Table Va. Safety of MenA conjugate vaccine. Is conjugated MC group A-vaccine causally associated with serious adverse reactions when used in individuals aged ≥12 months and < 5 years?				
			Rating	Adjustment to level
Quality Assessment	No of Studies/Starting quality level		2 RCTs	4
	Factors decreasing confidence	Limitation in study design	None serious	0
		Inconsistency	None serious	0
		Indirectness	Not applicable[1]	0
		Imprecision	Serious	-1
		Publication bias	None serious	0
	Factors increasing confidence	Large effect	Not applicable	0
		Dose-response	Not applicable	0
		Mitigated bias and confounding	Not applicable	0
	Final 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.
	Conclusion			Conjugated MC group A-vaccine is not causally associated with serious adverse reactions when used in individuals aged ≥12 months and ≤5 years.

[1] The number of participants in the reported studies is rather small.

Table V b. Safety of MenA conjugate vaccine. Is conjugated MC group A-vaccine causally associated with serious adverse reactions when used in individuals ≥5 years old ?				
			Rating	Adjustment to level
Quality Assessment	No of Studies/Starting quality level		2 RCTs	4
	Factors decreasing confidence	Limitation in study design	None serious	0
		Inconsistency	None serious	0
		Indirectness	Not applicable	0
		Imprecision	Serious[1]	-1
		Publication bias	None serious	0
	Factors increasing confidence	Large effect	Not applicable	0
		Dose-response	Not applicable	0
		Mitigated bias and confounding	Not applicable	0
	Final rating of quality of evidence			3
Summary of Findings	Statement on quality of evidence			We are moderately confident in the estimate of effect on health outcome.
	Conclusion			Conjugated MC group A-vaccine is not causally associated with serious adverse reactions when used in individuals ≥5 years old.

[1] The number of participants in the reported studies is rather small.

Randomised Controlled Trials on Safety

A recent RCT by *Sow et al* (2011) in Mali and Gambia included 601 children, 12 to 23 months of age, who were randomly assigned to receive PsA-TT, a quadrivalent polysaccharide reference vaccine (PsACWY), or a control vaccine (*Haemophilus influenzae* type b conjugate vaccine [Hib-TT]). Ten months later, these children underwent another round of randomization within each group to receive a full dose of PsA-TT, a one-fifth dose of PsACWY, or a full dose of Hib-TT, with 589 of the original participants receiving a booster dose. PsA-TT was found to be safe:

local reactions were similar to the Hib-TT conjugate control, systemic symptoms were similar among all three vaccine groups and no serious adverse events were considered vaccine associated.

The same authors conducted another RCT in Africa with 900 participants 2-29 years of age. Subjects were randomized to receive a single injection of either PsA-TT vaccine (MenAfriVac™) or a licensed meningococcal tetravalent polysaccharide vaccine (ACWY). All local reactions were transient and resolved without sequelae within four days after vaccination. The most reported local reaction was tenderness. Similar rates of AEs were reported in the two study groups, at the three sites, and in the three age groups. No deaths were reported.

Kshirsagar et al (2007) conducted a double-blind, randomized, controlled phase I study to assess the safety, immunogenicity, and antibody persistence of the new meningococcal group A conjugate vaccine (PsA-TT) in healthy volunteers aged 18–35 years in India. Of the 74 male subjects enrolled, 24 received the PsA-TT vaccine (Group 1), 25 received the Meningoccoccal Polysaccharide Vaccine A + C™ (Group 2), and 25 received the Tetanus Toxoid Vaccine Adsorbed™ (Group 3). No immediate reactions were observed. Local and systemic solicited reactions within 7 days post-vaccination and unsolicited adverse events (AEs) were mild and similar among the three groups and resolved without sequelae. No serious AEs were notified up to 1 year post-vaccination.

References:

1.Sow SO, Okoko BJ, Diallo A, Viviani S, Borrow R, Carlone G, et al. Immunogenicity and safety of a meningococcal A conjugate vaccine in Africans. N Engl J Med. 2011 Jun 16;364(24):2293-304.

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