

PPP

Yellow fever:

vaccination centres and providers

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WHO Collaborating Centre for Vectorborne
and Neglected Tropical Diseases

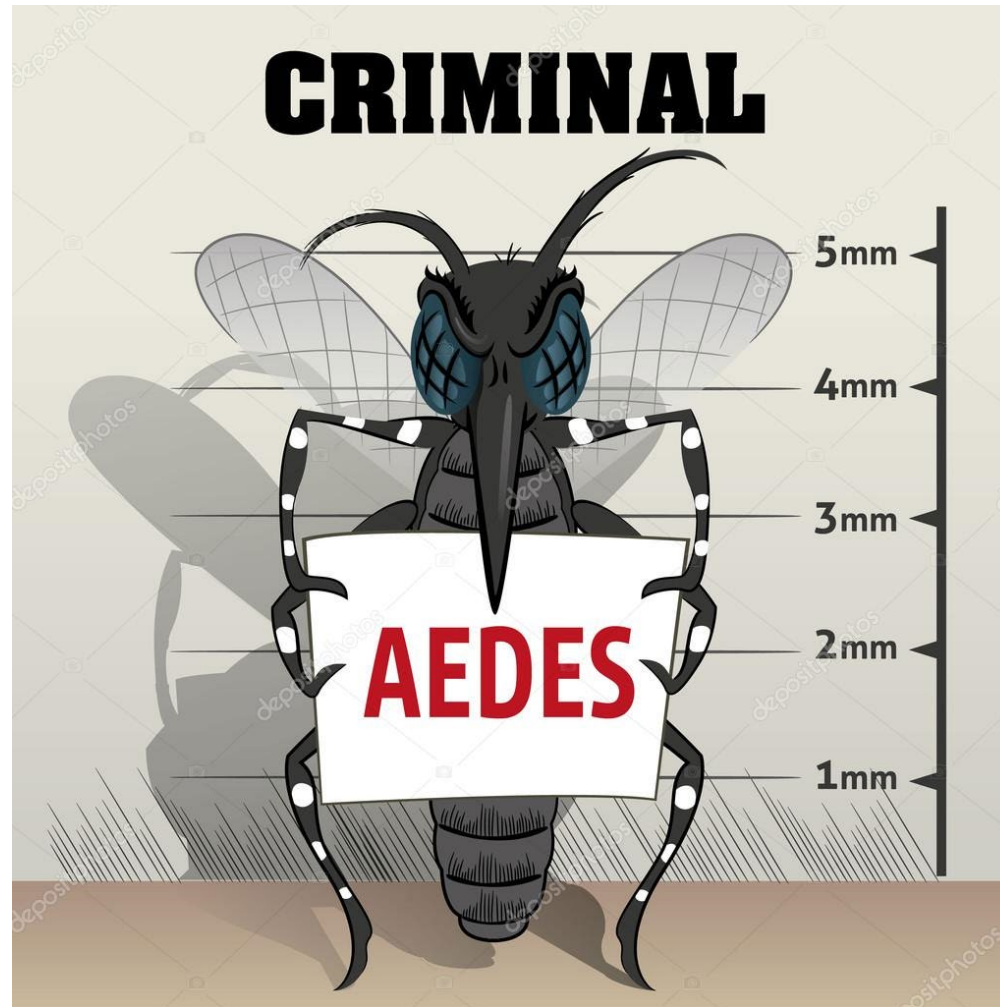


Collaborating Center for Aerospace
and Travellers' Health and Safety

Yellow fever is an example of:

