**Meeting title**: RoB 2 Pilot Web Clinic

**Location**: GoTo Meeting

**Date and time**: 28 May 2020, 16:00-17:00 (BST)

**Recorded**: Yes (all past recordings are available [here](https://www.dropbox.com/sh/boc6gh44jh4q3fb/AAAGiNSZHXNf_t8KVo0rhLRxa?dl=0))

**Chair:** Ella Flemyng (Methods Implementation Coordinator)

**Other organisers:** Tess Moore (Systematic Review Methodology Editor), Kerry Dwan (Methods Support Unit Lead and Statistical Editor), Rebecka Hall (RevMan Web Product Owner), Bias Methods Group

**Notes**: Tess Moore (Systematic Review Methodology Editor)

# **Agenda 1. Update from last Web Clinic (Ella Flemyng)**

**Building RoB 2 methodological expertise within CRGs** - **clarifying the CRG scale-up process**: The RoB 2 pilot team would like to propose that for the first/second protocol from a CRG, the Methods Support Unit (MSU) will comment on the RoB 2 considerations and provide feedback that can go directly to the authors. From the second/third protocol, we are asking that the Managing Editor assesses the RoB 2 considerations and the MSU will check their comments and coach/guide the Managing Editor in what to look for. We would like to propose the same process for full reviews. We would be interested in hearing feedback from Managing Editors on this proposal.

## **2. Questions about using the RoB 2 tool and signalling questions (Tess Moore)**

**Question 1 As for signalling question 2.3, we are wondering about the level of interpretation.** In one of the included studies, the authors report that seven of the participants in the control group received some treatment, against protocol. The authors have not commented on whether this deviation from the intended plan was related to the trial context. According to RoB 2 ‘Probably yes’ can be chosen if there is strong reason to believe, that the trial context led to implementation of interventions not allowed by the protocol. We think it is likely that the waiting time for the control group (nine months) is one of the main reasons these children received treatment. It has however, not been commented on by the authors. In your opinion, would that be sufficient “strong evidence” to answer PY to the signalling question? Or would NI be a fairer answer in this case?

It’s difficult to answer without knowing more about the context. In the example of a no treatment or waiting list control group (possibly the situation here), the questions would be

(i) did the act of consenting and recruiting the participants into the trial inspire them to seek treatments in a way that they would not had they not been in the trial?; and

(ii) did the investigators give the children non-protocol treatments in order to bias the trial result? Unless there is reason believe the answer to one of these is ‘yes’, we’d advise answering ‘PN’ or possibly ‘NI’.

Another consideration is the total number in the group you mention.

If the 7 participants are the majority of participants then it is a bigger issue than if this is a small percentage of participants. It is tempting to answer ‘NI’ a lot for this question.  However, the RoB2 team added in the ‘PY’ so you are encouraged to use your judgement to answer this more definitively. As long as you include comments to why you answered this then it is fine.

**Question 2 Question related to the signalling question 3.1: “Were data for this outcome available for all, or nearly all, participants randomized?” Does this question relate to data in general, or data from a given timepoint? ( E.g. like post-test nine months post randomization).  Does the question relate to participants who were randomized but did not complete treatment (lost to follow up) or missing data from participants who completed treatment, or both?**  In one of our included studies, the post test time point was **nine months** post randomization. **Seven participants** did not finish the treatment, and is reported as lost to follow up, whereas two participants did not report outcome measures on nine months, and they used six and seven months post randomization in the analyses. So they all have missing outcome data in the case of this question?Another study reports “Of the 184 recordings scheduled in the experiment (23 children×4 recordings×2 assessment occasions), 178 (96.7%) were obtained by the investigators and used for data collection (p. 210). However, 29 children were randomized, so six were lost to follow up. What would be the correct way to report this?

**Response:** Regarding question 3.1: in the first example then yes, it is for the specific time point. Here there are seven people whose data were missing at 9 months. These are not available for the purposes of question 3.1. The authors dealt with the missing data using last observation carried forward (i.e. at 6 or 7 months). This issue is addressed through considering the following questions. So, for example, if the missing data (at 9 months) could have been related to the true value, then it’s clear that last observation carried forward does not solve the problem.

