MOOSE (Meta-analyses of Observational Studies in Epidemiology) Checklist

Item No	Recommendation	Reported on Page Number/Line Number	Reported on Section/Paragraph
Reporting of Background			
1	Problem definition	Page 4/Line 117-127	Introduction/Paragraph 3-4
2	Hypothesis statement	Page 4/Line 126-127	Introduction/Paragraph 4
3	Description of Study Outcome(s)	Page 4/Line 124-126	Introduction/Paragraph 4
4	Type of exposure or intervention used	Page 4/Line 124-126	Introduction/Paragraph 4
5	Type of study design used	Page 4/Line 124-126	Introduction/Paragraph 4
6	Study population	Page 4/Line 122	Introduction/Paragraph 4
Reporting of Search Strategy			
7	Qualifications of searchers (eg, librarians and investigators)	Page 4/Line 133	Search strategy/ Paragraph 1
8	Search strategy, including time period included in the synthesis and keywords	Page 4/Line 132-138- Page 28/Line 667-696	Search strategy/ Paragraph 1- Supplementary/ Paragraph 1-3
9	Effort to include all available studies, including contact with authors	Page 5/Line 160-169	Study selection/ Paragraph 1
10	Databases and registries searched	Page 4/Line 134-135	Search strategy/ Paragraph 1
11	Search software used, name and version, including special features used (eg, explosion)	Page 4/Line 134-137- Page 28/Line 667-696	Search strategy/ Paragraph 1- Supplementary/ Paragraph 1-3
12	Use of hand searching (eg, reference lists of obtained articles)	Page 4/Line 133-138	Search strategy/

			Paragraph 1
13	List of citations located and those excluded, including justification	Page 5/Line 140-169- Page 7/Line 219-229	Inclusion criteria/ Paragraph 1-3- Study selection/ Paragraph 1- The search and methodologic quality assessment/ Paragraph 1
14	Method for addressing articles published in languages other than English	Page 5/Line 163-165	Study selection/ Paragraph 1
15	Method of handling abstracts and unpublished studies	Page 5/Line 163-165	Study selection/ Paragraph 1
16	Description of any contact with authors	Page 6/Line 177-179	Data extraction/ Paragraph 2

	Reporting of Methods		
17	Description of relevance or appropriateness of studies assembled for assessing the hypothesis to be tested	Page 5/Line 140-169	Inclusion criteria/ Paragraph 1-3- Study selection/ Paragraph 1
18	Rationale for the selection and coding of data (eg, sound clinical principles or convenience)	Page 6/Line 171-188	Data extraction/ Paragraph 1-2
19	Documentation of how data were classified and coded (eg, multiple raters, blinding, and interrater reliability)	Page 6/Line 175-176	Data extraction/ Paragraph 1
20	Assessment of confounding (eg, comparability of cases and controls in studies where appropriate)	Page 7/Line 213-215	Statistical analysis/ Paragraph 1
21	Assessment of study quality, including blinding of quality assessors; stratification or regression on possible predictors of study results	Page 6/ line 190-197	Methodological quality assessment/ Paragraph 1
22	Assessment of heterogeneity	Page 7/ Line 204-209	Statistical analysis/ Paragraph 1
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	Page 7/Line 211-213	Statistical analysis/ Paragraph 1
24	Provision of appropriate tables and graphics	Table 1-2, Fig 1-6, Supplementary eFigure 1-4	Table 1-2, Fig 1-6, Supplementary eFigure 1-4
	Reporting of Results		
25	Graphic summarizing individual study estimates and overall estimate	Fig 2-5	Fig 2-5
26	Table giving descriptive information for each study included	Table 1	Table 1
27	Results of sensitivity testing (eg, subgroup analysis)	Page 9-10/Line 290-311	Sensitivity analyses, meta-regression, and subgroup analyses/Paragraph 1-2
28	Indication of statistical uncertainty of findings	Page 9/Line 291-292	Sensitivity analyses, meta-regression, and subgroup analyses/Paragraph 1
	Reporting of Discussion		

29	Quantitative assessment of bias (eg, publication bias)	Page 10/Line 318	Discussion/Paragraph 1
30	Justification for exclusion (eg, exclusion of non–English-language citations)	Page 10/Line 315-317	Discussion/Paragraph 1
31	Assessment of quality of included studies	Page 7/Line 233-235- Page 10/Line 317-318	The search and methodologic quality assessment section/ Paragraph 2- Discussion section/ Paragraph 1
Reporting of Conclusions			
32	Consideration of alternative explanations for observed results	Page 12-13/Line 405-407	Conclusions/ Paragraph 1
33	Generalization of the conclusions (ie, appropriate for the data presented and within the domain of the literature review)	Page 12-13/Line 404-414	Conclusions/ Paragraph 1
34	Guidelines for future research	Page 13/Line 412-414	Conclusions/ Paragraph 1
35	Disclosure of funding source	Page 13/Line 417-423	Funding/ Paragraph 1

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*As the checklist was provided upon initial submission, the page number/line number reported may be changed due to copy editing and may not be referable in the published version. In this case, the section/paragraph may be used as an alternative reference.