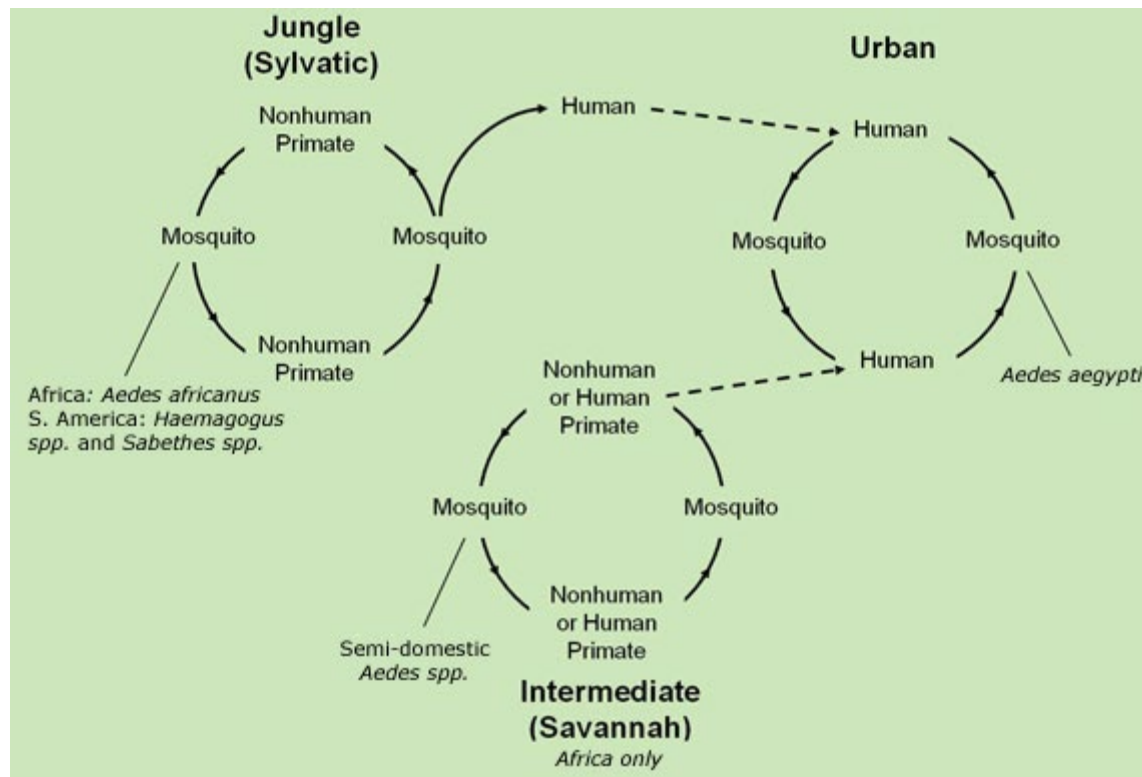
- A. Alphavirus
 - B. Betacoronavirus
 - C. Flavivirus
 - D. Type A viral hepatitis
-

Yellow Fever – you will hear more about elsewhere (transmission/disease)



Aedes spp mosquitoes are vectors in urban environment

Other mosquitoes involved in the Jungle



- Yellow fever vaccination for those travelling to yellow fever areas of the world is regulated by the World Health Organization's International Health Regulations.
- Yellow fever clinics have been largely regulated by State and Territory public health authorities in Australia.
- As part of new National Guidelines, Yellow fever vaccinators are now required to complete an online course every three years reviewing the disease, the vaccine and vaccination best practice and accreditation.

Were you aware of the new yellow fever vaccinators course prior to this session?

A. Yes

B. No

Outline – focus on YF Vaccination centres and providers

- International Health Regulations
- Biosecurity Act Australia
- National Guidelines for Yellow Fever Vaccination Centres and Providers
 - Requirements in Australia and New Zealand
- Yellow fever vaccination course
 - Overview areas covered



- International Health Regulations, 2005
 - <https://www.who.int/ihr/publications/9789241580496/en/> (3rd edition)
 - IHR (2005): “to **prevent, protect against, control** and provide a **public health response** to the **international spread of disease** in ways that are commensurate with and restricted to **public health risks**, and which avoid unnecessary interference with international traffic and trade”
 - IHR (2005): also provide the legal basis for important health documents applicable to international travel and transport and sanitary protections for the users of international airports, ports, and ground crossings.