In the second example, it looks like there is a large proportion of children who dropped out (6/29), so the answer would ‘N’ for 3.1.

**Question 3 Relates to the "Specify the numerical result" on the first page of the RoB 2 excel sheet form. Does this relate to a specific time point?**

**Response:** The specific result is the data reported by the study for the outcome, timepoint and measurement method that you are assessing. Often it will relate to one specific timepoint. But note that the result could relate to several timepoints, for example if it is based on the trajectory of each individual over time (e.g. estimated from a regression analysis across multiple time points). In this case, the result will not relate to a specific time point.

**Question 4 For quasi randomised trials, will it be appropriate to use RoB-2 for RCT?** There is a bit of confusion here, because quasi randomised trials has been mentioned as a NRCT in our handbook, and some of the people in one of my groups are saying we need to treat quasi-RCT differently – exclude these if the studies are only meant to include RCT. If this is the case, how to approach it? You will most likely pick up your QRCT alongside your RCT, and only realised these are QRCT once you have done your ROB.

**Response**:

“Quasi-randomized trials” (or “pseudo-randomized trials”) lie on a spectrum from studies that look very similar to randomized trials (e.g. using alternation, perhaps even with the sequence concealed at the point of allocation) to things that don’t look much like randomized trials at all. For these reasons we strongly advise that reviewers do not use terms like ‘quasi randomised RCTs’ in their description of the studies they plan to include because this label has no specific information that would assist you in decisions about including and excluding studies nor would readers of the review be able to reproduce your review methods. Please use the features of the study design to describe the studies you plan to include as this avoids any ambiguity.

The first part of our answer is that it is the reviewers’ decision whether to include studies other than RCTs or not. If you know you will have enough RCTs to answer a question we would advise excluding studies that have not used randomisation. If you do include them you could do a secondary analysis to see how data from studies without randomisation quasi RCTs influences the treatment effect.

It is essential to specify in the protocol the design features of the studies you are describing as “quasi RCT”.

The second part of our answer covers which risk of bias tool to use: Studies that are reasonably similar to randomized-trials could go through either tool.

As a general rule we advise:

- reviews including “randomized controlled trials or “quasi” randomized trials” should use RoB 2 for all studies;

- reviews including “non-randomized studies including “quasi”randomized trials” should use ROBINS-I for all studies.

## **3. Questions about cluster and crossover extension for RoB 2**

**Question 5 When will the cluster and crossover extensions for RoB 2 be available?**

**Response:** We are not sure when they will be completed. But we do have interim guidance for including cluster RCTs and cross-over RCTs. This has been added to a new version of the Starter Pack (May 2020) and will be included with the minutes.

**Question 6 What are the interim recommendations for figures when a review includes cluster and crossover trials?**

**Response:** For cross-over RCTs there are no differences in presentation. The variant of RoB2 for cross-over trials have different signalling questions but the same domains as the main RoB2 tool. No changes are needed so proceed exactly as you would for other RCTs.

The variant of RoB2 for cluster RCTs includes an additional domain. It is not possible, at the moment, to display this in the current figures in RevMan Web. The guidance is to use the robvis app to prepare stand-alone figures. robvis can create traffic light plots and weighted bar plots – these are the two types of plot normally seen in Cochrane reviews to display risk of bias. However, if you have a mix of cluster and normal RCTs only traffic light plots can be made. The traffic light plots created in robvis can be exported and added to RevMan Web as additional figures.

