

YELLOW FEVER

INTRODUCTION

Yellow fever is an acute infectious disease. Recognised in two different forms 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.

Major public health threat in countries with risk of Yellow Fever transmission. Travellers to countries with risk of Yellow Fever transmission of Africa, Central and South America are at risk. 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 SOUTH & CENTRAL

AMERICA (13 COUNTRIES)

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

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	

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, hematemesis (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 – None

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

- 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.
- To carry the international certificate of vaccination during travel for health check.
- To get the vaccination against Yellow Fever disease at the Approved Yellow Fever vaccinating Centres in Malaysia.
- 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 travelers to countries with risk of Yellow Fever transmission and wherever mandatory.

Special precautions: Not for infants under 12 months of age.

PRECAUTIONS

- Minimize exposure to bites by modifying activities to avoid exposure to vector bites. Aedes mosquitoes peak biting times are a few hours before dusk and after dawn. Avoid outdoor activity during these periods.
- 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.
- Use long sleeved clothes and long pant. Avoid wearing dark colours (attract mosquitoes).
- Close windows or shutters at night when indoors. Use pyrethrum insecticide spray (aerosol insecticides), pyrethroid coils or insecticide impregnated tablets in evening before sleep.
- Avoid strong perfumes, hair sprays or after-shaves (attract mosquitoes)!
- Use air-conditioning or good mosquito net especially treated with Permethrin.

REFERENCES:

International Health Regulations, 2005, WHO

Control of Communicable Diseases Manual, 18th Edition by David L. Heymann, MD, Editor, 2004

WHO International Travel & Health Update, 2016

<http://travelhealth.co.uk/>

**APPROVED PRIVATE YELLOW FEVER VACCINATION CENTRES IN MALAYSIA
(updated until October 2017)**

1	BP Diagnostic Centre 275, Jalan Kampar, 30250 Ipoh, Perak Tel: 05-2559090 Ext 402	PERAK
2	Menara Medical Clinic Lot LS 05, Level 1 Passenger Terminal Building Penang Airport, 11900 Bayan Lepas, Pulau Pinang Tel: 04-6447101	PULAU PINANG
3	Klinik Berkat No. 75-4A, Jalan Mamanda 1, Ampang Point 68000 Ampang, Selangor Darul Ehsan Tel: 03-42515450	SELANGOR
4	KPJ Selangor Specialist Hospital Lot 1, Jalan Singa 20/1 Section 20, 40300 Shah Alam Tel: 03-5543 1111, Fax: 03-5543 1722	SELANGOR
5	Klinik Noridah VG 30, Jalan Plumbum V7/V Pusat Komersial Seksyen 7 40000 Shah Alam Tel: 03-5510 1009 Fax: 03-5510 1009	SELANGOR
6	Klinik Mediviron No. 20 A, Jalan Jubli Perak 22/1 Seksyen 22 , 40300 Shah Alam Tel: 03-5567 9667 Fax: 03-5567 9667	SELANGOR
7	BP Specialist Centre Taman Megah Branch No. 79, Jalan SS 23/15, Taman SEA 47400 Petaling Jaya, Selangor Tel: 03-7803 0992	SELANGOR
8	Klinik Chew 11, Jalan Rodat 1 KU/5, Bandar Bukit Raja 41050 Klang Tel: +6019 959 3519 / 03-3359 7290	SELANGOR
9	Premier Screening & Wellness Centre Ampang Puteri Specialist Hospital No. 1, Jalan Mamanda 9, Taman Dato' Ahmad Razali 68000 Ampang, Selangor. Tel: 03-42895000 Fax: 03-42702443	SELANGOR
10	Poliklinik Sri Permai No. 11, Jalan P9 B/1 Presint 9, 62259 Putrajaya Tel: 03-88880268	PUTRAJAYA

**APPROVED PRIVATE YELLOW FEVER VACCINATION CENTRES IN MALAYSIA
(updated until October 2017)**

11	<p>The KL Clinic Mezzanine Floor, East Wing Rohas Perkasa, No. 9, Jalan P. Ramlee 50250 Kuala Lumpur 03-21660395 Faks 03-2181 3362</p>	WP KUALA LUMPUR
12	<p>Twin Towers Medical Centre KLCC Sdn. Bhd. KLCC, Lot LC 402-404, Level 4, Suria KLCC, KL City Centre 50088, Kuala Lumpur. Tel: 03-23823500, 03-23823577</p>	WP KUALA LUMPUR
13	<p>Klinik Kita Lot F-23, First Floor City Point Kompleks Daya Bumi, Jalan Sultan Hishamuddin, 50050, Kuala Lumpur. Tel: 03-26989740, 03- 26980740</p>	WP KUALA LUMPUR
14	<p>Klinik Yong Tingkat 2, Wisma Maran No. 28, Medan Pasar 50050 Kuala Lumpur Tel; 03-20720808, Fax 03-20310487</p>	WP KUALA LUMPUR
15	<p>Drs Young Newton dan Rakan-Rakan Level 1-01, Cape Square, Signature Office No. 11, Persiaran Cape Square Blok A, Capital Square 50100, Kuala Lumpur Tel: 03 26982967</p>	WP KUALA LUMPUR
16	<p>Prince Court Medical Centre Sdn. Bhd. 39, Jalan Kia Peng 50450, Kuala Lumpur Tel: 03- 21600000 ext 2984/3860</p>	WP KUALA LUMPUR
17	<p>Klinik Integral Occupational Health Services Sdn. Bhd. Lot 2-05, Level 2 Menara HLA No. 3 Jalan Kia Peng 50450, Kuala Lumpur Tel: 03-21712882, Faks: 03-21712992</p>	WP KUALA LUMPUR
18	<p>Gleneagles Intan Medical Centre Lot 286, Jalan Ampang 50450 Kuala Lumpur Tel: 03-41413135, Faks 03-42552980</p>	WP KUALA LUMPUR