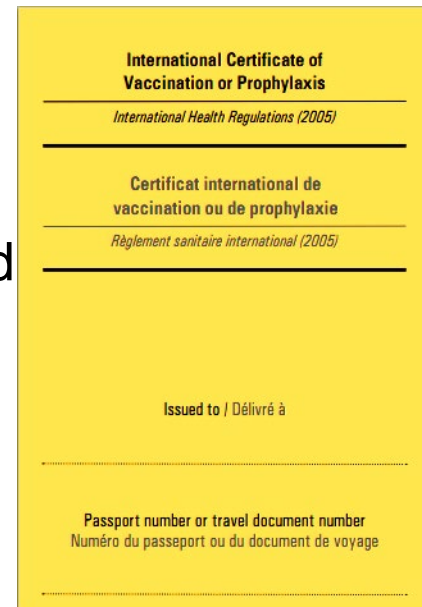
- International Health Regulations, 2005
 - <https://www.who.int/ihr/publications/9789241580496/en/> (3rd edition)
 - **Shift from 3 diseases** (cholera, plague, yellow fever) in IHR (1969) to be reported to **any public health risk**, including chemical, radiological and nuclear (“Public Health Emergency of International Concern: PHEIC”).
 - WHO manages amongst other things under the IHR:
 - Risk of international dissemination of diseases
 - International travel and health
 - Mass gathering
 - **Still manages yellow fever as a disease of international concern.**



- International Health Regulations, 2005
 - <https://www.who.int/ihr/publications/9789241580496/en/> (3rd edition)
 - In accordance with the International Health Regulations (IHR), **countries have the right to require travellers to provide a certificate of yellow fever vaccination.**
 - If there are medical grounds for not getting vaccinated, this must be certified by the appropriate authorities.
 - The IHR are a legally binding framework to stop the spread of infectious diseases and other health threats.



- International Health Regulations, 2005
 - <https://www.who.int/ihr/publications/9789241580496/en/> (3rd edition, 2014-> Annex 7)
 - Delegated to member states, such as Australia
 - **1 dose of yellow fever vaccine is all that is needed for life now**, apart from some selected medical conditions, where there may be a sub-optimal response to vaccination.
 - Need to document yellow fever on appropriate certificate of immunization or prophylaxis card
 - Available from WHO
 - Variations are available
 - Requiring the certificate of vaccination from travellers is at the discretion of each State Party, and it is not currently required by all countries.



- In Australia: Biosecurity Act 2015
 - <https://www.legislation.gov.au/Details/C2017C00303>
 - Useful description in yellow fever fact sheet about what happens to travellers arriving in Australia without a yellow fever vaccine certificate and what Border Force is likely to do:
 - <https://www1.health.gov.au/internet/main/publishing.nsf/content/health-pubhlth-strateg-communic-factsheets-yellow.htm>

What do you think happens to those arrive without a YF certificate from YF countries in Australia?

Otherwise well, but YF area within 6 days of arrival

A. Refused entry to Australia

B. Detained in holding cell

C. Held in a medical facility

D. Counselling and released



- Yellow Fever factsheet
 - People who are one year of age or older will be asked to provide an international vaccination certificate if, within six days before arriving in Australia, they have stayed overnight or longer in a yellow fever risk country.
 - People unable to provide a certificate will still be able to enter Australia.
 - This may not be the case in other countries!



- Yellow Fever factsheet (continued)
 - On arrival in Australia, a Biosecurity Officer from the Department of Agriculture will reinforce the seriousness of the disease to you and provide you with a Yellow Fever Action Card.
 - The card provides instructions on what you should do if you develop any symptoms of yellow fever in the six-day period following your departure from a yellow fever risk country.



Yellow Fever Vaccination Centres



- The Yellow fever vaccine can only be administered by accredited providers at approved Yellow Fever Vaccination Centres.
 - National Guidelines for Yellow Fever Vaccination Centres and Providers
 - [https://www1.health.gov.au/internet/main/publishing.nsf/Content/D60F275C45BDEBBACA25833500790582/\\$File/Guidelines-Yellow-Fever-Vaccination-Centres.pdf](https://www1.health.gov.au/internet/main/publishing.nsf/Content/D60F275C45BDEBBACA25833500790582/$File/Guidelines-Yellow-Fever-Vaccination-Centres.pdf)
 - Yellow Fever Vaccination Centres
 - State and Territory health authorities are the accrediting bodies responsible for approving medical practices as Yellow Fever Vaccination Centres.

