Rapid Reviews: How Much Do They Comply with Cochrane Recommendations in Their Methodology to Provide Reliable Evidence?

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[2] Centro de Excelencia CIGES, Facultad de Medicina, Universidad de La Frontera, Temuco, Chile
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Trusted evidence.
Informed decisions.
Better health.

Colloquium Cochrane, Londres 2023

Potential Conflicts of Interest

My team and I declare that we have no conflicts of interest of any kind or related to the subject of the presentation.

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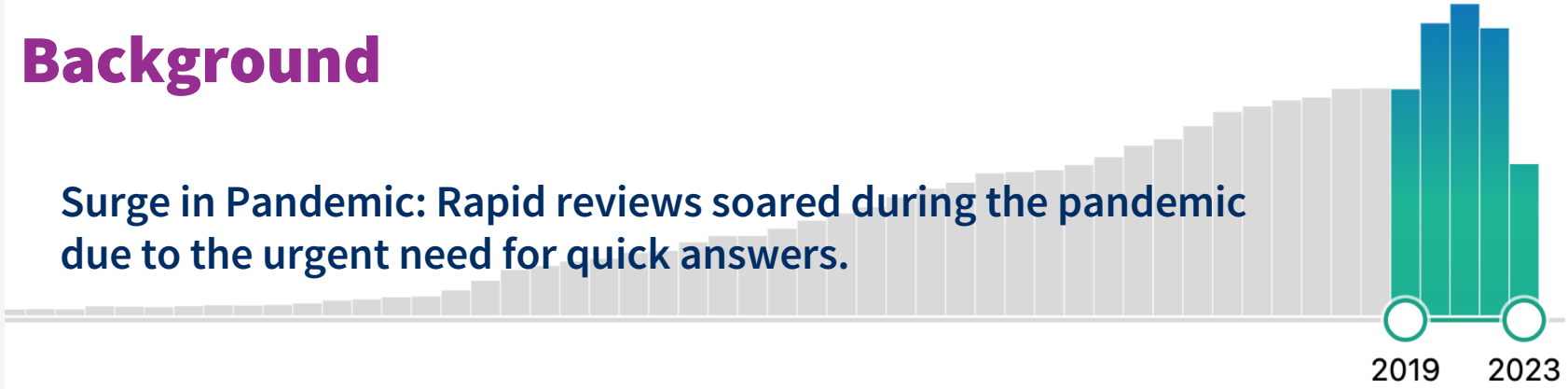
Background

Surge in Pandemic: Rapid reviews soared during the pandemic due to the urgent need for quick answers.



Alternative Knowledge Acquisition: Rapid reviews offer an efficient approach to gather information by streamlining systematic review steps.

Search results in PubMed for 'rapid reviews'
2019: 3,093
2021: 4,289
2022: 3,951
> 2020 Total 12,546 in the last 4 years

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Recommendations for conducting a rapid review

ELSEVIER

Check for updates

Journal of Clinical Epidemiology

Journal of Clinical Epidemiology 130 (2021) 13–22

ORIGINAL ARTICLE

Cochrane Rapid Reviews Methods Group offers evidence-informed guidance to conduct rapid reviews

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Objective of this consensus: "To develop methods guidance to support the conduct of rapid reviews (RRs) produced within Cochrane and beyond, in response to requests for timely evidence syntheses for decision-making purposes including urgent health issues of high priority."

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The 26 recommendations provided by the Cochrane Rapid Reviews Methods Group cover the following stages:

Formulation of the research question and topic refinement	(R1)
Establishment of eligibility criteria	(R2 to R9)
Literature search	(R10 to R13)
Study selection	(R14 to R15)
Data extraction	(R16 to R18)
Risk of bias assessment	(R19 to R20)
Result synthesis	(R21 to R22)
Other relevant considerations	(R23 to R26)

C. Garritty et al. / Journal of Clinical Epidemiology 130 (2021) 13e22

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Methods

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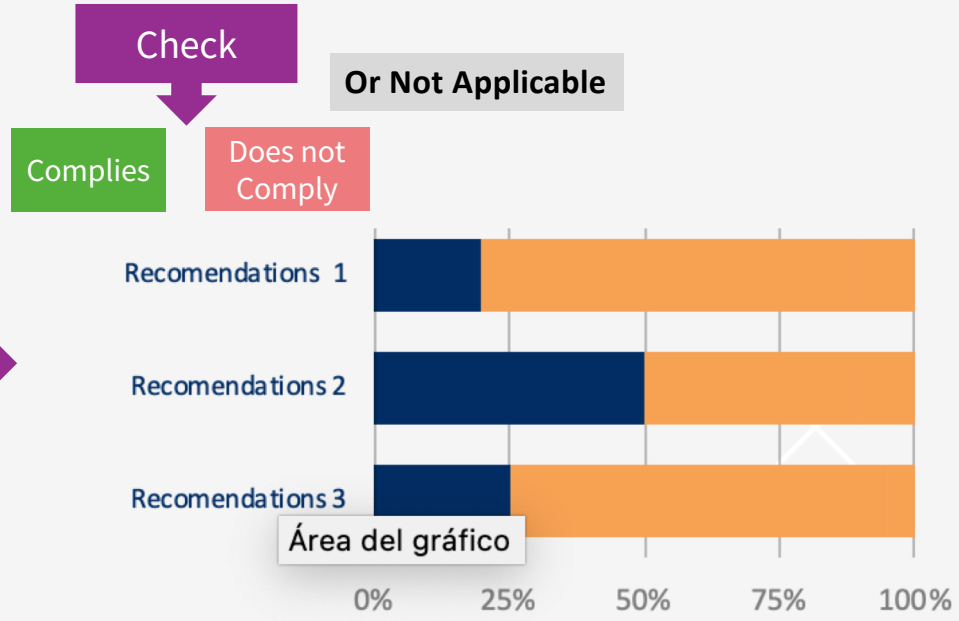
Rapid reviews: How Much do they Comply with Cochrane Recommendations in their Methodology to Provide Reliable Evidence?