If you use it to create figures it is important to add the reference to the [robvis app](https://mcguinlu.shinyapps.io/robvis/) The citation is listed below and can be downloaded as a ris file [here.](https://mcguinlu.shinyapps.io/robvis/)

McGuinness, LA, Higgins, JPT. Risk-of-bias VISualization (robvis): An R package and Shiny web app for visualizing risk-of-bias assessments. Res Syn Meth. 2020; 1- 7. https://doi.org/10.1002/jrsm.1411

<https://www.riskofbias.info/welcome/robvis-visualization-tool>

This is the link to the robvis app [here](https://mcguinlu.shinyapps.io/robvis/)

## **4. Questions about RoB 2 within Cochrane processes, tools and RevMan Web**

**Question 7 Is it possible to do the RoB 2 assessments directly in RMW or do we need to use one of the tools (e.g. Excel tool) and then add this to RMW?**

We advise that you use one of the tools when completing the RoB 2 assessments (ideally the Excel tool). This is because the answers to all the signalling questions for each reviewer and the consensus all need to be managed and it is easiest to do this with the Excel tool.

Once your author team confirms the final, consensus agreed judgements and support for judgements (for each result assessed, each domain and overall), these are the ones input into RevMan Web. At the moment this needs to be done manually by copy and pasting from the tool to RevMan Web.

We ask that review teams make the consensus decisions and answers for each signalling question available as a link to data repository as we will check a few of these, and they need to be available for all readers.

**Question 8 If we need to use one of the tools and decide to use the Excel tool, do we then need to manually enter only the domain judgements into RMW, or also the “decision information”** (our selections for each of the signalling questions + relevant comments per domain, summarised in the Print ITT table in the Excel tool)? Or is there a way to upload the domain judgements and the ‘decision information’ directly into RMW?

**Response**: Only the final, consensus agreed judgements and support for judgements (for each result assessed, each domain and overall). See this step-by-step guide on what to input into RMW: <https://documentation.cochrane.org/display/RMHELP/How+to+use+Risk+of+bias+2.0+%28RoB+2.0%29+tool+in+RevMan+Web>

**Question 9 Linked to the above question, in RMW, is it required that the ROB 2 information be presented as a figure per outcome** (e.g. traffic light plot from ROBVIS)? How will the ‘decision information’ be presented (e.g. as an additional table per outcome or per study)?

**Response**: We ask for one figure per outcome and one Table per outcome. The recommended figure is the forest plot with traffic lights and early designs of the outcome level table to showcased in the web clinic. Please also see the ‘RoB 2 considerations for reporting the full review’ section of the Starter Pack (page 6).

**Question 10 To save time when using the Excel tool and to get the necessary information into RMW, would you suggest we approach the assessments by**:

* 1. Completing all the assessments for all the studies that report a specific outcome (outcome by outcome); or
  2. Completing all the assessments for all the outcomes that are reported on by a single study (study by study)

**Response**: We recommend study by study – as some judgements will be the same for each result within a study. A modified data collection form is linked to in the Starter Pack to help authors extract the necessary information for the RoB 2 assessments (here: <https://methods.cochrane.org/sites/default/files/public/uploads/cochrane-data-collection-form-rob-2-pilot>)

**Question 11 Would you recommend that we create a separate Excel file for each outcome in order to be able to create the summary tables and outputs required for RMW,** or is it possible to filter by outcome in the Results sheet and generate the tables only for the filtered information, if needed?

**Response**: You need only one file for the whole review if you use the excel tool

## **5. Feedback from an author on writing up RoB2**

*Anything to share from reviews in the pilot?*

## **6. Feedback from an author on implementing RoB2**

*Anything to share from reviews in the pilot?*

## **7. Any other business:**

* 1. **Recent updates to the RoB 2 Pilot Starter Pack** based off questions that have been raised in Web Clinics and other developments:

1. April 2020 version:
   * Added the RoB 2 Learning Live Webinar series details: <https://training.cochrane.org/rob-2-learning-live-webinar-series>.
   * Edits to the ‘RoB 2 considerations for protocol development’ section.
   * Added the ‘RoB 2 considerations for reporting the full review’ section.
   * Included a link to the Web Clinic recordings and notes.
2. May 2020 version:
   * Added interim guidance for including cluster RCTs and cross-over RCTs.
   * Small edit to the ‘Domain 2 Deviations from trial protocol’ sub-section (page 6)
   1. **Next web clinic – Thursday 25 June, 09:00-10:00 (BST)**
   2. **Request from Ella Flemyng to all pilot review groups to drop us a brief email with the status of your review for our records**