Up-to-dateness of reviews is often neglected in overviews: a systematic review

Dawid Pieper, Sunya-Lee Antoine, Edmund A.M. Neugebauer, Michaela Eikermann

Institute for Research in Operative Medicine (IFOM), University Witten/Herdecke, Cologne, Germany

Background and Objective
As systematic reviews may run out of date, it might be necessary to update them. Out-of-date reviews may jeopardize the comparability when used in the context of reviews (review of reviews).

Methods
Seven electronic databases were searched for overviews up to November 2012. We first aimed to analyze whether the authors of overviews additionally searched for primary studies or alternatively explained why they did not. Second, we sought to analyze the actual publication lag (publication date of the overview - publication date of the review) in overviews and to develop recommendations for authors of overviews.

Results:
We included 147 overviews. The mean publication lag in overviews was more than 5 years (see table). This is close to the 6-year range where more than half of the reviews would be expected to be out of date (Shojania et al. 2007). A median of 36% of the reviews were published more than 6 years ago. One in five overviews also searched for primary studies. Two different ways of searching for primary studies in overviews can be distinguished. In the first approach (6 of 30), the authors identified reviews in a first step and then searched for additional primary studies (update approach). In the second approach, the authors searched for secondary and primary literature simultaneously (parallel approach). Only one in four reviews considered up-to-dateness. The methods for updating reviews were heterogeneous. We found no overview that systematically investigated whether an update was necessary.

Therefore, we developed some recommendations for authors of overviews (see figure).

Conclusion:
Up-to-dateness of SRs is a prerequisite for sound overviews. We developed some recommendations for overviews against the background that evidence syntheses should be up-to-date as much as they can when they are published. This issue seems to be neglected by most authors of overviews. We suggest to focus on the assessment of the whole body of evidence and not the single SRs. If there is more than one SR addressing the same research question, these SRs should be regarded jointly. We encourage the use of grading systems to assess the QoE in the body of evidence. Future research should focus on grading systems (among other methods) easily applicable to overviews. This will help to make overviews more precise and valuable.