## MOOSE Checklist for Meta-analyses of Observational Studies

| Item No | Recommendation                                                                 | Reported on Page No |
|---------|-------------------------------------------------------------------------------|---------------------|
|         | **Reporting of background should include**                                    |                     |
| 1       | Problem definition                                                            | 2                   |
| 2       | Hypothesis statement                                                           | 2                   |
| 3       | Description of study outcome(s)                                                 | 2                   |
| 4       | Type of exposure or intervention used                                          | 2                   |
| 5       | Type of study designs used                                                      | 7                   |
| 6       | Study population                                                               | 4                   |
|         | **Reporting of search strategy should include**                                |                     |
| 7       | Qualifications of searchers (eg, librarians and investigators)                 | 4-5                 |
| 8       | Search strategy, including time period included in the synthesis and key words | 4                   |
| 9       | Effort to include all available studies, including contact with authors         | 4-5                 |
| 10      | Databases and registries searched                                              | 4                   |
| 11      | Search software used, name and version, including special features used (eg, explosion) | 4             |
| 12      | Use of hand searching (eg, reference lists of obtained articles)               | 4                   |
| 13      | List of citations located and those excluded, including justification           | Figure 1            |
| 14      | Method of addressing articles published in languages other than English         | NA                  |
| 15      | Method of handling abstracts and unpublished studies                           | 5                   |
| 16      | Description of any contact with authors                                        | 5                   |
|         | **Reporting of methods should include**                                        |                     |
| 17      | Description of relevance or appropriateness of studies assembled for assessing the hypothesis to be tested | 5                   |
| 18      | Rationale for the selection and coding of data (eg, sound clinical principles or convenience) | 5                   |
| 19      | Documentation of how data were classified and coded (eg, multiple raters, blinding and interrater reliability) | 5-6                 |
| 20      | Assessment of confounding (eg, comparability of cases and controls in studies where appropriate) | 7                   |
| 21      | Assessment of study quality, including blinding of quality assessors, stratification or regression on possible predictors of study results | Table 1             |
| 22      | Assessment of heterogeneity                                                     | 6-9                 |
| 23      | Description of statistical methods (eg, complete description of fixed or random effects models, justification of whether the chosen models account for predictors of study results, dose-response models, or cumulative meta-analysis) in sufficient detail to be replicated | 6                   |
| 24      | Provision of appropriate tables and graphics                                    | Table 1 & Figure 2-5|
|         | **Reporting of results should include**                                         |                     |
| 25      | Graphic summarizing individual study estimates and overall estimate             | Figure 2-5          |
| 26      | Table giving descriptive information for each study included                    | Table 1             |
| 27      | Results of sensitivity testing (eg, subgroup analysis)                          | 9                   |
| 28      | Indication of statistical uncertainty of findings                              | 6-9                 |
| Item No | Recommendation                                                                 | Reported on Page No |
|---------|--------------------------------------------------------------------------------|---------------------|
|         | **Reporting of discussion should include**                                       |                     |
| 29      | Quantitative assessment of bias (eg, publication bias)                           | 11-12               |
| 30      | Justification for exclusion (eg, exclusion of non-English language citations)   | 11-12               |
| 31      | Assessment of quality of included studies                                       | Table 1             |
|         | **Reporting of conclusions should include**                                     |                     |
| 32      | Consideration of alternative explanations for observed results                   | 12                  |
| 33      | Generalization of the conclusions (ie, appropriate for the data presented and within the domain of the literature review) | 12                  |
| 34      | Guidelines for future research                                                   | 12                  |
| 35      | Disclosure of funding source                                                     | 12                  |

From: Stroup DF, Berlin JA, Morton SC, et al, for the Meta-analysis Of Observational Studies in Epidemiology (MOOSE) Group. Meta-analysis of Observational Studies in Epidemiology. A Proposal for Reporting. *JAMA*. 2000;283(15):2008-2012. doi: 10.1001/jama.283.15.2008.

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