GRADE Table 3: Efficacy of herpes zoster vaccination in immunocompetent adults (≥60 years)

Population: Immunocompetent adults (≥ 60 years)
Intervention: Herpes zoster vaccination (single dose)
Comparison: Placebo /no intervention
Outcome : Cases of herpes zoster

What is the scientific evidence of the vaccine efficacy against herpes zoster conferred by one dose herpes zoster vaccination (versus placebo/no vaccination) in immunocompetent adults (⩾60 years)?				
			Rating	Adjustment to rating
Quality Assessment	No. of studies/starting rating		2/ RCT[1]	4
	Factors decreasing Confidence	Limitation in study design	None serious[2]	0
		Inconsistency	None serious	0
		Indirectness	None serious	0
		Imprecision	None Serious	0
		Publication bias	None serious	0
	Factors increasing Confidence	Large effect	Not applicable	0
		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 moderately confident in the estimate of effect on health outcome. The true effect is likely to be close to the estimate of the effect**
	Conclusion			**A single dose of herpes zoster vaccination demonstrated vaccine efficacy of 51% to protect immunocompetent adults (⩾60 years) against herpes zoster disease.**

Reference List

Gagliardi AMZ, Silva BNG, Torloni MR, Soares BGO. Vaccines for preventing herpes zoster in older adults1. Cochrane Database of Systematic Reviews 2012;(10).

Langan SM, Smeeth L, Margolis DJ, Thomas SL. Herpes zoster vaccine effectiveness against incident herpes zoster and post-herpetic neuralgia in an older US population: a cohort study
1. PLoS Med 2013;10(4):e1001420.

Oxman MN, Levin MJ, Johnson GR, Schmader KE, Straus SE, Gelb LD, et al. A vaccine to prevent herpes zoster and postherpetic neuralgia in older adults. N Engl J Med 2005 Jun 2;352(22):2271-84.

[1] A Cochrane review (Gagliardi et al. 2012) identified one large RCT (Oxman et al. 2005) with low risk of bias addressing the research question. Risk ratio for 60-69 compared to placebo: 0.36 (95% CI: 0.3-0.45) and 0.63 (95% CI: 0.53-0.75) in adults over 70 years. Incidence per 1000 Person Years: 5.4 in participants who had received herpes zoster vaccine; 11.1 in participants who had received placebo. Vaccine efficacy: 51.4% (95%Confidence Interval 44.2-57.6%). Analyses according to age groups indicated a greater benefit in participants aged 60 to 69 years, RR 0.36 (95% CI 0.30 to 0.45) and in participants aged 70 years and over, RR 0.63 (95% CI 0.53 to 0.75). One cohort study (Langan et al. 2013) calculated vaccine effectiveness in persons 65 years and over to be 0.48 (95% CI:0.39–0.56) compared to unvaccinated indivudals. Post-licensure data examining risk of HZ in 76,000 vaccinated persons compared to 227,000 unvaccinated adults 60 years and older demonstrated that the vaccine was 55% effective (95% CI 52-58%)in preventing herpes zoster cases (Tseng et al. 2011).

[2] Vaccine effectiveness over a longer period of time (>5 years) still needs to be assessed.