Yellow Fever Vaccination Centres

- For example, in Queensland, a form must be completed,
 - https://www.health.qld.gov.au/_data/assets/word_doc/0026/734741/yfvc-application-form.docx
- acceptance of the conditions applying to an Approved Yellow Fever Vaccination Centre
 - https://www.health.qld.gov.au/_data/assets/word_doc/0028/734743/yfvc-conditions-applying-form.docx
- then submitted to the local Public Health Unit for assessment
 - Applications only considered if there is a Yellow fever vaccinator at the clinic
 - Confirmation letter and official stamp (unique number)
 - Placed on a list of Yellow fever vaccination centres
 - Approved list sent to vaccine supplier (Sanofi) for ordering vaccine

Yellow Fever Vaccination Centres

- Application Form covers
 - Details of the practice
 - Practitioners who will administer vaccine
 - Yellow Fever Vaccination Course
 - Cold chain management
 - vaccine management protocol, fridge details etc
 - Consent (and forms)
 - Procedures to address indications and contraindications
 - Referrals from other practices
 - Dealing with adverse reactions
 - Travel Health advice
 - access to advisories and other resources,
 - membership of travel medicine associations
 - Does practice hold General practice Accreditation?

Yellow Fever Vaccination Centres

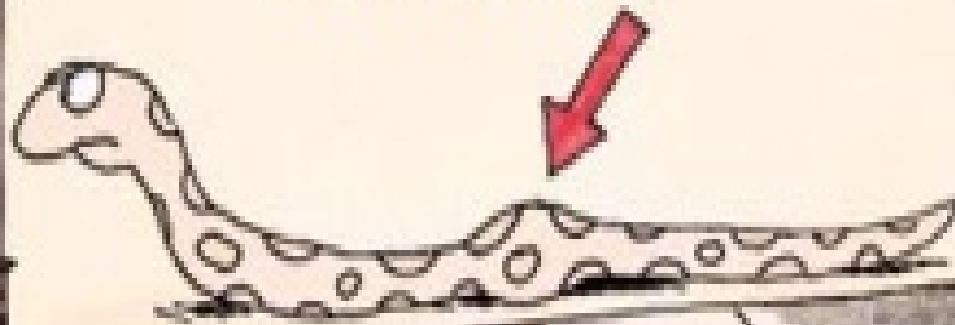
- The Yellow fever vaccine can only be administered by accredited providers at approved Yellow Fever Vaccination Centres.
- In New Zealand, there are similar requirements:
 - In New Zealand, the Ministry of Health has policy and application forms available at:
 - <https://www.health.govt.nz/our-work/diseases-and-conditions/yellow-fever>

AUSTRALIAN GOVERNMENT
ACCREDITED YELLOW FEVER VACCINATION
CENTRE

[insert state/territory]: ID No:



You are here





Yellow Fever Vaccination Providers

- In Australia, to maintain status as a Yellow Fever (YF) Vaccination Centre, an approved medical practice must ensure that all practitioners, responsible for provision of the vaccine, meet the individual accreditation requirements introduced on 26 November 2018.
 - Practitioners currently providing the vaccine have up to three years to complete the YF course.
 - New providers are required to complete the course prior to practising at an approved Yellow Fever Vaccination Centre.
 - Medical practitioner or nurse practitioner (if in scope of practice)

Have you done the YF vaccinators course?

