

## Appendix C. Recommendations, Level of Agreement and Mapping to Cochrane MECIR Guidance\*

\*Citation: Higgins JPT, Lasserson T, Chandler J, Tovey D, Thomas, J, Flemyng E, Churchill R. Methodological Expectations of Cochrane Intervention Reviews (MECIR). Cochrane: London, Version October 2019.

RECOMMENDATIONS	LEVEL OF AGREEMENT	RELATION TO COCHRANE MECIR STANDARD FOR THE CONDUCT OF REVIEWS
<b>Defining Features</b>		
Cochrane RRs should:		
<ul style="list-style-type: none"> <li>▪ be driven primarily by requests for timely evidence for decision-making</li> </ul>	High (95%)*	Not applicable
<ul style="list-style-type: none"> <li>▪ be conducted to be to address urgent/emergent (public) health issues</li> <li>▪ to determine if a new, full Cochrane Review is warranted; or</li> <li>▪ to identify gaps in existing evidence</li> </ul>	High (94%)* Moderate (56%)* Moderate (54%)*	
<ul style="list-style-type: none"> <li>▪ should take no longer than 12-26 weeks to complete;</li> <li>▪ a completion time of 12-16 weeks was also supported by the majority of respondents as a reasonable timeline depending on the topic to be reviewed</li> </ul>	High (78%)* Moderate (55%)*	
<ul style="list-style-type: none"> <li>▪ should first focus on developing RRs addressing effectiveness of interventions in terms of types of RRs</li> </ul>	High (88%)*	
<ul style="list-style-type: none"> <li>▪ should follow a 'tailored approach' using selected abbreviated methods most appropriate to the topic</li> </ul>	Moderate (53%)	
<ul style="list-style-type: none"> <li>▪ '<i>Cochrane Rapid Review</i>' is an accurate and sufficient label [Yes]</li> </ul>	High (75%)	
<b>Interim Methods Recommendations</b>		
<b>Setting the Research Question (Topic Refinement)</b>		
<ul style="list-style-type: none"> <li>▪ R1. Cochrane RRs should directly involve key stakeholders (e.g., review users such as consumers, health professionals, policymakers, decision-makers) in contributing to setting the review question, eligibility criteria and the outcomes of interest</li> </ul>	High (95%)*	Not applicable, although <ul style="list-style-type: none"> <li>▪ C1 states that the review question and outcomes should address issues that are important to review users (e.g., healthcare consumers, health professionals, policy makers). [M]</li> </ul>
<b>Setting Eligibility Criteria</b>		
Cochrane RRs should:		
<ul style="list-style-type: none"> <li>▪ R2. limit the number of interventions</li> </ul>	Moderate (50%)	Not applicable, although

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		<ul style="list-style-type: none"> <li>▪ C2 states if the review will address multiple interventions, clarity is required on how these will be addressed (e.g. summarized separately, combined or explicitly compared). [M]</li> </ul>
<ul style="list-style-type: none"> <li>▪ R3. limit the number of comparators</li> </ul>	Moderate (52%)	<p>Not applicable, although</p> <ul style="list-style-type: none"> <li>▪ C7 states that specification of comparator interventions requires particular clarity: are the experimental interventions to be compared with an inactive control intervention (e.g. placebo), or with an active control intervention (e.g. a different drug)? Any restrictions on interventions and comparators, for example, regarding delivery, dose, duration, intensity, co-interventions and features of complex interventions should also be predefined and explained. [M]</li> </ul>
<ul style="list-style-type: none"> <li>▪ R4. limit the number of outcomes, with a focus on those most important for decision-making</li> </ul>	Moderate (56%)	<p>Not applicable, although</p> <ul style="list-style-type: none"> <li>▪ C14 states that reviewers must define in advance outcomes that are critical to the review, and any additional important outcomes. [M]</li> <li>▪ C3 states that reviewers should consider any important potential adverse effects of the intervention(s) and ensure that they are addressed. [M]</li> <li>▪ C8 states if authors do exclude studies on the basis of outcomes, care should be taken to ascertain that relevant outcomes are not available because they have not been measured rather than simply not reported. [M]</li> <li>▪ C15 states to choose only outcomes that are critical or important to users of the review such as healthcare consumers, health professionals and policy makers. [M]</li> </ul>
<ul style="list-style-type: none"> <li>▪ R5. consider date restrictions</li> <li>▪ ...with clinical or methodological justification provided for the selected date</li> </ul>	Moderate (59%) High (84%)	<ul style="list-style-type: none"> <li>▪ C35 states to justify the use of any restrictions in the search strategy on publication date and publication format. [M]</li> </ul>
<ul style="list-style-type: none"> <li>▪ R6. limit the publication language to English only for conventional interventions</li> </ul>	Moderate (69%)*	<ul style="list-style-type: none"> <li>▪ See C19 below.</li> </ul>
<ul style="list-style-type: none"> <li>▪ R7. Setting restrictions are appropriate with justification provided</li> </ul>	Moderate (61%)	Restrictions may be set in the search (see C19) or while selecting studies.

