# Cochrane Methods Bias

## Newsletter

**Issue 04 | December 2019**

## Bias Methods Group activities in 2019

During the past year, the Bias Methods Group (BMG) continued its work on updating core chapters of the 'Cochrane Handbook for Systematic Reviews of Interventions', and participating in the development of a tool for addressing conflicts of interest in medical research (TACIT) and a tool for assessing risk of bias due to missing results (ROB-ME). We are excited to see all these projects progressing.

For more information on BMG-related key achievements, research and implementation projects, training and support activities and publications during the past year, please visit the Cochrane Methods Report 2019.

## New Cochrane Handbook for Systematic Reviews of Interventions

We are delighted that version 6 of the Cochrane Handbook is now available online. The Handbook has been revised from cover to cover and reflects current best practice for systematic reviews based on the latest methods research.

The new edition of the Handbook includes several chapters relevant to risk of bias assessment:

- Chapter 7 provides an overview of procedures for risk of bias assessment, ways to present, summarise, and incorporate risk of bias judgements into analyses, and introduces the TACIT framework for considering conflicts of interest among included studies;
- Chapter 8 provides an overview of version 2 of the Cochrane risk-of-bias tool for randomized trials (RoB 2);
- Chapter 13 includes a major revision of guidance for assessing reporting biases in syntheses (publication bias, selective reporting bias);
- Chapter 23 outlines the issues addressed in the Cochrane risk-of-bias tools for cluster-randomized trials and randomized crossover trials;
- Chapter 25 provides an overview of the Risk Of Bias In Non-randomized Studies of Interventions (ROBINS-I) tool, with guidance on how to assess risk of bias in cohort studies, uncontrolled before-after studies, and controlled before-after studies.

## Implementation of RoB 2

RoB 2 is currently being piloted by a cohort of volunteer Cochrane author teams. The purpose of the pilot is to assess the guidance, tools, training and support that the RoB 2 developers and Editorial and Methods Department have created to facilitate RoB 2 use. We anticipate that the pilot will identify the main challenges experienced by authors using the tool, and highlight implications for use of the tool in RevMan Web.

A paper introducing RoB 2 has been published in BMJ. A series of guidance papers explaining how to use RoB 2 are currently being drafted.

Read more about the plans for implementing the tool here.

BMG put on a three-day Cochrane Methods training event in Bristol in July, primarily to train key staff in Cochrane Review Groups in the RoB 2 tool. We also presented ROBINS-I and our plans for ROB-ME and TACIT.

## Risk Of Bias due to Missing Evidence tool

Drafting of the structure and guidance for the ROB-ME (Risk Of Bias due to Missing Evidence) tool continued throughout 2019. The tool provides a structured approach to assessing non-reporting biases in evidence syntheses that considers both non-publication of whole studies and selective non-reporting of results in included studies. The framework underpinning the tool is presented in Chapter 13 of the Cochrane Handbook for Systematic Reviews of Interventions. We will invite BMG members to pilot test the tool, likely sometime in the first quarter of 2020.

## Tool for Addressing Conflicts of Interest in Trials

The work on developing the Tool for Addressing Conflicts of Interest in Trials (TACIT) continues. A prototype version of the tool has been presented to the TACIT working group and based on the feedback the tool is now being revised. The tool will be integrated with other review tools such as RoB 2 and the revision is being done in collaboration with representatives from the RoB 2 group. Pilot testing of the tool is expected to commence in the first quarter of 2020. A short paper published in BMJ Evidence-Based Medicine describes some of the thoughts behind the development of TACIT.

See TACIT website for additional information.

