#### Item 16: ADDITIONAL ANALYSES.

Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.

**Example.** “Sensitivity analyses were pre-specified. The treatment effects were examined according to quality components (concealed treatment allocation, blinding of patients and caregivers, blinded outcome assessment), time to initiation of statins, and the type of statin. One post-hoc sensitivity analysis was conducted including unpublished data from a trial using cerivastatin.”

#### Explanation.

Authors may perform additional analyses to help understand whether the results of their review are robust, all of which should be reported. Such analyses include sensitivity analysis, subgroup analysis, and meta-regression.

Sensitivity analyses are used to explore the degree to which the main findings of a systematic review are affected by changes in its methods or in the data used from individual studies (e.g., study inclusion criteria, results of risk of bias assessment). Subgroup analyses address whether the summary effects vary in relation to specific (usually clinical) characteristics of the included studies or their participants. Meta-regression extends the idea of subgroup analysis to the examination of the quantitative influence of study characteristics on the effect size . Meta-regression also allows authors to examine the contribution of different variables to the heterogeneity in study findings. Readers of systematic reviews should be aware that meta-regression has many limitations, including a danger of over-interpretation of findings .

Even with limited data, many additional analyses can be undertaken. The choice of which analysis to undertake will depend on the aims of the review. None of these analyses, however, are exempt from producing potentially misleading results. It is important to inform readers whether these analyses were performed, their rationale, and which were pre-specified.