Infants under 9 months of age

The risk of yellow fever vaccine-associated encephalitis is higher in infants under nine months of age

Image provided by NHS Photo Library

The risk of yellow fever (YF) vaccine-associated encephalitis is higher in infants under nine months of age [1]. The risk is inversely proportional to age (highest risk for the youngest infants) [1-3]. During the 1950s, when there was no age restriction on the use of the YF vaccine, 15 cases of encephalitis were reported in infants. Of the 15 cases, 13 (87%) occurred in infants under four months of age and all were under seven months of age (age was not documented in the remaining two cases) [2]. The vaccine should therefore never be administered to infants under six months of age [1, 2].

Infants aged six to nine months should only be immunised if the risk of YF during travel is unavoidable; expert opinion should be sought in these situations [1]. For this age group, vaccination is usually only recommended during epidemics/outbreaks when the risk of YF virus transmission may be very high [see TravelHealthPro Country Information pages].

Individual itineraries should be considered on a case-by-case basis, and if possible, travel should be delayed until the infant is 9 months of age [2].

When travel is unavoidable, and YF vaccine is not an option, particular care with insect bite avoidance day and night should be recommended.

Very young children (aged less than 2 years) are recommended to have a reinforcing dose once the child is 2 years or older, depending on the next planned travel to an area of risk. This is due to waning seroprotection, which may occur 3 months to 5 years following primary vaccination in some children who are vaccinated under 2 years of age [1, 4-5].

REFERENCES

1. UK Health Security Agency. Yellow Fever. Ch 35. In: Immunisation against infectious disease. March 2024 [Accessed 23 August 2024]

2. **Plotkin, S.A. Orenstein, W.A and Offit, P.A Yellow fever vaccine, Ch 38 in Vaccines 6th edition,**

2013, Elsevier Saunders, pg 947.

3. World Health Organization, Vaccines and vaccination against yellow fever WHO Position Paper - June 2013, weekly epidemiological record, 5 July 2013
4. SAGE Working Group, Background Paper on Yellow Fever Vaccine 19 March 2013
5. Kling K, Domingo C, Bogdan C, et al. Duration of Protection after Vaccination against Yellow Fever: A Systematic Review and Meta-Analysis. CID. 2022: 75 (12)