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		<ul style="list-style-type: none"> <li>C19 states that searches should be designed to capture as many studies as possible that meet the eligibility criteria, ensuring that relevant time periods and sources are covered and not restricted by language or publication status. [M]</li> </ul>
<ul style="list-style-type: none"> <li>R8. SRs should be considered a relevant study design for inclusion in Cochrane RRs but overlap of primary studies identified in SRs and through the search should be considered including the double-counting of data</li> </ul>	Moderate (61%)*	Not applicable.
<ul style="list-style-type: none"> <li>R9. Placing emphasis on locating and summarizing evidence first from relevant, higher-quality study designs (e.g., SRs or RCTs) should be considered</li> </ul>	High (83%)*	<ul style="list-style-type: none"> <li>C9 states to define in advance the eligibility criteria for study designs in a clear and unambiguous way, with a focus on features of a study's design rather than design labels. [M]</li> <li>C10 states to include randomized trials as eligible for inclusion in the review. [M]</li> </ul> <p>C11 states that authors should be able to justify why they have chosen either to restrict the review to randomized trials or to include non-randomized studies. The particular study designs included should be justified with regard to appropriateness to the review question and with regard to potential for bias.[M]</p>
<b>Searching for Studies</b>		
<ul style="list-style-type: none"> <li>R10. Searching of major databases should be limited to Cochrane CENTRAL, MEDLINE (e.g., via PubMed) and Embase (if available access)</li> </ul>	Low (43%)†	<ul style="list-style-type: none"> <li>C24 states to search CENTRAL (or Cochrane Review Group Specialized Register), MEDLINE, and Embase (if available) at a minimum. [M]</li> </ul>
<ul style="list-style-type: none"> <li>R11. Searching of specialized databases (e.g., PsycInfo, CINHALL) should be limited and may be omitted if time and resources to not permit their addition</li> </ul>	Low (41%)†	<ul style="list-style-type: none"> <li>C25 states to search specialist bibliographic databases relevant to the topic or region. [HD]</li> </ul>
<ul style="list-style-type: none"> <li>R12. Search strategies for Cochrane RRs should always undergo Peer Review of Electronic Search Strategies (PRESS)</li> <li>Search strategies for Cochrane RRs should undergo Peer Review of Electronic Search Strategies (PRESS) if resources permit</li> </ul>	<p>Low (46%)†</p> <p>Low (41%)†</p>	<p>We note PRESS is not part of current MECIR guidance, however,</p> <ul style="list-style-type: none"> <li>C36 states to document the search process in enough detail to ensure that it can be reported correctly in the review. [M]</li> <li>PR20 states that the line-by-line search string should be presented to facilitate peer review. [M]</li> </ul>

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<ul style="list-style-type: none"> <li>▪ R13. Limit grey literature and supplemental searching [Yes] Limit grey literature to the following:               <ul style="list-style-type: none"> <li>▪ Clinical trial registries</li> <li>▪ SR bibliographies for relevant studies</li> <li>▪ Scanning references of included studies</li> </ul> </li> </ul>	<p>High (70%)</p> <p>High (89%)</p> <p>High (80%)</p> <p>Moderate (66%)</p>	<ul style="list-style-type: none"> <li>▪ C12 states Include studies irrespective of their publication status, unless exclusion is explicitly justified. [M]</li> <li>▪ C27-C31 state that searches for studies should be as extensive as possible. Examples include clinical trials registries, grey literature (e.g., reports), other reviews, reference lists, and contacting relevant individuals/ organizations. [M]</li> </ul>
<b>Study Selection – Title and Abstract Screening</b>		
<ul style="list-style-type: none"> <li>▪ R14. Most acceptable approach is single reviewer; with a second reviewer to screen all studies excluded by the first reviewer</li> <li>▪ Note: single reviewer only to screen all titles/abstracts would be acceptable and adheres to Cochrane guidance.</li> </ul>	<p>Ranked #1</p> <p>Ranked #4 (last)</p>	<ul style="list-style-type: none"> <li>▪ C39 states that for title/abstract screening, it is desirable, but not mandatory, that two people undertake this initial screening, working independently. [M]</li> </ul>
<b>Study Selection – Full-text Screening</b>		
<ul style="list-style-type: none"> <li>▪ R15. Most acceptable approach is single reviewer; with a second reviewer to screen all studies excluded by the first reviewer</li> <li>▪ Note: dual, independent screening of full-text articles was also endorsed.</li> </ul>	<p>Ranked #1</p> <p>Ranked #2</p>	<ul style="list-style-type: none"> <li>▪ C39 states that reviews should use (at least) two people working independently to determine whether each study meets the eligibility criteria, and define in advance the process for resolving disagreements. [M]</li> </ul>
<b>Data extraction</b>		
<ul style="list-style-type: none"> <li>▪ R16. Most acceptable approach is single reviewer with full verification by a second reviewer of the data</li> <li>▪ Note: single extraction; with verification by a second reviewer of a proportion of study characteristics and all outcome data was also endorsed.</li> </ul>	<p>Ranked #1</p> <p>Ranked #2</p>	<p>We note that for Cochrane Reviews, data extraction may be separated into two parts:</p> <ul style="list-style-type: none"> <li>▪ C45 and C46 state to use (at least) two people working independently to extract study characteristics [HD] and outcomes data [M] from reports of each study, and define in advance the process for resolving disagreements.</li> </ul>
<ul style="list-style-type: none"> <li>▪ R17. Only a minimal data set should be extracted (i.e., streamlining how much information is extracted about the study characteristics, the interventions, and outcomes data)</li> </ul>	<p>High (71%)</p>	<p>Not applicable.</p>
<ul style="list-style-type: none"> <li>▪ R18. Consider using data from existing SRs when possible to reduce time spent extracting</li> </ul>	<p>Moderate (59%)</p>	<p>Not applicable.</p>
<ul style="list-style-type: none"> <li>▪ Only more experienced systematic reviewers should be involved in data extraction</li> </ul>	<p>Moderate (69%)</p>	<p>Not applicable.</p>

