

MOOSE Checklist for Meta-analyses of Observational Studies

Item No	Recommendation	Reported on Page No
Reporting of background should include		
1	Problem definition	6
2	Hypothesis statement	7
3	Description of study outcome(s)	7
4	Type of exposure or intervention used	8
5	Type of study designs used	10
6	Study population	8
Reporting of search strategy should include		
7	Qualifications of searchers (eg, librarians and investigators)	9
8	Search strategy, including time period included in the synthesis and key words	33-35
9	Effort to include all available studies, including contact with authors	10
10	Databases and registries searched	8
11	Search software used, name and version, including special features used (eg, explosion)	9
12	Use of hand searching (eg, reference lists of obtained articles)	10
13	List of citations located and those excluded, including justification	17-18
14	Method of addressing articles published in languages other than English	9
15	Method of handling abstracts and unpublished studies	9
16	Description of any contact with authors	9
Reporting of methods should include		
17	Description of relevance or appropriateness of studies assembled for assessing the hypothesis to be tested	9
18	Rationale for the selection and coding of data (eg, sound clinical principles or convenience)	9
19	Documentation of how data were classified and coded (eg, multiple raters, blinding and interrater reliability)	9
20	Assessment of confounding (eg, comparability of cases and controls in studies where appropriate)	9
21	Assessment of study quality, including blinding of quality assessors, stratification or regression on possible predictors of study results	9
22	Assessment of heterogeneity	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	9
24	Provision of appropriate tables and graphics	17-32
Reporting of results should include		
25	Graphic summarizing individual study estimates and overall estimate	19-24
26	Table giving descriptive information for each study included	25-32
27	Results of sensitivity testing (eg, subgroup analysis)	3, 6
28	Indication of statistical uncertainty of findings	10-12

Item No	Recommendation	Reported on Page No
Reporting of discussion should include		
29	Quantitative assessment of bias (eg, publication bias)	25-32
30	Justification for exclusion (eg, exclusion of non-English language citations)	9
31	Assessment of quality of included studies	25-32
Reporting of conclusions should include		
32	Consideration of alternative explanations for observed results	15-16
33	Generalization of the conclusions (ie, appropriate for the data presented and within the domain of the literature review)	15-16
34	Guidelines for future research	15-16
35	Disclosure of funding source	1

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.