



COVID-19 SHORT REPORT

Rapid review methods guidance aids in Cochrane's quick response to the COVID-19 crisis

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Introduction and background

Rapid reviews have emerged as an efficient tool to get evidence to decision-makers more quickly and are part of the knowledge synthesis family.[1] Rapid Reviews have been described as a type of knowledge synthesis in which systematic review methods are streamlined, and processes accelerated to complete the review more quickly.[2–5] Policymakers are increasingly using rapid reviews in their daily decision-making,[6–9] with national and international health agencies using rapid reviews to inform guideline recommendations.[10–12]

Since 2015, the Cochrane Rapid Reviews Methods Group (RRMG) has served as a discussion forum and has led the development of rapid review methods.[13–15] In 2018, Cochrane's Strategy to 2020 (community.cochrane.org/organizational-info/resources/strategy-2020) identified the need to explore and, potentially, implement guidance and systems for officially producing Cochrane rapid reviews. The strategy outlined the need to develop recommendations regarding which methods can be abbreviated to expedite publication. During 2019, the RRMG conducted a suite of related methodological work, including two scoping reviews,[16,17] and two primary methods studies.[18,19] Designed to fill methodological gaps and provide guidance on conducting rapid reviews, collectively this research formed the evidentiary base for a subsequent rapid review methods options survey sent to 119 representatives from 20 Cochrane entities in the fall of 2019. Respondents were asked to rate and rank rapid review methods across the stages of conduct. Based on survey results from 63 respondents (53% response rate), we proposed interim guidance comprised of 26 specific recommendations to support the conduct of rapid reviews. Further, we proposed that a Cochrane rapid review be defined as, "a form of knowledge synthesis that accelerates

the process of conducting a traditional systematic review through streamlining or omitting specific methods to produce evidence for stakeholders in a resource-efficient manner".[17] This guidance emphasizes the involvement of key stakeholders throughout the rapid review process and promotes a flexible, iterative approach that can be tailored for various urgent and emergent health decision-making scenarios.

Key activities and strategies

We undertook the following activities during the COVID-19 pandemic.

1. In early March 2020, the RRMG *completed work* on the Cochrane rapid review methods interim guidance,[20] which coincided with the global pandemic's unfolding. This was the catalyst to Cochrane encouraging the early release of the guidance on 23 March 2020.
2. As part of their overall response to COVID-19, Cochrane developed internal and external processes to accommodate the production of rapid reviews, among other products. It meant that the *interim guidance was made available* as part of resources for author teams on the COVID Rapid Reviews website (covidreviews.cochrane.org). More specifically, the *guidance was integrated into the protocol template* for Cochrane rapid reviews.
3. RRMG convenors have been actively involved in *leading the development of Cochrane COVID-19 rapid reviews* since the outset of the pandemic.[21–24]
4. RRMG convenors have *provided methodological support to various author teams* undertaking COVID-19 rapid reviews produced within Cochrane and external teams.

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5. RRMG convenors have *directly supported Cochrane COVID-19 initiatives* including the initial Cochrane COVID-19 Response Working Group formed in the early days of the pandemic to help guide Cochrane's response. Further, one of the RRMG convenors is a member of the steering committee of the 'COVID NMA - Living mapping and living systematic review of Covid-19 studies' initiative.[25]
6. Over the past six months, RRMG convenors have *delivered several information and training sessions* via webinars related to the interim Cochrane rapid review methods guidance or specific Cochrane COVID-19 rapid reviews, with all events well-attended.