Objetive: To identify and describe which steps were performed and which were omitted in published RRs, according to the list of recommendations suggested by the Cochrane Methods Group.

Method

Search PubMed, EMBASE, Epistemonikos, and CINAHL for "rapid reviews"
Context: COVID-19, rehabilitation, physical therapy, exercise, telerehabilitation…
> 2020

Sample of RRs



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Method

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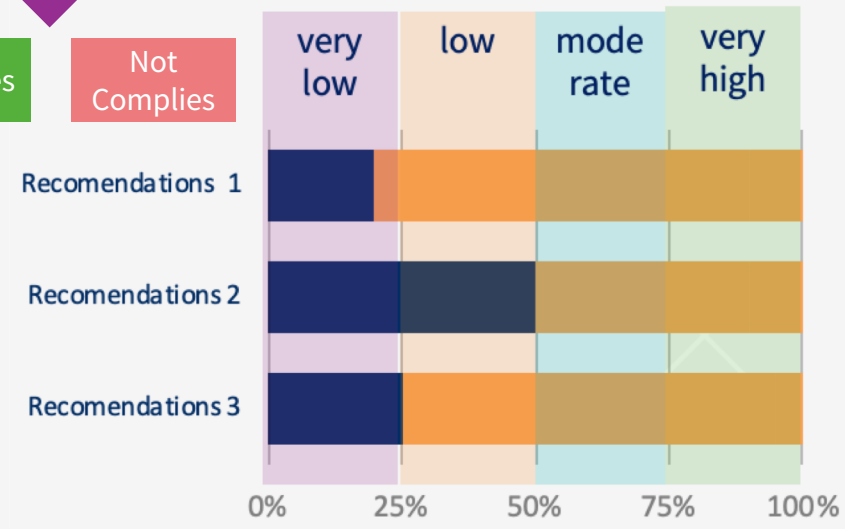
Context: COVID-19, rehabilitation, physical therapy, exercise, telerehabilitation,…
> 2020

Sample of RRs

Check

Complies

Not Complies



Results

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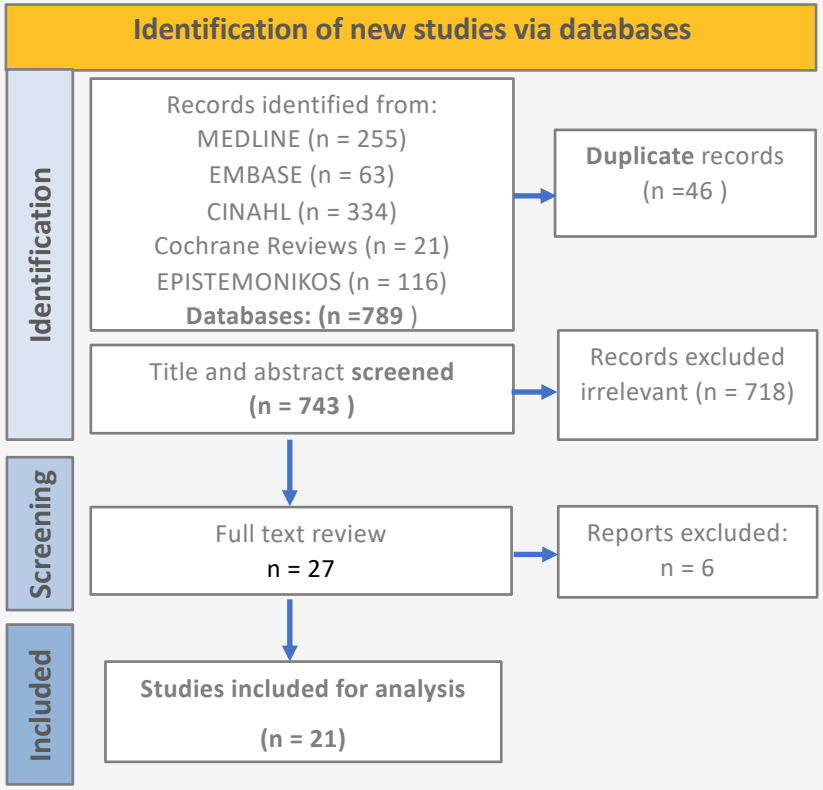
Results Selected studies for analysis



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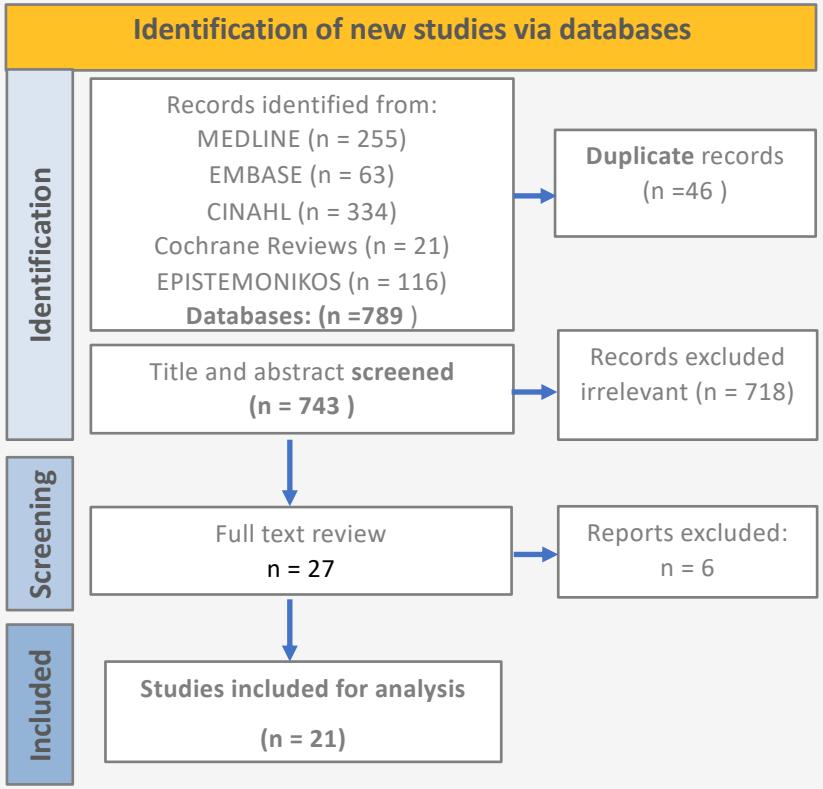

