

**Epidemiology Characteristics, Methodological Assessment and Reporting of
Statistical Analysis of Network Meta-Analyses in the Field of Cancer**

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Appendix 3 – Checklist of methodological quality assessment

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| <p>1. Was the research question (i.e., research purpose, inclusion and exclusion criteria) clarified ? Where a protocol providing this information was available, the answer to this question would be “Yes”. Where no protocol was available but detailed information about research purpose and inclusion and exclusion criteria (patients, interventions, comparators, outcome, and study design) were supplied, we also considered answer this question “Yes”.</p> | <p>Yes No</p> |
| <p>2. Was there duplicate study selection and data extraction? There should be at least two independent data extractors and a consensus procedure for disagreements should be in place.</p> | <p>Yes No</p> |
| <p>3. Was a comprehensive literature search performed? At least two electronic sources should be searched. The report must include years and databases used (e.g. Central, EMBASE, and MEDLINE). Key words and/or MESH terms must be stated and where feasible the search strategy should be provided. All searches should be supplemented by consulting current contents, reviews, textbooks, specialized registers, or experts in the particular field of study, and by reviewing the references in the studies found.</p> | <p>Yes No Can’t answer</p> |
| <p>4. Was the status of publication (i.e. grey literature) used as an inclusion criterion? The authors should state that they searched for reports regardless of their publication type. The authors should state whether or not they excluded any reports (from the systematic review), based on their publication status, language etc.</p> | <p>Yes No Can’t answer</p> |
| <p>5. Were a list of included studies and flow diagram provided ? Where a list of included studies and flow diagram of literature selection were provided (as references, electronic link, or supplement), we considered answer this question “Yes”.</p> | <p>Yes No</p> |
| <p>6. Were the characteristics of the included studies provided? In an aggregated form such as a table, data from the original studies should be provided on the participants, interventions and outcomes. The ranges of characteristics in all the studies analyzed e.g. age, race, sex, relevant socioeconomic data, disease status, duration, severity, or other diseases should be reported.</p> | <p>Yes No</p> |

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| <p>7. Was the scientific quality of the included studies assessed and documented? ‘A priori’ methods of assessment should be provided (e.g., for effectiveness studies if the author(s) chose to include only randomized, double-blind, placebo controlled studies, or allocation concealment as inclusion criteria); for other types of studies alternative items will be relevant.</p> | Yes No Can’t answer Not applicable |
| <p>8. Was the scientific quality of the included studies used appropriately in formulating conclusions? The results of the methodological rigor and scientific quality should be considered in the analysis and the conclusions of the review, and explicitly stated in formulating recommendations.</p> | Yes No Can’t answer Not applicable |
| <p>9. Were the methods used to combine the findings of studies appropriate? For the pooled results, a test should be done to ensure the studies were combinable, to assess their homogeneity (i.e. Chi-squared test for homogeneity, I²). If heterogeneity exists a random effects model should be used and/or the clinical appropriateness of combining should be taken into consideration (i.e. is it sensible to combine?). In addition, For NMA, the following factors should be taken into consideration besides heterogeneity, but not be limited to: summary measures, model used, model fit, prior distributions (Bayesian analysis), convergence (Bayesian analysis), and inconsistency. For this item, we answer “Yes” only when all above factors are reported, or answer “Can’t answer”. This item is not applicable when qualitative analysis is conducted.</p> | Yes No Can’t answer Not applicable |
| <p>10. Was the likelihood of publication bias assessed? An assessment of publication bias should include a combination of graphical aids (e.g., funnel plot, other available tests) and/or statistical tests (e.g., Egger regression test).</p> | Yes No Not applicable |
| <p>11. Was the conflict of interest stated? Potential sources of support should be clearly acknowledged in both the systematic review and the included studies.</p> | Yes No |