# Reading list

We have been keeping an eye on the methods literature, and think our members may be interested in the following articles published recently:


Anthon CT, Granholm A, Perner A, et al. Overall bias and sample sizes were unchanged in ICU trials over time: a meta-epidemiological study. *Journal of Clinical Epidemiology* 2019;113:189-99. PMID: 31120836

---

Atal I, Porcher R, Boutron I, et al. The statistical significance of meta-analyses is frequently fragile: definition of a fragility index for meta-analyses. *Journal of Clinical Epidemiology* 2019;111:32-40. PMID: 30940600

---

Berber S, Tan-Koay AG, Opiyo N, et al. A cross-sectional audit showed that most Cochrane intervention reviews searched trial registers. *Journal of Clinical Epidemiology* 2019;113:86-91. PMID: 31150835

---

Boutron I, Haneef R, Yavchitz A, et al. Three randomized controlled trials evaluating the impact of "spin" in health news stories reporting studies of pharmacologic treatments on patients'/caregivers' interpretation of treatment benefit. *BMC Medicine* 2019;17(1):105. PMID: 31159786

---

Chartres N, Fabbri A, McDonald S, et al. Association of industry ties with outcomes of studies examining the effect of wholegrain foods on cardiovascular disease and mortality: systematic review and meta- analysis. *BMJ Open* 2019;9(5):e022912. PMID: 31110080

---

Croitoru DO, Huang Y, Kurdina A, et al. Quality of reporting in systematic reviews published in dermatology journals. *British Journal of Dermatology* 2019; doi: 10.1111/bjd.18528. PMID: 31529461

---

Cumpston M, Li T, Page MJ, et al. Updated guidance for trusted systematic reviews: a new edition of the Cochrane Handbook for Systematic Reviews of Interventions. *Cochrane Database of Systematic Reviews* 2019;10:Ed000142. PMID: 31643080

---

Farrah K, Young K, Tunis MC, et al. Risk of bias tools in systematic reviews of health interventions: an analysis of PROSPERO-registered protocols. *Systematic Reviews* 2019;8(1):280. PMID: 31730014

---

Gagnier JJ, Johnston BC. Poor quality patient reported outcome measures bias effect estimates in orthopaedic randomized studies. *Journal of Clinical Epidemiology* 2019;116:36-38. PMID: 31374331

---

Hansen C, Lundh A, Rasmussen K, et al. Financial conflicts of interest in systematic reviews: associations with results, conclusions, and methodological quality. *Cochrane Database of Systematic Reviews* 2019;8:Mr000047. PMID: 31425611

---

Lopez-Lopez JA, Sterne JAC, Higgins JPT. Selection bias introduced by informative censoring in studies examining effects of vaccination in infancy. *International Journal of Epidemiology* 2019. PMID: 31071211

---

Lundh A, Rasmussen K, Østengaard L, et al. Systematic review finds that appraisal tools for medical research studies address conflicts of interest superficially. *Journal of Clinical Epidemiology* 2020; https://doi.org/10.1016/j.jclinepi.2019.12.005. PMID: 31809849

---

Marshall IJ, Marshall R, Wallace BC, et al. Rapid reviews may produce different results to systematic reviews: a meta-epidemiological study. *Journal of Clinical Epidemiology* 2019;109:30-41. PMID: 30590190

---

Page MJ, McKenzie JE, Bossuyt PM, et al. Mapping of reporting guidance for systematic reviews and meta-analyses generated a comprehensive item bank for future reporting guidelines. *Journal of Clinical Epidemiology* 2020;118:60-68. PMID: 31740319

Sterne JAC, Savovic J, Page MJ, et al. RoB 2: a revised tool for assessing risk of bias in randomised trials. *BMJ* 2019;366:l4898. PMID: 31462531

Tan AC, Jiang I, Askie L, et al. Prevalence of trial registration varies by study characteristics and risk of bias. *Journal of Clinical Epidemiology* 2019;113:64-74. PMID: 31121304

## Best wishes for the Holidays

With this, convenors and coordinator of the Bias Methods Group wish you Happy Holidays and all the best to you in the year to come!

## Contact us

The Bias Methods Group is hosted by Centre for Evidence-Based Medicine Odense (CEBMO), at Odense University Hospital in Denmark. If you have any comments or questions, please share them with us.

Convenors
Isabelle Boutron
Julian Higgins
Asbjørn Hróbjartsson
Matthew Page

Coordinator
Camilla Hansen

Website Twitter Email