

Analysis of the Reporting of Search Strategies in Cochrane Systematic Reviews

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ABSTRACT

Background:

The Cochrane Handbook provides instructions for documenting the search strategy for a systematic review, listing the elements of the search strategy that should be included in the description. The purpose of detailed documentation of the search is to ensure that the process is replicable.

Objective:

To analyze recently published Cochrane reviews to determine whether the guidelines for describing search strategies are being followed.

Methods:

Sixty-nine of 83 new reviews added to the Cochrane Database of Systematic Reviews in 1st quarter 2006 were randomly selected for analysis. Thirteen were excluded because the search strategies depended solely on Specialized Registers of trials. The remaining 56 reviews were analyzed for the seven elements of a search strategy description listed in the Handbook.

Results:

Of the 56 reviews analyzed, none included all seven elements of the search strategy description. Four reviews included six elements. One review included only two elements. The 56 reviews that were analyzed represent 31 different Cochrane Review Groups.

Conclusion:

The Cochrane guidelines for reporting search strategies are not being consistently employed by groups producing Cochrane reviews.

Why Search Strategy Reporting is Important to Us

- Medical librarians often conduct searches for systematic reviews and are frequently called upon to replicate or update systematic review searches done by others.
- Librarians provide critical input on the validity and quality of search methods.
- We need high quality published search strategies to use as models when we teach professionals and students how to conduct systematic review searches.

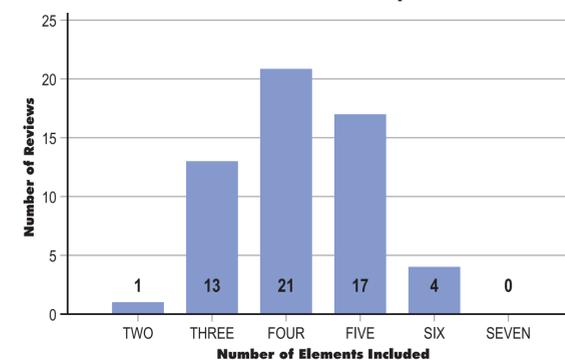
Results

- None of the Cochrane reviews analyzed (n=56) contained all seven search description elements.
 - All reviews listed the databases searched.
 - Most reviews included the years covered by searches and detailed search strategy.
 - A substantial number of reviews failed to include a statement about language restriction.
 - The elements most frequently missing were:
 - database host
 - date the search was run
 - one or two sentence summary of the search

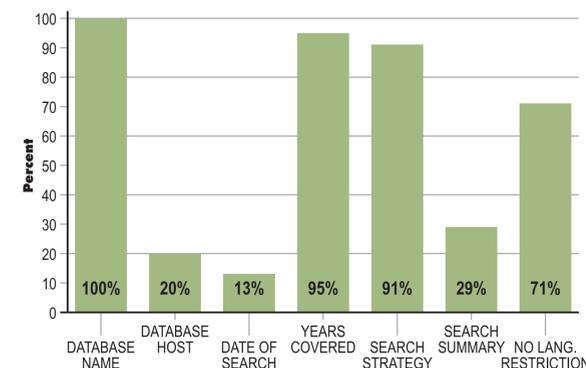
Methods

- Derived a list of seven elements required for inclusion in the search method description from the Handbook:
 - databases searched
 - name of host
 - date search was run
 - years covered by search
 - complete search strategy
 - one or two sentence summary of the search strategy
 - language restrictions
- Downloaded titles of new Cochrane reviews for 1st quarter 2006, totaling 83 reviews.
- Randomized titles using a spreadsheet random number generator and divided the titles into a set for each author (n=6 sets).
 - One author was unable to complete the analysis, so one set was not analyzed.
- Two authors together analyzed an initial 30 reviews to establish evaluation guidelines.

Distribution of Total Elements per Review



Percentage of Reviews with Each Element

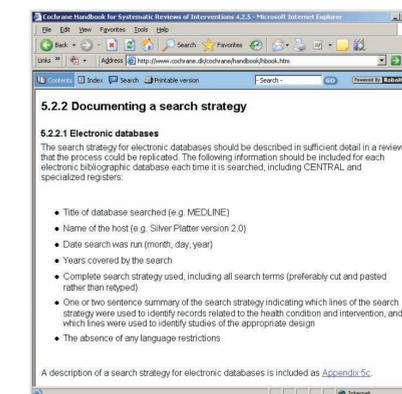


Discussion

- Section 5.2.2 of the Cochrane Handbook lists how to document a search strategy, but it is clear that authors are not referring to that section when writing systematic reviews.
- Authors may be relying on the instructions in Section 3.4 of the Handbook (Text of a Review), which do not provide details about documenting a search strategy.
- Adding a checklist or template to Section 3.4 of the Handbook might improve the reporting of search strategies.
- Some of the frequently missing elements are more important than others.
 - The most frequently missed element—database host—is a crucial piece of information, especially if one needs to replicate a search.
 - We used the Handbook's definition of date of search (month/day/year) for our analysis, but we think that month and year would be sufficient.
 - In our experience, a text summary of the search strategy is important to understanding the overall search strategy, particularly for beginning searchers.

Conclusions/ Recommendations

- The Cochrane guidelines for reporting search strategies are not being consistently followed.
- The ability to replicate the searches and assess the quality of searches in Cochrane reviews is hampered by incomplete search descriptions.
- The guidelines in the Handbook could be improved by including a search strategy description template or a checklist.



Source of image:

<http://www.cochrane.dk/cochrane/handbook/hbook.htm>
section 5.2.2