

# **Redefining rapid reviews: a flexible framework for restricted systematic reviews**

Annette Plüddemann

Jeffrey K Aronson

Igho Onakpoya

Carl Heneghan

Kamal R. Mahtani

Centre for Evidence-Based Medicine, Nuffield Department of Primary Care Health Sciences,  
University of Oxford.

Corresponding author: [annette.pluddemann@phc.ox.ac.uk](mailto:annette.pluddemann@phc.ox.ac.uk)

*Having suggested that so-called “rapid” reviews have been misnamed and should instead be called “restricted reviews”, Members of the Oxford Centre for Evidence Based Medicine now suggest ways in which such reviews should be restricted.*

In our previous article we suggested that systematic reviews that have been called “rapid reviews” have been misnamed, that rapidity is not their cardinal feature, and that they would be better called “restricted systematic reviews”. This is because when they are performed certain elements that are required in full systematic reviews are simplified or omitted. Here we contrast full systematic reviews with restricted reviews, and show how the former can be modified when performing the latter.

So-called “rapid reviews” have been published in a variety of clinical areas, including digital communication [1], children’s consumption of energy drinks [2], sexual health interventions [3], and cannabis cessation [3]. Guideline developers have also used them. For example, the UK’s National Institute for Health and Care Excellence (NICE) [4] commissioned three rapid reviews to inform guidance on mid-life approaches to delay or prevent the onset of dementia, disability, and frailty in later life [4].

Several methods have been developed and described for conducting restricted reviews. However, there is little consistency among the different approaches [5 6]. They may for example, include: updating literature searches of previous reviews; limiting search strategies by database selection and time-frame; and screening, data extraction, and/or quality assessment by a single reviewer [7]. A few studies have compared results from restricted reviews and robust systematic reviews on the same topic; some have shown that results from the former did not substantially differ from those of the corresponding robust systematic reviews, while others have noted differences. For example, in a comparison of a systematic review and a review in which checking by a second reviewer was restricted to 20% (referred to as an “enhanced rapid review”), the restricted review identified all 10 of the studies in the systematic review [8]. The restrictions imposed meant that 2126 fewer titles and 129 fewer full texts required screening by the second reviewer. However, quality assessments generated more “unclear” ratings in restricted reviews than in robust systematic reviews.

## **An operational definition of a restricted review in a flexible framework**

Here we propose a flexible framework within an operational definition of restricted reviews (see Figure 1), taking into consideration factors such as the available time and resources, while highlighting some core steps that are minimum requirements for all systematic reviews.

We consider that restricted reviews should include as part of the team a reviewer with experience in the design and conduct of full systematic reviews. Additional steps, highlighted in Figure 1, should be included in order to reduce the risk of bias in the methods. Several reviewers may be involved in a restricted review, which may help in completing the review more quickly. The more reviewers involved, the nearer to a complete review a restricted review can become, enhancing quality without sacrificing time.

Figure 1 shows that all restricted reviews should include a clearly formulated clinical research question and a clear rationale for the needs of the research to inform decision making. They should also, when possible, involve policy makers, patients, and the public in defining and/or refining the research question. The search strategy should include at least one major scientific database (e.g. PubMed) and one other source (e.g. another topic-specific

database or Google Scholar). To reduce publication bias, additional elements, such as unpublished literature and no language restrictions, can optionally be added. Risk of bias assessment could take a simple approach, such as using the OCEBM Levels of Evidence [9] or rapid appraisal tools. For a more complete review, detailed appraisal tools, such as the Cochrane Risk of Bias tools, can be considered. Determination of study eligibility, data extraction, risk of bias assessment, and data analysis can be performed either by a single reviewer, or can, as an additional step, include partial verification by a second or more reviewers, to reduce selection bias and data error bias. The latter would depend on the time available and might also reflect the complexity of the review question. In all cases, the limitations, and especially sampling bias, should be outlined and addressed.

## **Conclusions**

Restricted systematic reviews will probably result in more cautious interpretations and recommendations than full reviews. A survey of decision makers and guideline developers about how much uncertainty they would accept when using restricted reviews suggests that there is a willingness to accept some possible trade-off in internal validity in exchange for timeliness [10]. It should be noted that systematic reviews have their own limitations, on which we do not reflect here, and these limitations therefore also apply to restricted reviews [11].

If restricted reviews are conducted well, the information obtained could be used by policy makers and clinicians in making decisions about healthcare interventions. Restricted reviews may also have an important role in assessing whether full systematic reviews requiring additional steps are warranted.

### **Figure Legend:**

A flexible framework outlining the core steps and minimum requirements for completing a restricted systematic review (left-hand column), and additional steps that can be taken at each stage to reduce bias, when time and resources allow (right-hand column)

**Clearly formulated research question, with clear rationale for why research is needed**

**Patient, Public, and Policy Involvement, where resources permit**

**MINIMUM REQUIREMENTS**

**ADDITIONAL STEPS TO REDUCE BIAS**

**Protocol**

Basic protocol, published on a prospective register (e.g. PROSPERO) (sufficient)

Protocol, reviewed by the research team, potentially peer-reviewed, and published on a prospective register or as a full publication

**Search**

At least one major scientific database and one other source  
Limit by date and language (acceptable)  
Use previous review as starting point (acceptable)

No date limit  
Unpublished studies, grey literature  
No language limit

**Study Selection**

Single reviewer of titles, abstracts, and full texts (sufficient)  
Verification of a random sample of a percentage of full texts by single reviewer (acceptable)

Verification of a random sample of full texts by a second reviewer  
All full texts by 2 reviewers  
Titles, abstracts and all full texts by 2 reviewers

**Data Extraction**

Single reviewer (sufficient)  
Verification of data extraction of a random sample by a single reviewer (acceptable)

Verification of data extraction of a random sample by a second reviewer  
All data extraction verified by a second reviewer  
Seeking additional data sources

**Critical assessment of included studies**

Single reviewer sufficient  
Rapid appraisal tools (acceptable)

Partial verification of the risk of bias assessment by a second reviewer  
All risk of bias assessment verified by a second reviewer  
Detailed appraisal tools

**Data synthesis**

Narrative synthesis (sufficient)  
Summary tables (required)  
Meta-analysis of limited outcomes (if possible)

Meta-analysis of all outcomes

**Publication**

Basic publication without appendices and added data (sufficient)

Publication with all appendices and added data

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