

Cochrane Scientific Committee

AGENDA

30 September 2019
Teleconference



ATTENDEESS

APOLOGIES: Karla Soares-Weiser (KSW) - Editor in Chief
Ella Fleming (EF) - Methods Implementation Coordinator
Toby Lasserson (TL) – Senior Methods Editor

Scientific Committee members attending:

Donna Gilles (DG)

Editor for both the Cochrane Developmental, Psychosocial and Learning Problems Group and Diagnostic Test Accuracy Review Group, experienced mental health and disability researcher,

Corinna Dressler (CD)

Deputy Head, Research Associate at the Division of Evidence-Based Medicine (dEBM) at the Charité – Universitätsmedizin Berlin, Germany

Julian Higgins (JH)

Professor of Evidence Synthesis at the Population Health Sciences, Bristol Medical School, at the University of Bristol, Bristol, UK, and current Senior Scientific Editor of the *Cochrane Handbook of Systematic Reviews for Interventions*.

Asbjørn Hróbjartsson (AH)

Professor of Evidence-Based Medicine and Clinical Research Methodology at the University of Southern Denmark, and Head of Research for the Center for Evidence-Based Medicine at Odense University Hospital, which hosts the secretariat of the Cochrane Bias Methods Group.

Ana Marušić (AM)

Professor of Anatomy and Chair of the Department of Research in Biomedicine and Health at the University of Split School of Medicine, Split, Croatia and founder of Cochrane Croatia.

Jane Noyes (JN)

Professor of Health and Social Services Research and Child Health, Bangor University, Wales, UK, lead Convenor of the Cochrane Qualitative and Implementation Methods Group, and a UK Cochrane Fellow.

Tomas Pantoja (TP)

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Associate Professor, Family Medicine Department, School of Medicine, Pontificia Universidad Católica de Chile and Editor of the Cochrane Effective Practice and Organisation of Care (EPOC) Group.

Philippe Ravaud (PR)

Professor of Epidemiology, Faculty of Medicine, Head of the Clinical Epidemiology Centre, Hôtel-Dieu Hospital, Paris Descartes University, France and Director of Cochrane France.

Johannes Reitsma (JR)

Associate Professor at the Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht, The Netherlands and a member of both the Cochrane Diagnostic Test Accuracy Working Group and the Screening and Diagnostic Tests Methods Group.

Rebecca Ryan (RR)

Research Fellow at the School of Psychology and Public Health, La Trobe University, Australia and Joint Co-ordinating Editor of the Cochrane Consumers and Communication Group.

Christopher Schmid (CS)

Professor of Biostatistics, founding member and Co-Director of the Center for Evidence Synthesis in Health, Brown School of Public Health, US, Fellow of the American Statistical Association (ASA) and Founding Co-Editor of *Research Synthesis Methods*.

Nichole Taske (NT)

Associate Director (Methods & Economics), Centre for Guidelines, National Institute for Health and Care Excellence.
Methodological Editor, Cochrane Lung Cancer Group, UK

Scientific Committee members' apologies:

Nicole Skoetz (NS)

Scientific Co-ordinator, Working Group Standard Operating Procedures of the Comprehensive Cancer Centers, Center of Integrative Oncology Köln Bonn, and Co-ordinating Editor Cochrane Haematological Malignancies Group, Department of Internal Medicine, University Hospital of Cologne.

Chairs of the Scientific Committee: Ana Marušić and Philippe Ravaud

Monday 30 September at 12.00pm BST/13.00pm CEST/07.00am EDT/21.00pm AEST (1.5 hours)

Meeting Chair: Ana Marušić

Abbreviations:

