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Rapid reviews methods series: assessing the appropriateness of conducting a rapid review

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Abstract

This paper, part of the Cochrane Rapid Review Methods Group series, offers guidance on determining when to conduct a rapid review (RR) instead of a full systematic review (SR). While both review types aim to comprehensively synthesise evidence, RRs, conducted within a shorter time frame of typically 6 months or less, involve streamlined methods to expedite the process. The decision to opt for an RR depends on the urgency of the research question, resource availability and the impact on decision outcomes. The paper categorises scenarios where RRs are appropriate, including urgent decision-making, informing guidelines, assessing new technologies and identifying evidence gaps. It also outlines instances when RRs may be inappropriate, cautioning against conducting them solely for ease, quick publication or only cost-saving motives.

When deciding on an RR, it is crucial to consider both conceptual and practical factors. These factors encompass the urgency of needing timely evidence, the consequences of waiting for a full SR, the potential risks associated with incomplete evidence, and the risk of not using synthesised evidence in decision-making, among other considerations. Key factors to weigh also include having a clearly defined need, a manageable scope and access to the necessary expertise. Overall, this paper aims to guide informed judgements about whether to choose an RR over an SR based on the specific research question and context. Researchers and decision-makers are encouraged to carefully weigh potential trade-offs when opting for RRs.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Rapid reviews (RRs) are increasingly prevalent in the published literature due to their speed and efficiency in providing evidence synthesis compared with full systematic reviews (SRs). While methods guidance for conducting RRs exists, there is currently a lack of specific guidance on determining when it is appropriate to do an RR over an SR.

WHAT THIS STUDY ADDS

⇒ This paper outlines considerations for determining the appropriateness of conducting an RR. It emphasises the importance of context and the research question balanced against the backdrop of time-sensitive decision-making needs. It discusses suitable scenarios and potential limitations, and provides guiding questions for making a balanced assessment of appropriateness for RRs that is broadly applicable to RR producers and users.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This paper offers a framework for making informed judgements about whether to opt for RRs over an SR. Policy-makers, healthcare providers and researchers can use the provided considerations to determine when an RR is most viable and valuable. Organisations involved in producing or commissioning RRs can also apply the guiding questions to ensure the appropriateness of evidence synthesis for timely decision-making and relevant policy development.

Introduction

This paper is part of a Cochrane Rapid Reviews Methods Group series providing methodological guidance for rapid reviews (RRs).[1–5] The main goal of this paper is to explain how to assess whether it is appropriate to conduct an RR instead of a full systematic review (SR).

Various literature review types exist, each serving distinct purposes based on the research question, available resources and timeline.[6] SRs and RRs aim to answer a clearly defined research question and comprehensively review, synthesise and analyse existing evidence to make conclusions. However, an RR is typically conducted in a shorter time frame and is often a less resource-intensive way to synthesise evidence than a full SR.[7] This is achieved by streamlining or accelerating certain steps of the review process.[8] Generally, RRs are conducted over 6 months or less, a much shorter timeline than the 1–2 years needed for most SRs.[9] But RRs should not be defined solely by the time taken to conduct the review, as other reviews

may be conducted in short periods (eg, by assigning additional resources or if the review has zero or few included studies). Instead, RRs should be defined by the abbreviated methods used to reduce the time to completion.

The similarities in the methodologies between RRs and SRs raise the question of when an RR is appropriate to conduct for evidence synthesis. RRs have proven useful in both emergent (eg, COVID-19 pandemic, disaster relief)[10–12] and non-emergent yet urgent situations where there is still a need for timely evidence (eg, to inform the development of a new health policy or programme)[13–15] or in resource-limited environments (eg, low-income countries).[16–19] However, there are cases where an RR may not be appropriate. For example, a full SR is likely preferable if the evidence synthesis will be used to make decisions or develop guidelines on a large scale (eg, international, regional), which could have wide-sweeping resource or implementation implications and if time allows to wait for evidence to inform a decision.

RRs present a challenge in maintaining rigorous methodology and ensuring the validity of findings within tight deadlines. RRs may be more biased and less reliable than well-conducted SRs due to time constraints, limited scope and potential biases introduced by the accelerated review process.[20 21] The exact degree of bias remains to be determined. However, many published SRs are of low quality (ie, quality of conduct and/or reporting) and are susceptible to biases.[22] Hence, the evidence synthesis type alone is insufficient to judge its reliability and quality. Regardless of which evidence synthesis approach is taken, it is essential to follow sound methodological guidance[9 23 24] and ensure transparent reporting of methods.[25]

Several organisations produce or commission RRs within academia, government, research institutions and non-profit organisations to provide evidence for decision-making related to clinical care, healthcare funding, services, policy, technologies and programme development.[26–29] Although methods guidance is available to support the conduct of RRs,[9 24 30] there are no specific guiding principles on when it is appropriate to use an RR approach instead of an SR. This decision, which is often situational and involves several factors, is left to the discretion of the author teams that produce evidence syntheses and the organisations that commission them.

