## Appendix 3 (as supplied by the authors): Tool used to assess risk of bias*

| Bias | Yes | No | Unclear |
|---|---|---|---|
| **Sequence generation** | • Referring to a random number table<br>• Using a computer random number generator<br>• Coin tossing<br>• Shuffling cards or envelopes<br>• Throwing dice<br>• Drawing of lots | • Sequence generated by date of birth<br>• Sequence generated by date of admission<br>• Sequence generated by hospital number<br>• Allocation by judgement of the clinician<br>• Allocation by preference of the participant<br>• Allocation based on the results of a laboratory test or a series of tests<br>• Allocation by availability of treatment | • Insufficient information about the sequence generation process to permit judgement of 'Yes' or 'No' |
| **Allocation concealment** | • Central allocation (including telephone, web-based, and pharmacy-controlled, randomization<br>• Sequentially numbered drug containers of identical appearance;<br>• Sequentially numbered, opaque, sealed envelopes | • Using an open random allocation schedule;<br>• Assignment envelopes were used without appropriate safeguards (e.g. if envelopes were unsealed or nonopaque or not sequentially numbered);<br>• Alternation or rotation;<br>• Date of birth;<br>• Case record number;<br>• Any other unconcealed procedure. | • Insufficient information to permit judgement of 'Yes' or 'No'. This is usually the case if the method of concealment is not described or not described in sufficient detail to allow a definite judgement – for example if the use of assignment envelopes is described, but it remains unclear whether envelopes were sequentially numbered, opaque and sealed. |
| **Blinding of assessors, patients** | • No blinding, but the review authors judge that the outcome and the outcome measurement are not likely to be influenced by lack of blinding;<br>• Blinding of participants and key study personnel ensured, and unlikely that the blinding could have been broken;<br>• Either participants or some key study personnel were not blinded, but outcome assessment was blinded and the non-blinding of others unlikely to introduce bias. | • No blinding or incomplete blinding, and the outcome or outcome measurement is likely to be influenced by lack of blinding;<br>• Blinding of key study participants and personnel attempted, but likely that the blinding could have been broken;<br>• Either participants or some key study personnel were not blinded, and the non-blinding of others likely to introduce bias. | • Insufficient information to permit judgement of 'Yes' or 'No';<br>• The study did not address this outcome. |
| **Incomplete outcome data addressed** | • No missing outcome data;<br>• Reasons for missing outcome data unlikely to be related to true outcome;<br>• Missing outcome data balanced in numbers across intervention groups, with similar reasons for missing data across groups;<br>• Missing data have been imputed using appropriate methods. | • Reason for missing outcome data likely to be related to true outcome, with either imbalance in numbers or reasons for missing data across intervention groups;<br>• Potentially inappropriate application of simple imputation. | • Insufficient reporting of attrition/exclusions to permit judgement of 'Yes' or 'No' (e.g. number randomized not stated, no reasons for missing data provided);<br>• The study did not address this outcome. |
| **Free of selective reporting?** | • The study protocol is available and all of the study's pre-specified (primary and secondary) outcomes that are of interest in the review have been reported in the pre-specified way;<br>• The study protocol is not available but it is clear that the published reports include all expected outcomes, including those that were pre-specified (convincing text of this nature may be uncommon). | • Not all of the study's pre-specified primary outcomes have been reported;<br>• One or more reported primary outcomes were not pre-specified (unless clear justification for their reporting is provided, such as an unexpected adverse effect); | • Insufficient information to permit judgement of 'Yes' or 'No'. It is likely that the majority of studies will fall into this category. |
| **Free of other bias?** | • The study appears to be free of other sources of bias. | • Had a potential source of bias related to the specific study design used; or<br>• Stopped early due to some data-dependent process<br>• Had extreme baseline imbalance; or<br>• Has been claimed to have been fraudulent | • Insufficient information to assess whether an important risk of bias exists; or<br>• Insufficient rationale or evidence that an identified problem will introduce bias. |

*A judgment of 'Yes' indicates a low risk of bias, and a judgment of 'No' indicates a high risk of bias. Overall bias was rated as None, Minimal, Low, Moderate, High or Can't tell.
Source: Higgins PT, Green S, editors. *Cochrane handbook for systematic reviews of interventions*. The Cochrane Collaboration; 2008.
Available: www.cochrane-handbook.org (accessed 2008 Jan. 3).

Appendix to Shah PS, Ohlsson A; Knowledge Synthesis Group on Determinants of Low Birth Weight and Preterm Births. Effects of prenatal multimicronutrient supplementation on pregnancy outcomes: a meta-analysis. *CMAJ* 2009;180(12):E99-E108. 