# Searching for studies (C24-C38)

## Searching for studies

Cochrane Training resource: searching for studies

Cochrane Interactive Learning (CIL): module 3 - searching for studies

| | **Standard** | **Rationale and elaboration** | **Resources** |
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| C24 | *Searching general bibliographic databases and CENTRAL* | ***Mandatory*** | |
| | Search the Cochrane Review Group's (CRG's) Specialized Register (internally, e.g. via the Cochrane Register of Studies, or externally via CENTRAL). Ensure that CENTRAL, MEDLINE (e.g. via PubMed) and Embase (if Embase is available to either the CRG or the review author), have been searched (either for the review or for the Review Group's Specialized Register). | Searches for studies should be as extensive as possible in order to reduce the risk of publication bias and to identify as much relevant evidence as possible. The minimum databases to be covered are the CRG's Specialized Register (if it exists and was designed to support reviews in this way), CENTRAL, MEDLINE and Embase (if Embase is available to either the CRG or the review author). Expertise may be required to avoid unnecessary duplication of effort. Some, but not all, reports of eligible studies from MEDLINE, Embase and the CRGs' Specialized Registers are already included in CENTRAL. | See *Handbook* Section 4.3.1.1<br>Cochrane Training resource: Register of Studies and RevMan |
| C25 | *Searching specialist bibliographic databases* | ***Highly desirable*** | |
| | Search appropriate national, regional and subject-specific bibliographic databases. | Searches for studies should be as extensive as possible in order to reduce the risk of publication bias and to identify as much relevant evidence as possible. Databases relevant to the review topic should be covered (e.g. CINAHL for nursing-related topics, APA PsycInfo for psychological interventions), and regional databases (e.g. LILACS) should be considered. | See *Handbook* Section 4.3.1.4 |
| C26 | *Searching for different types of evidence* | ***Mandatory*** | |
| | If the review has specific eligibility criteria around study design to address adverse effects, economic issues or qualitative research questions, undertake searches to address them. | Sometimes a review will address questions about adverse effects, economic issues or qualitative research using a different set of eligibility criteria from the main (effectiveness) component. In such situations, the searches for evidence must be suitable to | See *Handbook* Section 4.4.1<br>Cochrane Training resource: searching for adverse effects |

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|  |  | identify relevant study designs for these questions. Different searches may need to be conducted for different types of evidence. |  |
| C27 | *Searching trials registers* | ***Mandatory*** |  |
|  | Search trials registers and repositories of results, where relevant to the topic, through ClinicalTrials.gov, the WHO International Clinical Trials Registry Platform (ICTRP) portal and other sources as appropriate. | Searches for studies should be as extensive as possible in order to reduce the risk of publication bias and to identify as much relevant evidence as possible. Although ClinicalTrials.gov is included as one of the registers within the WHO ICTRP portal, it is recommended that both ClinicalTrials.gov and the ICTRP portal are searched separately due to additional features in ClinicalTrials.gov. | See *Handbook* Section 4.3.3 |
| C28 | *Searching for grey literature* | ***Highly desirable*** |  |
|  | Search relevant grey literature sources such as reports, dissertations, theses and conference abstracts. | Searches for studies should be as extensive as possible in order to reduce the risk of publication bias and to identify as much relevant evidence as possible. | See *Handbook* Section 4.3.5 |
| C29 | *Searching within other reviews* | ***Highly desirable*** |  |
|  | Search within previous reviews on the same topic. | Searches for studies should be as extensive as possible in order to reduce the risk of publication bias and to identify as much relevant evidence as possible. | See *Handbook* Section 4.3.5 |
| C30 | *Searching reference lists* | ***Mandatory*** |  |
|  | Check reference lists in included studies and any relevant systematic reviews identified. | Searches for studies should be as extensive as possible in order to reduce the risk of publication bias and to identify as much relevant evidence as possible. | See *Handbook* Section 4.3.5 |
| C31 | *Searching by contacting relevant individuals and organizations* | ***Highly desirable*** |  |
|  | Contact relevant individuals and organizations for information about unpublished or ongoing studies. | Searches for studies should be as extensive as possible in order to reduce the risk of publication bias and to identify as much relevant evidence as possible. It is important to identify ongoing studies, so that these can be assessed for possible inclusion when a review is updated. | See *Handbook* Section 4.3.2 |
| C32 | *Structuring search strategies for bibliographic databases* | ***Mandatory*** |  |
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| | Inform the structure of search strategies in bibliographic databases around the main concepts of the review, using appropriate elements from PICO and study design. In structuring the search, maximize sensitivity whilst striving for reasonable precision. Ensure correct use of the ‘AND’ and ‘OR’ operators. | Inappropriate or inadequate search strategies may fail to identify records that are included in bibliographic databases. Expertise may need to be sought, in particular from the CRG’s Information Specialist. The structure of a search strategy should be based on the main concepts being examined in a review. In general databases, such as MEDLINE, a search strategy to identify studies for a Cochrane Review will typically have three sets of terms: 1) terms to search for the health condition of interest, i.e. the population; 2) terms to search for the intervention(s) evaluated; and 3) terms to search for the types of study design to be included (typically a ‘filter’ for randomized trials). There are exceptions, however. For instance, for reviews of complex interventions, it may be necessary to search only for the population or the intervention. Within each concept, terms are joined together with the Boolean ‘OR’ operator, and the concepts are combined with the Boolean ‘AND’ operator. The ‘NOT’ operator should be avoided where possible to avoid the danger of inadvertently removing records that are relevant from the search set. | See *Handbook* Section 4.4.2 |
| C33 | *Developing search strategies for bibliographic databases* | ***Mandatory*** | |
| | Identify appropriate controlled vocabulary (e.g. MeSH, Emtree, including 'exploded' terms) and free-text terms (considering, for example, spelling variants, synonyms, acronyms, truncation and proximity operators). | Inappropriate or inadequate search strategies may fail to identify records that are included in bibliographic databases. Search strategies need to be customized for each database. It is important that MeSH terms are ‘exploded’ wherever appropriate, in order not to miss relevant articles. The same principle applies to Emtree when searching Embase and also to a number of other databases. The controlled vocabulary search terms for MEDLINE and Embase are not identical, and neither is the approach to indexing. In order to be as | See *Handbook* Section 4.4.4 |