Cochrane, a global leader in producing high-quality SRs and methodological guidance, conducts RRs driven primarily by requests for timely evidence for decision-making and only for urgent and high-priority topics.[9] It, too, needs more concrete criteria when making this determination. Therefore, this paper aims to outline considerations to support whether it is appropriate to undertake an RR. To replace arbitrary decision-making, this paper discusses the importance of considering the specific context surrounding an RR topic and the research question(s) to be addressed. Potential limitations are also discussed along with scenarios where RRs may be appropriate. Last, guiding considerations to help to make a balanced assessment are presented. Although examined within the context of Cochrane, an organisation that has been instrumental in leading the development of RR methods guidance,[9] it is widely applicable to those who produce, request or use RRs.

When is it appropriate to do an RR?

In evidence synthesis, various approaches can be considered for quick action when time is limited. Decision-makers can rely on existing SRs that are up to date and relevant to the question at hand. If this is not available, another option is to update an existing SR by incorporating the latest evidence to ensure its relevance. It is important to note that not all updates will simply involve repeating the original steps of the review. The process could be time-consuming, especially if there are changes in the broader context of clinical decision-making or if updated methods need to be considered. These factors can contribute to a lengthy updating process, sometimes taking several months or longer to complete. If there are no existing reviews to work from, accelerated SRs, often confused with RRs, actually refer to traditional SRs conducted more quickly, often facilitated by additional resources such as expertise and an expanded review team. Accelerated SRs aim to maintain the methodological rigour and comprehensiveness of SRs, while also expediting their completion, distinguishing them from RRs. If these methods cannot meet the required timelines, or when initiating any new synthesis is impractical, decisions may be based on the best available evidence without a formal synthesis. The choice among these synthesis types depends on the urgency with which decision-makers need evidence, the availability of resources and expertise, and the impact on decision outcomes. RRs emerge as a distinct and valuable option when there is an immediate need for evidence, and other methods cannot adequately balance timeliness with the breadth and depth of a traditional SR. General distinctions between SRs and RRs, and other types of evidence syntheses have been previously published.[6 31 32]

Conducting an RR is appropriate in various scenarios for reasons that can often overlap. The categories outlined below address a variety of practical scenarios where timely access to synthesised evidence is crucial. They provide a clear framework for considering when to use RRs in decision-making and research, helping healthcare professionals, policy-makers, decision-makers and researchers better understand when and how to employ RRs effectively. Regardless of the scenario, the appropriateness of conducting an RR should depend on the specific context and the urgency of the decision or inquiry.

Scenarios

Urgent decision-making: RRs are valuable when policy-makers, healthcare providers or public health authorities face urgent decisions, such as responding to disease outbreaks, natural disasters or emerging health threats and need evidence to inform immediate actions.[33 34] RRs can also guide clinical care decisions by synthesising available evidence for healthcare professionals requiring evidence for time-sensitive direct patient care decisions.[35 36]

Informing guidelines: RRs are valuable for informing the rapid development or updating of clinical practice guidelines recommendations, ensuring that healthcare practices are based on the latest evidence.[28 37 38]

New or emerging technologies and interventions: RRs may be suitable when assessing the evidence on newly introduced medical technologies, interventions or diagnostic tools that have potential clinical implications.[39]

Rapidly evolving research areas: RRs can help provide an up-to-date synthesis of evidence in rapidly evolving fields, such as infectious diseases, biotechnology or digital health interventions.[40]

Identify evidence gaps: RRs can efficiently identify evidence gaps and areas where evidence is scarce or lacking, guiding future research priorities.[41]

Justify or inform new primary research: RRs can justify or inform the design of new primary studies in situations with limited resources.[42]

Resource constraints: RRs provide a valuable alternative to full SRs by offering a concise yet evidence-based summary within project constraints in situations with limited resources, such as low-resource settings or tight timelines with limited funding.[19 43]

Time-sensitive opportunities: RRs expedite the research process and provide timely evidence to support proposals or initiatives when time is critical, such as time-limited funding opportunities or to meet decision-makers' urgent evidence needs.[14]

Other possible scenarios: RRs may be conducted as a precursor to SR and can offer initial insights and may help identify whether there is a need for a more comprehensive SR to validate findings further. This approach is context-dependent and should be considered based on the specific research question. RRs can also assist researchers and decision-makers in gauging whether additional evidence is through SRs or primary research. This is particularly relevant when existing evidence is scarce, outdated or not directly applicable to the target population or context. By extension, RRs can also support grant submissions for SRs or primary studies.