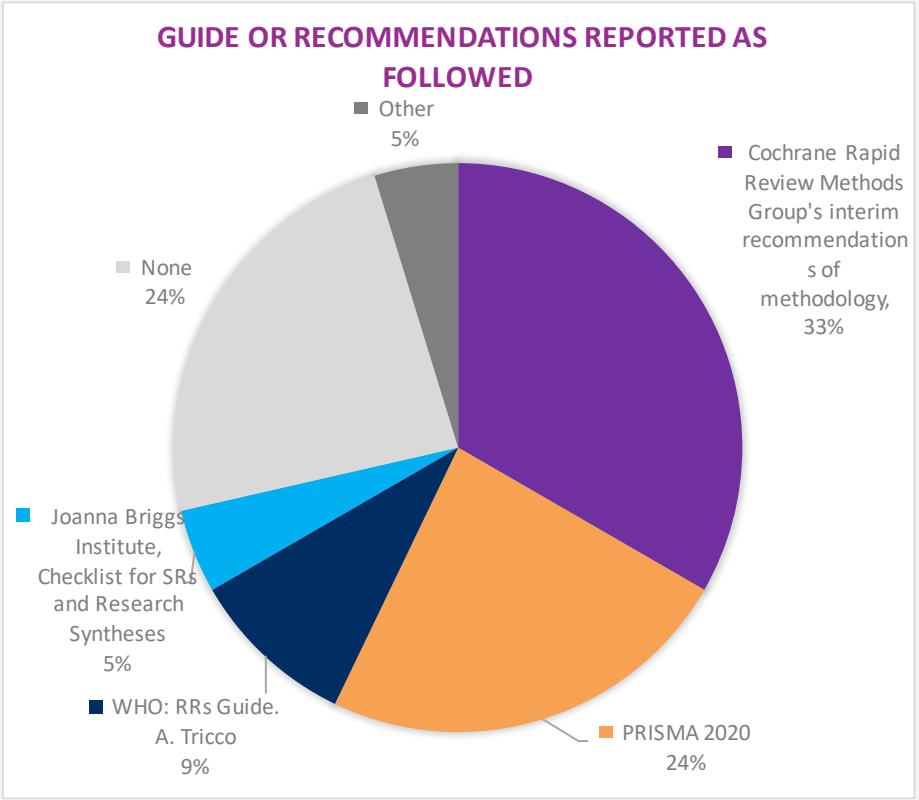

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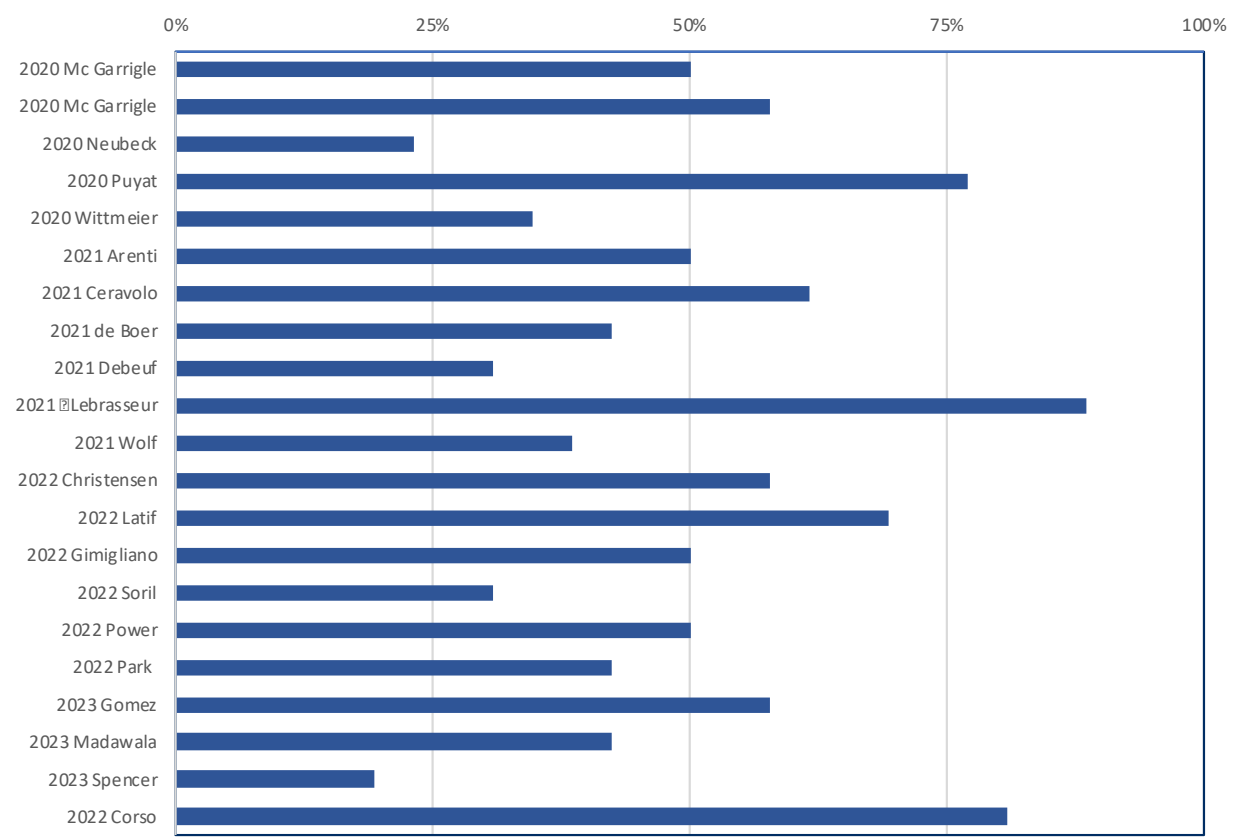