Outcomes and impact of activities

Development of the interim Cochrane rapid review methods guidance, made publicly available, has been an impactful outcome of our work and has been beneficial to Cochrane's response to COVID-19. This guidance has been formally cited more than 25 times in the past six months, and the Cochrane RRMG website page that houses this guidance has been viewed nearly 2300 times since it was posted. To our knowledge, this rapid review methods guidance is the first that provides clear, actionable recommendations, based on empirical evidence, evaluating RR methods to date and with expert input. Importantly, this guidance is being actively used to develop Cochrane rapid reviews to address pressing questions posed by international stakeholders. Moreover, these rapid reviews have attained extremely high Altmetric Attention Scores, indicating that they have received substantial online attention. Contributing to this was Cochrane's decision to make these rapid reviews freely accessible from the outset. Although COVID-19 may have been the impetus to releasing this guidance, the proposed recommendations are relevant for any circumstance where decision-making needs to be made in weeks to a few months. COVID-19 and the use of this guidance has underscored the need for flexible guidance that can be tailored as appropriate, yet still meets minimum standards. While this guidance was developed for Cochrane, we suggest that it is relevant and of interest for a wide audience of rapid review authors, many of whom look to Cochrane for methods expertise.

Lessons for the future: sustainability and transferability

We recognize that further refinements are needed regarding this interim guidance. In terms of next steps, we aim to solicit feedback on the guidance's perceived utility as applied in urgent, real-time rapid review scenarios. It will also be important that we adapt the guidance beyond interventions of effectiveness to other review types, such as rapid reviews of diagnostic test accuracy or screening.[26] In doing so, specific rapid review types will require unique considerations.[27] Beyond this, there are other challenges to the conduct of rapid reviews that further merit discussion.[28] Because best practice is limited by the lack of currently available

evidence for some methods shortcuts taken in rapid reviews, this guidance will need to be updated as additional abbreviated methods are evaluated. There is a need to highlight uncertainties in rapid review methods so future research questions can be identified and prioritized. A rapid review methodology priority setting partnership (Priority III), led by Evidence Synthesis Ireland/ Cochrane Ireland, has set out to do this with two RRMG convenors serving on the Steering Group.[29] COVID-19 is a clear and current example where decisions need to be made faster than traditional systematic reviews can support. Endorsing a rapid review approach alongside interim methods guidance has demonstrated Cochrane's ability to respond quickly as a world leader in knowledge synthesis, and well positions Cochrane to respond to future urgent or emergent health crises.

Additional resources

Cochrane Rapid Review Methods Group: methods.cochrane.org/rapidreviews

Cochrane COVID Reviews: covidreviews.cochrane.org

Declarations of interest

CG, GG, VJK, CK, BN-S, AS, DD are Convenors and CH, LA are Associate Convenors of the Cochrane Rapid Reviews Methods Group. BN-S, DD and GG have authored Cochrane COVID-19 Rapid Reviews. All authors declare no other conflicts of interest.

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References

1. Moher D, Stewart L, Shekelle P. All in the family: systematic reviews, rapid reviews, scoping reviews, realist reviews, and more. *Systematic Reviews* 2015;4:183. <https://doi.org/10.1186/s13643-015-0163-7>
2. Ganann R, Ciliska D, Thomas H. Expediting systematic reviews: methods and implications of rapid reviews. *Implementation Science* 2010;5:56. <https://doi.org/10.1186/1748-5908-5-56>
3. Khangura S, Konnyu K, Cushman R, Grimshaw J, Moher D. Evidence summaries: the evolution of a rapid review approach. *Systematic Reviews* 2012;1:10. <https://doi.org/10.1186/2046-4053-1-10>
4. Tricco AC, Antony J, Zarin W, Striffler L, Ghassemi M, Ivory J, et al. A scoping review of rapid review methods. *BMC Medicine* 2015;13:224. <https://doi.org/10.1186/s12916-015-0465-6>
5. Tricco AC, Zarin W, Ghassemi M, Nincic V, Lillie E, Page MJ, et al. Same family, different species: methodological conduct and quality varies according to purpose for five types of knowledge synthesis. *Journal*