When is it inappropriate to conduct an RR?

There are instances when conducting an RR may not be justified or inappropriate. One such situation arises when the researchers need more experience in conducting SRs, leading them to opt for an RR merely because it is perceived as easier. RRs may be more difficult, and the researcher should be aware of the potential biases introduced by the accelerated methods.

Similarly, if the primary motivation behind conducting an RR is to achieve a quick publication, and this is perceived to be less work, it may compromise the rigour and comprehensiveness of the review process. Another concern arises when the decision to conduct an RR is primarily driven by the desire to save money, even though the subject under investigation has far-reaching consequences and requires evidence-based decision-making.

Further, if there are already up-to-date full SRs available on the specific topic of interest, conducting an RR might duplicate efforts and fail to add significant value to the existing evidence base. Lastly, conducting an RR only for academic purposes should be discouraged unless, in the context of evidence-based research, the findings have immediate practical implications, such as contributing to the broader knowledge base to potentially inform future research or decision-making processes. In such cases, it is essential to carefully assess the need for an RR and consider alternative approaches for conducting more comprehensive and reliable research.

Considerations when deciding to do an RR

Undertaking RRs is predicated on their utility in scenarios where traditional SR processes are unable to meet the necessary time and resource constraints. It is also important to consider the pros and cons of this approach, as it offers the advantage of resource-efficient evidence synthesis but also comes with potential drawbacks.[21 44] Limitations of RRs include potential methodological weaknesses, biases due to the expedited methods used and a narrower scope, which could impact the trustworthiness of their findings. Some of these limitations can also be found in SRs that are not well conducted or well reported.[21] Moreover, limitations can arise from inadequately reported or conducted primary studies included in a review, irrespective of the type of evidence synthesis (see online supplemental file 1 for potential limitations of RRs and approaches to mitigate drawbacks). Regardless of the type of synthesis being conducted, if the process is poorly executed or inadequately reported, it can lead to unreliable results. To address these limitations, it is crucial to adhere to best practices[9 23 24] and maintain transparent reporting.[25]

At the outset, the initial planning stage of any RR may be guided by a set of factors categorised as either conceptual or practical. Conceptual factors represent higher-level considerations or broader aspects influencing the need for an RR. Considerations involve assessing the reasons for needing an RR, the potential risks of incomplete evidence, the novelty of the situation and the level of uncertainty among decision-makers. It also includes evaluating the impact on decision-making if waiting for an SR or going without any evidence synthesis and considering whether the findings from the RR will be acted on promptly. These factors help determine the urgency and importance of obtaining timely evidence. Practical factors represent the more operational and logistical aspects determining the feasibility of implementing an RR approach.

Guiding questions to help assess the appropriateness of conducting an RR include

Conceptual factors

- Why is an RR needed, and what are the potential risks to the populations being studied if the evidence is incomplete? When considering the need for an RR, examining the event or situation driving the request is crucial. RRs have demonstrated utility in informing urgent health issues, such as rapidly spreading infectious diseases, where immediate access to evidence is crucial for decision-making.[37] However, conducting an RR comes with risks if the evidence base is incomplete, potentially leading to suboptimal decision-making. Balancing the need for timely evidence synthesis and ensuring completeness is vital to minimise potential negative impacts on target populations. While decision-makers might be willing to prioritise speed over certainty,[45] it is essential to approach this with caution. The potential risks and trade-offs linked to incomplete evidence should be carefully considered in the context of each RR.
- Is there a need for an RR based on a 'novel' event? RRs may be beneficial for reviewing evidence in cases of new events, such as introducing treatment interventions, detecting new virus strains, considering new distinct outcomes or introducing new technologies. Depending on the degree of novelty, one should assess whether to rapidly review what could be a limited or premature literature base or to conduct a full SR.[38]
- Is there significant uncertainty for decision-makers as to the best position to take? RRs can be valuable when facing uncertainty and time constraints in decision-making. Decision-makers may need clarification about the best course of action, or there may be conflicting viewpoints and opinions in the field. Therefore, assess the level of uncertainty and divergence among views to determine if an RR is the most appropriate approach.
- What would be the impact of waiting for an SR? The impact of waiting for an SR vs an RR depends on the specific situation and context. While waiting for an SR can help ensure a more thorough and reliable evidence synthesis, it also takes longer and delays decision-making. On the other hand, choosing an RR provides evidence faster but may come with limitations in terms of comprehensiveness, reliability and potential bias. The decision between the two approaches hinges on the urgency of the decision and the level of evidence needed. If the event or situation is expected to last beyond the typical time frame of 1–6 months for RRs, then an RR may not be the appropriate choice. However, if decision-making would otherwise proceed without evidence, even a moderately robust RR could be better than having no evidence to inform healthcare decisions.
- What would be the risk of not using evidence synthesis to inform decision-making? The risk of not using any evidence

