

3.2.5 Search strategy

This section of a review protocol should provide explicit and clear information regarding two different aspects of locating studies: *all information sources* that will be searched for the review, and the *strategies used for searching*. The aim of a systematic review is to identify all relevant studies, published or not, on a given topic. Searching should be based on the principle of comprehensiveness, with the widest reasonable collection of information sources that are considered appropriate to the review.

A systematic review of effectiveness aims to identify, at a minimum (see Section 3.2.4.5) all data derived from experimental trials (published or not) performed on a specific topic. Two recent international initiatives, one called 'All Trials' (<http://www.alltrials.net/>), and the other one called Restoring invisible and Abandoned Trials abbreviated RIAT (<http://www.bmj.com/content/346/bmj.f2865>) are fundamental in this regard.

The review protocol should list all information sources that will be used in the review: electronic bibliographic databases; search engines; trials registers; specific relevant journals; websites of relevant organizations; direct contact with researchers; direct contact with sponsors and funders of clinical trials; contact with regulatory agencies (for example, US FDA). The review protocol, ideally, should specify all the details (a line-by-line description) of the proposed search strategy used for each electronic bibliographic database considered for the review. As a minimum, all the details of the proposed search strategy for at least one major electronic bibliographic database (such as PubMed) should be provided in an appendix. The review protocol should specify the timeframe for search, and any language and date restrictions, with appropriate justifications. The reviewers should consider the potential consequences of language and date search restrictions. If possible, authors should always seek the advice of an expert research librarian when developing a search strategy. Involvement of a research librarian in the development of a search strategy should be acknowledged. For JBI systematic reviews, the search strategy is often described as a three-phase process beginning with the identification of initial key words that are used in a limited number of databases (for example, PubMed and CINAHL); followed by an analysis of the text words contained in the title, abstract and index terms used to describe relevant articles. The second phase consists of the use of database-specific searches for each database specified in the review protocol. The third phase includes the examination of the reference lists of all studies already retrieved with the explicit aim to identify additional relevant studies. The list of all databases that will be considered for database-specific searches should be provided. Usually, a comprehensive search for a review of effectiveness includes a search of relevant multiple bibliographic databases (for example, PubMed, CINAHL, EMBASE etc.), a search of trial registers, a search of relevant grey literature sources, and a hand-search of relevant journals. Reviewers should provide enough information in order to persuade readers that the sources of information considered are relevant and comprehensive and the search strategy is comprehensive and sound. Reviewers are encouraged to read the article by Aromataris and Riitano (2014) regarding searching for evidence.