



Guide to the search strategy

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1. Introduction: Developing the search strategy

Part of developing a Cochrane Review involves preparing a search strategy to help authors identify the studies for their review. The Cochrane Infectious Diseases Group's Information Retrieval Specialist (currently Vittoria Lutje, (vittoria.lutje@lstmed.ac.uk), works with the authors to prepare search strategies and to conduct searches.

When a review team starts to prepare the protocol for their Cochrane Review, the contact author should get in touch with Vittoria Lutje to discuss the search strategy. She will work with the contact author to decide on the appropriate databases, conference proceedings, other sources, and search terms, and will draft the search template and table (see below) for the review team to comment on. Once the search strategy has been finalized, the authors can add it to the Revman version of their protocol. Alternatively, the authors can prepare the search strategy and send it to Vittoria Lutje for her comments before finalizing the protocol.

1.1. Search terms

Vittoria Lutje will read your protocol, and use the inclusion criteria ('Criteria for including studies in this review') and background sections, to identify the search terms to be used in the review.

1.2. Electronic databases and other sources of trial reports

Electronic databases: Cochrane Reviews must include searches of the following databases: the Cochrane Infectious Diseases Group Specialized Register, the Cochrane Register of Studies (CRS), and MEDLINE. The Cochrane Infectious Diseases Group also searches EMBASE, LILACS, and the *meta*Register of Controlled Trials (*mRCT*). Other databases may need to be searched for particular reviews' topics; for instance CINAHL for nursing and allied health disciplines, PsycINFO for the psychological literature, and several others .

Conference proceedings: Authors are encouraged to identify and search conference proceedings relevant to the review topic. These can be located via the Internet or in the reference lists of published studies.

Organizations: Research organizations (such as the World Health Organization, Médecins Sans Frontières etc) can be helpful in locating unpublished or ongoing trials. Authors are encouraged to identify organizations relevant to their review's topic by searching the Internet or from the authorship and reference lists of published studies.

Pharmaceutical companies: Authors should also attempt to contact pharmaceutical companies that developed the drug or device of interest to ask them for help in locating unpublished and ongoing trials. The relevant pharmaceutical companies can be identified from published studies or by searching the Internet.



Reference lists: Authors are responsible for browsing the references lists of the identified studies for additional studies.

1.3. “Search methods for identification of studies” section

Vittoria Lutje will work with the contact author to complete the search strategy template (see section 3). It will be in the future tense for the protocol and in the past tense for the completed review. The detailed search terms for different electronic databases will be listed in a table in an Appendix (see example).

1.4. Search methods for Systematic reviews of Diagnostic tests accuracy (DTA)

Systematic reviews of diagnostic tests accuracy are also included in the scope of the Cochrane Infectious diseases group. Although the principles of conducting a DTA review are similar to those of an intervention reviews, methods are different and they include a more extensive search strategy, with several more electronic databases to be searched and a more comprehensive list of search terms. The Search methods section will be tailored to each individual review (do not follow the template below).

2. Running the searches for studies

2.1. Timing of searches

Once the protocol is accepted for publication, Vittoria Lutje will conduct the search for trials using the methods developed and recorded in the protocol. Results from this search will be sent to the review team to enable them to start work on the review. Also, depending on how long it takes to prepare the review, another search may be needed to ensure that the review is up to date (the last search date must be within six months of the review’s intended publication date. The review team can contact Vittoria Lutje before submitting their draft review to request an additional search, or the Managing Editor Anne-Marie Stephani) will request it on their behalf. Some authors’ team prefer to run their own searches (both for new reviews and for updates), in which case they should inform Vittoria Lutje and send her a list of the trials they have identified, to be included in the group’s Specialized register.

2.2. Assessing and recording search results

After running a search for trials, results will be sent to the contact author. Citations can be sent in a bibliographic database (Endnote, Reference Manager) or as a list of references in a Word document. The review team is then responsible for assessing the trials’ eligibility using the methods outlined in the protocol. Authors should keep a record of the number of trials included or excluded from a review at each stage of the assessment process, as this information needs to be reported in the final version of a Cochrane review and presented in a PRISMA flow diagram (see example below – the template is available in Revman, “Add figure”). If the review authors identify additional trials through communications with organizations, individual researchers, or pharmaceutical companies, they should inform Vittoria Lutje so that the studies can be added to the Cochrane Infectious Diseases Group’s Specialized Register.