synthesis to inform decision-making should be carefully considered. Proceeding without any evidence synthesis, whether an RR or SR, could lead to suboptimal choices that negatively impact the well-being and outcomes of the populations involved. In contrast, conducting even a moderately robust RR can be a more suitable option to quickly provide relevant evidence than having no evidence. Assessing the potential impact of forgoing evidence synthesis or delaying decision-making while waiting for synthesis is essential.

- Will the findings from the RR be rapidly acted on? If there is no existing mechanism for disseminating and implementing the findings of the RR, there may be no point in developing it. It will be necessary to carefully consider the decision-making context (eg, the existing health system, infrastructure, acceptability and resource implications) before embarking on an RR process.[38]

Practical factors

- How quickly does the uncertainty need to be addressed? Evaluate the urgency/time sensitivity of the research question. If there is a pressing need for evidence to inform immediate decision-making or address an emerging issue, an RR may be more appropriate due to its shorter turnaround time. On the other hand, if time is less critical and a comprehensive synthesis is required, an SR may be preferred.
- What are the stakeholders needs and expectations? Engage with decision-makers, policy-makers and relevant stakeholders to determine their priorities. Some stakeholders may prioritise rigour and comprehensiveness and therefore, prefer an SR while others may require timely evidence and lean towards an RR. Aligning with stakeholder preferences can help determine the most appropriate approach.
- What is the scope of the research question? Consider the breadth and complexity of the research question. If the question is narrowly focused and specific, an RR may be sufficient to address it. However, an SR is more likely to be appropriate if the research question requires a comprehensive analysis of a wide range of studies and outcomes.
- What are the available resources? Assess the availability of resources, including personnel, funding and expertise that are available for the review. Conducting an SR can be resource-intensive and time-consuming. However, an RR may also be all consuming and intense but over a more condensed time frame. An RR may be more feasible if resources are limited, as it typically requires fewer resources and can be conducted by a smaller team. Both require a team with expertise in SR methods.

Within Cochrane, the decision to conduct an RR is influenced by two main factors: the urgency of the question and whether it addresses a high-priority issue. High-priority situations may include, for example, urgent requests from funding agencies or the need to inform a quickly convened guideline panel. A full SR is deemed impractical due to time constraints in these cases. By considering the above-mentioned factors, we can better understand both the conceptual underpinnings and the practical considerations to help make an informed judgement about whether an RR or an SR is more appropriate for a specific research question and context.

Equity considerations for RRs

Low-resource settings face specific challenges in synthesising and delivering evidence to knowledge users. In these settings, limited resources may hinder the comprehensive conduct of SRs, leading to delays or knowledge gaps. RRs become particularly relevant in such contexts, offering a more feasible and timelier alternative to full SRs. Their appropriateness in low-resource settings stems from the ability to provide a concise, evidence-based summary within project constraints, aligning with the need for efficient resource use. Moreover, RRs expedite access to available evidence for decision-making in time-sensitive scenarios, addressing equity concerns through the provision of timely and relevant information to knowledge users.

Conversely, RRs may pose several concerns from an equity perspective. While RRs offer a quick and efficient approach to evidence synthesis, conducting them for subgroups can pose several limitations. One major concern is the potential for missing relevant studies on specific subpopulations. The expedited nature of RRs may lead to a more cursory search, increasing the risk of overlooking studies that focus on particular demographic, geographical or clinical subgroups. This limitation can result in a skewed representation of the evidence, potentially leading to inaccurate conclusions or recommendations for certain populations. Furthermore, exclusions based on language or publication type are common shortcuts in RRs to expedite the review process. However, this practice could introduce a language bias and exclude valuable studies, particularly those published in languages other than the primary language of the review. This exclusion may disproportionately impact research from certain regions or communities, contributing to disparities in evidence representation. Therefore, while RRs offer several advantages, researchers and decision-makers should be cautious and consider the trade-offs carefully when opting for RRs, particularly when focusing on specific subpopulations.

