PaPaS Review Guidance with Mandatory MECIR Standards

This guidance document contains information regarding the mandatory Methodological Expectations of Cochrane Intervention Reviews (MECIR) Conduct (C) and Reporting (R) Standards, Cochrane Handbook guidance, common errors, and PaPaS editorial suggestions

Review information

Review type: Intervention

Authors

Anna Erskine¹

¹Cochrane Pain, Palliative and Supportive Care Group, Pain Research Unit, Oxford, UK

Citation example: Erskine A. PaPaS Review Guidance with Mandatory MECIR Standards. Cochrane Database of Systematic Reviews, Issue. Art. No.: . DOI: .

- Check that authors are listed in the correct order, with the correct affiliations, and have agreed to the order in which
 they are listed.
- <u>Do not add/delete any authors or amend contact details in RevMan</u>: any changes must be made centrally by the CRG. Email kerry.harding@ndcn.ox.ac for assistance.
- Authors can amend their own contact details <u>in Archie</u>. See our screenshots of common queries for how to do this: http://papas.cochrane.org/screenshots-common-issues

Contact person

Anna Erskine

Managing Editor

Cochrane Pain, Palliative and Supportive Care Group

Pain Research Unit The Churchill Hospital Old Road

Oxford OX3 7LE

UK

E-mail: anna.erskine@ndcn.ox.ac.uk

Dates

Assessed as Up-to-date:Not provided Date of Search:
Not provided Next Stage Expected:
Protocol First Published: Not specified Review First Published:
Not specified Not specified

'Assessed as up to date' and 'Date of search' dates: must both match the date of the most recent search. Must reflect what is written in the review text.

Searches may need to be updated during the editorial process because all Cochrane reviews can only be published within 12 months of the latest search. If new evidence is unlikely to have been published, or you are aware of new studies but they are unlikely to change the conclusions, then we can arrange to update your searches during peer review. If new evidence is likely to have been published which could change your conclusions we will need to update the searches before peer review. We will assess this on a case-by-case basis.

'Next stage expected' date: when the next full publication is due: for a new Review, this date should reflect when the next update is due, usually two years after anticipated publication. Reviews can be 'stabilised' if no new evidence is likely. Please discuss with PaPaS re. postponing the update beyond the normal two years if applicable.

What's new

Date Event Description

No need to add anything here unless the review is an Update.

See 'Updating your review' document.

History

Date	Event	Description

Abstract

Background

This guidance document contains information regarding the mandatory Methodological Expectations of Cochrane Intervention Reviews (MECIR) Conduct (C) and Reporting (R) Standards, Cochrane Handbook guidance, common errors, and PaPaS editorial suggestions

This guidance document will help you prepare your first draft review. Information has been added under the headings, or as yellow notes, for your attention. Comments and yellow notes can be deleted once your first draft is ready to be submitted for editorial approval. Common errors identified by the Cochrane Editorial Unit (CEU) screening team have been flagged in yellow for your attention.

Please refer to the MECIR Standards (2016), the Cochrane Style Manual (2016; What's New?) and the Cochrane Handbook (2011) during the development of your review. If these minimum required standards are not met, you will be asked to submit a revised version which will prolong the editorial process. If review drafts are consistently below the minimum expected standards, we reserve the right to withdraw protocols or pass them to another author team.

First draft reviews are expected to be submitted for editorial approval **within 9 months** of publishing the protocol and receiving the search results. Reviews are expected to be published within a **maximum of 2 years**. PaPaS reserves the right to withdraw the published protocols for the reviews that greatly exceed the submission deadlines or are consistently delayed or not progressing, unless there are extenuating circumstances. You will receive a reminder in advance of your submission date, and overdue submissions will receive a notification email. You can contact PaPaS at any time to discuss your review.

The PaPaS website contains more useful links and guidance on our Resources page (here), as well as screenshots (here) to help with some common queries you may have as you get started. Our 'Author and Referee Guide' may also help.

For further training and support

- Find your local Cochrane Centre here;
- Online learning is available on the Cochrane Training website here;
- For technical hitches, please see the Help section in RevMan, visit the IKMD website, or contact the tech support team on techsupport@cochrane.org. Ensure you are using the latest version of RevMan: see http://tech.cochrane.org/revman/download:
- Visit <u>Task Exchange</u>, a platform that connects people who need help with their Cochrane reviews with people who have the time and expertise to help;
- See the Cochrane Editorial and Publishing Policy Resource here.

A few important points to remember

- <u>Always check your review in and out using RevMan</u>. You can create as many versions as necessary. We strongly recommend <u>not</u> saving files locally, as files can get lost and version control can be disrupted. 'Checking in' via RevMan ensures your latest draft is always available to everyone. We do not recommend using Microsoft Word or any other word processing software for your initial drafts; it saves time to use RevMan from the beginning and helps you familiarise yourself with the software.
- All the authors listed must see and approve this version and take full responsibility for the accuracy of the contents. Ensure all affiliation details are correct (see yellow note above). Authors can amend their own affiliations via their Archie records; see our <u>screenshots</u> for guidance if unsure how to do this. Do not attempt to add or delete authors in RevMan; if you need to add or delete authors, please contact PaPaS as this is managed centrally.
- Please do not change the title, which has been registered in Archie; if you need to suggest changes, please contact PaPaS to discuss.
- Style: use the past tense and active voice., e.g. 'We searched the databases...' rather than 'Databases were searched...'. Sections from the protocol (e.g. Methods) will need to be updated to past tense, e.g. 'We will assess...' to 'We assessed...'
- If additional subheadings have been added, select the appropriate Heading Style using the drop down box on the RevMan toolbar (Heading Style 2 then Heading Style 3 then Heading Style 4 etc).
- Use either UK or US English consistently throughout the review (e.g. either 'randomised' or 'randomized').
- Explain all acronyms and abbreviations in full on first use (e.g. intravenous (IV), World Health Organization (WHO)).
- Spell in full all numbers at the beginning of a sentence, and those up to and including nine. For numbers 10 and higher, all numbers in tables, and equations and numerical results, please use numerals.
- Include a space before and after each unit of measurement or mathematical symbol (e.g. 5 mL, P = 0.03).
- Back up all key supporting statements with references and avoid the use of plagiarized text. The editorial team will use plagiarism detection software upon receipt of your first draft, in accordance with Cochrane's <u>Plagiarism Policy</u>. You can check references are correctly linked using the 'Find and Mark Links' tool in RevMan [select text; Edit > Find and Mark Links, or Ctrl L].
- Before accepting our standard suggested wording, please check that you agree with the statements; they may need to be amended depending on your topic area.
- Following the 2015 re-brand, the organisation is now referred to only as 'Cochrane' rather than 'The Cochrane Collaboration', except for references which have not yet been updated.
- <u>Before submitting for editorial approval</u>, complete a validation check in RevMan (File menu > Reports > Validation report), and make corrections where possible.
- Before submitting for editorial approval, complete a spell check in RevMan (Tools menu > Check spelling).

- Proofread the Cochrane review carefully in accordance with the Cochrane Style Manual.

Submitting for editorial approval

When you are ready to submit your first draft for editorial approval, please do so via RevMan by selecting 'Submit for editorial approval' when checking in (see RevMan Help or our <u>screenshots</u> for guidance). Please also remember to complete the ticket email sent to you via Archie upon publication of your protocol (contact PaPaS if you are unable to do this). Completing Archie ticket emails ensures that our records are automatically updated and avoids lost emails or other delays to the editorial process.

The Abstract

Mandatory MECIR Reporting Standards for New Reviews

- R3: Prepare a structured Abstract to provide a succinct summary of the review. In the interests of brevity it is highly desirable for authors to provide an Abstract of less than 700 words, and it should be no more than 1000 words in length: abstracts are a prominent, publicly accessible summary of the review that need to stand alone. They should convey key information about the review guestion and its findings, and be informative to readers.

The Background section of the Abstract

Mandatory MECIR Reporting Standards for New Reviews

- R4: Abstract- Background: Summarize the rationale and context of the review.

Objectives

Mandatory MECIR Reporting Standards for New Reviews

- R5: State the main objective(s), preferably in a single concise sentence. The objective(s) should be expressed in terms that relate to the population(s), intervention comparison(s) and, where appropriate, outcomes of interest. See Handbook 11.8.

This should be identical to the objective(s) in the main review text, ideally in a single sentence. (The objective in the main review text will have been automatically copied over from the protocol.)

Search methods

Mandatory MECIR Reporting Standards for New Reviews

- R6: Provide the date of the last search from which records were evaluated and that any studies identified were incorporated into the review, and an indication of the databases and other sources searched. Abstracts should aim to give readers brief, but key, information about the comprehensiveness of the search and the currency of the information summarized by the review. The Abstract must include the month and year of the set of searches up to which the conclusions of the review are valid. This date should reflect the date of the most recent set of searches from which all records have been screened for relevance and any studies meeting the eligibility criteria have been fully incorporated into the review (studies may be awaiting classification if, for example, the review authors are awaiting translation or clarification from authors or sponsors). Abstracts do not need to report on recent repeat or 'catch-up' searches whose results have not been fully incorporated into the review. However, discretion should be applied if such searches identify a large body of evidence, the absence of which may affect the reliability of the conclusions. The amount of information regarding the search should be indicative of the process rather than provide specific details. In the interests of brevity certain details regarding the overall process may need to be moved to the full text of the review.

PaPaS suggested wording: We searched CENTRAL, MEDLINE, Embase, [x] other databases and [x] trials registers to [month year], together with reference checking, citation searching and contact with study authors to identify additional studies.

The information here must match your Methods, and the date must match **Date of search** and **Date assessed as up to date** as stated in 'Dates' section above. All reviews must be published within 12 months of the latest search. Searches can be updated during the editorial process, usually during peer review, if necessary.

Selection criteria

Mandatory MECIR Reporting Standards for New Reviews

- R7: Summarize eligibility criteria of the review, including information on study design, population and comparison. Any extensions to eligibility criteria to address adverse effects, economic issues or qualitative research should be mentioned.

Data collection and analysis

Mandatory MECIR Reporting Standards for New Reviews

- R8: Summarize any noteworthy methods for selecting studies, collecting data, evaluating risk of bias and synthesizing findings. For many reviews it may be sufficient to state "We used standard methodological procedures expected by Cochrane." This section of the Abstract should indicate the rigour of the methods that underpin the results. It does not need to replicate the detailed description of the methods given in the main text of the review. Details of how many people were involved in the screening process and collection of information about any included studies are not necessary in the Abstract. Key statistical methods may be given if not clear from the results that follow. The Abstract should prioritize the disclosure of non-standard approaches. For example, rather than disclosing all domains applied in the assessment of bias, notable variations on the standard approach should be given, such as use of non-standard tools.

