Database choice can be informed by both large scale and in-depth analyses

Frandsen TF, Eriksen MB, Hammer DMG, Christensen JB.

Database choice is closely tied to coverage which can be investigated using a number of different approaches: a specific topic or medical specialty as an example, coverage of a selection of journals (width and depth), coverage of different document types, and finally, a gold standard can form the basis for an examination of database coverage. The latter approach is used in a large scale of the included studies in all Cochrane reviews published from 2012 to 2016 (1). By including all Cochrane reviews, we focus on intervention studies. We examine if the 86,533 publications from 55,181 studies can be identified in PubMed.

The results of our paper show that PubMed has a coverage of 71 percent of all the included publications and 83 percent of all included studies in Cochrane reviews from 2012 to 2016. However, there are huge differences among the groups as well as within the groups over time. We conclude that coverage can be very difficult to predict for some review groups and thus databases within these areas should be chosen with care. We also recommend that future studies of database coverage should take the considerable variation across review groups and time into account as well as the effect of investigating on publication level instead of study level.

Metzendorf and Featherstone suggest further analyses according to type of intervention, review type and study design (2). For our study the information on included studies were extracted from the Cochrane group overview page. Consequently, in the study we are not able to perform in-depth analyses according to intervention, review type or study design. Our study can confirm the existence of considerable variances in coverage, but not explain the factors behind these differences.

We welcome more in-depth analyses that can help inform the choice of database. Focusing on a smaller population (e.g. qualitative reviews) an in-depth analysis is feasible and can offer further insights (3). We would thus also encourage the conduction of further in-depth analyses. The evidence base that can inform the database choices for systematic reviews could indeed be strengthened and both large scale as well as in-depth analyses are needed to provide this foundation. In addition to the three relevant categories suggested by Metzendorf and Featherstone, future studies could consider including retrievability (as opposed to being indexed), versions of Medline/PubMed as well as specific platforms, to inform the choice of database.

References