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References

1 **Garritty C**, Tricco AC, Smith M, *et al*. Rapid reviews methods series: involving patient and public partners, healthcare providers and policymakers as knowledge users. *BMJ Evid Based Med* 2024;29:55–61.
2 **Gartlehner G**, Nussbaumer-Streit B, Devane D, *et al*. Rapid reviews methods series: guidance on assessing the certainty of evidence. *BMJ Evid Based Med* 2024;29:50–4.
3 **Klerings I**, Robalino S, Booth A, *et al*. Rapid reviews methods series: guidance on literature search. *BMJ Evid Based Med* 2023;28:412–7.
4 **Nussbaumer-Streit B**, Sommer I, Hamel C, *et al*. Rapid reviews methods series: guidance on team considerations, study selection, data extraction and risk of bias assessment. *BMJ Evid Based Med* 2023;28:418–23.
5 **Affengruber L**, Nussbaumer-Streit B, Hamel C, *et al*. Rapid review methods series: guidance on the use of supportive software. *BMJ Evid Based Med* 2024:bmjebm-2023-112530.
6 **Tricco AC**, Zarin W, Ghassemi M, *et al*. Same family, different species: methodological conduct and quality varies according to purpose for five types of knowledge synthesis. *J Clin Epidemiol* 2018;96:133–42.
7 **Beecher C**, Toomey E, Maeso B, *et al*. Priority III: top 10 rapid review methodology research priorities identified using a James LIND alliance priority setting partnership. *J Clin Epidemiol* 2022;151:151–60.
8 **Hamel C**, Michaud A, Thuku M, *et al*. Defining rapid reviews: a systematic scoping review and thematic analysis of definitions and defining characteristics of rapid reviews. *J Clin Epidemiol* 2021;129:74–85.
9 **Garritty C**, Hamel C, Trivella M, *et al*. Updated recommendations for the Cochrane rapid review methods guidance for rapid reviews of effectiveness. *BMJ* 2024;384:e076335.
10 **Nussbaumer-Streit B**, Mayr V, Dobrescu AI, *et al*. Quarantine alone or in combination with other public health measures to control COVID-19: a rapid review. *Cochrane Database Syst Rev* 2020;4:CD013574.
11 **Kisely S**, Warren N, McMahon L, *et al*. Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on healthcare workers: rapid review and meta-analysis. *BMJ* 2020;369:m1642.
12 **Wu Q**, Dudley MZ, Chen X, *et al*. Evaluation of the safety profile of COVID-19 vaccines: a rapid review. *BMC Med* 2021;19:173.
13 **Bambra C**, Joyce KE, Bellis MA, *et al*. Reducing health inequalities in priority public health conditions: using rapid review to develop proposals for evidence-based policy. *J Public Health (Oxf)* 2010;32:496–505.
14 **Ismail SA**, Abbara A, Collin SM, *et al*. Communicable disease surveillance and control in the context of conflict and mass displacement in Syria. *Int J Infect Dis* 2016;47:15–22.
15 **Hamel C**, Ghannad M, McInnes MDF, *et al*. Potential benefits and harms of offering ultrasound surveillance to men aged 65 years and older with a Subaneurysmal (2.5-2.9 cm) Infrarenal aorta. *J Vasc Surg* 2018;67:1298–307.
16 **Barua A**, Watson K, Plesons M, *et al*. Adolescent health programming in India: a rapid review. *Reprod Health* 2020;17:87.
17 **Robson RC**, Thomas SM, Langlois ÉV, *et al*. Embedding rapid reviews in health policy and systems decision-making: impacts and lessons learned from four low- and middle-income countries. *Health Res Policy Syst* 2023;21:45.
18 **Mijumbi-Deve RM**, Kawooya I, Kayongo E, *et al*. Paper 1: demand-driven rapid reviews for health policy and systems decision-making: lessons from Lebanon, Ethiopia, and South Africa on researchers and policymakers' experiences. *Syst Rev* 2022;11:154.
19 **Langlois EV**, Straus SE, Antony J, *et al*. Using rapid reviews to strengthen health policy and systems and progress towards universal health coverage. *BMJ Glob Health* 2019;4:e001178.
20 **Ganann R**, Ciliska D, Thomas H. Expediting systematic reviews: methods and implications of rapid reviews. *Implement Sci* 2010;5:56.
21 **Moons P**, Goossens E, Thompson DR. Rapid reviews: the pros and cons of an accelerated review process. *Eur J Cardiovasc Nurs* 2021;20:515–9.
22 **Uttley L**, Quintana DS, Montgomery P, *et al*. The problems with systematic reviews: a living systematic review. *J Clin Epidemiol* 2023;156:30–41.
23 **Higgins J**, Thomas J, Chandler J, *et al*. Cochrane handbook for systematic reviews of interventions version 6.3 (updated February 2022). Cochrane; 2022. Available: www.training.cochrane.org/handbook
24 **Tricco AC**, Langlois EV, Straus SE, *et al*. Rapid reviews to strengthen health policy and systems: a practical guide. 2017. Available: http://apps.who.int/iris/bitstream/10665/258698/1/9789241512763-eng.pdf [Accessed 13 Jul 2019].
25 **Page MJ**, McKenzie JE, Bossuyt PM, *et al*. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71.
26 **Polisena J**, Garritty C, Kamel C, *et al*. Rapid review programs to support health care and policy decision making: a descriptive analysis of processes and methods. *Syst Rev* 2015;4:26.
27 **Haby MM**, Chapman E, Clark R, *et al*. Designing a rapid response program to support evidence-informed decision-making in the Americas region: using the best available evidence and case studies. *Implementation Sci* 2015;11.
28 **Patnode CD**, Eder ML, Walsh ES, *et al*. The use of rapid review methods for the U.S. preventive services task force. *Am J Prev Med* 2018;54:S19–25.
29 **Thigpen S**, Puddy RW, Singer HH, *et al*. Moving knowledge into action: developing the rapid synthesis and translation process within the interactive systems framework. *Am J Community Psychol* 2012;50:285–94.
30 **Dobbins M**. *Steps for conducting a rapid review*. National Collaborating Centre for Methods and Tools, McMaster University, 2017: 2531.
31 **Khangura S**, Konnyu K, Cushman R, *et al*. Evidence summaries: the evolution of a rapid review approach. *Syst Rev* 2012;1:10.
32 **Grant MJ**, Booth A. A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Info Libr J* 2009;26:91–108.
33 **Martinez SS**, Pardo-Hernandez H, Palacios C. Feeding modifications and additional primary caregiver support for infants exposed to Zika virus or diagnosed with congenital Zika syndrome: a rapid review of the evidence. *Trop Med Int Health* 2020;25:1353–61.
34 **Cardwell K**, O Murchu E, Byrne P, *et al*. Pharmacological interventions to prevent COVID-19 disease: a rapid review. *Rev Med Virol* 2022;32:e2299.