Cochrane reviews also include report of ongoing trials, identified through searches of the metaRegister of Controlled Trials (mRCT) and the search portal of the WHO International Clinical Trials Registry Platform. Sometimes trials which are already published in a journal are still registered on these websites as ongoing. Authors should double-check the list of ongoing trials against published ones to avoid listing trials twice (this applies especially to review updates).



2.3. Article retrieval and translations

If the authors cannot obtain locally the full text of the articles they need, they can require assistance to retrieve them from the Editorial base by directly contacting Christianne Esparza (christianne.esparza@lstmed.ac.uk). If an article needs translation into English, the review authors can ask the Editorial base for assistance.

2.4. Searches for review updates

After publication, Cochrane reviews should be updated every approximately every 2 years and this involves a new search for trials. Vittoria Lutje will run these search updates (unless authors prefer to do it themselves; see 2.1) and inform the authors of any new trials identified. Sometimes the search strategy of a published review needs to be changed, to accommodate new research findings (for instance new names of new drugs or other interventions); authors will need to discuss these changes with the Editorial base and with Vittoria Lutje before incorporating them.

Authors are encouraged to report the search process for review updates the same way as for new reviews, keeping a record of the number of new trials identified and included or excluded in the review, and this involves using a PRISMA flow diagram similar to the one used for new reviews - please see 5.1 below. Once a review is updated, the PRISMA diagram for the previous review version should be moved to an appendix. There will be a link to it so readers will be able to access it, but it won't be visible in the main body of the review.

3. Template text for the 'Search methods for the identification of studies'

This is the template for a Cochrane protocol. For a Cochrane review sentences will be changed to the past tense and exact dates of search will be added.

We will attempt to identify all relevant trials regardless of language or publication status (published, unpublished, in press, and ongoing).

Databases

We will search the following databases using the search terms and strategy described in [Appendix 1]: Cochrane Infectious Diseases Group Specialized Register; ; Cochrane Central Register of Controlled Trials (CENTRAL); ; MEDLINE; EMBASE ; LILACS . We will also search the *meta*Register of Controlled Trials (*mRCT*) using [search term] as search terms.

Conference proceedings

We will search the following conference proceedings for relevant abstracts: [conference title, location (city and country), and date].

Organizations and pharmaceutical companies

We will contact organizations including [**] and pharmaceutical companies including [**] for unpublished and ongoing trials.



Reference lists

We will also check the reference lists of all studies identified by the above methods.

*** List the sources you intend to contact in the protocol; list all sources actually contacted in the review with the date of contact.*



Example of search table

The search strategy table can be included in an Appendix by copying a Microsoft Word table and footnotes into the Appendix.

Appendix 1. Methods: detailed search strategies

Search set	CIDG SR ¹	CENTRAL	MEDLINE ²	EMBASE ²	LILACS ²
1	tuberculosis	Tuberculosis [MeSH]	Tuberculosis [MeSH]	Tuberculosis [MeSH]	tuberculosis
2	Fixed dose	Tuberculosis ti, ab	Tuberculosis ti, ab	Tuberculosis ti, ab	Fixed dose
3	multidose	1 or 2	1 or 2	1 or 2	multidose
4	Drug combination	Drug Therapy, Combination [Mesh]	Drug Therapy, Combination [Mesh]	Drug Combination [Emtree]	Drug combination
5	2 or 3 or 4	Fixed dose ti, ab	Fixed dose ti, ab	Fixed dose ti, ab	2 or 3 or 4
6	1 and 5	Combination* ti, ab	Combination* ti, ab	Combination* ti, ab	1 and 5
7		Fixed multidose ti, ab	Fixed multidose ti, ab	Fixed multidose ti, ab	
8		Blister pack ti, ab	Blister pack ti, ab	Blister pack ti, ab	
9		4-8/OR	4-8/OR	4-8/OR	
10		3 AND 9	3 AND 9	3 AND 9	
11			Limit 10 to Humans	Limit 10 to human	

¹ Cochrane Infectious Diseases Group Specialized Register.

