

Avenues for further research

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Aim

- ❖ To give a short overview of methodological work on overviews at our institute
- ❖ To present ideas for further research





ELSEVIER

Journal of Clinical Epidemiology 65 (2012) 1267–1273

**Journal of
Clinical
Epidemiology**

Overviews of reviews often have limited rigor: a systematic review

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Abstract

Objective: To examine published overviews of systematic reviews in terms of descriptive and methodological characteristics.

Study Design and Setting: MEDLINE, Database of Abstracts of Reviews of Effects, the Cochrane Database of Systematic Reviews, and several Health Technology Assessment databases were searched for overviews of reviews up to February 2012. We extracted data from the methods and results sections of the included overviews. These data were analyzed descriptively as frequencies or medians and inter-quartile ranges.

Results: We included 126 overviews of reviews. According to our sample, publication rates for overviews have risen in the last decade. The quality of the included reviews was systematically appraised in 64% of the overviews. The most commonly used assessment tools were the Overview Quality Assessment Questionnaire (26%), Assessment of Multiple Systematic Reviews (11%), and Preferred Reporting Items for Systematic Reviews and Meta-Analyses (5%). Only three of 18 overviews restricted to Cochrane reviews in our sample performed a quality assessment. Strategies to deal with discordant reviews were reported in 5% of the overviews. Searches for additional primary studies were conducted in 5% of the overviews.

Conclusion: Overviews of reviews often lack methodological rigor. Methodological standards and reporting guidelines for overviews are needed to improve the quality of this new publication type. © 2012 Elsevier Inc. All rights reserved.



- Are there any **prerequisites** for conducting an overview?
- How should authors deal with **overlapping** reviews, when primary studies are included in more than one review?
- How should authors deal with **discordant results** among reviews?
- When and how to search additionally for **primary studies**?
- How should authors assess the **quality of included reviews**?
- How should authors grade the **quality of evidence**?
- What is the best way for **synthesizing evidence** in overviews?
- What is the best way to **present findings/results**?

Invited Review

Research Synthesis Methods

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Methodological approaches in conducting overviews: current state in HTA agencies

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Tim Mathes and Michaela Eikermann

Conclusions: Although the interest in overviews is rising, little methodological guidance for the conduct of overviews is provided by HTA agencies. Overviews are of special interest in the context of rapid assessments to support policy-making within a short time frame. Therefore, empirical work on overviews needs to be extended. National strategies and experience should be disclosed and discussed. Copyright © 2013 John Wiley & Sons, Ltd.



Does it make a difference

ORIGINAL ARTICLE

Impact of choice of quality appraisal tool for systematic reviews in overviews

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Objective: The question whether the choice of a critical appraisal tool has an impact on the result of the evidence synthesis in systematic reviews has been neglected by research. This is also true for psychometric properties of critical appraisal tools. The objective of the study is to exemplify that in the context of overviews (reviews of reviews).

Conclusion: The choice of a critical appraisal tool has no impact on the result of the evidence synthesis, despite differences in the covered components by each CAT. Further studies should concentrate on investigating psychometric properties and the impact of choice of CATs on the evidence synthesis in other contexts. The high heterogeneity between the two pairs of reviewers, all of them experienced in appraising systematic reviews, indicates a degree of interpretability in the items.