35 **Munn Z**, Lockwood C, Moola S. The development and use of evidence summaries for point of care information systems: a streamlined rapid review approach. *Worldviews Evid Based Nurs* 2015;12:131–8.

36 **Fretheim A**, Brurberg KG, Forland F. Rapid reviews for rapid decision-making during the coronavirus disease (COVID-19) pandemic, Norway, 2020. *Euro Surveill* 2020;25:2000687.

37 **Hersi M**, Stevens A, Quach P, *et al*. Effectiveness of personal protective equipment for healthcare workers caring for patients with Filovirus disease: a rapid review. *PLoS One* 2015;10:e0140290.

38 **Garritty CM**, Norris SL, Moher D. Developing WHO rapid advice guidelines in the setting of a public health emergency. *J Clin Epidemiol* 2017;82:47–60.

39 **Strudwick G**, Sockalingam S, Kassam I, *et al*. Digital interventions to support population mental health in Canada during the COVID-19 pandemic: rapid review. *JMIR Ment Health* 2021;8:e26550.

40 **Cooke S**, Nelson D, Green H, *et al*. Rapid systematic review on developing web-based interventions to support people affected by cancer. *BMJ Open* 2022;12:e062026.

41 **Towers A**, *et al*. Producing 'top tips' for care home staff during the COVID-19 pandemic in England: rapid reviews inform evidence-based practice but reveal major gaps - Journal of long-term care. Available: https://journal.ilpnetwork.org/articles/10.31389/jltc.43 [Accessed 3 Aug 2023].

42 **McLennan S**, Nussbaumer-Streit B, Hemkens LG, *et al*. Barriers and facilitating factors for conducting systematic evidence assessments in academic clinical trials. *JAMA Netw Open* 2021;4:e2136577.

43 **Oliver K**, Innvar S, Lorenc T, *et al*. A systematic review of barriers to and facilitators of the use of evidence by policymakers. *BMC Health Serv Res* 2014;14:2.

44 **Munn Z**, Pollock D, Barker TH, *et al*. The dark side of rapid reviews: a retreat from systematic approaches and the need for clear expectations and reporting. *Ann Intern Med* 2023;176:266–7.