PaPaS suggested wording: We used standard methodological procedures expected by Cochrane. We assessed risk of bias and extracted data. We calculated the risk ratio (RR) and number needed to treat to benefit (NNT). We also collected information on adverse events. We assessed the evidence using GRADE and created a 'Summary of findings' table.

Main results

Mandatory MECIR Reporting Standards for New Reviews

- R9: The total number of included studies should be stated. It might be appropriate to provide numbers of studies and participants for specific comparisons and main outcomes if the amount of evidence differs substantially from the total. Numbers of participants analysed should generally be presented in preference to numbers recruited (e.g. randomized); it is important to be clear which numbers are being reported. For some types of data there may be preferable alternatives to the number of participants (e.g. person-years of follow-up, number of limbs).
- R11: Provide a comment on the findings of the bias assessment. The 'Risk of bias' assessments are a key finding and form a fundamental part of the strength of the conclusions drawn in the review. If risks of bias differ substantially for different comparisons and outcomes, this should be mentioned.
- R12: Report findings for all important outcomes, irrespective of the strength and direction of the result, and of the availability of data. Findings should typically include concise information about the size of effect and quality of evidence for the outcome (such as risk of bias, consistency of effect, imprecision, indirectness and publication bias), for example using GRADE. Outcomes reported in the Abstract should not be selected solely on the basis of the findings. In general, the same outcomes in the Abstract should be presented in the Plain language summary and 'Summary of findings' tables. If no studies measured the outcome, then a comment should be made to that effect.

PaPaS suggested wording: We assessed the outcome of 30% reduction in pain over baseline, with 38/75 participants (49%) achieving the outcome with [intervention] compared with 23/75 (31%) with placebo [insert results including confidence interval (CI), x studies; low quality evidence]. We downgraded the quality of the evidence due to...

- R13: Ensure that any findings related to adverse effects are reported. If adverse effects data were sought, but availability of data was limited, this should be reported. The Abstract of the review should aim to reflect a balanced summary of the benefits and harms of the intervention. See Handbook 11.8.
- R14: Present summaries of statistical analyses in the same way as they are reported in the review and in a standard way, ensuring that readers will understand the direction of benefit and the measurement scale used, and that confidence intervals are included where appropriate. The standard format for reporting the results of statistical analysis includes an indication of the summary measure, point estimate and confidence interval, e.g. odds ratio 0.75 (95% confidence interval 0.62 to 0.89). Note: Ensure the results stated here match the analyses [to check this: right click anywhere in the text; select 'Insert Analysis results' from the drop-down list; to automatically enter the results into the text, click 'OK'; (see our screenshots for help).

Common errors identified by Cochrane Editorial Unit (CEU) quality screening programme

- 1. Inaccurate reporting of statistical imprecision. In particular, there is a tendency for results with wide confidence intervals to be described as showing "no effect" in the abstract, PLS, discussion and full-text conclusions.
- 2. Discrepancies between results presented in the analyses and their reporting across the text of reviews.
- 3. Inconsistencies in the reporting of results or interpretation of evidence across different sections of reviews.
- 4. Overly optimistic conclusions that do not take proper account of the quality of the evidence, particularly when the review is empty or the data are sparse.
- 5. Common under-utilisation of information from Summary of Findings tables in reporting the review findings.
- 6. Often unclear or inexplicable decisions in relation to GRADE assessments and assessments that seem to be restricted to risk of bias only.

Authors' conclusions

Mandatory MECIR Reporting Standards for New Reviews

- R16: State key conclusions drawn. Authors' conclusions may include both implications for practice and implications for research. Care must be taken to avoid interpreting lack of evidence of effect as evidence of lack of effect. See <u>Handbook 12.7.4</u>. Recommendations for practice should be avoided. See <u>Handbook 11.8</u>.
- R17: Ensure that all findings reported in the Abstract and Plain language summary, including re-expressions of metaanalysis results, also appear in the main text of the review. See <u>Handbook 11.8</u> and <u>Handbook 11.9</u>.
- R18: Ensure that reporting of objectives, important outcomes, results, caveats and conclusions is consistent across the main text, the Abstract, the Plain language summary and the 'Summary of findings' table (if included).

Note: we have been advised by Cochrane Editorial Unit that the word 'safe' should not be used. They recommend sticking to the evidence and saying something like 'The studies in our review reported no serious adverse events and a low incidence of [symptoms x, y and z].' See also Common errors identified by CEU (above).

CEU Publication Checklist: please check your abstract against this checklist before submission

- 1. Does the title reflect the review question?
- 2. Is the research question (PICO) clear and the rationale for the review well described?
- 3. Is the search date less than 12 months from publication?
- 4. Does the abstract indicate that trials registers were searched?
- 5. Are the eligible study designs described in the abstract appropriate to the review question?
- 6. Are the findings for all important outcomes reported for the main comparison(s), including information about adverse effects? (i.e. consistent with the outcomes reported in the SoF table)
- 7. Is there an estimation of the certainty (or quality) of the body of evidence using GRADE for each outcome reported in the abstract?
- 8. Are harms (or the absence of harms) reported?
- 9. Are the direction, magnitude and confidence intervals of effects clearly described where appropriate?
- 10. Does the reporting of results avoid reliance on emphasizing on statistical significance to determine presence or absence of an effect?
- 11. Are the conclusions an accurate reflection of the evidence presented in the GRADE SoF table(s)?
- 12. Do the authors avoid making recommendations?

Plain language summary

Plain language title

Mandatory standards for the reporting of Plain Language Summaries in new Cochrane Intervention Reviews (PLEACS)

- PLS1: Prepare a summary of the review containing all the crucial information in plain language that will be understood by the general public.
- PLS3: Group the information into sections using standard headers.
- PLS4: Ensure that the key messages of the review are reported consistently between the plain language summary, the main text of the review including the abstract, 'Summary of findings' tables, and authors' conclusions.
- PLS5: Describe the question(s) addressed by the review including the population(s), intervention(s), comparison(s) and the main outcomes if applicable.
- PLS6: Briefly introduce the topic with the purpose of explaining the relevant background of the review and the uncertainties that the review intended to address.
- PLS7: Provide the date up to which some or all studies have been incorporated.
- PLS8: Ensure clear reporting of key characteristics of the included studies.
- PLS10: Present the results for all main (primary and key secondary) outcomes. Report the findings for harms (adverse events) that are described in the review. State whether the harms have been fully reported by the included RCTs.
- PLS12: Describe the overall quality of the evidence for each of the main outcomes based on the five GRADE considerations. Describe any factors that could affect the confidence in the results/quality of evidence.

See yellow note for PaPaS suggested wording. The information here should be based on information contained in the SoF tables, and be consistent with the conclusions throughout the review.

Common errors identified by CEU:

- 1. Discrepancies between results presented in the analyses and their reporting across the text of reviews.
- 2. Inconsistencies in the reporting of results or interpretation of evidence across different sections of reviews.
- 3. Overly optimistic conclusions that do not take proper account of the quality of the evidence, particularly when the review is empty or the data are sparse.
- 4. Common under-utilisation of information from 'Summary of Findings' tables in reporting the review findings. See also yellow note.

PaPaS example/suggestions:

Background (suggested sub-headings)

For example, information about the condition and intervention.

E.g. a sentence or two about the condition under study, 'People with condition X may have symptoms such as pain, anxiety or distress. Intervention Y may help relieve these symptoms.'

E.g. a sentence or two about the intervention(s) under study, 'Pain in condition X is usually treated with painkillers taken by mouth. This review looked at how good Y was in treating X.'

Study characteristics

For example, information about the date searched, the number of trials/participants, and outcomes reported.

E.g. what was found, mainly in terms of the number of studies and patients, but including outcomes or other appropriate or important topics, 'In October 2016, we searched for clinical trials looking at intervention Y compared to Z in patients with condition X. We found 16 small trials.'

Key findings

For example, information about results of your analyses.

E.g. what was the effect of the intervention in terms of benefit? For benefit we might use the simple odds (X in 10) of getting a benefit that is important to patients, with and without using the intervention. The reason for using simple odds as a numerical is because research on understanding shows that this is most accessible to most people (see Arthritis Res
Ther. 2008;10(1):R20 for a systematic review). E.g. 'Some studies showed that Intervention Y may help relieve short-term pain and anxiety in patients with X. Intervention Y worked for 3 in 10 people in these studies.'

E.g. what was the effect of the intervention in terms of harm? What harm, and what was the risk? We might use simple odds (X in 10) because the issue of RCTs is common and irreversible harm, but obviously it can be Y in 1000 or 10000 if the review discusses rare, serious, and irreversible harm. **E.g.** 'We found that around 2 out of 10 people experienced side effects such as A, B and C.'

E.g. what next? Are new trials needed in order to establish the efficacy and safety? **E.g.** 'There was not enough good quality evidence available to draw any conclusions. Larger, high quality trials are needed to find out whether X helps improve Y for people with X.'

Quality of the evidence

Report the findings of your risk of bias and GRADE assessments, in plain language (e.g. low/high/moderate quality).

Good practice example for reporting the quality of evidence in a PLS

We rated the quality of the evidence from studies using four levels: very low, low, moderate, or high. Very low quality evidence means that we are very uncertain about the results. High quality evidence means that we are very confident in the results. There were problems with the design of some studies and there were not enough data to answer some parts of our review question. The quality of the evidence from two studies was too low to allow us to draw any conclusions about the effects of the needles that were compared in the studies. There was sufficient evidence from the remaining three studies to allow us to reach some conclusions.

From: Beirne PV, Hennessy S, Cadogan SL, Shiely F, Fitzgerald T, MacLeod F. Needle size for vaccination procedures in children and adolescents. Cochrane Database of Systematic Reviews 2015, Issue 6. Art. No.: CD010720. DOI: 10.1002/14651858.CD010720.pub2.

Background

Description of the condition

[This section will be automatically copied from the protocol; check that the correct tense is used]

Description of the intervention

[This section will be automatically copied from the protocol; check that the correct tense is used]

How the intervention might work

[This section will be automatically copied from the protocol; check that the correct tense is used]

Why it is important to do this review

[This section will be automatically copied from the protocol; check that the correct tense is used]

Objectives

[This section will be automatically copied from the protocol; needs to exactly match the Objectives wording in the Abstract.]

