Cochrane Scientific Committee

AGENDA

31 March 2019
Krakow, Poland
ATTENDEES

David Tovey (DT) - Editor in Chief
Ella Flemyng (EF) - Methods Implementation Coordinator
Toby Lasserson (TL) - Senior Editor

Committee members attending:
Corinna Dressler (CD)
Research Associate at the Division of Evidence-Based Medicine (dEBM) at the Charité – Universitätsmedizin Berlin, Germany
Donna Gilles (DG)
Editor for both the Cochrane Developmental, Psychosocial and Learning Problems Group and Diagnostic Test Accuracy Review Group.
Julian Higgins (JH)
Professor of Evidence Synthesis at the School of Social and Community Medicine, at the University of Bristol, Bristol, UK, and current Senior Scientific Editor of the Cochrane Handbook of Systematic Reviews for Interventions.
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 Convener of the Cochrane Qualitative and Implementation Methods Group, and a UK Cochrane Fellow.
Tomas Pantoja (TP)
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.
Rebecca Ryan (RR)

Committee members apologies:
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.
Johannes Reistma (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.
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.
AGENDA

Chairs of the Scientific Committee - Ana Marušić and Philippe Ravaud

Overview of the day (31 March 2019):

<table>
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<th>Time</th>
<th>Activity</th>
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<tr>
<td>09:00-10:30</td>
<td>Meeting – General business</td>
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<tr>
<td>10:30-11:00</td>
<td>Break</td>
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<tr>
<td>11:00-12:30</td>
<td>Meeting – Scientific Committee set-up</td>
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<tr>
<td>12:30-13:30</td>
<td>Lunch</td>
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<tr>
<td>13:30-15:00</td>
<td>Meeting – New methods discussions</td>
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<td>15:00-15:30</td>
<td>Break</td>
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<tr>
<td>15:30-17:00</td>
<td>Meeting – Reflection on previously approved methods</td>
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09:00-10:30 – General business
Chaired by Ana Marušić

<table>
<thead>
<tr>
<th>Agenda item</th>
<th>Details and links to documents or appendix</th>
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<tr>
<td>1) Welcome and apologies</td>
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<tr>
<td>2) Approval of previous minutes</td>
<td>Minutes dated November 2018 – see Paper 1.</td>
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<tr>
<td>3) Updates from Cochrane</td>
<td>Update on methods implementation projects as part of the Content Strategy – see Paper 2 (presented by Ella Flemyng and Toby Lasserson). Update on the Cochrane Handbook for Systematic Reviews of Interventions (presented by Ella Flemyng). Cochrane’s data sharing policy – see Paper 3 (presented by David Tovey).</td>
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11:00-12:30 – Scientific Committee set-up
Chaired by Philippe Ravaud

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<td>4) New methods approval process in Cochrane</td>
<td>Discussion to clarify, including what roles and responsibilities the Scientific Committee, Methods Executive and Methods Groups have in the process - see Paper 4.</td>
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<td>5) Methods community roles and responsibilities</td>
<td>Discussion to finalise the roles and responsibilities document, which will include the Scientific Committee, Methods Executive, Methods Groups, Methods Support Unit, Methods Implementation Coordinator and other CET roles - see Paper 4.</td>
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<tr>
<td>6) 2019/2020 strategic priorities for the Scientific Committee</td>
<td>Once roles and responsibilities are confirmed, consider strategic objectives and priorities for the Scientific Committee.</td>
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### 13:30-15:00 – New methods discussions
Chaired by Ana Marušić

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<td>7) New submission(s) for Cochrane Scientific Committee Review</td>
<td>See Appendix 1 below.</td>
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<td>8) Process for receiving new submissions for review</td>
<td>Discuss the general process for submissions and how the Scientific Committee could proactively encourage or request methods submissions from Methods Groups.</td>
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The following methods or tools were highlighted in previous meetings for future consideration:
- Risk of Bias due to Missing Evidence (RoBME)
- Tool for Addressing Conflict of Interests in Trials (TACIT)
- Semi automation methods
- Prognosis methods
- Standalone qualitative evidence synthesis (following PHHSN two-year pilot)

### 15:30-17:00 – Reflection on previously approved methods
Chaired by Philippe Ravaud

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<td>9) Reflection on past Scientific Committee decisions</td>
<td>Discuss progress of methods following decisions – see Appendix 2 below.</td>
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<td>10) Next Scientific Committee meetings</td>
<td>2019 teleconferences and Santiago Colloquium.</td>
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<td>11) Any other business</td>
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APPENDIX 1 – 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.nihrccsu.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 mas 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 2 - Methods discussed by the Scientific Committee (2017-2018):

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.

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.

Following methods were highlighted for consideration at a future meeting:

- Intervention Complexity Assessment tool.
- Guidance for when to include Clinical Study Reports and other regularity data in CR’s.
- Methods for prognosis reviews.
- Methods for addressing missing participant data.
- Assessing the quality of evidence and presenting the results of Non-randomised Studies in CR’.
- Evaluation and validation of the RCT classifier.

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.*

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**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 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.*

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**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 overviewing the development and implementation.*

Following methods were highlighted for consideration at a future meeting:

- Risk of Bias due to Missing Evidence (RoBME).
- Tool for Addressing Conflict of Interests in Trials (TACIT): Cochrane has a COI policy in development currently. AH is a member of the working group on the COI policy. He will ensure there will be good coordination between the two approaches.
- Semi automation methods.
- Prognosis methods.