A. Yes

B. No

Yellow Fever Vaccination Providers

- Vaccination providers can become accredited by successfully completing the Yellow Fever Vaccination Course and providing the certificate of completion to the Yellow Fever Vaccination Centre at which they intend to practice.
- The YF course is conducted on behalf of the Australian Government by ACRRM:
 - <https://www.acrrm.org.au/search/find-online-learning/details?id=13307> (free)
 - This course is based on the CDC online course titled "Yellow Fever Vaccine: Information for Health Care Professionals Advising Travelers"
 - Anyone can complete the course



Yellow Fever Vaccination Course

- Contains three modules
 - Yellow fever - the disease
 - Yellow fever – the vaccine
 - Yellow fever vaccination – best practice and accreditation.
 - MCQ Assessment (requirement for 100% correct) – allows multiple attempts
 - ACRRM Certificate of Completion of “Yellow Fever Vaccination Course”
 - Reaccreditation every three years
 - Alerts to related guidelines
 - <https://immunisationhandbook.health.gov.au/>

Yellow Fever Vaccination Course

- Sorts of things on the course include:
 - The disease
 - Vector, incubation period, symptoms

Early symptoms of yellow fever include



Sudden onset of fever



Chills



Severe headache



Back pain



General body aches



Fatigue and Weakness



Nausea and Vomiting

Severe cases include



High Fever



Bleeding and Shock



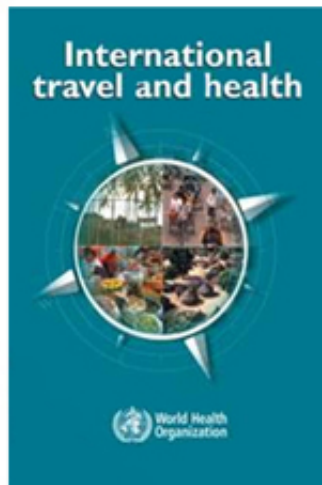
Yellow discoloration of the skin and the whites of the eyes.

What is the incubation period of YF?

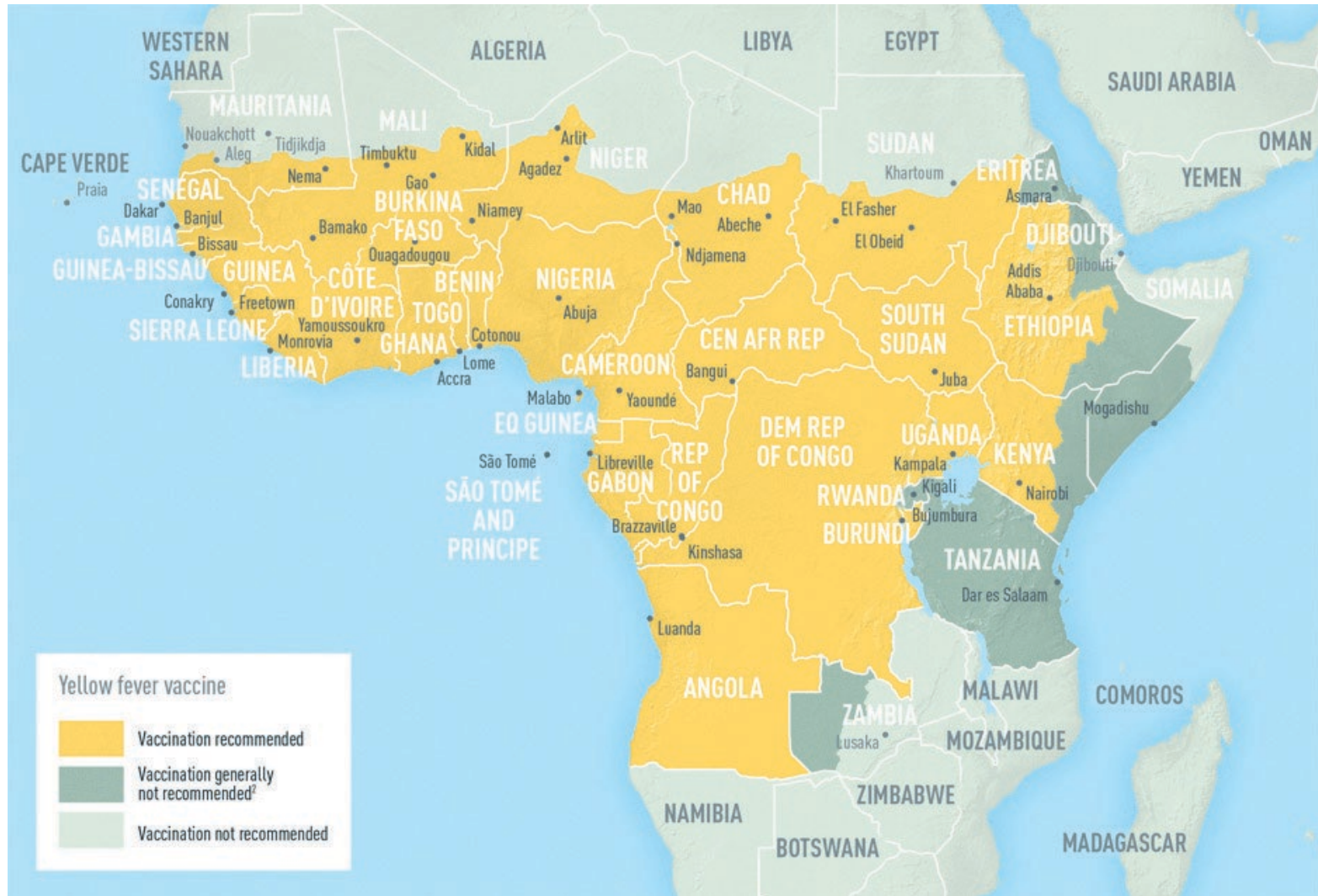
- A. 3-6 days
- B. 6-9 days
- C. 9-12 days
- D. 12-15 days