Mandatory MECIR Reporting Standards for New Reviews

 R22: State the main objective, where appropriate in a single concise sentence. The primary objective of a Cochrane Review should be to assess the effects of one or more healthcare interventions on user-important outcomes, both intended and unintended. The objective should be expressed in terms that relate to the population(s), intervention comparison(s) and, where appropriate, to specify the outcomes of interest explicitly. Review users may be patients, carers, policy makers, clinicians, practitioners or others.

- R24: If health economics evidence is being reviewed, state this explicitly in the Objectives (as a secondary objective). The
 primary aim of a Cochrane Review should be to assess the effects of one or more healthcare interventions on userimportant outcomes, both intended and unintended. These outcomes may include economic outcomes. If health
 economics evidence is being reviewed as an integrated economics component, this should be stated as a secondary
 objective. See Handbook 15.2.3.
- R25: If qualitative research evidence is being reviewed, state this explicitly in the Objectives (as a secondary objective).
 The primary aim of a Cochrane Review should be to assess the effects of one or more healthcare interventions on user-important outcomes, both intended and unintended. If qualitative research evidence is being included to 'extend' the review, this should be stated as a secondary objective. See Handbook 20.2.1.

Methods

Criteria for considering studies for this review

Types of studies

[This section will be automatically copied from the protocol. Ensure this is changed from future tense ('We will include...') to past tense ('We included...').]

Mandatory MECIR Reporting Standards for New Reviews

- R27: State eligible study designs, and provide a justification for the choice. It is not necessary to explain why randomized trials are eligible (if that is the case), although it may be important to explain why other types of study meet the eligibility criteria of the review.
- R28: If studies are excluded on the basis of publication status or language of publication, explain and justify this. Studies should be included irrespective of their publication status and language of publication, unless explicitly justified.

Types of participants

[This section will be automatically copied from the protocol. Ensure this is changed from future tense ('We will include...') to past tense ('We included...').]

Mandatory MECIR Reporting Standard for New Reviews

R29: State eligibility criteria for participants, including any criteria around location, setting, diagnosis or definition of
condition and demographic factors, and how studies including subsets of relevant participants are addressed. Any notable
restrictions on the eligibility criteria of the review should be given and explained (e.g. exclusion of people under or over a
certain age, specific settings of intervention).

Types of interventions

[This section will be automatically copied from the protocol. Ensure this is changed from future tense ('We will include...') to past tense ('We included...').]

Mandatory MECIR Reporting Standard for New Reviews

R30: State eligibility criteria for interventions and comparators, including any criteria around delivery, dose, duration, intensity, co-interventions and characteristics of complex interventions.

List comparators for the intervention that are consistent with the objectives of the Cochrane Review (e.g. comparison with a placebo addresses a different objective from comparison with an active intervention).

Types of outcome measures

[This section will be automatically copied from the protocol]

Mandatory MECIR Reporting Standards for New Reviews

- R31: If measurement of particular outcomes is used as an eligibility criterion, state and justify this. Studies should never
 be excluded from a review solely because no outcomes of interest are reported. However, on occasion it will be
 appropriate to include only studies that measured particular outcomes. For example, a review of a multi-component public
 health intervention promoting healthy lifestyle choices, focusing on reduction in smoking prevalence, might legitimately
 exclude studies that do not measure smoking rates.
- R32: State primary and secondary outcomes of interest to the review, and define acceptable ways of measuring them. Explain how multiple variants of outcome measures (e.g. definitions, assessors, scales, time points) are addressed.

Primary outcomes

[This section will be automatically copied from the protocol. Please do not make any changes.]

Secondary outcomes

[This section will be automatically copied from the protocol. Please do not make any changes.]

Search methods for identification of studies

Electronic searches

[This section will be automatically copied from the protocol. Ensure this is changed from future tense ('We will search...') to past tense ('We searched...').]

Mandatory MECIR Reporting Standards for New Reviews

- R34: Provide the date of the last search and the issue or version number (where relevant) for each database for which results were evaluated and incorporated into the review. If a search was rerun prior to publication, and its results were not incorporated, explain how the results were dealt with, and provide the date of the search. The review should provide the search date up to which studies have been retrieved and assessed for inclusion. This is the date to which the conclusions of the review are valid. It should reflect the date of the most recent set of searches from which all records have been screened for relevance and any studies meeting the eligibility criteria have been fully incorporated into the review (studies may be awaiting classification if, for example, the review authors are awaiting translation or clarification from authors or sponsors). Since the review is likely to have drawn on searches conducted across multiple databases, it is possible that searches were performed on more than one date. The earliest date of the most recent set of searches should be provided in the review text and as the hard-coded date of the last search. The remaining dates for other databases should be reported in an Appendix. If a 'catch-up' search was run subsequent to the review being written up, any relevant studies not vet assessed for inclusion should be listed in the section 'Studies awaiting assessment'.
- R37: Present the exact search strategy (or strategies) used for each database in an Appendix, including any limits and
 filters used, so that it could be replicated. Search strategies that are available elsewhere (e.g. standard methodological
 filters, or strategies used to populate a specialized register) may be referenced rather than reproduced. Including the
 number of hits for each line in the strategy is optional.

PaPaS suggested wording [ensure links to Appendices are correct/added; select text, right click, select 'Insert link']:

We aimed to identify all relevant RCTs regardless of language or publication status (published, unpublished, in press, or in progress).

We searched the following databases up to [day month year]:

- the Cochrane Central Register of Controlled Trials (CENTRAL; [year, issue]), in the Cochrane Library using the strategy in Appendix 1:
- MEDLINE via Ovid (from 1946) using the strategy in Appendix 2;
- Embase via Ovid (from YEAR) using the strategy in Appendix 3; and
- [other databases] [add appendix].

☐Each search strategy can be listed under one Appendix, or you can list each one in a separate Appendix.

Searching other resources

[This section will be automatically copied from the protocol. Ensure this is changed from future tense ('We will search...') to past tense ('We searched...').]

PaPaS suggested wording [ensure internet links are correct/added]:

We searched the following trials registries on [day month year]:

- ClinicalTrials.gov (clinicaltrials.gov);
- WHO International Clinical Trials Registry Platform (ICTRP) (http://apps.who.int/trialsearch/);
- [other registry] [add link].

We reviewed the bibliographies of any randomised trials and review articles identified, and contacted the authors and known experts in the field, to identify additional published or unpublished data. [Include a comment about whether or not the authors/experts responded to requests.]

Data collection and analysis

[No need to add anything here]

Selection of studies

[This section will be automatically copied from the protocol. Ensure this is changed from future tense ('Two review authors [XX, YY] will assess...') to past tense ('Two review authors [XX, YY] assessed...').]

Mandatory MECIR Reporting Standard for New Reviews

• R39: State how inclusion decisions were made (i.e. from search results to included studies), clarifying how many people were involved and whether they worked independently.

Data extraction and management

[This section will be automatically copied from the protocol. Ensure this is changed from future tense ('We will independently extract data...') to past tense ('Two review authors [XX, YY] independently extracted data...).]

Mandatory MECIR Reporting Standards for New Reviews

• R40: State how data were extracted from reports of included studies, clarifying how many people were involved, whether they worked independently, and how disagreements were resolved. Describe data collection process for any reports

requiring translation.

- R42: State the types of information that were sought from reports of included studies.
- R43: Explain any transformations of reported data prior to presentation in the review, along with any assumptions made. Explain any procedures for extracting numeric data from graphs.

Assessment of risk of bias in included studies

[This section will be automatically copied from the protocol. Ensure this is changed from future tense ('We will assess...') to past tense ('We assessed...).]

Mandatory MECIR Reporting Standard for New Reviews

R45: State and reference the tool(s) used to assess risk of bias for included studies, how the tool(s) was implemented, and the criteria used to assign studies to judgements of low risk, high risk and unclear risk of bias. If the Handbook guidance for undertaking 'Risk of bias' assessments was followed in its entirety, then a reference to the Handbook is sufficient to provide the criteria used to assign judgements (see <u>Handbook 8.9</u> to 8.15). Justify any deviations from the tool.

PaPaS suggested wording [Note: if you are making changes from protocol, please discuss this with PaPaS; changes should be acknowledged in the <u>Differences between protocol and review</u> section].

Two authors [XX, ZZ] independently assessed risk of bias for each study, using the criteria outlined in the Cochrane Handbook for Systematic Reviews of Interventions (<u>Higgins 2011</u>), with any disagreements resolved by discussion. We completed a 'Risk of bias' table for each included study using the 'Risk of bias' tool in Review Manager 5.3 (RevMan) (<u>RevMan 2014</u>).

We will assess the following for each study.

- Random sequence generation (checking for possible selection bias). We assessed the method used to generate the allocation sequence as: low risk of bias (any truly random process, e.g. random number table; computer random number generator); unclear risk of bias (method used to generate sequence not clearly stated). Studies using a non-random process (e.g. odd or even date of birth; hospital or clinic record number) will be excluded.
- Allocation concealment (checking for possible selection bias). The method used to conceal allocation to interventions prior
 to assignment determines whether intervention allocation could have been foreseen in advance of, or during recruitment,
 or changed after assignment. We assessed the methods as: low risk of bias (e.g. telephone or central randomisation;
 consecutively numbered sealed opaque envelopes); unclear risk of bias (method not clearly stated). Studies that do not
 conceal allocation (e.g. open list) will be excluded.
- *Blinding of participants and personnel (checking for possible performance bias). We assessed the methods used to blind study participants and personnel from knowledge of which intervention a participant received. We assessed methods as: low risk of bias (study states that it was blinded and describes the method used to achieve blinding, such as identical tablets matched in appearance or smell, or a double-dummy technique); unclear risk of bias (study states that it was blinded but does not provide an adequate description of how it was achieved). Studies that were not double-blind are considered to have high risk of bias.
- *Blinding of outcome assessment (checking for possible detection bias). We assessed the methods used to blind study participants and outcome assessors from knowledge of which intervention a participant received. We assessed the methods as: low risk of bias (study has a clear statement that outcome assessors were unaware of treatment allocation, and ideally describes how this was achieved); unclear risk of bias (study states that outcome assessors were blind to treatment allocation but lacks a clear statement on how it was achieved). Studies where outcome assessment was not blinded would often but not always be excluded [Authors to check this wording]; if included the studies would be considered as having a high risk of bias.
- Selective reporting (checking for reporting bias). We assessed whether primary and secondary outcome measures were
 pre-specified and whether these were consistent with those reported: [add judgements for low, high and unclear risk]
- Incomplete outcome data (checking for possible attrition bias due to the amount, nature and handling of incomplete outcome data). We assessed the methods used to deal with incomplete data as: low risk (< 10% of participants did not complete the study and/or used 'baseline observation carried forward' analysis); unclear risk of bias (used 'last observation carried forward' analysis); high risk of bias (used 'completer' analysis).
- Size of study (checking for possible biases confounded by small size). We assessed studies as being at low risk of bias (≥ 200 participants per treatment arm); unclear risk of bias (50 to 199 participants per treatment arm); high risk of bias (< 50 participants per treatment arm).

