – **No specific treatment exists for yellow fever**, which is one reason that preventative measures such as vaccination are so important. Supportive treatment is aimed at controlling the symptoms, and includes rest, fluids, and use of medicines to help relieve fever and aching.

## PREVENTION & PRECAUTIONS

### Yellow Fever Vaccination Requirement

A Yellow Fever vaccination certificate is required from all visitors or delegates (Malaysians and Foreigners) coming from or going to/through countries with risk of Yellow Fever transmission (As stated in International Health Regulations 2005 and Prevention and Control of Infectious Disease Act 1988).

Yellow fever vaccination is also required for travellers having transited more than 12 hours through the airport of a country with risk of yellow fever transmission.

Travellers or delegates without a valid Yellow Fever vaccination certificate shall be quarantined upon arrival in Malaysia for a period not exceeding 6 days.

The period of validity of an international certificate of vaccination against Yellow Fever will be lifelong\*, beginning 10 days after the date of vaccination.

**Note: \* lifelong - In the context of international travel, the amendment to Annex 7 IHR 2005 changes the period of validity of the related international certificate of vaccination against yellow fever, and the protection provided by vaccination against yellow fever infection under the IHR (2005), from ten (10) years to the life of the person (traveller) vaccinated. This amendment enters into force on 11 July 2016.**

## **REMINDER TO MALAYSIANS TRAVELLING TO COUNTRIES WITH RISK OF YELLOW FEVER TRANSMISSION**

1. Malaysians are advised to take the vaccination at least 10 days before the date of departure to countries with risk of Yellow Fever transmission for protection against infection.
2. To carry the international certificate of vaccination during travel for health check.
3. To get the vaccination against Yellow Fever disease at the Approved Yellow Fever vaccinating Centres in Malaysia.
4. To report to Entry Point Health Office on arrival in Malaysia for health check.

### **YELLOW FEVER VACCINE**

- Type of vaccine: Live attenuated vaccine
- Number of doses: one priming dose of 0.5ml
- Contraindications: Egg allergy, immunodeficiency from medication, disease or symptomatic HIV infection, hypersensitivity to a previous dose and pregnancy.
- Adverse reactions: Rarely encephalitis or hepatic failure.
- Recommended for: All travellers to countries with risk of Yellow Fever transmission and wherever mandatory.
- Special precautions: Not for infants under 12 months of age.

### **PRECAUTIONS**

1. Minimize exposure to bites by modifying activities to avoid exposure to vector bites. Aedes mosquito's peak biting times are a few hours before dusk and after dawn. Avoid outdoor activity during these periods.
2. Avoid mosquito bite by applying mosquito repellent to exposed skin. When using sunscreen or lotions, apply repellents last. Reapply whenever sweat or water has removed it. Active ingredient in a repellent repels but does not kill insects. Repellent that contains DEET (N, N-diethylmetatoluamide) is most reliable and long-lasting type (35% DEET provides protection for 12 hours). DEET formulations as high as 50% are recommended for both adults (including pregnant women) and children more than two (2) months of age. It is toxic when ingested and may cause skin irritation. Permethrin is highly effective both as an insecticide and as a repellent. There is little potential for toxicity from Permethrin- treated clothing.
3. Use long sleeved clothes and long pant. Avoid wearing dark colours (attract mosquitoes).
4. Close windows or shutters at night when indoors. Use pyrethrum insecticide spray (aerosol insecticides), pyrethroid coils or insecticide impregnated tablets in evening before sleep.
5. Avoid strong perfumes, hair sprays or after-shaves (attract mosquitoes)
6. Use air-conditioning or good mosquito net especially treated with Permethrin.

## REFERENCES:

1. International Health Regulations (2005), 3rd edition. Geneva: World Health Organization; 2016 <https://www.who.int/publications/i/item/9789241580496> accessed 12 October 2022.
2. Vaccination requirements for international travellers by country - International Travel and Health – 2018 updates. <https://www.who.int/ith/en/> accessed 10 October 2022
3. Yellow Fever Travel Information. CDC. <https://wwwnc.cdc.gov/travel/page/yellow-fever-information> accessed 16 September 2022

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