衞生防護中心
Centre for Health Protection

Scientific Committee on Vaccine Preventable Diseases and Scientific Committee on Vector-borne Diseases

Updated Recommendation on Japanese Encephalitis Vaccination for Travellers to Endemic Areas

There is a low incidence of flavivirus infection and hence a low background immunity against flaviviruses in Hong Kong.

2. In 2004, the Scientific Committee on Vaccine Preventable Diseases (SCVPD) and the Scientific Committee on Vector-borne Diseases (SCVBD) recommended that travellers who plan to stay one month or longer in Japanese encephalitis-endemic countries, particularly in rural areas, be given the inactivated mouse-brain-derived vaccine (JE-MB) (Nakayama strain) provided that there were no contraindications. This was the only vaccine registered in Hong Kong at the time.

3. The manufacture of the Hong Kong-registered JE-MB (Nakayama strain) in Japan has been discontinued and the vaccine is no longer available in Hong Kong.

4. There are currently several other vaccines available for the prevention of Japanese encephalitis (JE). These include (a) a Vero cell culture-derived inactivated vaccine based on the SA_{14}-14-2 strain (JE-VC), (b) a mouse-brain-derived inactivated vaccine (JE-MB) manufactured in countries other than Japan, (c) a cell-culture-derived (primary hamster kidney) live attenuated vaccine based on the SA_{14}-14-2 strain manufactured in China, (d) a live attenuated chimeric vaccine based on a YF17D backbone combined with Vero cell propagated SA_{14}-14-2 strain (JE-CV)*, and (e) a Vero cell culture-derived inactivated vaccine based on the Beijing-1 strain manufactured for local use in Japan.

5. Only JE-VC is registered in Hong Kong. JE-MB and the cell-culture-derived live attenuated SA_{14}-14-2 vaccine can be obtained on a named-patient basis.

6. Having reviewed the local epidemiology of JE, the efficacy and safety profile of available vaccines, and overseas experience, the SCVPD and the SCVBD recommend JE vaccination for travellers who plan to stay one month or longer in endemic areas during the JE transmission season, and for short-term (less than one month) travellers if they plan to have significant extensive outdoor or night-time exposure in rural areas during the transmission season. With respect to vaccination, the SCVPD and the SCVBD make the following recommendations:

(a) Travellers aged 18 and above:
   i. Adopt a two-dose schedule (days 0 and 28) using JE-VC for primary immunisation.[#]
   ii. The primary immunisation should be completed at least 1 week prior to potential JE virus (JEV) exposure.
   iii. A booster dose (third dose) should be given within the second year (i.e. 12-24 months) after the recommended primary immunisation series, prior to potential re-exposure to JEV. Persons at continuous risk for acquiring JE should receive a booster dose at month 12 after primary immunisation. Data on the need for further booster doses are not available.
   iv. Contraindications to JE-VC include:
      1. Acute infection and fever; and
      2. Allergic reaction to a previous dose of the vaccine or any of the vaccine components.
   v. Special precaution should be observed in the following groups:
      1. Pregnancy and breast-feeding women;
      2. Immunocompromised; and
      3. Persons with a history of allergic disorders.

(b) Travellers aged 1 to <18 years:
   i. As JE-VC is not yet registered for adolescents and children <18 years, use of other JE vaccines as listed in "WHO International Travel and Health" may be considered if there is no contraindication.
   ii. JE-MB and the cell-culture-derived live attenuated SA_{14}-14-2 vaccine are currently the two JE vaccines which can be obtained on a named-patient basis in Hong Kong. Vaccination schedule should follow the product insert of specific products.

(c) There is insufficient evidence that JE-VC can be used as a booster for those previously given vaccination with another JE vaccine. The full primary course of JE-VC should therefore be given to people previously

vaccinated with another vaccine who request boosters. On the other hand, if JE-MB is available and the traveller has previously been vaccinated with the JE-MB vaccine without significant untoward effect, it would be regarded as reasonable to give JE-MB as the booster vaccine as an alternative to the primary course of JE-VC.

** JE-CV is not yet commercially available and cannot be obtained on a named-patient basis in Hong Kong.*

#In case of technical difficulties, such as insufficient time to complete full course of JE-VC or clients' preference, JE-MB and the cell-culture-derived live attenuated SA_{14}-14-2 vaccine on a named-patient basis can be considered.

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