CSC: Cochrane Scientific Committee

TOR: Terms of Reference

ECR: Early-career researcher

RoB 2: Risk of Bias 2 tool

CSR: Clinical Study Report

CRG: Cochrane Review Group

LSR: Living Systematic Review

NMA: Network meta-analysis

CRSU: Complex Reviews Support Unit

Agenda item	Details and links to documents or appendix
1) Welcome and apologies received	
2) Approval of previous minutes	<u>Approval of the minutes dated 21 June 2019 – see Paper 1.</u>
3) Scientific Committee business matters	<u>3A) Scientific Committee members' rotation and election – see Appendix 1, Paper 2 and Paper 3.</u> Prior to this teleconference, the following has been indicated via email: <ul style="list-style-type: none">- All CSC members defined themselves as internal or external members (Appendix 1).- Gradual replacement of members is agreed on for rotation and elections.- The CSC will aim for a balance of internal and external members – six for each.- One external member wishes to step down in May 2020 (CS), all others have highlighted an interest to stay on.- ECR position shall remain and will be one with a remit of 'mentored and observational (no voting rights)'. <i>Any questions/concerns with the above points?</i> <i>For discussion in the teleconference:</i> <ul style="list-style-type: none">- If we have six of each member, should we move from 'two on, two off' each year for internal and external members (starting in May 2020)? See Appendix 1.- Given most have highlighted their wish to stay on, shall we decide who rotates off when from May 2020 through random allocation?- Will those who step off be able to re-apply, should we set a term limit? ToR current says: "Once elected, members can request to extend their tenure by an additional two years (five years in total)." Should we instead state two terms?- Paper 3 – all agreed on the wording for the advert for applications? We can add details on any specific expertise we are looking for when we know who steps down in May 2020.- All agreed on the webform? See here (Password: sci_com).

- Should we state that voting for new members will be via ranking of viable candidates by the current CSC members, with viable candidates shortlisted by the Chairs and EIC/DEiC depending on expertise and gaps in the CSC, as well as geographical location, gender and language diversity and any other equity considerations?

To launch application in early October 2019.

CARRIED OVER ACTION EF: Liaise between the Methods Executive and Scientific Committee about the shortlist of ECR methodologists (from Thomas Chalmers Award and Methods Groups ECR presentations in Chile)

3B) New methods submission process and website

Update from EF, finalise Google Doc for the process proposal ([here](#)) and confirm updates for the website for before the Colloquium.

Q: Should the Agenda for the Scientific Committee meeting in Santiago concentrate on ideas for promoting this process and proactive encouragement of submissions? Should Scientific Committee members encourage relevant speakers to submit ideas they hear in talks?

3C) Recent project updates from the Content Strategy, inc. RoB 2, clinical study report use, prognosis reviews, rapid reviews, living reviews, network meta-analysis, and equity.

Update from EF.

CARRIED OVER ACTION EF: Check whether it's possible for the RCT Classifier to be used by those not associated with Cochrane – update from EF.

4) New submission(s) for Scientific Committee Review	No further submissions.
5) Updates on methods undergoing Scientific Committee Review	No further submissions.
6) Methods for Scientific Committee sign-off or recommendation	<u>See submission in Appendix 2: Use of interactive analysis framework to facilitate diagnostic test accuracy and network meta-analyses analyses</u> Final update from EF.
7) New methodological innovations for Cochrane's agenda?	Discussion on considerations for future submissions (horizon scanning) – once the new process for method or tool proposals has been launched, we can be more proactive. CARRIED OVER ACTION ALL: Consider methodological innovations or developments where a proponent could be contacted by EF to facilitate some methods submissions for future discussion

The following methods or tools were highlighted in previous meetings and could be considered for future submissions:

- Risk of Bias due to Missing Evidence (RoBME)
- Tool for Addressing Conflict of Interests in Trials (TACIT)
- (Semi) automation methods
- Standalone qualitative evidence synthesis (following PHHSN two-year pilot)
- Use of IPD in repositories and other types of data
- Intervention Complexity Assessment tool.
- Methods for prognosis reviews.
- Methods for addressing missing participant data.
- Assessing the quality of evidence and presenting the results of non-randomised intervention studies (recommended by NS).
- Evaluation and validation of the RCT classifier.
- Meta-analyses of prevalence and risk, and consider resubmitting (DG)

Appendix 3 includes the Scientific Committee history for methods and tools.

Any unanswered methodological review questions can be flagged to Mike Clarke and the Methodology Review Group to consider it for a future review.

8) Meeting schedule

List of upcoming meetings:

23 October 2019, 13:00 to 13:45 (Santiago local time).

27 January 2020, 20:00 GMT/ 21:00 CET/ 15:00 EST/ 17:00 CLST/ 07:00 AEDT (one hour).

March/April 2020 – in-person meeting at the mid-year Governance Meetings?

CARRIED OVER ACTION EF: Investigate options for funding for the Scientific Committee members to attend the mid-year governance meetings for an in-person Scientific Committee meeting – in development

CARRIED OVER ACTION EF: Discussed with KSW the idea of an annual joint horizon-scanning paper from the Methods Executive and Scientific Committee on evidence synthesis methods

9) Any other business

9A) New Cochrane Handbook for Systematic Reviews of Interventions launches on 1 October 2019

9B) Update from TL

APPENDIX 1 - Scientific Committee members tenure

The current Scientific Committee

This highlights which roles there are on the Scientific Committee and who currently fulfils these roles:

- Six to eight **members from within the Cochrane community** (currently six) = **Julian Higgins** (Editorial Board, Methods Executive, Methods Group Convenor, Handbook Editor), **Asbjørn Hróbjartsson** (Methods Group Convenor), **Jane Noyes** (Methods Executive, Methods Group Convenor), **Tomas Pantoja** (Cochrane Centre, CRG Editor), **Johannes Reistma** (Methods Group Convenor), **Nicole Skoetz** (Network Senior Editor, Editorial Board).
- Four to six external members for independent balance, inc. Cochrane Consumers and guideline representative (currently seven) - **Philippe Ravaud** (was previous internal but no longer a Centre Director), **Rebecca Ryan** (Cochrane Consumers), **Christopher Schmid**, **Nichole Taske** (guideline representative), **Corinna Dressler**, **Donna Gilles**, **Ana Marušić**.
- The Editor in Chief - **Karla Soares-Weiser** (currently one).
- An early career researcher – was previously Corinna Dressler (currently none)

Proposal for numbers to rotate off and recruit for the next three years

Gradual rotation of members to ensure institutional memory and experience of members isn't lost:

- May 2020 – one external member steps down, we recruit one ECR, and two external and two internal rotate off, and two external and two internal are recruited.
- May 2021 – two external and two internal rotate off, and two external and two internal are recruited.
- May 2022 – two external and two internal rotate off, and two external and two internal are recruited.

How to recruit new Scientific Committee members

Ideally, we should time recruitment so new members attend the mid-year Governance Meetings (EF is currently investigating the possibility of an in-person meeting in 2020). Therefore, we could aim to recruit them by January 2020:

1. Finalise the advert wording and process for new applicants during the teleconference on 30 September 2019.
2. Open for applications in early October 2019:

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- a. Proposed wording for the advert in the attachment (based off the previous announcements for the CSC and CSC details on the Methods website):
 - b. Webform for applications to complete draft here (password: **sci_com**): <https://methods.cochrane.org/cochrane-scientific-committee-membership-application-form>
 - c. Promote via emails to the Methods Groups, Review and Methods Digest and social media, etc.
 - d. Open applications for four-to- six weeks.
3. Mid-November 2019, assess applicants and collate into a document to send to the Scientific Committee members (may require some liaison with the applicants).
 4. Beg. December 2019, email the Scientific Committee members with the shortlist and depending on the number of applicants ask that they vote (one vote per Scientific Committee members) via a webform. The specifics for this process could be discussed in our upcoming teleconference.
 5. Inform the new Scientific Committee member in early-January and invite to the January teleconference and TBC meeting at the mid-year Governance Meetings (March/April2020).

APPENDIX 2 – New methods submission(s)

SHORT TITLE OF METHOD OR METHODS RELATED DEVELOPMENT

Use of interactive analysis framework to facilitate diagnostic test accuracy and network meta-analyses analyses

Name: Alex Sutton

Email: ajs22@le.ac.uk

Contact details: Department of Health Sciences, College of Life Sciences, University of Leicester, George Davies Centre, University Road, LEICESTER LE1 7RH UK

Telephone: + 441162297268

Cochrane Affiliation: methods group, bias group, non-randomised group, dementia & cognitive impairment, accident prevention

Lead researchers or developers

Several people from the Complex Review Support Unit (<http://www.nihrcrsu.org/>) and beyond

A comprehensive list can be supplied later if necessary.

Aims and Objectives

To develop interactive software to facilitate meta-analysis which otherwise requires specialist software routines which are difficult to use by non-statistical experts. Also, to provide a powerful interface so even statisticians will want to use the software for its power, speed, flexibility and ease of use.

This software has been developed, in part, as part of work with the NIHR Complex Review Support Unit which supports UK based Cochrane authors. Experiences through this unit indicated software was a major barrier for Cochrane reviewers to use the most relevant analysis methods for diagnostic test accuracy and network meta-analyses. This software aims to remove that barrier, and initial feedback suggests it is being successfully used by pilot groups.

Key features

- Point and click interface, removing barrier to entry for non-statistical experts for specialist network meta-analysis and diagnostic test accuracy analysis types. Both of which are not available in Cochrane software.
- Runs in a web browser minimising compatibility problems.
- Underpinned by analysis routines developed in R (by others) ensuring accuracy of results.
- Emphasis given to visual output formats that are clinically relevant
- Some graphics - like the displaying of study quality on an ROC plane - are novel and not available in other software
- All output can be exported and imported into Cochrane Reviews.
- We are open to suggestions for improvements and new features to add to the software
- Individual studies can be excluded in seconds facilitating sensitivity analysis.
- It would be very possible, with amendments to the software, to use the interface to view the data in published Cochrane reviews allowing authors to carry out their own critique of the analysis / conduct alternative analyses and produce alternative views of the data not included in the original review.