*Editorial note:

There are circumstances where blinding of participants and personnel may not always be possible (for example, surgery, psychological interventions, or pharmacological interventions for cancer pain). There may also be reasons why blinding of outcome assessors is not possible. In this circumstance give the reason(s) why blinding is not possible. The potential for bias may be dependent on outcome as well, with greater potential bias for subjective than objective outcomes. Where a similar methodological factor applies to all included studies the Risk of bias can be assessed in a short paragraph in text, rather than in individual sections of the Characteristics of included studies table. The risk of bias should be assessed even if the sections in the ROB table are turned off because that will affect the final GRADE assessment.

There might also be double-blind studies where efforts to maintain blinding of participants have failed, because adverse events which unmask treatment group assignment for example. Such studies should still be included in the review.

It is possible to separate outcome and study level biases in the risk of bias table properties in RevMan. For blinding and incomplete outcome data, for example, you can judge risk of bias separately for outcomes (e.g. mortality and pain).

Measures of treatment effect

[This section will be automatically copied from the protocol. Ensure this is changed from future tense ('We will consider the risk ratio (RR)...') to past tense ('We used risk ratio (RR)...).]

Mandatory MECIR Reporting Standard for New Reviews

 R46: State the effect measures used to describe effect sizes (e.g. risk ratio, mean difference) in any included studies or meta-analyses, or both.

Unit of analysis issues

[This section will be automatically copied from the protocol. Ensure this is changed from future tense ('Outcomes will be assessed at the patient level...') to past tense ('We accepted only randomisation of the individual patient...).]

Dealing with missing data

[This section will be automatically copied from the protocol. Ensure this is changed from future tense ('Study authors will be contacted...') to past tense ('We contacted...).]

Assessment of heterogeneity

[This section will be automatically copied from the protocol. Ensure this is changed from future tense ('We will examine...') to past tense ('We examined...).]

Mandatory MECIR Reporting Standard for New Reviews

• R49: Describe the methods used to identify the presence of heterogeneity between the studies in the review (e.g. non-quantitative assessment, I², Tau² or statistical test).

We do not recommend using funnel plots. PaPaS suggested wording:

We examined heterogeneity using L'Abbé plots (<u>L'Abbé 1987</u>), a visual method for assessing differences in results of individual studies.

Assessment of reporting biases

[This section will be automatically copied from the protocol. Ensure this is changed from future tense ('We will assess...') to past tense ('We assessed...).]

Data synthesis

[This section will be automatically copied from the protocol. Ensure this is changed from future tense ('We will extract data independently...') to past tense ('We independently extracted data ...).]

Mandatory MECIR Reporting Standards for New Reviews

- R47: If designs other than individually randomized, parallel-group randomized trials are included, describe any methods used to address clustering, matching or other design features of the included studies.
- R48: If multi-arm studies are included, explain how they were addressed and incorporated into syntheses.
- R51: Describe any methods used for combining results across studies. Where data have been combined in statistical software external to RevMan, reference the software, commands and settings used to run the analysis. Decisions to depart from intended methods, for example an alternative statistical model, should be reported and justified.
- R53: Describe how studies with high or variable risks of bias are addressed in the synthesis.

Also need to add a section on assessing the quality of evidence and summarizing the findings

PaPaS suggested wording, based on recommendation from the Cochrane Drugs and Alcohol Group below. All reviews must assess the quality of the evidence using GRADE; we suggest using the following subheadings; please ensure you complete the blank phrases.

Quality of the evidence [heading style 4]

Two review authors (*XX*, *YY*) independently rated the quality of the outcomes. We used the GRADE (Grades of Recommendation, Assessment, Development and Evaluation) system to rank the quality of the evidence using the GRADEprofiler Guideline Development Tool software (<u>GRADEpro GDT 2015</u>), and the guidelines provided in Chapter 12.2 of the *Cochrane Handbook for Systematic Reviews of Interventions* (Higgins 2011).

The GRADE approach uses five considerations (study limitations, consistency of effect, imprecision, indirectness and publication bias) to assess the quality of the body of evidence for each outcome. The GRADE system uses the following criteria for assigning grade of evidence:

- High: we are very confident that the true effect lies close to that of the estimate of the effect;
- Moderate: we are moderately confident in the effect estimate; the true effect is likely to be close to the estimate of effect, but there is a possibility that it is substantially different;
- Low: our confidence in the effect estimate is limited; the true effect may be substantially different from the estimate of the effect;
- Very low: we have very little confidence in the effect estimate; the true effect is likely to be substantially different from the

estimate of effect.

The GRADE system uses the following criteria for assigning a quality level to a body of evidence (Chapter 12, Higgins 2011).

- High: randomised trials; or double-upgraded observational studies.
- Moderate: downgraded randomised trials; or upgraded observational studies.
- Low: double-downgraded randomised trials; or observational studies.
- Very low: triple-downgraded randomised trials; or downgraded observational studies; or case series/case reports.

Factors that may decrease the quality level of a body of evidence are:

- 1. limitations in the design and implementation of available studies suggesting high likelihood of bias;
- 2. indirectness of evidence (indirect population, intervention, control, outcomes);
- 3. unexplained heterogeneity or inconsistency of results (including problems with subgroup analyses);
- 4. imprecision of results (wide confidence intervals);
- 5. high probability of publication bias.

Factors that may increase the quality level of a body of evidence are:

- 1. large magnitude of effect;
- 2. all plausible confounding would reduce a demonstrated effect or suggest a spurious effect when results show no effect;
- 3. dose-response gradient.

We decreased the grade rating by one (-1) or two (-2) (up to a maximum of -3 to 'very low') if we identified:

- Serious (- 1) or very serious (- 2) limitation to study quality;
- Important inconsistency (- 1);
- Some (-1) or major (-2) uncertainty about directness;
- Imprecise or sparse data (- 1);
- High probability of reporting bias (- 1).

'Summary of findings' table [heading style 4]

We included [a/two or three etc] 'Summary of findings' table(s) to present the main findings in a transparent and simple tabular format. In particular, we included key information concerning the quality of evidence, the magnitude of effect of the interventions examined, and the sum of available data on the outcomes [list all, maximum seven; must be the same as those stated in the protocol].

[If it was not possible to create a SoF table, do not delete this text. Include an explanation of why it was not possible, and if appropriate state that you will aim to create one at update stage.]

Note: since 2016, it is now possible to describe the <u>certainty</u> of the evidence rather than the <u>quality</u>. Authors are free to use this language, but must ensure it is consistent between the protocol and review. For example, if the protocol discussed assessments of the quality of the body of evidence, we do not recommend changing this at review stage. Further details about the new approach are available here: see <u>Criteria for applying or using GRADE</u>. Note that the RevMan subheading in Discussion, <u>Quality of the evidence</u>, has not been updated to reflect this change, and the subheading is fixed.

For information:

Guidance for protocols from the CEU screening audit 2016 (see full report here):

- 1. Reference GRADE as a method for assessing quality of evidence;
- 2. Describe GRADE considerations for assessing quality of evidence;
- 3. Describe GRADE levels of evidence;
- 4. Specify methods for preparing SoF tables;
- 5. Consider/describe comparisons to be covered in the SoF table (relevant only where at least one comparison in the review is planned);
- 6. Specify outcomes to be included in the SoF table;
- 8. Specify GRADE and SoF table methods in an appropriate section (heading) in the protocol.

Additional comments for consideration, not included in suggested wording:

- Protocols can be used to provide a commitment to narrative summary of the results in the absence of a meta-analysis.
 This is crucial as omission of narratively synthesized outcomes in SoF tables represents a source of outcome reporting bias
- Anticipating changes to outcomes is not a minimum reporting requirement for all protocols, but it demonstrates
 commitment to transparent reporting of changes to methods in the full review. While clearly prioritizing a certain
 number of outcomes in the protocol, authors can also be mindful of the need to be transparent about changes to
 outcome selection once the process of data collection is underway.

Subgroup analysis and investigation of heterogeneity

[This section will be automatically copied from the protocol. Ensure this is changed from future tense ('Data will be extracted independently...') to past tense ('We independently extract data...).]

Mandatory MECIR Reporting Standard for New Reviews

R53: If subgroup analysis (or meta-regression) was performed, state the potential effect modifiers with rationale for each, stating whether each was defined a priori or post hoc.

Sensitivity analysis

[This section will be automatically copied from the protocol. Ensure this is changed from future tense ("We will perform...") to past tense ("We performed...).]

Mandatory MECIR Reporting Standard for New Reviews

R54: State the basis for any sensitivity analyses performed.

Describe sensitivity analyses used to determine whether conclusions were robust to decisions made during the review process (e.g. choice of meta-analysis method, exclusion of studies from analysis).

- If there are no included studies, please do not delete your intended methods. Re-word them to reflect that you planned to implement them, but there were no data. Indicate that you will implement these methods in future updates if possible.
- You are free to discuss other available evidence taken from studies not included (eg. observational studies) to ensure the reader has a broad view of the current evidence base. However, this additional information should only be used in the discussion section and should not be used as the basis for formulating implications for practice. This information should also not be used in the abstract and PLS.

Results

Description of studies

[No need to add anything here]

Results of the search

Mandatory MECIR Reporting Standard for New Reviews

R55: Provide information on the flow of studies from the number(s) of references identified in the search to the number of studies included in the review, ideally using a flow chart. Clarify how multiple references for the same study relate to the individual studies [R71 References to included studies: List all reports of each included study under the relevant Study ID. It is important that all reports are listed, and are grouped by study. Marking one report as the primary reference is helpful where appropriate].

PaPaS suggested wording [ensure links are correct]:

The searches of the [x] databases (see <u>Electronic searches</u>) retrieved [x] records. Our searches of other resources [insert sources e.g. hand searches] identified [x] additional studies that appeared to meet the inclusion criteria. Our searches of the trials registers identified [x] further studies. Our screening of the reference lists of the included publications did/did not reveal [x] additional RCTs. We therefore had a total of [x] records.