- of *Clinical Epidemiology* 2018;96:133–42. <https://doi.org/10.1016/j.jclinepi.2017.10.014>
6. Moore G, Redman S, Rudge S, Haynes A. Do policy-makers find commissioned rapid reviews useful? *Health Research and Policy Systems* 2018;16:17. <https://doi.org/10.1186/s12961-018-0293-1>
 7. Mijumbi-Deve R, Rosenbaum SE, Oxman AD, Lavis JN, Sewankambo NK. Policymaker experiences with rapid response briefs to address health-system and technology questions in Uganda. *Health Research Policy and Systems* 2017;15:37. <https://doi.org/10.1186/s12961-017-0200-1>
 8. Hartling L, Guise J-M, Hempel S, Featherstone R, Mitchell MD, Motu'apuaka ML, et al. Fit for purpose: perspectives on rapid reviews from end-user interviews. *Systematic Reviews* 2017;6:32. <https://doi.org/10.1186/s13643-017-0425-7>
 9. Peterson K, Floyd N, Ferguson L, Christensen V, Helfand M. User survey finds rapid evidence reviews increased uptake of evidence by Veterans Health Administration leadership to inform fast-paced health-system decision-making. *Systematic Reviews* 2016;5:132. <https://doi.org/10.1186/s13643-016-0306-5>
 10. Thigpen S, Puddy RW, Singer HH, Hall DM. Moving knowledge into action: developing the rapid synthesis and translation process within the interactive systems framework. *American Journal of Community Psychology* 2012;50:285–94. <https://doi.org/10.1007/s10464-012-9537-3>
 11. Patnode CD, Eder ML, Walsh ES, Viswanathan M, Lin JS. The use of rapid review methods for the U.S. Preventive Services Task Force. *American Journal of Preventive Medicine* 2018;54:S19–25. <https://doi.org/10.1016/j.amepre.2017.07.024>
 12. Garritty CM, Norris SL, Moher D. Developing WHO rapid advice guidelines in the setting of a public health emergency. *Journal of Clinical Epidemiology* 2017;82:47–60. <https://doi.org/10.1016/j.jclinepi.2016.08.010>
 13. Garritty C, Stevens A, Gartlehner G, King V, Kamel C, on behalf of the Cochrane Rapid Reviews Methods Group. Cochrane Rapid Reviews Methods Group to play a leading role in guiding the production of informed high-quality, timely research evidence syntheses. *Systematic Reviews* 2016;5:184. <https://doi.org/10.1186/s13643-016-0360-z>
 14. King J, Garritty C, Stevens A, Nussbaumer-Streit B, Hartling L, Harrod CS, et al. Chapter 2: Performing rapid reviews. In: Tricco AC, Langlois EV, Straus SE, editors. *Rapid Reviews to Strengthen Health Policy and Systems: a Practical Guide* 2017. Available at www.who.int/alliance-hpsr/resources/publications/rapid-review-guide
 15. Stevens A, Garritty C, Hersi M, Moher D. Developing PRISMA-RR, a reporting guideline for rapid reviews of primary studies (protocol). February 2018. equator-network.org/wp-content/uploads/2018/02/PRISMA-RR-protocol.pdf
 16. Hamel C, Michaud A, Thuku M, Affengruber L, Skidmore B, Nussbaumer-Streit B, et al. Few evaluative studies exist examining rapid review methodology across stages of conduct: a systematic scoping review. *Journal of Clinical Epidemiology* 2020;126:131–40. <https://doi.org/10.1016/j.jclinepi.2020.06.027>
 17. Hamel C, Michaud A, Thaku M, Skidmore B, Stevens A, Nussbaumer-Streit B, et al. Defining rapid reviews: a systematic scoping review and thematic analysis of definitions and defining characteristics of rapid reviews. *Journal of Clinical Epidemiology* 2020;129:74–85. <https://doi.org/10.1016/j.jclinepi.2020.09.041>
 18. Nussbaumer-Streit B, Klerings I, Dobrescu AI, Persad E, Stevens A, Garritty C, et al. Excluding non-English publications from evidence-syntheses did not change conclusions: a meta-epidemiological study. *Journal of Clinical Epidemiology* 2020;118:42–54. <https://doi.org/10.1016/j.jclinepi.2019.10.011>
