GRADE Table 1. What is the effectiveness of inactivated Vero cell-derived JE vaccine in preventing JE disease in vaccinees living in JE-endemic areas?

Population : Immunocompetent individuals living in JE-endemic areas
Intervention: Two doses (primary series) of inactivated Vero cell-derived vaccine
Comparison: Placebo/no vaccination/other JE vaccines
Outcome : JE disease (immunogenicity accepted)

What is the effectiveness of two doses of inactivated Vero cell-derived JE vaccine in preventing JE disease in individuals living in JE-endemic areas?				
			Rating	Adjustment to rating
Quality Assessment	No. of studies/starting rating		7 RCTs[1]	4
	Factors decreasing confidence	Limitation in study design	None serious[2]	0
		Inconsistency	None serious	0
		Indirectness	Serious[3]	-1
		Imprecision	None serious	0
		Publication bias	None serious	0
	Factors increasing confidence	Large effect	Applicable[4]	+1
		Dose-response	Not applicable	0
		Antagonistic bias and confounding	Not applicable	0
	Final numerical rating of quality of evidence			**4**
Summary of Findings	**Statement on quality of evidence**			**Evidence supports a high degree of confidence that the true effect lies close to that of the estimate of effect on health outcome**
	Conclusion			**Inactivated Vero cell-derived JE vaccines elicit seroprotective neutralizing antibody titres.** ***Based on a review of data on IXIARO***

[1]Clinical studies from 7 RCTs in approximately 2,890 IXIARO vaccinees provided short-term immunogenicity data. Across multiple studies in adults, high rates of seroprotection have been found one month following completion of the two-dose primary series. In the largest study of 430 adult vaccine recipients, the seroprotection rate was 98% and the GMT was 244 (Tauber 2007). Among children living in an endemic setting, there are two studies, one in India (N=24 vaccinees aged 1-3 years; Kaltenböck 2010) and one in the Philippines (N=1,411 IXIARO vaccinees aged 2 months - 17 years, 396 assessed for immunogenicity; Dubischar-Kastner 2012). In the small Indian study, 95.7% (95% CI: 87.3-100) of vaccinees who received the age appropriate dose[4] were seroprotected one month following the second dose with a GMT of 201 (95% CI: 106-380). In the Philippines, the age appropriate dose (0.25ml 2 months to <3 years of age, 0.5ml 3-18 years of age) elicited the following rates of seroconversion in the 2-<6 months, 6-<12 months, 1-<3 years, 3-<12 years, and 12-<18 years age groups, respectively: 100%, 95%, 97%, 94%, and 77% (Dubischar-Kastner 2012).
[2]Some RCTs assessed immunogenicity in vaccine-recipients, though not within the control group (or was a single-arm trial).
[3]Clinical study outcomes are based on an accepted immunological correlate of protection (Hombach 2005).
[4] High seroprotection (>80%) rates post-vaccination, a defined threshold in the WHO Guidance for the Development of Evidence-Based Vaccine-Related Recommendations.

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