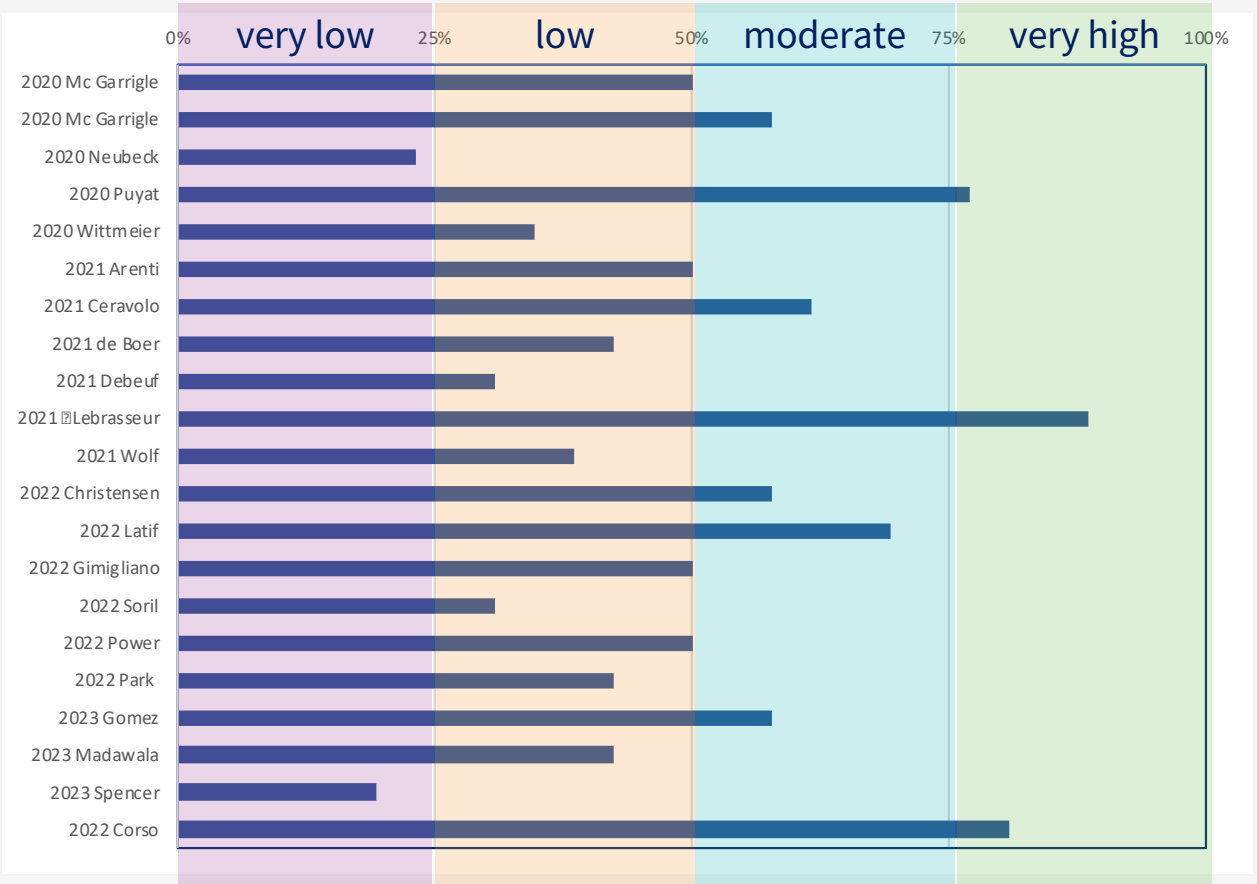
Results

Compliance with the recommendations per study (complies – does not comply)