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REVIEW ARTICLES

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

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Abstract

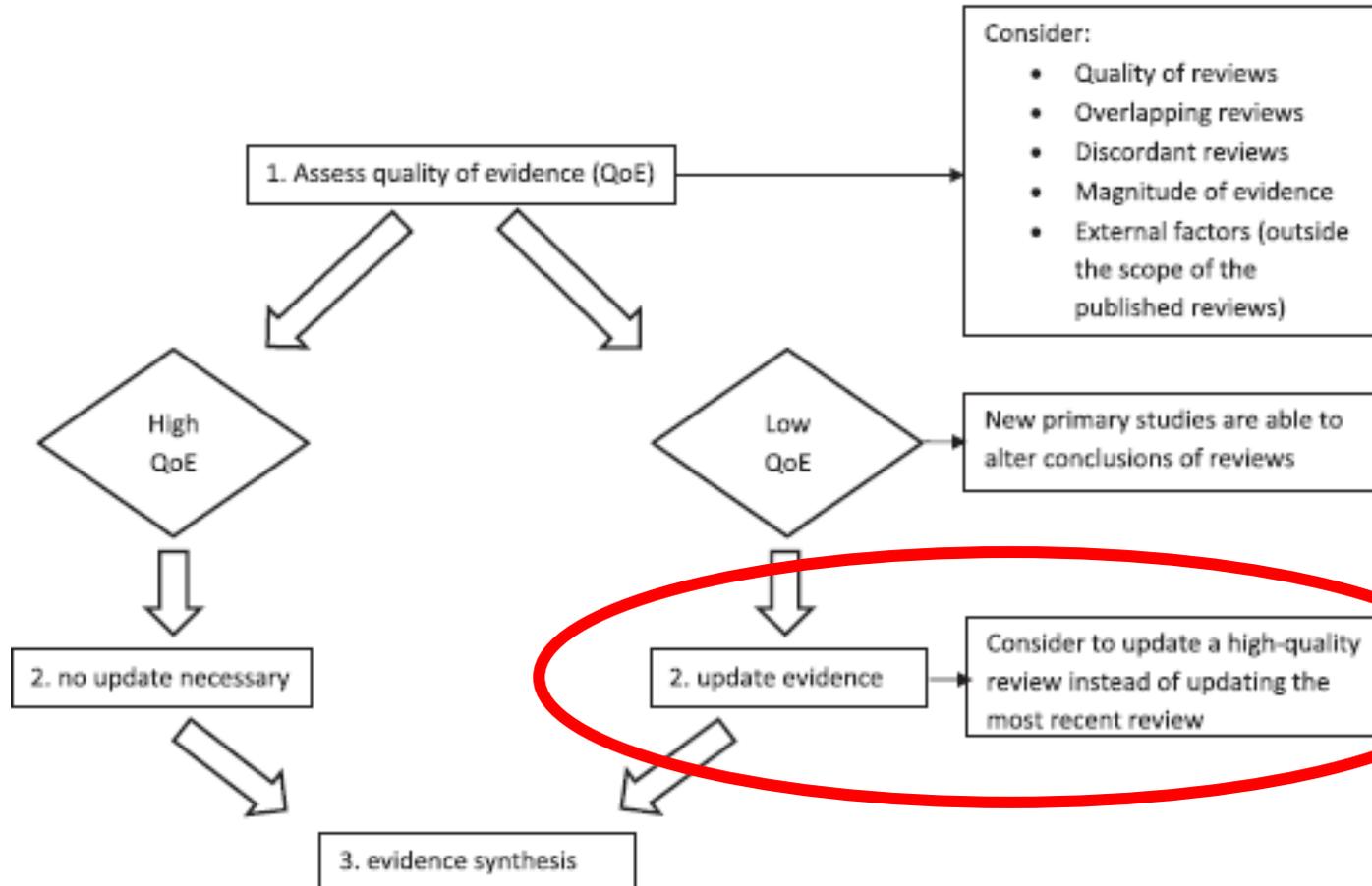
Background and Objective: As systematic reviews may run out of date, it might be necessary to update them. Out-of-date reviews may jeopardize the comparability when used in the context of overviews (review of reviews).

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. A median of 36% of the reviews were published more than 6 years ago. 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.

Conclusion: The issue of up-to-dateness when conducting overviews seems to be neglected by most authors of overviews. Authors should assess the quality of evidence, based on their included reviews first. © 2014 Elsevier Inc. All rights reserved.

Making overviews up-to-date



Pieper D, Antoine SL, Neugebauer EA, Eikermann M. Up-to-dateness of reviews is often neglected in overviews: a systematic review. J Clin Epidemiol. 2014 Dec;67(12):1302-8. doi: 10.1016/j.jclinepi.2014.08.008. Epub 2014 Oct 1.



REVIEW ARTICLES

Systematic review finds overlapping reviews were not mentioned in every other overview

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Abstract

Objectives: The objective of this study was to determine if the authors mention overlapping reviews in overviews (reviews of reviews). In addition, we aimed to calculate the actual overlap in published overviews using newly introduced, validated measures.

Study Design and Settings: We systematically searched for overviews from 2009 to 2011. Reviews included in the overviews were obtained. Tables (review × primary publication) were generated for each overview. The first occurrence of a primary publication is defined as the index publication. We calculated the “corrected covered area” (CCA) as a measure of overlap by dividing the frequency of repeated occurrences of the index publication in other reviews by the product of index publications and reviews, reduced by the number of index publications. Subgroup analyses were performed to investigate further differences in the overviews.

Results: Only 32 of 60 overviews mentioned overlaps. The median CCA was 4.0. Validation of the CCA and other overlap measures was in accordance with our predefined hypotheses. The degree of overlap tended to be higher in health technology assessment reports than in journal publications and was higher with increasing numbers of publications.

Conclusions: Overlaps must be reported in well-conducted overviews, and this can comprehensively be accomplished using the CCA method. © 2014 Elsevier Inc. All rights reserved.



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How do authors of Cochrane Overviews deal with conflicts of interest relating to their own systematic reviews?

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“Our analysis showed that dual (co-)authorship was prevalent in Cochrane overviews and carried a considerable potential for bias”



Avenues for further research

- Standardized terms and definition(s) needed
- Balancing the needs of different users (clinicians, consumer representatives, policy makers) → who will read the overview?
- Presenting results
- Registration and Database of Overviews
- Different objectives of overviews – different methods or size fits all?
- Reporting and Quality Assessment

(not exhaustive)



Thank you for your attention!



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