 19. Gartlehner G, Affengruber L, Titscher V, Noel-Storr A, Dooley G, Ballarini N, et al. Single-reviewer abstract screening missed 13 percent of relevant studies: a crowd-based, randomized controlled trial. *Journal of Clinical Epidemiology* 2020;121:20–8. <https://doi.org/10.1016/j.jclinepi.2020.01.005>
 20. Garritty C, Gartlehner G, Kamel C, King VJ, Nussbaumer-Streit B, Stevens A, et al. Cochrane Rapid Reviews Methods Group offers evidence-informed guidance to conduct rapid reviews. *Journal of Clinical Epidemiology* 2020;130:13–22. <https://doi.org/10.1016/j.jclinepi.2020.10.007>
 21. Nussbaumer-Streit B, Mayr V, Dobrescu AI, Chapman A, Persad E, Klerings I, et al. Quarantine alone or in combination with other public health measures to control COVID-19: a rapid review. *Cochrane Database of Systematic Reviews* 2020;(9):CD013574. <https://doi.org/10.1002/14651858.CD013574.pub2>
 22. Noone C, McSharry J, Smalle M, Burns A, Dwan K, Devane D, et al. Video calls for reducing social isolation and loneliness in older people: a rapid review. *Cochrane Database of Systematic Reviews* 2020;(5):CD013632. <https://doi.org/10.1002/14651858.CD013632>
 23. Houghton C, Meskill P, Delaney H, Smalle M, Glenton C, Booth A, et al. Barriers and facilitators to healthcare workers' adherence with infection prevention and control (IPC) guidelines for respiratory infectious diseases: a rapid qualitative evidence synthesis. *Cochrane Database of Systematic Reviews* 2020;(4):CD013582. <https://doi.org/10.1002/14651858.CD013582>
 24. Viswanathan M, Kahwati L, Jahn B, Giger K, Dobrescu AI, Hill C, et al. Universal screening for SARS-CoV-2 infection: a rapid review. *Cochrane Database of Systematic Reviews* 2020;(9):CD013718. <https://doi.org/10.1002/14651858.CD013718>
 25. Boutron I, Tovey T, De Nale L, Chaimani A, Devane D, Meerpohl JJ, et al. COVID-NMA: a collaborative COVID-19 living evidence project. In: Collaborating in response to COVID-19: editorial and methods initiatives across Cochrane. *Cochrane Database of Systematic Reviews* 2020;(12 Suppl 1). <https://doi.org/10.1002/14651858.CD202002>
 26. Arevalo-Rodriguez I, Tricco AC, Nussbaumer-Streit B, Steingart KR, Kaunelis D, Alonso-Coello P, et al. Developing rapid reviews of diagnostic tests in the time of COVID-19: current knowledge and future steps. In: Collaborating in response to COVID-19: editorial and methods initiatives across Cochrane. *Cochrane Database of Systematic Reviews* 2020;(12 Suppl 1). <https://doi.org/10.1002/14651858.CD202002>
 27. Arevalo-Rodriguez I, Tricco AC, Steingart KR, Nussbaumer-Streit B, Kaunelis D, Alonso-Coello P, et al. Challenges of rapid reviews for diagnostic test accuracy questions: a protocol for an international survey and expert consultation. *Diagnostic and Prognostic Research* 2019;3:7. <https://doi.org/10.1186/s41512-019-0052-y>



28. Tricco AC, Garritty CM, Boulos L, Lockwood C, Wilson M, McGowan J, et al. Rapid review methods more challenging during COVID-19: commentary with a focus on 8 knowledge synthesis steps. *Journal of Clinical Epidemiology* 2020;126:177-83. <https://doi.org/10.1016/j.jclinepi.2020.06.029>

29. Burke NN, Galvin S, Devane D, Keenan C. COVID-19 Emergency Evidence Response Service: report from Ireland. In: Collaborating in response to COVID-19: editorial and methods initiatives across Cochrane. *Cochrane Database of Systematic Reviews* 2020;(12 Suppl 1). <https://doi.org/10.1002/14651858.CD202002>