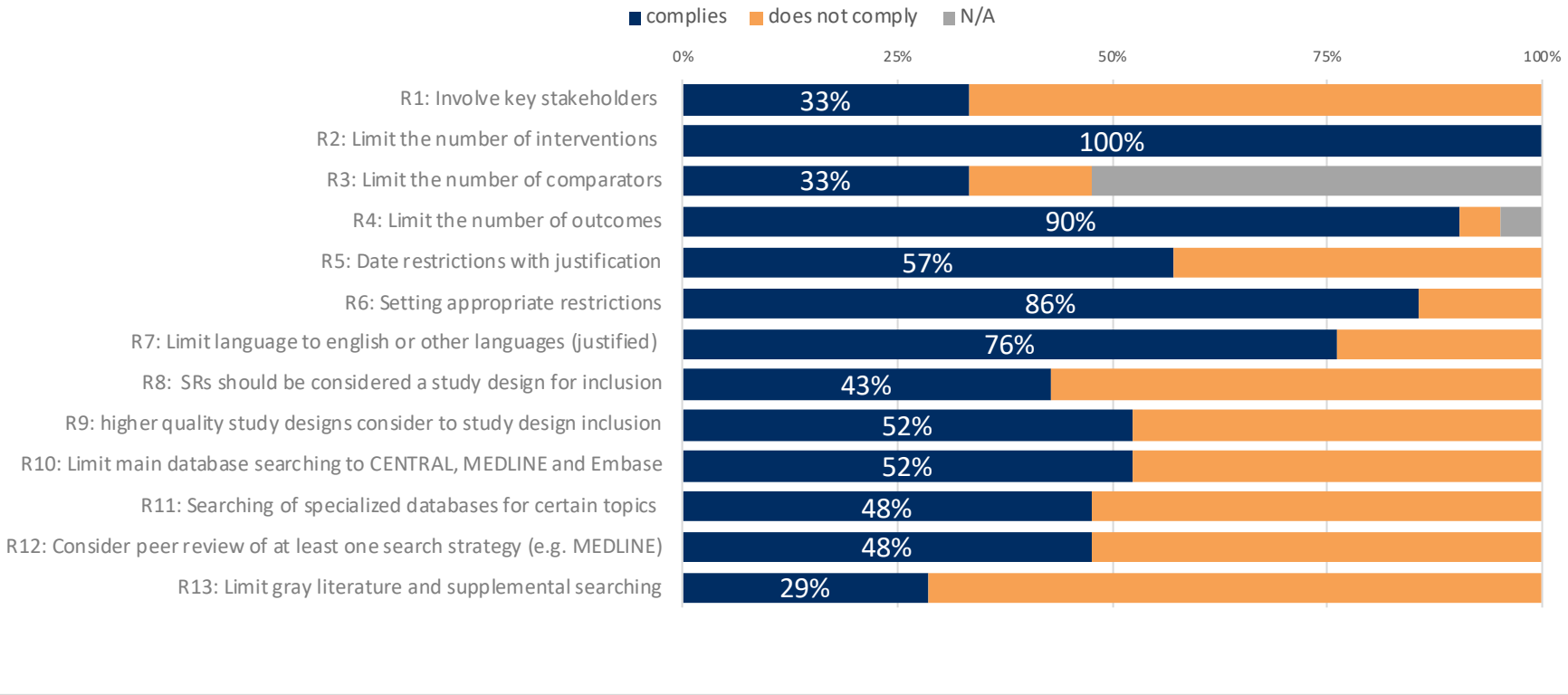


Results

Compliance with the recommendations per study (complies – does not comply)