Once duplicates had been removed, we had a total of [x] records. We excluded [x] records based on titles and abstracts. We obtained the full text of the remaining [x] records. We excluded [x] studies (see Characteristics of excluded studies). We added [x] records to Characteristics of studies awaiting classification. We identified [x] ongoing studies.

We included [x] studies reported in [x] references. For a further description of our screening process, see the study flow diagram (Figure 1).

Included studies

Mandatory MECIR Reporting Standards for New Reviews

- R60: Present a table of 'Characteristics of included studies' using a uniform format across all studies.
- R61: Provide a brief narrative summary of any included studies. This should include the number of participants and a summary of the characteristics of the study populations and settings, interventions, comparators and funding sources. See Handbook 4.5.

Include link to Characteristics of included studies.

Excluded studies

Mandatory MECIR Reporting Standard for New Reviews

• R57: List key excluded studies and provide justification for each exclusion. The table of 'Characteristics of excluded studies' is intended as an aid to users rather than a comprehensive list of studies that were identified but not included. List here any studies that a user might reasonably expect to find in the review to explain why they are excluded. See Handbook 7.2.5.

Include link to Characteristics of excluded studies.

Studies awaiting assessment (heading style 3)

Add information and links here (eg 'See Characteristics of studies awaiting classification').

On-going studies (heading style 3)

Mandatory MECIR Reporting Standard for New Reviews

R59: Provide details of any identified studies that have not been completed. Users of the review will be interested to learn
of any potentially relevant studies that have not been completed. This will help them to assess the stability of the review
findings. These should be listed in the table of 'Characteristics of ongoing studies', along with any details that are known.
Cochrane Reviews should be mindful of research waste so it is useful to consider how ongoing studies might address the
review question under Implications for research.

Add information and links here (eg 'See Characteristics of ongoing studies').

Risk of bias in included studies

Mandatory MECIR Reporting Standards for New Reviews

- R72: Present a 'Risk of bias' table for each included study, with judgements about risks of bias, and explicit support for these judgements. The 'Risk of bias' table in RevMan should be used; this is an extension of the table of 'Characteristics of included studies'.
- R74: Provide a brief narrative summary of the risks of bias among the included studies using the subheadings below. [
 Must acknowledge each study and totals for each category (e.g. x low, x high, x unclear). This must match what is in the
 RoB tables (check both sections at the same time by splitting the view of the review: go to RevMan toolbar View > Split
 text of review).]

PaPaS suggested wording for this main section [ensure links are correct]:

We assessed the risk of bias using the Cochrane 'Risk of bias' tool (Figure 2; Figure 3) (Higgins 2011).

An overall summary of the risk of bias assessments can also be made here, following the guidance below based on "Table 3: Approach to formulating summary assessments of risk of bias for each important outcome (across domains) within and across trials (adapted from Higgins and Altman)" (from http://www.bmj.com/content/343/bmj.d5928):

Risk of bias	Interpretation	Within a trial	Across trials
		Low risk of bias for all key domains	Most information is from trials at low risk of bias
	A risk of bias that raises some doubt about the results	Low or unclear risk of bias for all key domains	Most information is from trials at low or unclear risk of bias
1 -	_ ·		The proportion of information from trials at high risk of bias is sufficient to affect the interpretation of results

Allocation (selection bias)

This domain is split into two. Ensure both domains are mentioned. Example:

Random sequence generation (heading style 4)

All x studies were randomised and adequately described the method used to generate the random sequence and so we judged them to be at low risk of bias for this domain. We did not identify any studies at high or unclear risk of bias for this domain.

Allocation concealment (heading style 4)

X studies did not adequately describe how the allocation of the sequence was concealed and we judged them to be at unclear risk of bias for this domain (link; link). The remaining x studies fully described how allocation was concealed and we judged them to be at low risk of bias for this domain (link; link). We did not identify any studies at high risk of bias for this domain.

Blinding (performance bias and detection bias)

[Comment here about this risk of bias in the included studies, as above]

Incomplete outcome data (attrition bias)

[Comment here about this risk of bias in the included studies, as above]

Selective reporting (reporting bias)

[Comment here about this risk of bias in the included studies, as above]

Other potential sources of bias

[Comment here about this risk of bias in the included studies. Will need to add size as a new sub-heading (see <u>Assessment of risk of bias in included studies</u> section earlier in review).]

For example:

Size of study [sub-heading style 4]

X studies had fewer than 50 participants per treatment arm, and we judged them to be at high risk of bias for this domain

(link; link; link). The remaining x studies had between 50 and 199 participants per treatment arm, and we judged them to be at unclear risk of bias for this domain (link; link). We did not identify any studies at low risk of bias for this domain, i.e. with more than 200 participants per treatment arm.

Effects of interventions

Ensure all of your outcomes are listed and acknowledged here, even if the included studies did not report them. Do not change the order in which the outcomes appear as stated in your protocol.

We do not recommend performing analyses unless there are at least two studies, and ideally at least 200 participants; do not include single study analyses- add a narrative summary instead.

We are limited to using only six Figures, three of which are the RoB tables and PRISMA flowchart.

Common errors identified by CEU:

- 1. Discrepancies between results presented in the analyses and their reporting across the text of reviews.
- 2. Inconsistencies in the reporting of results or interpretation of evidence across different sections of reviews.
- 3. Overly optimistic conclusions that do not take proper account of the quality of the evidence, particularly when the review is empty or the data are sparse.
- 4. Common under-utilisation of information from Summary of Findings tables in reporting the review findings.
- 5. Often unclear or inexplicable decisions in relation to GRADE assessments and assessments that seem to be restricted to risk of bias only.

Mandatory MECIR Reporting Standard for New Reviews

- R77: State how many studies and how many participants contributed data to results for each outcome, along with the
 proportion of the included studies and recruited participants potentially available for the relevant comparison. It is unlikely
 that the same number of studies will contribute data to every outcome of interest. Specific studies may contribute different
 numbers of participants for different outcomes. Therefore, for each comparison, it is helpful to indicate to readers what
 proportion of the relevant included studies and recruited participants contribute data to each outcome. Failure to disclose
 this may be misleading.
- R79: Describe any post hoc decisions that might give rise to accusations of selective outcome reporting, for example
 when there were multiple outcome measures (e.g. different scales), multiple time points or multiple ways of presenting
 results. Transparent disclosure of post hoc decisions will enable readers of the review to assess the credibility of the
 results of the review for themselves. Post hoc decisions to change the definition or priority of outcome measures must be
 reported and justified under <u>Differences between protocol and review</u>.
- R81: Report synthesis results for all prespecified outcomes, irrespective of the strength or direction of the result. Indicate when data were not available for outcomes of interest, and whether adverse effects data were identified. To avoid selective outcome reporting (in truth or in perception), the review should address all outcomes specified in the protocol.
- R82: Accompany all effect size estimates with a measure of statistical uncertainty (e.g. a confidence interval with a specified level of confidence such as 90%, 95% or 99%). Confidence intervals are the preferred method for expressing statistical uncertainty.
- R84: Link to each Table and Figure. All tables and figures should have a brief descriptive caption and must be referred to in numerical order in the review text.
- R86: Ensure that all statistical results presented in the main review text are consistent between the text and the 'Data and analysis' tables. Errors can be introduced, particularly when analyses are rerun.
- R87: State whether findings indicate a clear direction of benefit. Where results indicate that an intervention is better or worse than another intervention, it is important to make it clear which intervention is favoured. This is the case particularly when different scales are combined using standardized mean differences.
- R88: Ensure that key findings are interpretable, or are re-expressed in an interpretable way. For instance, they might be re-expressed in absolute terms (e.g. assumed and corresponding risks, NNTBs, group means), and outcomes combined with a standardized scale (e.g. standardized mean difference) might be re-expressed in units that are more naturally understood. If minimally important differences were prespecified or are available, these should be provided to aid interpretation. Absolute effects provide a useful illustration of the likely impact of an intervention, and are usually easier to understand than relative effects. They may need to be accompanied, however, with information about assumed baseline risks. Confidence intervals should be presented for NNTBs and similar summary measures. Re-expressing relative effects as absolute effects often requires the specification of assumed (e.g. untreated) risks, and the source of these should be provided. Results expressed as standardized mean differences reflect the number of standard deviations' difference between mean responses. This is not intuitive to many readers who may be more familiar with specific scales. Ideally, minimally important effect sizes should be specified in the protocol.
- R89: Comment on the potential impact of studies that apparently measured outcomes, but did not contribute data that
 allowed the study to be included in syntheses. There is good evidence of selective outcome reporting among clinical trials.
 Outcomes that are believed to have been measured but are not reported in a usable format may therefore be
 systematically different from those that are usable, and introduce bias. 'Usable' in this sense refers both to incorporation in
 a meta-analysis and to consideration in non-statistical syntheses of findings. Authors might consider using a table to
 indicate which studies contributed data to the outcomes of interest in the review.
- R98: Provide justification or rationale for any measures of the quality of the body of evidence for each key outcome. If a
 'Summary of findings' table is used, use footnotes to explain any downgrading or upgrading according to the GRADE
 approach.

Suggested formatting for this section

Comparison/intervention A (heading style 3)

Primary outcomes (heading style 4)

Outcome 1 (heading style 5)

[Add text here; include links to analyses; follow MECIR guidance above]

Include a comment about the GRADE rating for this outcome, how many times you downgraded, and your reasons for downgrading [must match SoF table]. Include a link to the SoF table (Summary of findings table 1).

Outcome 2

[Add text here; include links to analyses; follow MECIR guidance above]

Outcome 3

[Add text here; include links to analyses; follow MECIR guidance above]

Outcome 4

[Add text here; include links to analyses; follow MECIR guidance above]

Secondary outcomes (heading style 4)

Outcome 1 (heading style 5)

[as above]

CEU: SoF tables will need to include footnotes to explain any decisions to downgrade the quality of the evidence. When checking footnotes it is useful to see how many levels the quality of evidence has been downgraded by, along with the considerations that were a factor in the decision (i.e. risk of bias, imprecision, indirectness, inconsistency or publication bias). It can sometimes be useful to justify decisions not to downgrade the quality of the evidence. Footnotes in the SoF will help to inform the development of the discussion and the overall interpretation of the review findings.

