## PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol\*

Section and topic	Item No	Checklist item				
ADMINISTRATIVE INFORMATION						
Title:						
Identification	1a	Identify the report as a protocol of a systematic review	Page 1			
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	N/A			
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	PROSPERO registration number: CRD42021253216			
Authors:						
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	Page 1			
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	Contributors section			
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	N/A			
Support:						
Sources	5a	Indicate sources of financial or other support for the review	Acknowledgements and funding statement sections			
Sponsor	5b	Provide name for the review funder and/or sponsor	N/A			
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	N/A			
INTRODUCTION						
Rationale	6	Describe the rationale for the review in the context of what is already known	Background section			
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	Objectives section			
METHODS						
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	Selection criteria section			
Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	Search strategy section			

Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	Search strategy section
Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	Methods section
Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	Screening and selection section
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	Data extraction section
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	Data extraction section
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	Types of main outcome measures and types of additional outcome measures sections
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	Quality assessment section
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	Strategy for data synthesis section
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as $I^2$ , Kendall's $\tau$ )	Strategy for data synthesis section
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	Analysis of subgroups or subsets section
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	N/A
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	Quality assessment section
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	Discussion section

<sup>\*</sup> It is strongly recommended that this checklist be read in conjunction with the PRISMA-P Explanation and Elaboration (cite when available) for important clarification on the items. Amendments to a review protocol should be tracked and dated. The copyright for PRISMA-P (including checklist) is held by the PRISMA-P Group and is distributed under a Creative Commons Attribution Licence 4.0.

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