

GRADE Table 1. Effectiveness of one dose varicella vaccination in immunocompetent children (9 months to 12 years of age) in preventing all grades of severity of varicella (evidence available for within the first 10 years after vaccination)

Population : Immunocompetent children (9 month to 12 years of age)

Intervention: One-dose varicella vaccination

Comparison: Placebo/ No vaccination

Outcome : All grades of severity of varicella disease

<i>What is the scientific evidence of the effectiveness of one dose of varicella vaccination (versus placebo/no vaccination) in preventing all grades of severity of varicella in immunocompetent children (9 months to 12 years of age)?</i>				
			Rating	Adjustment to rating
Quality Assessment	No. of studies/starting rating		40/ Observational ¹	2
	Factors decreasing confidence	Limitation in study design	None serious	0
		Inconsistency	None serious	0
		Indirectness	None serious	0
		Imprecision	None serious	0
		Publication bias	None serious	0
	Factors increasing confidence	Large effect ²	Applicable	+2
		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			We are very confident that the true effect lies close to that of the estimate of effect on health outcome
	Conclusion			A single dose of varicella vaccination is effective to protect children of 9 months to 12 years against all grades of severity of varicella disease. Single dose varicella VE against all grades of disease severity ranged from 20 – 100%, with an approximate mean VE of 80% against all grades of disease severity, irrespective of vaccine type.

Reference List¹⁻⁴⁵

¹ Two systematic reviews (Seward et al.; Bayer et al.) and a syst. rev. done by WHO of the current literature (through October 2013) identified 40 observational studies. Single dose varicella VE against all grades of disease severity ranged from 20 – 100%, with an approximate mean VE of 80% against all grades of disease severity, irrespective of vaccine type. Only one study demonstrated vaccine effectiveness against all varicella to be 20% (95%CI 0%-40%).

² Upgraded by two levels as strong evidence from observational studies of a vaccine effectiveness of 80% or higher with no major residual confounders. In addition to effectiveness on an individual level, decline in incidence in all age groups over time, not only age-group targeted by vaccination program, suggests induction of community protection (Marin et al 2008, Marin et al 2011, Lopez et al 2011, Guris et al 2008).

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