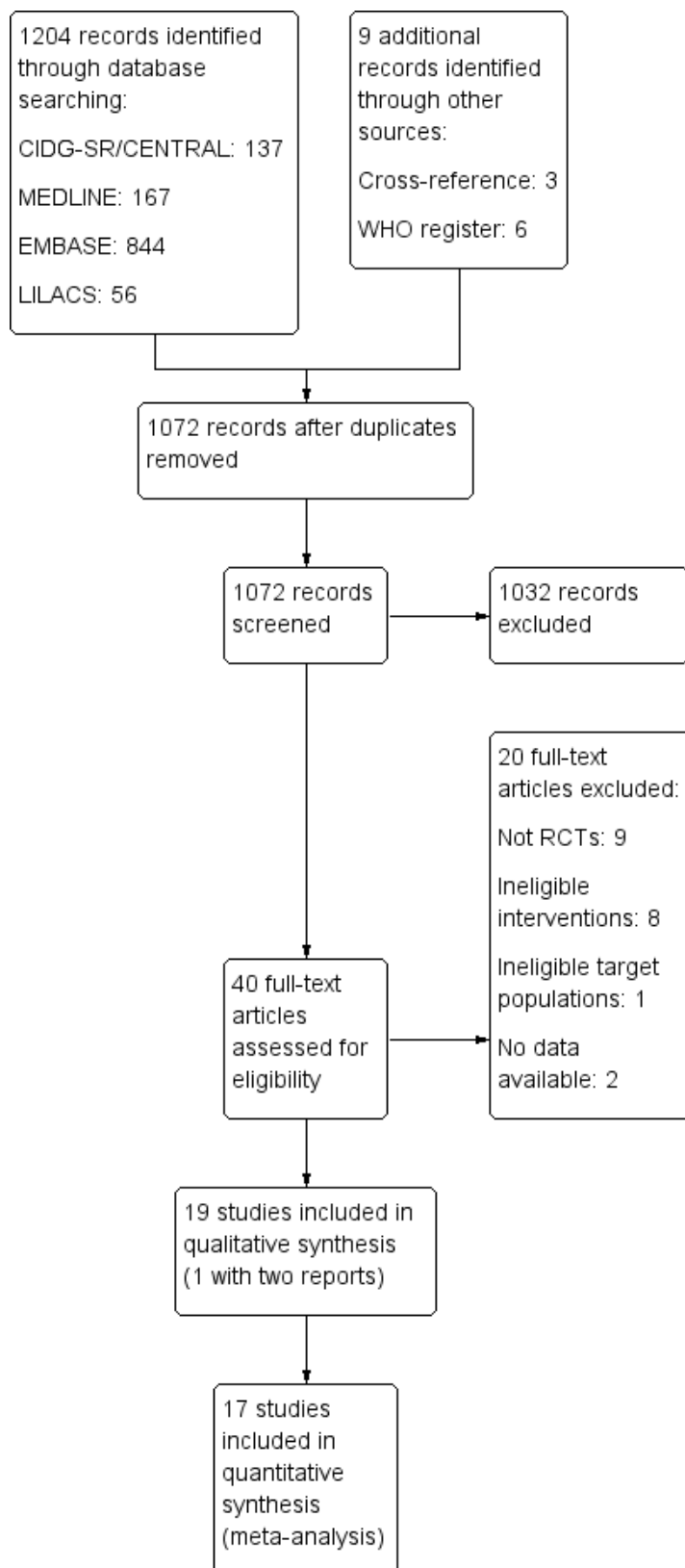
² Search terms used in combination with the search strategy for retrieving trials developed by The Cochrane Collaboration (Lefebvre 2011)

(Insert the following Lefebvre reference in Additional studies:

Lefebvre C, Manheimer E, Glanville J. Chapter 6: Searching for studies. In: Higgins JPT, Green S (editors). *Cochrane Handbook for Systematic Reviews of Interventions* Version 5.0.1 (updated March 2011). The Cochrane Collaboration, 2011. Available from www.cochrane-handbook.org.



4. Reporting search results: example of PRISMA flow diagram for reporting searches in new reviews





5. Reporting search results: example of PRISMA flow diagram for reporting searches in updated reviews

