GRADE Table 4. Vaccine safety of varicella vaccination in immunocompetent individuals (monovalent vaccine)

Population: Immunocompetent individuals **Intervention:** Varicella vaccination (one dose)

Comparison: Placebo/ no vaccination **Outcome:** Serious adverse events

In immunocompetent individuals, what is the incidence of serious adverse events following any dose of varicella vaccination?

			Rating	Adjustment to rating
			Nating	/ Mjustiment to ruting
Quality Assessment	No. of studies/starting rating		12/ RCT ¹	4
	Factors decreasing confidence	Limitation in study design	Serious ²	-1
		Inconsistency	None serious	0
		Indirectness	None serious	0
		Imprecision	None serious	0
		Publication bias	None serious	0
	Factors increasing	Large effect	Not applicable	0
		Dose-response	Not applicable	0
	confidence	Antagonistic bias and confounding	Not applicable	0
	Final numerical rating of quality of evidence			3
6	Statement on quality of evidence			We are moderately confident in the estimate of effect on health outcome. The true effect is likely to be close to the estimate of the effect
Summary of Findings	Conclusion			Our confidence in the estimate of the effect is moderate that incidence of serious adverse events following one or two doses of varicella vaccination is low. Overall few reports and low incidence of serious adverse events in RCTs, observational studies and post-marketing surveillance data. Despite overall low incidence of serious adverse events, incidence after first dose of vaccination is higher than after second dose.

 $^{^1}$ 7 RCTs Ferrera et al. 2009; Gatchalian et al.2004; Lau et al. 2004; Parment et al. 2003; Ramkissoon et al. 1995; Shinefeld et al. 2002, Weibel 1984), 5 observational studies (Black et al. 1999; Chaves et al. 2009; Ozaki et al. 2000, Sharrer 2001, Galea 2008) assess the vaccine safety of one dose of varicella vaccination. Consistent findings across studies, overall low incidence of serious adverse events 2 Small number of study participants to assess very rare serious events

Reference List

- (1) Black S, Shinefield H, Ray P, Lewis E, Hansen J, Schwalbe J, et al. Postmarketing evaluation of the safety and effectiveness of varicella vaccine. Pediatr Infect Dis J 1999 Dec;18(12):1041-6.
- (2) Chaves SS, Haber P, Walton K, Wise RP, Izurieta HS, Schmid DS, et al. Safety of varicella vaccine after licensure in the United States: experience from reports to the vaccine adverse event reporting system, 1995-20059. J Infect Dis 2008 Mar 1;197 Suppl 2:S170-S177.
- (3) Ferrera G, Gajdos V, Thomas S, Tran C, Fiquet A. Safety of a refrigerator-stable varicella vaccine (VARIVAX) in healthy 12- to 15-month-old children: A randomized, double-blind, cross-over study3. Hum Vaccin 2009 Jul;5(7):455-60.
- (4) Gatchalian S, Tabora C, Bermal N, Leboulleux D, Desauziers E. Immunogenicity and safety of a varicella vaccine (Okavax) and a trivalent measles, mumps, and rubella vaccine (Trimovax) administered concomitantly in healthy Filipino children 12-24 months old 3. Am J Trop Med Hyg 2004 Mar;70(3):273-7.
- (5) Ozaki T, Nishimura N, Kajita Y. Experience with live attenuated varicella vaccine (Oka strain) in healthy Japanese subjects; 10-year survey at pediatric clinic 14. Vaccine 2000 May;18(22):2375-80.
- (6) Parment PA, Svahn A, Ruden U, Brakenhielm G, Storsaeter J, Akesson L, et al. Immunogenicity and reactogenicity of a single dose of live attenuated varicella vaccine and a booster dose of measles-mumps-rubella vaccine given concomitantly at 12 years of age 1. Scand J Infect Dis 2003;35(10):736-42.
- (7) Ramkissoon A, Coovadia HM, Jugnundan P, Haffejee IE, Meurice F, Vandevoorde D. Immunogenicity and safety of a live attenuated varicella vaccine in healthy Indian children aged 9-24 months. S Afr Med J 1995 Dec;85(12):1295-8.
- (8) Shinefield HR, Black SB, Staehle BO, Matthews H, Adelman T, Ensor K, et al. Vaccination with measles, mumps and rubella vaccine and varicella vaccine: safety, tolerability, immunogenicity, persistence of antibody and duration of protection against varicella in healthy children. Pediatr Infect Dis J 2002 Jun;21(6):555-61.
- (9) Lau YL, Vessey SJ, Chan IS, Lee TL, Huang LM, Lee CY, et al. A comparison of safety, tolerability and immunogenicity of Oka/Merck varicella vaccine and VARILRIX in healthy children 6. Vaccine 2002 Jul 26;20(23-24):2942-9.
- (10) Sharrar R, LaRussa P, Galea S et al. The postlicensure safety of varicella vaccine Vaccine; 2001; 19: 916-23.
- (11) Galea S, Beninger P, Sweet A et al. The safety profile of varicella vaccine: a 10 year review. J Inf Dis 2008; 197: S165-69.
- (12) Weibel RE et al. Live attenuated varicella virus vaccine. Efficacy trial in healthy children. The New England journal of medicine. 1984;310(22):1409-1415.