Mandatory MECIR Conduct Standards

- C40: Include studies in the review irrespective of whether measured outcome data are reported in a 'usable' way: Systematic reviews typically should seek to include all relevant participants who have been included in eligible study designs of the relevant interventions and had the outcomes of interest measured. Reviews must not exclude studies solely on the basis of reporting of the outcome data, since this may introduce bias due to selective outcome reporting and risk undermining the systematic review process. While such studies cannot be included in meta-analyses, the implications of their omission should be considered. Note that studies may legitimately be excluded because outcomes were not measured. Furthermore, issues may be different for adverse effects outcomes, since the pool of studies may be much larger and it can be difficult to assess whether such outcomes were measured. See Handbook 5.4.1.
- C41: Document the selection process in sufficient detail to complete a PRISMA flow chart and a table of 'Characteristics of excluded studies': A PRISMA flow chart and a table of 'Characteristics of excluded studies' will need to be completed in the final review. Decisions should therefore be documented for all records identified by the search. Numbers of records are sufficient for exclusions based on initial screening of titles and abstracts. Broad categorizations are sufficient for records classed as potentially eligible during an initial screen. Studies listed in the table of 'Characteristics of excluded studies' should be those that a user might reasonably expect to find in the review. At least one explicit reason for their exclusion must be documented. Authors will need to decide for each review when to map records to studies (if multiple records refer to one study). Lists of included and excluded studies must be based on studies rather than records. See Handbook 6.6.1, Handbook 11.2.1.
- C42: Collate multiple reports of the same study, so that each study, rather than each report, is the unit of interest in the
 review.

Discussion

[No need to add anything here]

Mandatory MECIR Reporting Standard for New Reviews

R100: Discuss limitations of the review at study and outcome level (e.g. regarding risk of bias), and at review level (e.g. incomplete identification of studies, reporting bias). Review authors must explicitly state the limitations of their review. One aspect that is easily overlooked is that of adverse effects. In particular, if the review methods do not allow for detection of serious or rare adverse events, or both, the review authors must explicitly state this as a limitation. Additional considerations here include currency and completeness of the search, completeness of data collection processes, assumptions made regarding classification of interventions, outcomes or subgroups, and methods used to account for missing data.

Common errors identified by CEU:

- 1. Discrepancies between results presented in the analyses and their reporting across the text of reviews.
- 2. Inconsistencies in the reporting of results or interpretation of evidence across different sections of reviews.
- 3. Overly optimistic conclusions that do not take proper account of the quality of the evidence, particularly when the review is empty or the data are sparse.

- 4. Common under-utilisation of information from Summary of Findings tables in reporting the review findings.
- 5. Often unclear or inexplicable decisions in relation to GRADE assessments and assessments that seem to be restricted to risk of bias only.

Summary of main results

Cochrane Handbook <u>Chapter 4</u>: Summarize the main findings (without re-stating the results or repeating the 'Effects of interventions' section) and outstanding uncertainties, balancing important benefits against important harms. Refer explicitly to any 'Summary of findings' tables and add the link.

Overall completeness and applicability of evidence

Cochrane Handbook <u>Chapter 4</u>: Describe the relevance of the evidence to the review question. This should lead to an overall judgement of the external validity of the review. Are the studies identified sufficient to address all of the objectives of the review? Have all relevant types of data, methods and outcomes been investigated? Comments on how the results of the review fit into the context of current practice might be included here, although authors should bear in mind that current practice might vary internationally.

Quality of the evidence

Cochrane Handbook <u>Chapter 4</u>: Does the body of evidence identified allow a robust conclusion regarding the objective(s) of the review? Summarize the amount of evidence that has been included (numbers of studies), state key methodological limitations of the studies, and reiterate the consistency or inconsistency of their results. This should lead to an overall judgement of the internal validity of the results of the review.

Provide a summary of the overall assessment rather than commenting on each downgrading decision for the relevant outcomes, unless the quality of evidence is highly variable and requires a more detailed approach.

Rating the quality of the evidence should focus not just on the risk of bias, but also how imprecision, inconsistency, indirectness and publication bias also impact on the credibility of the results. These considerations and the thinking behind any downgrading decisions for the GRADE ratings can be summarised and incorporated into the discussion in this section. This detail should be found in the footnotes of the SoF table.

Good practice example for this section

The quality of findings ranks from moderate to low across the different outcomes. The main limiting factor, which was the reason for a decrease in quality in some outcomes, was the inconsistency of results across the small number of included studies. With only three studies included, it is important to acknowledge the large potential impact if the average effect of one study differs in size or direction.

McGregor AH, Probyn K, Cro S, Doré CJ, Burton AK, Balagué F, Pincus T, Fairbank J. Rehabilitation following surgery for lumbar spinal stenosis. Cochrane Database of Systematic Reviews 2013, Issue 12. Art. No.: CD009644. DOI: 10.1002/14651858.CD009644.pub2.

http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD009644.pub2/full

GRADE can still be implemented and reported without always being part of a SoF table; see example below from a review which only had one included study.

Good practice example (only one included study)

The individual outcomes we examined were all downgraded one level to reflect the fact that Wathen 2007 was subject to a high risk of bias due to lack of blinding. (...) Since the imprecision of the results also lowers the quality of the evidence, we downgraded a further evidence level on that basis, so overall we judged the evidence to be of low quality, which means that further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.'

Black KJL, Bevan CA, Murphy NG, Howard JJ. Nerve blocks for initial pain management of femoral fractures in children. Cochrane Database of Systematic Reviews 2013, Issue 12. Art. No.: CD009587. DOI: 10.1002/14651858.CD009587.pub2.

http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD009587.pub2/full

Potential biases in the review process

Cochrane Handbook <u>Chapter 4</u>: State the strengths and limitations of the review with regard to preventing bias. These may be factors within, or outside, the control of the review authors. The discussion might include the likelihood that all relevant studies were identified, whether all relevant data could be obtained, or whether the methods used (for example, searching, study selection, data extraction, analysis) could have introduced bias.

Agreements and disagreements with other studies or reviews

Cochrane Handbook <u>Chapter 4</u>: Comments on how the included studies fit into the context of other evidence might be included here, stating clearly whether the other evidence was systematically reviewed.

PaPaS guidance: it is helpful to specifically reference other similar publications, and whether or not their conclusions were similar to this review. If no RCTs have been identified, it would be useful to add here a summary of the available evidence for this topic area, for example non-randomised studies that were not eligible for inclusion. This will provide a contextual summary of the evidence base for the reader.

Authors' conclusions

Implications for practice

Cochrane Handbook Chapter 4 and Chapter 12: Drawing conclusions about the practical usefulness of an intervention entails making trade-offs, either implicitly or explicitly, between the estimated benefits, harms and the estimated costs. Making such trade-offs, and thus making specific recommendations for an action, goes beyond a systematic review and requires additional information and informed judgements that are typically the domain of clinical practice guideline developers. Authors of Cochrane reviews should not make recommendations. 'No evidence of effect' should not be confused with 'evidence of no effect'.

Note: we have been advised by Cochrane Editorial Unit that the word 'safe' should not be used. They recommend sticking to the evidence and saying something like 'The studies in our review reported no serious adverse events and a low incidence of [symptoms x, y and z].'

Mandatory MECIR Reporting Standard for New Reviews

• R101: Provide a general interpretation of the evidence so that it can inform healthcare or policy decisions. **Avoid making recommendations for practice.**

Common errors identified by CEU:

- Often the Implications for practice go beyond data. Clinical advice or recommendations should not be given. Only report what the evidence shows.
- 2. Inconsistencies in the reporting of results or interpretation of evidence across different sections of reviews.

PaPaS guidance: our funders are paying closer attention to the Implications sections, and we hope that these sections are also of increasing importance to policy makers. Therefore, we now strongly recommend using the following sub-headings, for clarity and comprehensiveness.

For people with X [heading style 3]

[Add text here]

For clinicians

[Add text here]

For policy makers

[Add text here]

For funders of the intervention

[Add text here]

Implications for research

Cochrane Handbook Chapter 4 and Chapter 12: This section of Cochrane Methodology reviews may used by people making decisions about future research, and authors should try to write something that will be useful for this purpose. As with the 'Implications for practice', the content should be based on the available evidence and should avoid the use of information that was not included or discussed within the review. In preparing this section, authors should consider the different aspects of research, perhaps using types of study, data, methods and outcome as a framework. Implications for *how* research might be done and reported should be distinguished from *what* future research should be done. For example, the need for randomized trials rather than other types of study, for better descriptions of studies in the particular topic of the review, or for the routine collection of specific outcomes, should be distinguished from the need for comparisons of specific types of method, or for research in specific settings. It is important that this section is as clear and explicit as possible. General statements that contain little or no specific information, such as "Future research should be better conducted" or "More research is needed" are of little use to people making decisions, and should be avoided.

Mandatory MECIR Reporting Standard for New Reviews

R102 Conclusions: implications for Research: If recommending further research, structure the implications for research to
address the nature of evidence required, including population, intervention comparison, outcome, and type of study.
Researchers and research funders are an important user group of Cochrane Reviews. Recommendations for future
research should offer constructive guidance on addressing the remaining uncertainties identified by the review. This is
particularly important for reviews that identify few or no studies. Include any information about completed or ongoing
studies that are likely to address the review question.

Common errors identified by CEU:

- 1. Often the Implications for research are too vague. Desirable are specific points (e.g., suggested trial and possible design, e.g. large, multicentre RCTs with more than 200 participants per treatment arm, focusing on outcomes x, y and z, in population y) and not general (e.g., more research needed).
- 2. Inconsistencies in the reporting of results or interpretation of evidence across different sections of reviews.

General implications

[Add text here]

Design

[Add text here]

Measurement (endpoints)

[Add text here if relevant]

Other

[Add text here if relevant]

Acknowledgements

Mandatory MECIR Reporting Standard for New Reviews

 R103: Acknowledge the contribution of people not listed as authors of the review, including any assistance from the Cochrane Review Group, non-author contributions to searching, data collection, study appraisal or statistical analysis, and the provision of funding.

Must include this funding statement: Cochrane Review Group funding acknowledgement: this project was supported by the National Institute for Health Research, via Cochrane Infrastructure funding to the Cochrane Pain, Palliative and Supportive Care Review Group (PaPaS). The views and opinions expressed therein are those of the authors and do not necessarily reflect those of the Systematic Reviews Programme, NIHR, NHS or the Department of Health.

Contributions of authors

Mandatory MECIR Reporting Standard for New Reviews

• R104: Describe the contributions of each author of the review (see Handbook 4.2.2).