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| | | comprehensive as possible, it is necessary to include a wide range of free-text terms for each of the concepts selected. This might include the use of truncation and wildcards. Developing a search strategy is an iterative process in which the terms that are used are modified, based on what has already been retrieved. | |
| C34 | *Using search filters* | ***Highly desirable*** | |
| | Use specially designed and tested search filters where appropriate including the Cochrane Highly Sensitive Search Strategies for identifying randomized trials in MEDLINE, but do not use filters in pre-filtered databases e.g. do not use a randomized trial filter in CENTRAL. | Inappropriate or inadequate search strategies may fail to identify records that are included in bibliographic databases. Search filters should be used with caution. They should be assessed not only for the reliability of their development and reported performance, but also for their current accuracy, relevance and effectiveness given the frequent interface and indexing changes affecting databases. | See *Handbook* Section 4.4.7 |
| C35 | *Restricting database searches* | ***Mandatory*** | |
| | Justify the use of any restrictions in the search strategy on publication date and publication format. | Date restrictions in the search should only be used when there are date restrictions in the eligibility criteria for studies. They should be applied only if it is known that relevant studies could only have been reported during a specific time period, for example if the intervention was only available after a certain time point. Searches for updates to reviews might naturally be restricted by date of entry into the database (rather than date of publication) to avoid duplication of effort. Publication format restrictions (e.g. exclusion of letters) should generally not be used in Cochrane Reviews, since any information about an eligible study may be of value. | See *Handbook* Section 4.4.5 |
| C36 | *Documenting the search process* | ***Mandatory*** | |
| | Document the search process in enough detail to ensure that it can be reported correctly in the review. | The search process (including the sources searched, when, by whom, and using which terms) needs to be documented in enough detail throughout the process to ensure that it can be reported correctly in the review, to the extent that all the searches of all the databases | See *Handbook* Section 4.4.5 |

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| | | are reproducible. | |
| C37 | *Rerunning searches* | ***Mandatory*** | |
| | Rerun or update searches for all relevant sources within 12 months before publication of the review or review update, and screen the results for potentially eligible studies. | The published review should be as up to date as possible. The search must be rerun close to publication, if the initial search date is more than 12 months (preferably six months) from the intended publication date, and the results screened for potentially eligible studies. Ideally the studies should be incorporated fully in the review. If not, then the potentially eligible studies will need to be reported, at a minimum as a reference under 'Studies awaiting classification' (or 'Ongoing studies' if they have not yet completed). | See *Handbook* Section 4.4.10 |
| C38 | *Incorporating findings from rerun searches* | ***Highly desirable*** | |
| | Fully incorporate any studies identified in the rerun or update of the search within 12 months before publication of the review or review update. | The published review should be as up to date as possible. After the rerun of the search, the decision whether to incorporate any new studies fully into the review will need to be balanced against the delay in publication. | See *Handbook* Section 4.4.10 |