Yellow Fever Vaccination Course

- Sorts of things on the course include:
 - Yellow fever – epidemiology
 - Countries that are at risk of yellow fever transmission (Central Africa and S. America)
 - Published periodically by WHO *International Travel and Health* (1 July 2019 update)
 - » <https://www.who.int/ith/ith-country-list-new.pdf>
 - Published periodically in Biosecurity legislation
 - » <https://www.legislation.gov.au/Details/F2018C00843>
 - The situation can change and there is a need the updated lists
 - Scenarios about when yellow fever vaccination might be needed and who is at risk



Yellow Fever Areas



Yellow Fever Areas



- For travellers, health department has a useful factsheet including a list of countries too:
 - <https://www1.health.gov.au/internet/main/publishing.nsf/content/health-pubhlth-strateg-communic-factsheets-yellow.htm>
 - In particular:
 - <https://www1.health.gov.au/internet/main/publishing.nsf/content/health-pubhlth-strateg-communic-factsheets-yellow.htm#07>

Yellow Fever Vaccination Course

- Sorts of things on the course include:
 - The vaccine,
 - type of vaccine, administering with other vaccines, need for approval by State/Territory (sends list to vaccine supplier), etc



Only WHO approved yellow fever vaccine currently available in Australia is Stamaril™

Yellow Fever Vaccination Course

- Sorts of things on the course include:
 - Completing the international certificate of vaccination or prophylaxis

**International Certificate of
Vaccination or Prophylaxis**

International Health Regulations (2005)

**Certificat international de
vaccination ou de prophylaxie**

Règlement sanitaire international (2005)

Issued to / Délivré à

Passport number or travel document number
Numéro du passeport ou du document de voyage

INTERNATIONAL CERTIFICATE OF VACCINATION OR PROPHYLAXIS
Certificat international de vaccination ou de prophylaxie

This is to certify that (1) Jane Mary Doe (2) 22 March 1960 (3) F United States
Nous certifions que (name - nom) (date of birth - née) (se) (nationality - et de nationalité)

[passport number] whose signature follows (3) Jane Mary Doe
(national identification document, if applicable - document d'identification nationale, le cas échéant) dont la signature suit

has on the date indicated been vaccinated or received prophylaxis against (4) Yellow Fever in accordance with the International Health Regulations.
a été vaccin(e) ou a reçu une prophylaxie à la date indiquée (name of disease or condition - nom de la maladie ou de l'affection) conformément au Règlement sanitaire international.