45 **Wagner G**, Nussbaumer-Streit B, Greimel J, *et al*. Trading certainty for speed - how much uncertainty are Decisionmakers and guideline developers willing to accept when using rapid reviews: an international survey. *BMC Med Res Methodol* 2017;17:121.

Supplemental File 1. Potential limitations of rapid reviews (RRs) and approaches to mitigate drawbacks.

Potential limitations	Approaches to mitigate drawbacks
Reduced methodological rigor **-** RRs often require accelerated or omitted methods to expedite the review process. This can result in a trade-off between timeliness and methodological rigor. Due to time constraints, there may be compromises in study selection, critical appraisal of the included studies, data extraction, and synthesis methods, which could introduce biases or limit the overall reliability of the findings.	• Follow established RRs methods that are evidence-informed to the extent possible [1,2]. • By adhering to well-established and recognized RR methods guidance, researchers can mitigate potential biases and maintain a higher level of reliability in the review process and findings. • While some steps may be abbreviated or omitted for timeliness, not all need to be accelerated. • For instance, if the topic is complex, study selection could employ dual, independent screening to avoid misunderstandings and mistakes. • Teams can decide which steps to accelerate based on the specific topic.
Limited scope and inclusion criteria **-** RRs may have a narrower scope compared to systematic reviews (SRs). This can result in exclusion of certain study designs, outcomes, and/or sources of evidence (see Search strategies and publication bias below). Limiting the scope and inclusion criteria may affect generalizability to populations outside the narrowed scope and the overall conclusions (if there are a narrow set of included study designs and outcomes).	• Working with the knowledge users to determine the population, the most important outcomes to make decisions, and what study designs are best suited to make these decisions is critical [3,4]. • If feasible, performing GRADE will help determine the certainty of the evidence and should increase the value and certainty of the RR conclusions [5].
Search strategies and publication bias **-** The search strategies employed in RRs might be less comprehensive or restricted (e.g., no supplemental searching), potentially missing relevant studies and leading to incomplete evidence synthesis. This can introduce publication bias, as studies with positive or statistically significant results are more likely to be published and accessible within the short time frame of when the RR is being conducted and	• To reduce publication bias in RRs, conduct a comprehensive search, involve subject matter experts, and use a transparent search strategy. • Actively include grey literature if appropriate and time allows, and register the review in a publicly accessible database to minimize publication bias and selective outcome reporting

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Potential limitations	Approaches to mitigate drawbacks
are more easily found in the more common comprehensive biomedical bibliographic databases (e.g., MEDLINE, Embase).	• Consult published guidance for RR searching [6]. • Studies suggest that RR conclusions are rarely affected by omitting grey literature searches, using abbreviated searches, or applying language restrictions at the study selection stage [6–8].
Limited time for thorough critical appraisal (i.e., risk of bias, quality assessment) **-** Due to time constraints, some may skip or inadequately perform critical appraisal of the included studies, leading to insufficient consideration of study limitations, biases, and conflicts of interest, thereby compromising the reliability and validity of the RR.	• We recommend following published guidance [4], and at a minimum doing this stage of the RR using reliable tools, with one reviewer to doing the assessments with another individual to verify the responses. • Any disagreements should be discussed between the reviewers, with consensus reached.
Insufficient time for knowledge user engagement **-** By their very nature, RRs necessitate involving the requestor or commissioner (often the decision-maker) in their initial design and throughout. However, time constraints make it challenging to meaningfully engage knowledge users, including subject experts, patient representatives, or policymakers in RRs.	• It is important to recognize the value of involving a variety of knowledge users and to allocate time for their meaningful input. • Published guidance provides strategies for engaging knowledge users in the rapid review process, enhancing the relevance, applicability, and impact of the findings[9].
Limited time to address heterogeneity – Assessing heterogeneity can be time-consuming for both SRs and RRs. Heterogeneity reflects the extent of variation among the results of the studies included in the review. The time constraints of RRs may limit the capacity to conduct comprehensive subgroup analyses or formulate robust conclusions across diverse contexts or populations.	• To address the challenge of limited time to handle heterogeneity in RR, report the degree of variability among the included studies' results by measuring the I^2 statistic, similar to SRs [10]. • Heterogeneity in RRs can arise from various sources, including differences in study populations, methodologies, interventions, outcome measures, publication bias, study quality, contextual factors, data analysis techniques, and random variation in study results. • If feasible, techniques like subgroup analyses or sensitivity analyses can help explore and understand the sources of heterogeneity and its impact on the review's conclusions.

