

MOOSE Guidelines for Meta-Analyses and Systematic Reviews of Observational Studies*

	Topic	Page number
		P1, L1-2
Title	Identify the study as a meta-analysis (or systematic review)	P2-3, L20-40
Abstract	Use the journal's structured format	P5, L84-87
Introduction	Present:	P5, L87-88
	The clinical problem	P5, L88-90
	The hypothesis	P5, L88-90
	A statement of objectives that includes the study population, the condition of interest, the exposure or intervention, and the outcome(s) considered	
Sources	Describe:	P5, L96
	Qualifications of searchers (eg, librarians and investigators)	P7, L129-130
	Search strategy, including time period included in the synthesis and keywords	P7, L133-140
	Effort to include all available studies, including contact with authors	P7, L127-128
	Databases and registries searched	
	Search software used, name and version, including special features used (e.g. explosion)	P7, L128-130
	Use of hand searching (e.g. reference lists of obtained articles)	P7, L130-131
	List of citations located and those excluded, including justification	NA
	Method of addressing articles published in languages other than English	NA
	Method of handling abstracts and unpublished studies	P7, L133-134
	Description of any contact with authors	P7, L133-140
Study Selection	Describe	
	Types of study designs considered	P6, L105-106
	Relevance or appropriateness of studies gathered for assessing the hypothesis to be tested	P6, L105-124
	Rationale for the selection and coding of data (eg, sound clinical principles or convenience)	NA
	Documentation of how data were classified and coded (eg, multiple raters, blinding, and inter-rater reliability)	P5, L96-99
	Assessment of confounding (e.g. comparability of cases and controls in studies where appropriate)	P8, L161-167
	Assessment of study quality, including blinding of quality assessors; stratification or regression on possible predictors of study results	P8, L149-153
	Assessment of heterogeneity	
	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	P9, L183-184
Results	Present	P8-9, L155-188
	A graph summarizing individual study estimates and the overall estimate	
	A table giving descriptive information for each included study	Figure 2
	Results of sensitivity testing (eg, subgroup analysis)	
	Indication of statistical uncertainty of findings	Supplementary Document 4
Discussion	Discuss	P11-12, L231-244
	Strengths and weaknesses	P11-12, L217-244
	Potential biases in the review process (eg, publication bias)	
		P16-18, L312-353
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P17, L320-321

P18, L344-346

	Assessment of quality of included studies	P18, L346-354
	Consideration of alternative explanations for observed results	
	Generalization of the conclusions (ie, appropriate for the data presented and within the domain of the literature review)	P18, L358-361
	Guidelines for future research	P19, L364-366
	Disclosure of funding source	

*Modified from Stroup DF, Berlin JA, Morton SC, Olkin I, Williamson GD, Rennie D, et al. Meta-analysis of observational studies in epidemiology: a proposal for reporting. Meta-analysis Of Observational Studies in Epidemiology (MOOSE) group. *JAMA* 2000;283:2008–12. Copyrighted © 2000, American Medical Association. All rights reserved.