Key publication or guidance document

We have 2 peer reviewed papers re-submitted post revisions and are hoping these will be accepted and published shortly (at which point they will be open access):

The apps (which are free to use and under active development) are available at:

https://crsu.shinyapps.io/dta_ma/

<https://crsu.shinyapps.io/metainsightc/>

APPENDIX 3 - Methods decisions by the Scientific Committee (2017-2019):

18 May 2017

1. **ROB 2.0 = Highly recommended** - *the recommendation is that it is mandatory for new reviews when officially launched. For updates, it is not reasonable to re-do previously included studies and a strategy is required to handle these situations.*

Now included in the Content Strategy and a priority project for 2019 to assess the feasibility of implementation.

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2. **ROBINS-I = Recommended with provisions** - the ROBINS-I tool is recommended as the preferred tool for new reviews. It is not mandatory. The importance of competency to use the tool will be highlighted in guidance.
Recommended but unsure of implementation or evaluation. Will need to discuss with developers.
3. **Cumulative meta-analysis = Further evaluation required** - the CSC agreed that further technical examination of the key approaches was required to ascertain whether there is a preferred method, or whether the methods provide value to managing random error and are needed at all, or only in certain scenarios. An expert panel will be asked to consider the work completed by colleagues to date and will report to a future CSC.
See points relating to whether using sequential methods to adjust P values is necessary in repeated meta-analyses for decision.

18 October 2017

1. **Inclusion of results from searching study registries in Cochrane reviews: completed but not published studies** = Not a matter for the CSC but further guidance needs developing.
2. **Meta-analyses of prevalence and risk** = This is not currently matter for the CSC and will be considered further in Cochrane's Content Strategy.
3. **Meta-regression** = This is a matter for the Editorial Board (possibly Governing Board if it impacts on budgets). This is not a matter for the CSC.
4. **Timely and Reliable Evaluation of the Effects of Interventions: A Framework for Adaptive Meta-analysis (FAME)** = this was to be incorporated into the Handbook and not a matter for the CSC.
5. **Determining when meta-analyses of published time-to-event outcomes reliable enough to form robust clinical conclusions. An evidence-based approach** = this was to be incorporated into the Handbook and not a matter for the CSC.
6. **Data-based predictive distributions for between-study heterogeneity** = CSC not able to make a decision and requested paper and presentation for future meeting.
Decision below.

28 February 2018

1. **Interim guidance on how to decide whether to include clinical study reports and other regulatory documents into Cochrane Reviews = Optional/advisory** - CSC members agreed this data was important in tackling reporting bias. Further development of methods and tools were required that identifies where more evidence is needed as well as where Cochrane should concentrate its energies. The report's findings were accepted in principle by the committee. However, further consideration of roll out and implementation within the main body of Cochrane required the input of both Governing Board (resources) and Editorial Board (implementation requirements).
Now included in the Content Strategy and a priority project for 2019 to assess the feasibility of implementation.
2. **Expert panel report on whether using sequential methods to adjust P values is necessary in repeated meta-analyses = Not recommended** - The CSC concur with the panel's recommendation that these methods should not be used routinely in Cochrane and that only in specifically justified cases is it reasonable to do so.
Statement posted on Methods Website. No further action.

5 June 2018

1. **Data-based predictive distributions for between-study heterogeneity = Optional/advisory** - The Committee recommends that Cochrane Reviewers are encouraged to add Bayesian meta-analysis alongside the traditional techniques included in RevMan to supplement and improve their review. Particularly where there is a very high or

low heterogeneity estimate therefore, in these situations an additional Bayesian analysis will have the greatest impact. This will be included in the new updated Handbook chapter.

Statement posted on Methods Website. No further action.

8 November 2018

1. **Qualitative evidence synthesis as a standalone review = Decision not made by CSC** – Editorial Board approved a two-year pilot and following the pilot the CSC and Methods Executive would make a decision on whether standalone QES would be endorsed in Cochrane.
2. **Prognosis reviews as standalone review = Decision not made by CSC.**
Now a formal review type in the Cochrane Library and Prognosis Methods Group have been overseeing the development and implementation.

31 March 2019

1. **Use of interactive analysis framework to facilitate diagnostic test accuracy and network meta-analyses analyses** (under evaluation)

21 June 2019

1. **Use of interactive analysis framework to facilitate diagnostic test accuracy and network meta-analyses analyses** (under evaluation)

30 September 2019

1. **Use of interactive analysis framework to facilitate diagnostic test accuracy and network meta-analyses analyses** (final update)