Potential limitations	Approaches to mitigate drawbacks
	• Also, involve subject matter experts to gain insights into potential sources of heterogeneity.
Analysis/synthesis is not comprehensive **-** RRs are often focused on specific aspects of the research question or key outcomes, sacrificing the comprehensiveness at the synthesis stage. This can result in a limited understanding of the overall body of evidence, potential conflicting findings, or gaps in the evidence base.	To mitigate risks at the synthesis stage of a RR: • Transparently document the methods used, including search strategy [6], study selection, data extraction, and synthesis approach including analysis to ensure reliability [11]; • Involve subject matter experts, researchers, and knowledge users to guide with interpretation of findings [9]; • Conduct a critical appraisal of the included studies to inform evidence interpretation[4]; • Use narrative synthesis to describe heterogeneous studies; manage time effectively to avoid rushed critical tasks; • Report limitations and potential biases transparently; and if time permits, perform sensitivity analyses to understand the impact of methodological choices. • If possible, seek external peer review for further feedback and improvement.
Speed may introduce error **-** Speed in RRs can lead to errors as the RR team may feel pressured to complete tasks quickly, and may not spend sufficient time on doing study selection, data extraction, and critical appraisal accurately. This rushed process can also hinder the ability to properly verify and interpret the evidence, reduce overall thinking time and thoroughness across the review stages.	• To avoid mistakes caused by working too quickly in rapid reviews (RRs), it's crucial to have skilled individuals with expertise in systematic review (SR) methods involved in the process [4]. • Utilizing SR tools can help minimize human errors in screening and data extraction, increasing overall efficiency and allowing more time for thoughtful analysis[12].

Potential limitations	Approaches to mitigate drawbacks
	• A well-defined protocol also ensures a structured and streamlined process, preventing major detours that could consume time and introduce errors. • By implementing these measures, the reliability and validity of the RR can be enhanced while maintaining a timely completion.

REFERENCES:

1 Garritty C, Hamel C, Trivella M, *et al.* Updated recommendations for the Cochrane rapid review methods guidance for rapid reviews of effectiveness. *BMJ*. 2024;384:e076335.

2 Tricco AC, Langlois EV, Straus SE, *et al. Rapid reviews to strengthen health policy and systems: a practical guide*. 2017. http://apps.who.int/iris/bitstream/10665/258698/1/9789241512763-eng.pdf (accessed 13 July 2019)

3 Garritty C, Gartlehner G, Nussbaumer-Streit B, *et al.* Cochrane Rapid Reviews Methods Group offers evidence-informed guidance to conduct rapid reviews. *J Clin Epidemiol*. 2021;130:13–22.

4 Nussbaumer-Streit B, Sommer I, Hamel C, *et al.* Rapid reviews methods series: Guidance on team considerations, study selection, data extraction and risk of bias assessment. *BMJ EBM*. 2023;bmjebm-2022-112185.

5 Gartlehner G, Nussbaumer-Streit B, Devane D, *et al.* Rapid reviews methods series: Guidance on assessing the certainty of evidence. *BMJ EBM*. 2023;bmjebm-2022-112111.

6 Klerings I, Robalino S, Booth A, *et al.* Rapid reviews methods series: Guidance on literature search. *BMJ EBM*. 2023;bmjebm-2022-112079.

7 Nussbaumer-Streit B, Klerings I, Wagner G, *et al.* Abbreviated literature searches were viable alternatives to comprehensive searches: a meta-epidemiological study. *Journal of Clinical Epidemiology*. 2018;102:1–11.

8 Hartling L, Featherstone R, Nuspl M, *et al.* Grey literature in systematic reviews: a cross-sectional study of the contribution of non-English reports, unpublished studies and dissertations to the results of meta-analyses in child-relevant reviews. *BMC Medical Research Methodology*. 2017;17:64.

9 Garritty C, Tricco AC, Smith M, *et al.* Rapid Reviews Methods Series: Involving patient and public partners, healthcare providers and policymakers as knowledge users. *BMJ EBM*. 2023;bmjebm-2022-112070.

10 Higgins JPT, Thompson SG. Quantifying heterogeneity in a meta-analysis. *Statistics in Medicine*. 2002;21:1539–58.

11 Page MJ, McKenzie JE, Bossuyt PM, *et al.* The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*. 2021;372:n71.

12 Affengruber L, Nussbaumer-Streit B, Hamel C, *et al.* Rapid review methods series: Guidance on the use of supportive software. *BMJ Evidence-Based Medicine*. Published Online First: 19 January 2024. doi: 10.1136/bmjebm-2023-112530