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19	<p>Kuala Lumpur Sports Centre Sdn. Bhd. 7th Floor, Wisma Perintis Jalan Dungun, Damansara Heights 50490 Kuala Lumpur Tel: 03-20961033 Fax: 03-20961500</p>	WP KUALA LUMPUR
20	<p>Pantai Medical Centre Sdn. Bhd. No. 8, Jalan Bukit Pantai 59100 Kuala Lumpur Tel: 03-2296 0888 Fax: 03-2282 1557</p>	WP KUALA LUMPUR
21	<p>Pusat Perubatan Menara Sdn. Bhd. Level 26, Menara TM Annexe 2 No. 1, Jalan Pantai Jaya Off Jalan Pantai Baharu 59200 Kuala Lumpur Tel: 03-2241 4101 Fax: 03-2241 4102</p>	WP KUALA LUMPUR
22	<p>Berkat Sentral Clinic (BSC) G11 – G12 Ground Floor Platinum Sentral, Jalan Stesen 2 50470 Kuala Lumpur</p>	WP KUALA LUMPUR
23	<p>The KL Sky Clinic B1-36-2, The SOHO Suites KLCC Jalan Perak 50450 Kuala Lumpur Tel: 03-23890091</p>	WP KUALA LUMPUR
24	<p>Hibari Clinic 17-8, 17 Floor Kompleks 1, Mont Kiara No. 1, Jalan Kiara Mont Kiara 50480 Kuala Lumpur Tel: 03-62115919</p>	WP KUALA LUMPUR
25	<p>Kuantan Medical Centre (41488-H) Kuantan Medical Centre Sdn. Bhd., Jalan Tun Razak, Bandar Indera Mahkota, 25200 Kuantan, Pahang Darul Makmur Tel: 09 5902828</p>	PAHANG
26	<p>Columbia Asia Medical Centre Lot 1035-1039 Jalan Bulan Sabit, CDT 155 98009, Miri, Sarawak. Tel: 085-437755</p>	SARAWAK

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27	<p>Klinik Cheu SB Lot 512, Pelita Commercial Centre 98000, Miri Sarawak Tel: 085-438068, Fax: 085-43807</p>	SARAWAK
28	<p>Columbia Asia 21st Century Healthcare Lot 3582, Block 26, Jalan Sri Ikhwan Kemena Land District, Tanjung Kidurong 97000 Bintulu, Sarawak Tel: 086-251888 Faks 086-252888</p>	SARAWAK
29	<p>Bintulu Medical Centre Lot 6009, Block 31, Kemena Land District 97000 Bintulu, Sarawak. Tel: 086-330333 Faks 086-330777</p>	SARAWAK
30	<p>Normah Medical Specialist Centre Section 30 KTL D, Jalan Tun Abdul Rahman, Petra Jaya 93050, Kuching, Sarawak Tel: 082-440055 Fax: 082-442600</p>	SARAWAK
31	<p>Klinik Wilayah (L) Sdn. Bhd. U0391, Jalan Bunga Rambai 87069 Labuan Tel: 087-413140, Fax: 087-413146</p>	WP LABUAN
32	<p>Pantai Hospital Ayer Keroh No. 2418-1, KM 8, Lebohroya Ayer Keroh 75450 Melaka Tel: 06-2319999, Fax: 06-2318334</p>	MELAKA
33	<p>KPJ Sabah (Specialist Hospital) Lot Off, 2, Jalan Damai, Luyang Commercial Centre 88300 Kota Kinabalu TeL : 088-322 000, Fax: 088-272 622</p>	SABAH
34	<p>Klinik Tawau No. 944, Ground Floor, Tawau Chinese Chamber of Commerce Building Jalan Habib Hussein 91000 Tawau, Sabah TeL : 089-722 607</p>	SABAH
35	<p>Klinik Elopura Lot 4, Batu 4, Jalan Utara 90000 Sandakan Sabah TeL : 089-220 919 , Fax: 089 – 235688</p>	SABAH