PaPaS guidance: update the text here from protocol stage.

Use text, e.g. 'XX screened the search results and contributed to writing the review; YY developed the search strategy,' or a table:

Drafted the protocol	xx
Developed and ran the search strategy	ZZ
	PaPaS Information Specialist provided support.
Obtained copies of studies	ZZ
Selected which studies to include (2 people	XX, YY
Extracted data from studies (2 people)	XX, YY
Entered data into RevMan	XX, YY
Carried out the analysis	XX, ZZ
Interpreted the analysis	xx
Drafted the final review	xx
Update the review	xx

Declarations of interest

Example:

XX: none known.

YY: none known.

ZZ: received lecture fees from Company X, 2014 - 2016.

Mandatory MECIR Reporting Standard for New Reviews

R105: Report any present or recent (three years prior to declaration) affiliations or other involvement in any organization or entity with an interest in the review's findings that might lead to a real or perceived conflict of interest. Include the dates of the involvement. The full policy on conflicts of interest is available in the Cochrane Editorial and Publishing Policy Resource (EPPR). In brief, the nature and extent of the affiliation or involvement (whether financial or non-financial) should be described to promote transparency. Strategies to clarify how commercial and intellectual conflicts of interests (such as review authors who are trialists) were handled in the review process may be needed. Declarations of interest should be stated according to the relevant criteria from the International Committee of Medical Journal Editors (ICMJE), and must be consistent with interests declared on the Disclosure of Potential Conflicts of Interest form. See Handbook 2.6.

Additional guidance from PaPaS

• DOIs must be listed separately for each author, e.g.:

AB: none known. (note: non-conflicted)

CD: received lecture fees from Company X, 2014 - 2016. (note: conflicted)

EF: none known; EF is a specialist [chronic pain] physician and manages patients with [neuropathic pain]. (note: non-conflicted)

- Please include the dates [years] of any involvement with any relevant organizations.
- Anyone who is practicing needs to include a statement such as: XX is a specialist XX physician and manages patients with [condition].
- The first author must be non-conflicted.
- There must be a majority of non-conflicted authors.
- If the review includes studies by the review authors, please state this and confirm that these authors were not involved in the data extraction or assessments of these studies.
- The DOIs listed here **must be identical** to the declarations in each electronic 'Conflicts of Interest' form, which will be circulated by the editorial team upon receipt of the first draft.
- You must ensure this section is fully compliant with Cochrane's Commercial Sponsorship Policy. See the policy in full online or contact PaPaS for further information.

Summary of the policy

- 1. An individual is not eligible to be an author on a Cochrane review if:
- a. s/he is or has been employed by a company/entity that has a real or potential financial interest in the outcome of the review in the past three years;
- b. s/he holds or has applied for a patent related to the intervention being investigated or a competing intervention.
- 2. The first author of a Cochrane review must not have any of the conflicts noted above (i.e., direct employment and patents) and also must not have received any other type of financial support from a company that has a real or potential financial interest in the outcome of the review in the past three years. This includes (but is not limited to) funded attendance at meetings, work on advisory boards or fees for lectures, consultancies, royalty payments, holding stocks, etc.
- 3. Co-authors may have one or more of the conflicts noted in the final sentence of point 2, but more than half of the authors (> 50%) overall must have no relevant conflicts.
- 4. Cochrane authors are not prohibited from being involved in primary research, even when funded by a relevant commercial sponsor, but they should declare this involvement and cannot data extract or assess the quality of their own studies.

For further information on the management of conflicts of interest, visit the <u>Cochrane Editorial and Publishing Resource</u>. If there is any doubt, CRG teams can consult the <u>Cochrane Funding Arbiter</u>.

Differences between protocol and review

Mandatory MECIR Reporting Standards for New Reviews

- R106 Changes from the protocol: Explain and justify any changes from the protocol (including any post hoc decisions about eligibility criteria or the addition of subgroup analyses). MECIR conduct standard 13: 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.
- R107 Methods not implemented: Document aspects of the protocol that were not implemented (e.g. because no studies, or few studies, were found) in the section 'Differences between protocol and review', rather than in the Methods section. Including a record of methods that were not implemented helps to retain specific details of the protocol. By doing so, the next version of the review can be seen to be coherent with what was planned in the protocol. See Handbook 2.1.

PaPaS guidance: note we do not recommend changing your methods or outcomes at full review stage; if you have strong justification for doing so, please contact the review group to discuss. Upon submission of your first draft, the editorial base will create a 'Compare' document to identify any changes since protocol stage.

Published notes

Characteristics of studies

Characteristics of included studies

TEST 001

Methods	R62: Provide the basic study design or design features (e.g. parallel group randomized trial, cluster-randomized trial, controlled before and after study). Even if the review is restricted to one study design, these tables should provide a comprehensive summary of each study. It is important that labels used to describe study designs are clearly defined in the review (see Handbook section 13.2).
Participants	R63: Provide sufficient information about the study populations to enable a user of the review to assess the applicability of the review's findings to their own setting. Information presented in this table should reflect the baseline demographics of the study sample. In addition, it is helpful to state the eligibility criteria of the study.
Interventions	 R64: Include the sample size for each included study in the table of 'Characteristics of included studies'. If sample sizes are available for each intervention group, these should be included. A convenient place is often within the box for Interventions, e.g. inserting "(n =)" after each listed intervention group. R65: Provide sufficient information to enable users of the review to assess the applicability of the intervention to their own setting, and if possible in a way that allows the intervention to be replicated. The components of all interventions (drug, non-drug, simple or complex) should be reported. Reporting guidelines have been developed for describing interventions used in primary research and review authors may find it useful to structure their description of interventions around the core attributes highlighted by TIDieR (Hoffman 2014 (internet link)). Lengthy explanations of interventions should be avoided. Citations to sources of detailed descriptions can be included.
Outcomes	R66: Provide clear and consistent information about outcomes measured (or reported), how they were measured and the times at which they were measured. It should be clear whether main outcomes of interest in the review were measured in the study. Study results should not be included in this table.
Notes	 R68: Include details of funding sources for the study, where available. Details of funding sources should be placed in this table rather than as part of the 'Risk of bias' table. R69: Include details of any declarations of interest among the primary researchers. Declarations of interest should be placed in this table rather than as part of the 'Risk of bias' table. Include further comments from the review authors on aspects of the study that are not covered by the categories above. Note that assessments of risk of bias should be made in a 'Risk of bias' table. It is possible to add extra fields in the 'Risk of bias' table.

Risk of bias table

Bias	Authors'	Support for judgement
Random sequence generation	Low risk	Complete this section: for example:
(selection bias)		Low risk. Quote: "patients were randomly allocated." Comment: Probably done, since earlier reports from the same investigators clearly describe use of random sequences (Cartwright 1980).
· ·	High risk	Complete this section: for example:
bias)		High risk. Quote: "using a table of random numbers." Comment: Probably not done.
Blinding of participants and	Low risk	Complete this section: for example:
personnel (performance bias)		Low risk. Quote: "double blind, double dummy"; "High and low dose tablets or capsules were indistinguishable in all aspects of their outward appearance. For each drug an identically matched placebo was available (the success of blinding was evaluated by examining the drugs before distribution)."
Blinding of outcome assessment	Low risk	Complete this section: for example:
(detection bias)		Low risk. Quote: "double blind".
		Comment: Probably done.
Incomplete outcome data (attrition	High risk	Complete this section: for example:
bias)		High risk: 4 weeks: 17/110 missing from intervention group (9 due to 'lack of efficacy'); 7/113 missing from control group (2 due to 'lack of efficacy').
Selective reporting (reporting bias)	High risk	Complete this section: for example:
		High risk: Three rating scales for cognition listed in Methods, but only one (with statistically significant results) is reported.
Size	Unclear risk	Complete this section: for example:
		Unclear risk: 99 participants per treatment arm.
Other bias	Low risk	Complete this section: for example:
		Low risk: No other risks of bias identified.

TEST 002

Methods	Complete this section: see above
Participants	Complete this section: see above
Interventions	Complete this section: see above
Outcomes	Complete this section: see above
Notes	Complete this section: see above

Risk of bias table

PaPaS Review Guidance with Mandatory MECIR Standards

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Complete this section: see above
Allocation concealment (selection bias)	Unclear risk	Complete this section: see above
Blinding of participants and personnel (performance bias)	Unclear risk	Complete this section: see above
Blinding of outcome assessment (detection bias)	Unclear risk	Complete this section: see above
Incomplete outcome data (attrition bias)	Unclear risk	Complete this section: see above
Selective reporting (reporting bias)	Unclear risk	Complete this section: see above
Size	Unclear risk	Complete this section: see above
Other bias	Unclear risk	Complete this section: see above

Footnotes

Include footnotes to explain any abbreviations given in the tables above, e.g. n, N, mL, cm, IV

Characteristics of excluded studies

TEST 003

Reason for exclusion	Complete this section with a brief description, e.g. not an RCT	

Footnotes

Characteristics of studies awaiting classification

TEST 004

Methods	Complete this section where relevant
Participants	Complete this section where relevant
Interventions	Complete this section where relevant
Outcomes	Complete this section where relevant
Notes	Complete this section where relevant

Footnotes

Characteristics of ongoing studies

TEST 05

PaPaS Review Guidance with Mandatory MECIR Standards

Study name	Complete this section where relevant
Methods	Complete this section where relevant
Participants	Complete this section where relevant
Interventions	Complete this section where relevant
Outcomes	Complete this section where relevant
Starting date	Complete this section where relevant
Contact information	Complete this section where relevant
Notes	Complete this section where relevant

Footnotes

Summary of findings tables

1 Summary of findings

Example SOF (using RevMan not GRADEpro): [experimental intervention] compared with [control intervention] for [health problem]

Patient or population: [participants] with [health problem]

Settings: [setting]

Intervention: [experimental intervention]

Comparison: [control intervention]

	Illustrative comparative risks* (95% CI)		effect	Participants	Quality of the evidence (GRADE)	Comments
	risk ris	Corresponding risk [experimental]	(95% CI)	(studies)		
Outcome 1			RR	n (N)	Low (add links to footnotes for corresponding downgrading decisions) ^{1, 2}	
Outcome 2						
Outcome 3						
Outcome 4						
Outcome 5						
Outcome 6						
Outcome 7 (maximum 7; should match outcomes listed in Methods (Outcomes, Quality of the evidence)						

^{*}The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval; RR: Risk Ratio; [other abbreviations, eg. OR, n, N etc]

GRADE Working Group grades of evidence

High quality: we are very confident that the true effect lies close to that of the estimate of the effect;

Moderate quality: we are moderately confident in the effect estimate; the true effect is likely to be close to the estimate of effect, but there is a possibility that it is substantially different;

Low quality: our confidence in the effect estimate is limited; the true effect may be substantially different from the estimate of the effect;

Very low quality: we have very little confidence in the effect estimate; the true effect is likely to be substantially different from the estimate of effect.