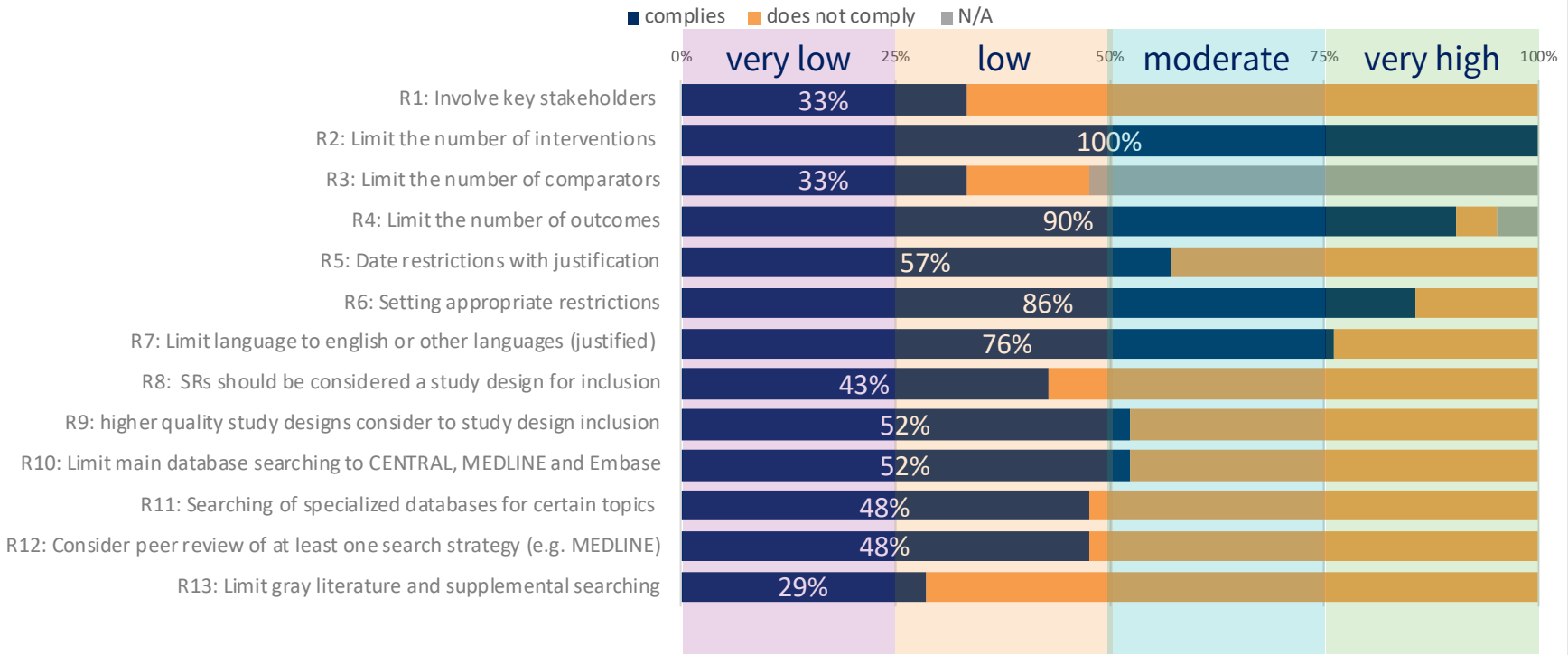


Results

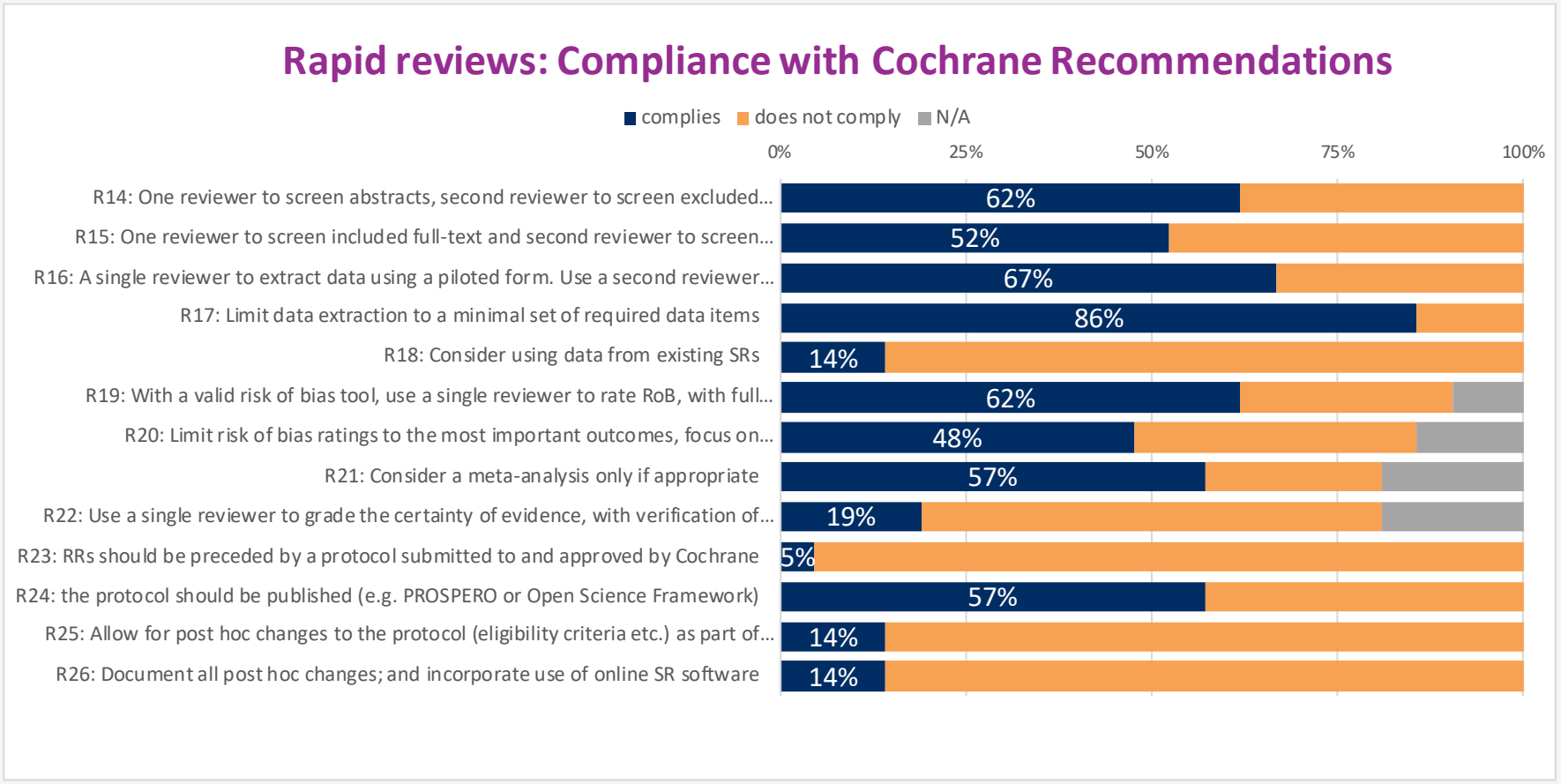

Rapid reviews: Compliance with Cochrane Recommendations
complies
does not comply
N/A
0%
25%
50%
75%
100%
R1: Involve key stakeholders
33%
R2: Limit the number of interventions
100%
R3: Limit the number of comparators
33%
R4: Limit the number of outcomes
90%
R5: Date restrictions with justification
57%
R6: Setting appropriate restrictions
86%
R7: Limit language to english or other languages (justified)
76%
R8: SRs should be considered a study design for inclusion
43%
R9: higher quality study designs consider to study design inclusion
52%
R10: Limit main database searching to CENTRAL, MEDLINE and Embase
52%
R11: Searching of specialized databases for certain topics
48%
R12: Consider peer review of at least one search strategy (e.g. MEDLINE)
48%
R13: Limit gray literature and supplemental searching
29%

