GRADE TABLE 3
Population: Pregnant women.
Intervention: Tetanus Toxoid Containing Vaccine (TTCV).
Comparison: No vaccination or control.
Outcome: Serious adverse events following immunization.

PICO Question: *Is the incidence of serious adverse events in pregnant women with any dose of TTCV vaccine rare when compared to not giving the vaccine?*				
			Rating	Adjustment to rating
Quality Assessment	No. of studies/starting rating		1 RCT[1]	4
	Factors decreasing confidence	Limitation in study design	None serious	0
		Inconsistency	None serious	0
		Indirectness	None serious	0
		Imprecision	Serious[2]	-1
		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 certainty of evidence			3
Summary of Findings	**Statement on certainty of evidence**			Evidence from one RCT supports a moderate level of confidence that the true effect lies close to that of the estimate of the effect on the health outcome. This evidence is supported by the fact that tetanus toxoid-containing vaccines have extensively been used in pregant women for several decades without generating safety signals, including analyses from data generated in observational studies [3,4]
	Conclusion			TTCV using various presentations have demonstrated to be safe for use in pregnant women and there is no evidence of adverse pregnancy outcomes.[3]

[1] From Demicheli et al. [1] 1 randomized controlled trial was identified [2] evaluating the safety of Tdap immunization during pregnancy. No Tdap-associated serious adverse events occurred in women or infants.
[2] A downgrading was performed since the RCT [2] did not have sufficient power to detect rare serious adverse events.
[3] Supporting evidence [3] includes a hospital-based case-control study that evaluated the safety of TT in pregnant women related to congenital abnormalities. There was no difference between the groups on infants whose mothers were exposure to TT and those who were not exposed on the rates of common congenital anomalies.

References

[1] Demicheli V, Barale A, Rivetti A. Vaccines for women for preventing neonatal tetanus 1. Cochrane Database Syst Rev 2015;(7):CD002959.

[2] Munoz FM, Bond NH, Maccato M, Pinell P, Hammill HA, Swamy GK, et al. Safety and immunogenicity of tetanus diphtheria and acellular pertussis (Tdap) immunization during pregnancy in mothers and infants: a randomized clinical trial. JAMA 2014;311(17):1760–9.

[3] Silveira, C. M. Cáceres V.M., Dutra M.G., Lopes-Camelo J., and Castilla E. E. Safety of tetanus toxoid in pregnant women: a hospital-based case-control study of congenital anomalies. Bull World Health Organ. 1995; 73(5): 605–608. [5] Immunization during pregnancy. Global Advisory Committee on Vaccine Safety, 12–13 June 2013. WER No. 29, 2013, 88, 301–312.