(Note: this wording is different in the RevMan table and will need to be manually updated; the software has not been amended in light of recent changes to the description.)

Footnotes

Add your justifications for downgrading evidence here, e.g.:

These reasons should be repeated when reporting the outcomes in Effects of interventions section.

¹ Downgraded one level for study limitations due to X included studies being at high risk of bias for Y. [Note: if sensitivity analyses have shown that studies at high RoB influence the overall result then they should be commented upon in supporting the downgrading decision.]

² Downgraded one level for imprecision due to wide confidence intervals.

Common errors identified by CEU:

- 1) Common under-utilisation of information from Summary of Findings tables in reporting the review findings.
- 2) Often unclear or inexplicable decisions in relation to GRADE assessments and assessments that seem to be restricted to risk of bias only.

Note: If the studies available at full review stage describe results for relevant outcomes in a way that cannot be pooled, you could consider this paper on rating evidence when you have no meta-analysis results to work with: Rating the certainty in evidence in the absence of a single estimate of effect

Additional tables

1 Inclusion and exclusion criteria for included studies

Study	Inclusion criteria	Exclusion criteria

Footnotes

2 Data extraction

Study ID		Treatment schedule	Outcomes	Withdrawals	AEs (general)	AEs (specific)	Serious AEs	Sponsorship

Footnotes

Could include information from your data extraction form here (or in Appendices).

Examples of Additional tables given: e.g. to reduce the amount of information listed in the Characteristics of Included Studies tables, you can list the inclusion/exclusion criteria here. Ensure you link to this table within the review text.

Appendices can also be used for this purpose.

References to studies

Included studies

TEST 001

* Primary report (star indicates primary report for this included study; open the reference record to select the star). Primary report. Primary report. Primary report. Primary report.

Second report. Second report. Second report Second report; Second report. Second report.

TEST 002

Single report for this study (one reference; not mandatory to click the star to indicate primary study). Single report. Single report Single report; Single report.

Excluded studies

TEST 003

Test 003. Test 003. Test 003 Test 003; Test 003: Test 003.

Studies awaiting classification

TEST 004

Test 004. Test 004. Test 004 Test 004; Test 004: Test 004.

Ongoing studies

TEST 05

Test 005, Test 005, Test 005 Test 005; Test 005.

Hints and tips for completing references:

- · List first six authors, then 'et al'
- Do not add full stops- RevMan will do this for you automatically
- Ensure the correct reference type is selected, for example Cochrane reviews have their own classification, not just 'journal article'; DOIs should always be added for Cochrane reviews
- Page numbers should be formatted as follows: 1225-6, not 1225-1226
 - Ensure the formatting for authors is consistent, e.g. Surname A, Surname B is correct, and not Surname A. B.,
 Surname CD; EF Surname
 - · Add title in original language where relevant
 - · Include 'date accessed' date for all websites and online resources
 - · Ensure information is entered in all required fields
 - · Spell journal title in full (can select from drop down list by right-clicking)

Other references

Additional references

AUREF 2012

Cochrane PaPaS. Authoring or assessing a Cochrane Protocol, Review, or Review Update for the PaPaS Review Group (AUREF). PaPaS website [add date accessed] 2012;1.

Dechartres 2013

Dechartres A, Trinquart L, Boutron I, Ravaud P. Influence of trial sample size on treatment effect estimates: meta-epidemiological study. BMJ 2013;346(f2304). [DOI: 10.1136/bmj.f2304]

GRADEpro 2015

GRADEpro_Guideline Development Tool [Software] [Computer program]. Jan Brozek, Andrew Oxman, Holger Schünemann. McMaster University (developed by Evidence Prime, Inc.), 2015.Available from www.gradepro.org.

Higgins 2011

Higgins JPT, Green S (editors). Cochrane Handbook for Systematic Reviews of Interventions. 5.1.0 (Available from www.cochrane-handbook.org) edition. The Cochrane Collaboration, 2009 (Updated March 2011).

L'Abbé 1987

L'Abbé KA, Detsky AS, O'Rourke K. Meta-analysis in clinical research. Annals of Internal Medicine 1987;107:224-33.

Liberati 2009

Liberati A, Altman DG, Tetzlaff J, Mulrow C, Gøtzsche PC, Ioannidiset JPA et al. The PRISMA Statement for Reporting Systematic Reviews and Meta-Analyses of Studies That Evaluate Health Care Interventions: Explanation and Elaboration. Annals of Internal Medicine 2009;151(4):W-65-W-94. [DOI: 10.7326/0003-4819-151-4-200908180-00136]

Nüesch 2010

Nüesch E, Trelle S, Reichenbach S, Rutjes AW, Tschannen B, Altman DG, et al. Small study effects in meta-analyses of osteoarthritis trials: meta-epidemiological study. BMJ 2010;341(c3515). [DOI: 10.1136/bmj.c3515]

RevMan 2014

Review Manager (RevMan) [Computer program]. Version 5.3. Copenhagen: The Nordic Cochrane Centre, The Cochrane Collaboration, 2014.

Other published versions of this review

Classification pending references

Data and analyses

1 TEST 199

Outcome or Subgroup	Studies		10.10.10.10.10.10.10.10.10.10.10.10.10.1	Effect Estimate
1.1 <u>test 199</u>	2	279	Std. Mean Difference(IV, Fixed, 95% CI)	-2.24 [-2.69, -1.78]

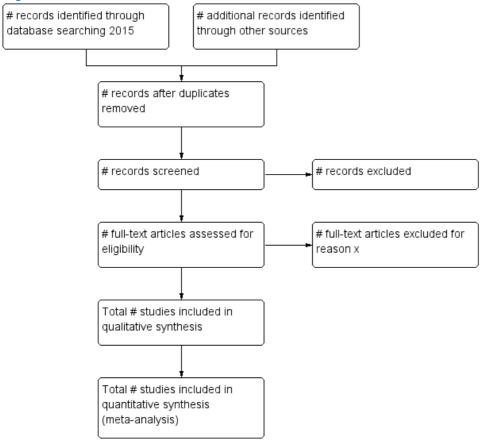
- Ensure the axes labels and totals accurately reflect the data (check for data entry errors).
- Ensure the axes labels are consistent (e.g. 'Intervention X' always on the left), unless the direction of outcome is different (e.g. 'Pain free at 4 hours' (intervention on right) would be different from 'adverse effects' (intervention on left)).
- Add links to each analysis in the Effects of interventions section, in chronological order.
- We do not recommend performing analyses unless there are at least two studies, and ideally at least 200 participants; do not include single study analyses- add a narrative summary instead.

Mandatory MECIR Reporting Standard for New Reviews

- R75 Use of 'Data and analysis' headings: Ensure appropriate use of the heading hierarchy of Comparisons, Outcomes, Subgroups and Study data in the 'Data and analysis' section. Appropriate use of the hierarchy ensures consistency of structure across reviews. It is confusing for the user if outcomes are listed against the heading 'Comparison' and interventions listed against the heading 'Outcome or subgroup'.
 - R94 Labels on plots: Label the directions of effect and the intervention groups in forest plots with the interventions being compared. By default, RevMan currently uses 'experimental' and 'control' within labels. It is helpful to replace these with more specific intervention names, and essential if the ordering is swapped (or for head-to-head comparisons). Directions of effect should be used as consistently as possible within a review.

Figures

Figure 1

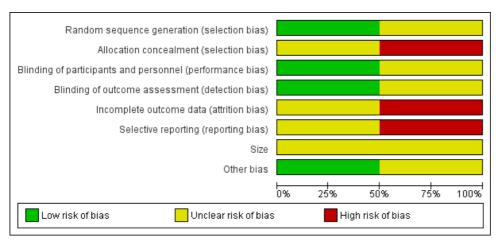


Caption

Flow diagram.

Figure 2

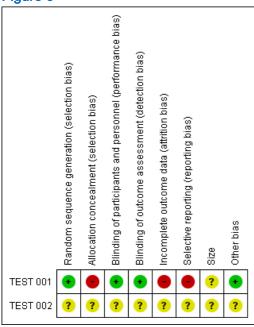
PaPaS Review Guidance with Mandatory MECIR Standards



Caption

Risk of bias graph: review authors' judgements about each risk of bias item presented as percentages across all included studies.

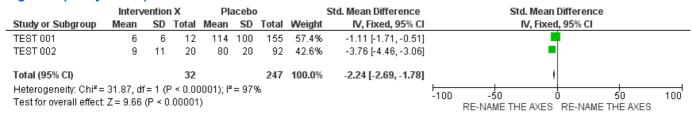
Figure 3



Caption

Risk of bias summary: review authors' judgements about each risk of bias item for each included study.

Figure 4 (Analysis 1.1)



Caption

Forest plot of comparison: 1 TEST 199, outcome: 1.1 test 199.

- · Figure created from the results in Data and Analyses.
- Figures automatically appear embedded in the review text as an image via the link. Limited to a total of six Figures, including flowchart and RoB tables.
- Ensure your axes are correctly and clearly labelled (not just default 'intervention' and 'control').

Examples added for reference.

Sources of support

Internal sources

· No sources of support provided

External sources

· No sources of support provided

Mandatory MECIR Reporting Standard for New Reviews

 R108: List sources of financial and non-financial support for the review and the role of the funder, if any. See Handbook 4.10.

Feedback

Appendices

1 Search strategies

Add all search strategies here, eg CENTRAL, MEDLINE, Embase, Other.

MECIR R38: Present the exact search strategy (or strategies) used for each database in an Appendix, including any limits and filters used, so that it could be replicated.

2 Summary of outcomes in included studies

EXAMPLE: Summary of outcomes in individual studies: efficacy

Study	Treatment	Pain outcome	Other efficacy outcome
Example	Example	Example	Example

Include all of your search strategies in Appendix 1, or in separate appendices.

Examples of additional appendices given: e.g. to reduce the amount of information listed in the review, you can list the inclusion/exclusion criteria, outcome data, GRADE or ROB methods here. Ensure you link to this table within the review text. Additional tables can also be used for this purpose.