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<b>Risk of Bias (RoB) Assessment</b>		
<ul style="list-style-type: none"> <li>▪ R19. Most acceptable approach (ranked 1) – single reviewer with full verification of all judgements (and support statements) by a second reviewer</li> <li>▪ Note: dual independent review was also endorsed.</li> </ul>	<p>Ranked #1</p> <p>Ranked #2</p>	<ul style="list-style-type: none"> <li>▪ C53 states to use (at least) two people working independently to apply the risk-of-bias tool to each result in each included study, and define in advance the process for resolving disagreements. [M]</li> </ul>
<ul style="list-style-type: none"> <li>▪ R20. Limit RoB ratings to the most important outcomes</li> </ul>	<p>Moderate (61%)*</p>	<ul style="list-style-type: none"> <li>▪ C52 states that reviewers should assess the risk of bias in <u>at least one specific result</u> for each included study. [M]</li> <li>▪ C56 states that It may not be feasible to assess the risk of bias in every single result available across the included studies, particularly if a large number of studies and results are available. Review author should strive to assess risk of bias in the results of outcomes that are most important to patients. Such outcomes will typically be included in ‘Summary of findings’ tables, which present the findings of seven or fewer patient-important outcomes. [HD]</li> <li>▪ C57 states to summarize the risk of bias for each key outcome for each study [HD]</li> </ul>
<b>Synthesis</b>		
<ul style="list-style-type: none"> <li>▪ R21. Standards for conducting a meta-analysis for a SR also apply to RRs. A meta-analysis should always be considered if appropriate and warranted.</li> </ul>	<p>Low (47%)†</p>	<ul style="list-style-type: none"> <li>▪ See C61-C73.</li> </ul>
<ul style="list-style-type: none"> <li>▪ R22. Assessing the certainty of evidence using GRADE</li> </ul>	<p>Moderate (62%)*</p>	<ul style="list-style-type: none"> <li>▪ C74 states to use the five GRADE considerations (risk of bias, consistency of effect, imprecision, indirectness and publication bias) to assess the certainty of the body of evidence for each outcome, and to draw conclusions about the certainty of evidence within the text of the review. [M]</li> <li>▪ C75 states to Justify and document all assessments of the certainty of the body of evidence. [M]</li> </ul>
<b>Other Considerations for Cochrane RRs</b>		
Cochrane RRs should:		
<ul style="list-style-type: none"> <li>▪ R23. be preceded by a protocol submitted to and approved by Cochrane</li> </ul>	<p>Moderate (55%)*</p>	<p>Standard practice in Cochrane.</p>

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<ul style="list-style-type: none"> <li>▪ R24. be preceded by a protocol that is published (e.g., Cochrane Library, PROSPERO or Open Science Framework)</li> </ul>	Moderate (60%)*	Standard practice in Cochrane.
<ul style="list-style-type: none"> <li>▪ R25. allow for post-hoc changes to the protocol (eligibility criteria etc.) as part of an efficient/iterative process</li> </ul>	Moderate (65%)*	<ul style="list-style-type: none"> <li>▪ C13 states that reviewers need to justify any changes to eligibility criteria or outcomes studied. In particular, post hoc decisions about inclusion or exclusion of studies should keep faith with the objectives of the review rather than with arbitrary rules. [M]</li> </ul>
<ul style="list-style-type: none"> <li>▪ R26. incorporate use of online SR software (e.g., Covidence, DistillerSR, EPPI-Reviewer) to streamline the process</li> </ul>	Moderate (56%)*	Not applicable.

\*Instances where two categories were collapsed (e.g., strongly agree/agree; extremely useful/very useful);

†Indicates when a survey question only reached a 'low-level' of agreement for each response. We still recommended the response that scored highest (even in the absence of moderate or high-level endorsement) to ensure each stage of conduct had an accompanying recommendation.

[HD] Highly desirable; [M] Mandatory