

Supplementary text 1. MOOSE Checklist for Meta-analyses of Observational Studies

Item No	Recommendation	Reported on Page No
Reporting of background should include		
1	Problem definition	Page 4
2	Hypothesis statement	Pages 4-5
3	Description of study outcome(s)	Page 5, Panel 2
4	Type of exposure or intervention used	Page 5, Panel 1
5	Type of study designs used	Page 5
6	Study population	Page 5
Reporting of search strategy should include		
7	Qualifications of searchers (eg, librarians and investigators)	Page 6
8	Search strategy, including time period included in the synthesis and key words	Page 6
9	Effort to include all available studies, including contact with authors	Page 6
10	Databases and registries searched	Page 6
11	Search software used, name and version, including special features used (eg, explosion)	Page 9
12	Use of hand searching (eg, reference lists of obtained articles)	Page 6
13	List of citations located and those excluded, including justification	Figure 1
14	Method of addressing articles published in languages other than English	No additional methods necessary
15	Method of handling abstracts and unpublished studies	Page 6
16	Description of any contact with authors	Page 6
Reporting of methods should include		
17	Description of relevance or appropriateness of studies assembled for assessing the hypothesis to be tested	Page 7
18	Rationale for the selection and coding of data (eg, sound clinical principles or convenience)	Panel 1
19	Documentation of how data were classified and coded (eg, multiple raters, blinding and interrater reliability)	Pages 7-8, appendix 2-3
20	Assessment of confounding (eg, comparability of cases and controls in studies where appropriate)	Pages 8-9, appendix 2-3
21	Assessment of study quality, including blinding of quality assessors, stratification or regression on possible predictors of study results	Page 7-8, appendix 2-3
22	Assessment of heterogeneity	Page 8
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 8
24	Provision of appropriate tables and graphics	Figure 1, Tables 1-7
Reporting of results should include		
25	Graphic summarizing individual study estimates and overall estimate	Figure 2-3
26	Table giving descriptive information for each study included	Table 1
27	Results of sensitivity testing (eg, subgroup analysis)	Table 2-7
28	Indication of statistical uncertainty of findings	Not applicable

Item No	Recommendation	Reported on Page No
Reporting of discussion should include		
29	Quantitative assessment of bias (eg, publication bias)	Not applicable (number of studies for each outcome < 10)
30	Justification for exclusion (eg, exclusion of non-English language citations)	Figure 1
31	Assessment of quality of included studies	Page 10
Reporting of conclusions should include		
32	Consideration of alternative explanations for observed results	Pages 22-24
33	Generalization of the conclusions (ie, appropriate for the data presented and within the domain of the literature review)	Pages 22-25
34	Guidelines for future research	Page 25
35	Disclosure of funding source	No funding source

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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Supplementary text 2. NEWCASTLE - OTTAWA QUALITY ASSESSMENT SCALE CASE CONTROL STUDIES

Note: A study can be awarded a maximum of one star for each numbered item within the Selection and Exposure categories. A maximum of two stars can be given for Comparability.

Selection

1) Is the case definition adequate?

- a) yes, with independent validation *
- b) yes, eg record linkage or based on self-reports
- c) no description

2) Representativeness of the cases

- a) consecutive or obviously representative series of cases *
- b) potential for selection biases or not stated

3) Selection of Controls

- a) community controls *
- b) hospital controls
- c) no description

4) Definition of Controls

- a) no history of disease (endpoint) *
- b) no description of source

Comparability

1) Comparability of cases and controls on the basis of the design or analysis

- a) study controls for _____ (Select the most important factor.) *
- b) study controls for any additional factor * (This criterion could be modified to indicate specific control for a second important factor.)

Exposure

1) Ascertainment of exposure

- a) secure record (e.g. surgical records) *
- b) structured interview where blind to case/control status *
- c) interview not blinded to case/control status
- d) written self-report or medical record only
- e) no description

2) Same method of ascertainment for cases and controls

- a) yes *
- b) no

3) Non-Response rate

- a) same rate for both groups *
- b) non respondents described
- c) rate different and no designation

Supplementary text 3. Methodological quality assessment of studies included in the meta-analysis

	Selection				Comparability		Outcome			
	Exposed case definition adequate	Representativeness of the exposed group	Selection of non-exposed group	Definition of non-exposed group	Comparability based on socio-demographic factors, maternal age and parity	On additional factors	Ascertainment of outcome	Same method of ascertainment for both groups	Non-response rate	Overall quality score (Max = 9)
Andro, 2014 ¹⁷	*	*	*	*	*	*	..	*	..	7
Balachandran, 2017 ¹²	*	*	*	*	*	*	*	*	..	8
Gebremicheal, 2018 ²⁰	*	*	*	*	*	*	*	*	..	8
Kasim, 2012 ¹⁶	..	*	*	*	..	*	..	*	..	5
Larsen, 2002 ¹⁴	*	*	*	*	*	*	..	*	..	7
Milogo-Traore, 2007 ¹⁹	..	*	*	*	*	..	*	*	..	6
Morison, 2001 ²²	*	*	*	*	*	*	..	*	..	7
Slanger, 2002 ²¹	*	*	*	*	..	*	..	*	..	6
Thera, 2013 ¹⁸	..	*	*	*	*	*	*	*	..	7
Wagner, 2015 ¹⁵	..	*	*	*	..	*	..	*	..	5
Wuest, 2009 ¹³	*	*	*	*	*	*	..	6