| Vaccine or prophylaxis Vaccin ou agent prophylactique | Date | Signature and professional status of supervising clinician Signature et titre du professionnel de santé responsable | Manufacturer and batch no. of vaccine or prophylaxis Fabricant du vaccin ou de l'agent prophylactique et numéro du lot | Certificate valid from: until: Certificat valable à partir du : jusqu'au : | Official stamp of the administering center Cachet officiel du centre habilité |
|---|---------------------------------|--|--|---|--|
| (4) <u>Yellow Fever</u> | (5) <u>15 June 2018</u> | (6) <u>John M. Smith, MD</u> | [Batch (or lot) #] | (7) <u>25 June 2018; life of person vaccinated</u> | [(8)] |
| | | | | | |
| | | | | | |

Yellow Fever Vaccination Course

- Sorts of things on the course include:
 - Situations that may warrant a waiver certificate or letter
 - Yellow fever contraindications & precautions

MEDICAL CONTRAINDICATION TO VACCINATION
Contre-indication médicale à la vaccination

This is to certify that immunization against
Je soussigné(e) certifie que la vaccination contre

_____ for
(Name of disease – Nom de la maladie) pour

_____ is medically
(Name of traveler – Nom du voyageur) est médicalement

contraindicated because of the following conditions:
contre-indiquée pour les raisons suivantes:

(Signature and address of physician)
(Signature et adresse du médecin)

- Sorts of things on the course include:
 - Complications of yellow fever vaccination
 - Mild adverse events
 - Serious adverse events
 - Immediate hypersensitivity reactions (including anaphylaxis)
 - Vaccine associated neurotropic disease (YF-AND)
 - Vaccine-associated viscerotropic disease (YF-AVD)
 - Reporting requirements of AEs in Australia to
 - State and Territory authorities or
 - TGA - Blue card form or online
<https://www.tga.gov.au/reporting-problems>

Yellow Fever Vaccination Course

- Sorts of things on the course include:
 - Information on vaccination best practice and travel health & other personal protective measures (very important if on a waiver)



Conclusions

- Vaccination is an important part of the travel health consultations and are based on the risk assessment.
 - Vaccinations may include mandatory vaccinations such as yellow fever.
 - There are special requirements for becoming a Yellow Fever Vaccination Centre and to become a Yellow Fever vaccinator.
 - This includes a new course for yellow fever vaccinators.
-

Thank you

See
Annexes



Annex 1. International Certificate of Vaccination or Prophylaxis (usually packs of 50)

- WHO
 - https://www.who.int/ihr/IVC200_06_26.pdf?ua=1
(model form)
 - bookorders@who.int
 - Direct fax for orders: (+41 22 791 48 57)
- Amazon.com.au
 - ~\$56.25 for pack of 50
- Fishpond.com.au
 - ~\$56.14 for pack of 50
- Adaptions – many organizations print their own
 - Travellers Medical Service cbdmedical@Ozemail.com.au
 - 20 booklets @ approx. \$77 (via TCA)

Annex 2:

Yellow fever - 1st dose related SAEs

- Viscerotropic (YEL-AVD):
 - Risk \approx 3 cases/1 M doses (>100 cases reported globally)
 - Higher in ≥ 60 years (12/1,000,000 doses); even higher in ≥ 70 years
 - Onset –average \approx 4 days (range 1 to 18 days) after vaccination
 - Non-specific prodrome
 - Progressing to multi-organ involvement
 - Case fatality rate of 48%
- Neurologic (YEL-AND):
 - Risk \approx 8 cases/million doses
 - Higher in ≥ 60 years (22/1,000,000 doses);
 - Onset average \approx 14 days (range 2 to 56 days) after vaccination
 - Meningoencephalitis, Guillain Barré, encephalomyelitis, rarely cranial nerve palsies
 - Rarely fatal; most recover completely