Results

Rapid reviews: Compliance with Cochrane Recommendations

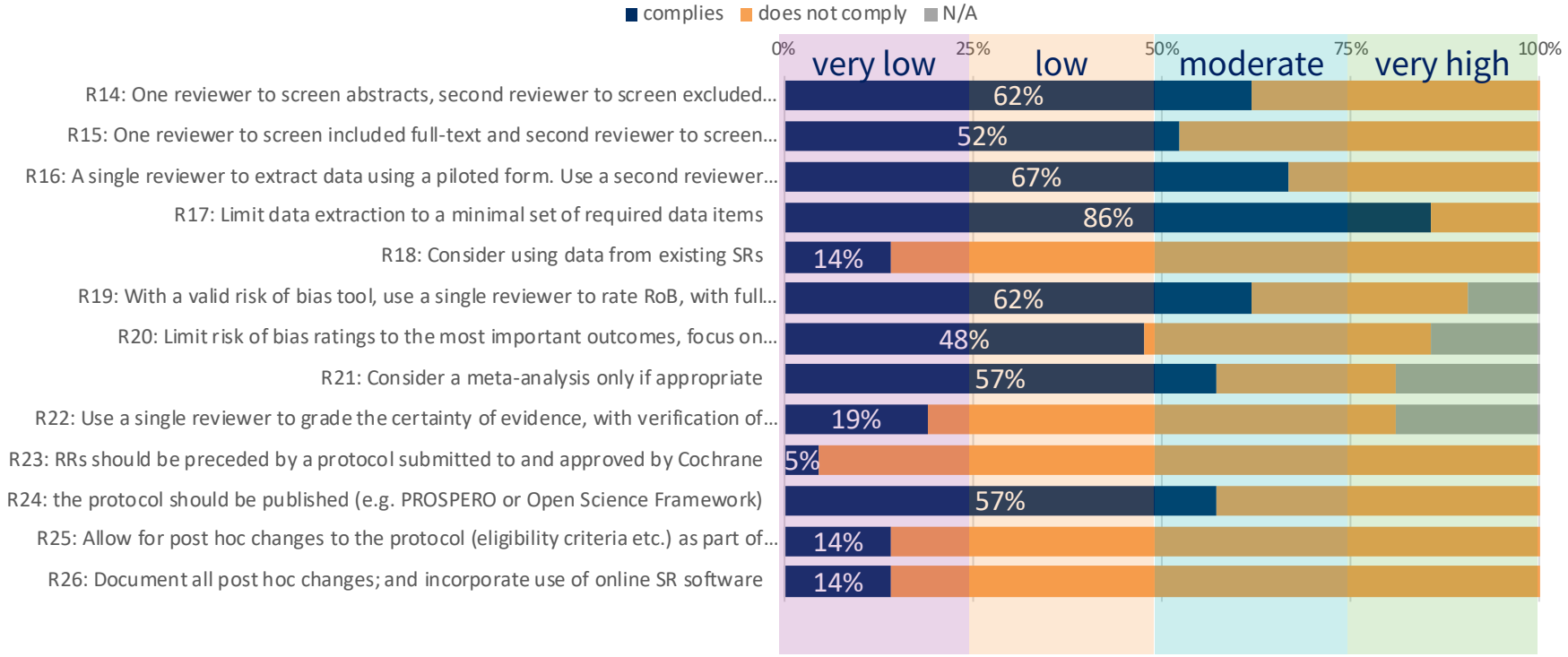


Results


Rapid reviews: Compliance with Cochrane Recommendations
complies
does not comply
N/A
0%
25%
50%
75%
100%
R14: One reviewer to screen abstracts, second reviewer to screen excluded...
62%
R15: One reviewer to screen included full-text and second reviewer to screen...
52%
R16: A single reviewer to extract data using a piloted form. Use a second reviewer...
67%
R17: Limit data extraction to a minimal set of required data items
86%
R18: Consider using data from existing SRs
14%
R19: With a valid risk of bias tool, use a single reviewer to rate RoB, with full...
62%
R20: Limit risk of bias ratings to the most important outcomes, focus on...
48%
R21: Consider a meta-analysis only if appropriate
57%
R22: Use a single reviewer to grade the certainty of evidence, with verification of...
19%
R23: RRs should be preceded by a protocol submitted to and approved by Cochrane
5%
R24: the protocol should be published (e.g. PROSPERO or Open Science Framework)
57%
R25: Allow for post hoc changes to the protocol (eligibility criteria etc.) as part of...
14%
R26: Document all post hoc changes; and incorporate use of online SR software
14%

Results

Rapid reviews: Compliance with Cochrane Recommendations



Conclusion and Discussion

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Conclusion and Discussion

- Despite being designed for quick decision-making, most rapid reviews we analyzed didn't specify their target audience or urgent need, ignoring the number one recommendation.

- Most reviews focused on 'What's out there?' rather than comparing intervention effectiveness.

- Half of the sample analyzed followed or complied with the recommendations proposed by the Cochrane Methods Group

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Limitations

- Due to the specificity of the topic we selected for the sample, this study may not be representative of all the rapid reviews published during that period.

- Some 2020 studies may not be aware of the full 2021 guidelines.

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Thanks

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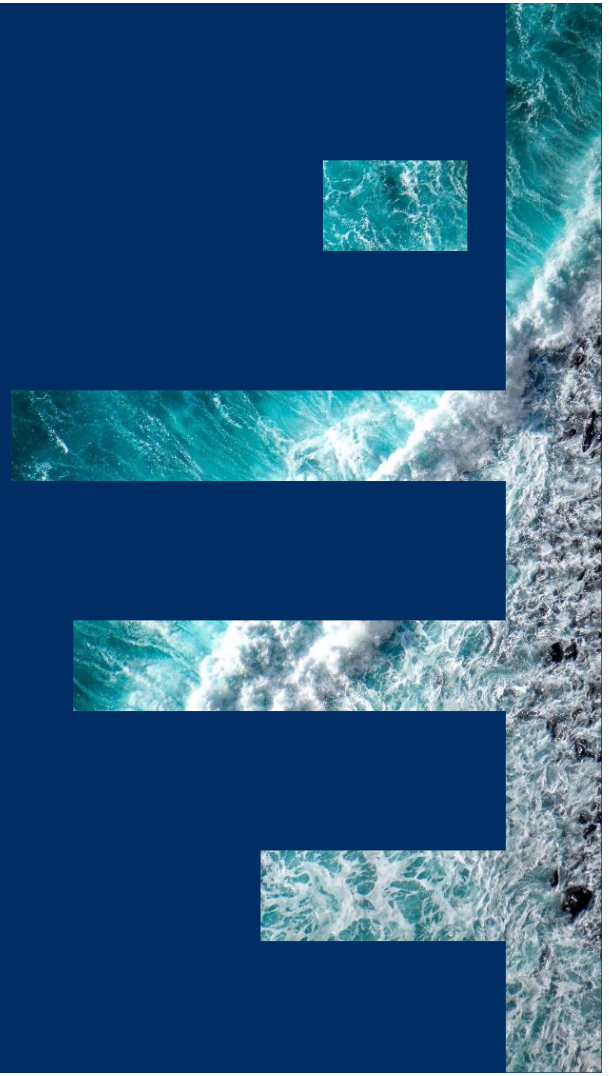
Informed decisions.
Better health.



The 26 recommendations provided by the Cochrane Rapid Reviews Methods

R1: Involve key stakeholders (e.g., review users such as consumers, health professionals, policymakers, decision-makers) to set and refine the review question, eligibility criteria, and the outcomes of interest. Consult with stakeholders throughout the process to ensure the research question is fit for purpose, and regarding any ad-hoc changes that may occur as the review progresses. Develop a protocol that includes review questions, PICOS, and inclusion and exclusion criteria.

R2: Limit the number of interventions

R3: Limit the number of comparators

R4: Limit the number of outcomes, with a focus on those most important for decision-making.

R5: Consider date restrictions with a clinical or methodological justification.

R6: Setting restrictions are appropriate with justification provided.

R7: Limit the publication language to English; add other languages only if justified.

R8: Systematic reviews (SRs) should be considered a relevant study design for inclusion. To be considered a systematic review (SR) for screening purposes, studies need to clearly report inclusion/exclusion criteria; search at least two databases; conduct risk of bias assessment; and provide a list and synthesis of included studies.

R9: Place emphasis on higher quality study designs (e.g., SRs or RCTs); consider a stepwise approach to study design inclusion.

R10: Limit main database searching to CENTRAL, MEDLINE (e.g., via PubMed), and Embase (if available access).

R11: Searching of specialized databases (e.g., PsycInfo and CINAHL) is recommended for certain topics but should be restricted to 1-2 additional sources, or omitted if time and resources are limited. (R11)

R12: Consider peer review of at least one search strategy (e.g., MEDLINE).

R13: Limit gray literature and supplemental searching (R13). If justified, search study registries and scan the reference lists of other SRs, or included studies after screening of the abstracts and full-texts.

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The 26 recommendations provided by the Cochrane Rapid Reviews Methods

R14: Use one reviewer to screen the remaining abstracts and a second reviewer to screen all excluded abstracts, and if needed resolve conflicts
R15: Use one reviewer to screen all included full-text articles and a second reviewer to screen all excluded full-text articles.
R16: Use a single reviewer to extract data using a piloted form. Use a second reviewer to check for correctness and completeness of extracted data.
R17: Limit data extraction to a minimal set of required data items.
R18: Consider using data from existing SRs to reduce time spent on data extraction.
R19: Use a valid risk of bias tool, if available for the included study designs. Use a single reviewer to rate risk of bias, with full verification of all judgments (and support statements) by a second reviewer. (
R20: Limit risk of bias ratings to the most important outcomes, with a focus on those most important for decision-making.
R21: Consider a meta-analysis only if appropriate (i.e., studies are similar enough to pool). (R21) Standards for conducting a meta-analysis for an SR equally apply to an RR.
R22: Use a single reviewer to grade the certainty of evidence, with verification of all judgments (and footnoted rationales) by a second reviewer.
R23: RRs should be preceded by a protocol submitted to and approved by Cochrane
R24: The protocol should be published (e.g., PROSPERO or Open Science Framework)
R25: Allow for post hoc changes to the protocol (eligibility criteria etc.) as part of an efficient and iterative process
R:26 Document all post hoc changes; and incorporate use of online SR software (e.g., Covidence, DistillerSR, and EPPI-Reviewer) to streamline the process

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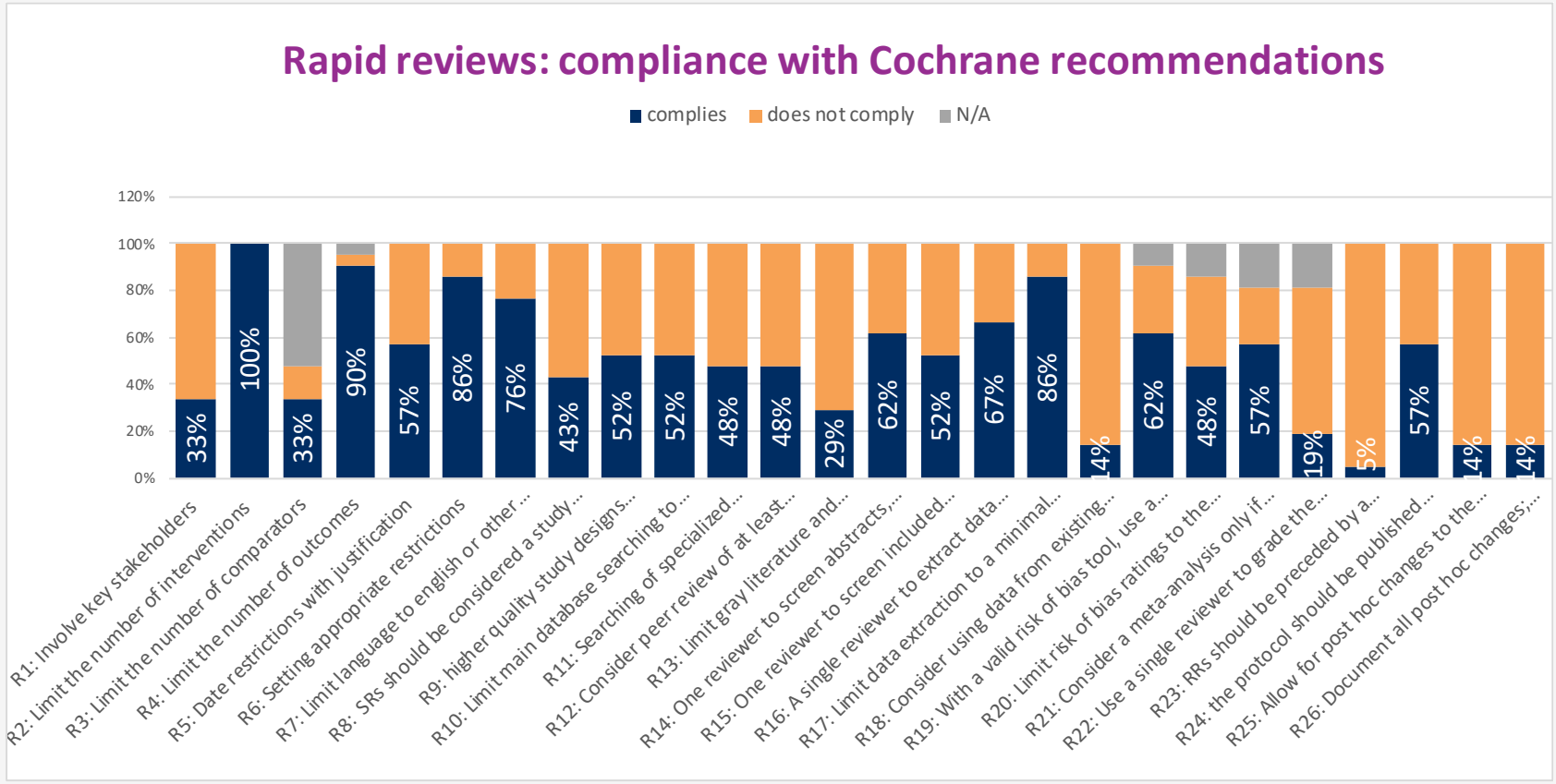
Rapid reviews: compliance with Cochrane recommendations



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