Review Manager (RevMan) Web Instructions for Creating Forest Plots

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Aim:

These instructions will cover using the RevMan Web software to create forest plots. The software has other team management functions that are outside the scope of this document.

Instructions:

- 1. Visit https://revman.cochrane.org
 - a. RevMan suggests using Google Chrome for best functionality.
 - b. Access is free.
 - c. Sign up with your name, email, password, and agree to the terms.
 - d. Enter username and password to login



2. Click "Practice Reviews" in the top right corner

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3. Click "Create Practice Review" to start working with your data. Select "Use Template Review" to open all features.

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4. Click "Studies" from the toolbar on the left. Select "Included". You will need to delete all the preloaded studies by clicking the trash can by each one. You are ready to start adding your studies when the screen looks as below.

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- 5. Click "Add Study" and fill out the form for each of the studies you are analyzing. Repeat until each study is listed separately.
 - a. On the "General" tab, for the "Study ID" enter the last name of the first author and year of publication; add the year of publication in "Year". "Data Source" should remain "Published data only". You may leave the "Identifiers" blank.
 - b. You may leave the "Characteristics" tab blank.
 - c. On the "Risk of Bias" tab, for <u>randomized control trials</u>, you will have to assess each category based on the individual study design. For <u>retrospective reviews</u> (which are most of our articles), you may select the following:
 - i. "Random sequence generation" -> "High Risk of Bias"
 - ii. "Allocation concealment" -> "High Risk of Bias"
 - iii. "Blinding of participants" -> "High Risk of Bias"
 - iv. "Blinding of outcome assessment, Self-reported outcomes" -> "Unclear risk of bias"

- "Blinding of outcome assessment, Objective measures" -> "Low Risk of Bias"
- vi. "Incomplete outcome data" -> "Unclear risk of bias"
- vii. "Selective reporting" -> "Unclear risk of bias"
- viii. "Other Bias" -> "High Risk of Bias"



6. Click "Analyses" from the toolbar on the left. This will open the preloaded analysis. Click the 'Edit Analysis group' icon (second icon on the analysis title bar) to edit the details. Change the Name, Intervention and Comparator groups and graph labels as appropriate for your study.

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- 7. Click "Back to Analyses" on the top left when you are finished editing. Click "Add Analysis" and fill out the three tabs of the form.
 - a. On the "Data" tab, click "Add Data Row". Your included studies will be listed in a drop-down box. Select the appropriate study one at a time and enter the data. <u>Create separate Forest plots for prospective randomized and for retrospective studies</u>. Continue until all the included studies that have data for this outcome are listed.
 - b. On the "Options" tab, select "Dichotomous" if your outcome is binary (e.g. mortality, infection, presence of complication, etc), or "Continuous" as appropriate(e.g. length of stay, etc). Fill out the names of the intervention and comparator groups in the Intervention Group 1 & 2 boxes.
 - i. For dichotomous data:
 - 1. For the "Statistical Method" select "Mantel-Haenszel"
 - 2. For "Effect Measure" select "Odds Ratio"
 - 3. For the "Analysis model" select "Random Effects"
 - 4. For "Totals" select "Totals and Subtotals"
 - 5. Leave all Confidence Intervals at 95%.
 - ii. For <u>continuous</u> data:
 - 1. For the "Statistical Method" select "Inverse Variance"
 - 2. For "Effect Measure" select "Mean Difference"
 - 3. For the "Analysis model" select "Random Effects"
 - 4. For "Totals" select "Totals and Subtotals"
 - 5. Leave all Confidence Intervals at 95%.

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8. When you are done entering all the data for the outcome, the screen should look as below:

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		Total (95	% CI)	58	277	46	290	100.0%	1.31[0.92,1.87]	
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9. Click the "Graph" tab, and the Forest Plot, along the Risk of Bias tool will be generated. The I² (or heterogeneity test) will also be given under the plot, as well as the z-test for overall effect (this will be >0.05 if the overall effect crosses the midline).

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		Total events:	58	1	46									
		Heterogeneity: Chi ²	= 8.66, df = 6	6 (P = 0.1	9); l² = 31%				0.01 0.1	1 10	100			
		Test for overall effect	t: Z = 1.51 (F	P = 0.13)					Favours caff	eine Favours	decaf			
		Test for subgroup di	fferences: No	ot applicat	ble									

10. Repeat the process for each outcome.

11. When you are ready for the next PIC stem/question, return to the "Analyses" section from the left toolbar. Click "Add Analysis group" in the top right, and fill out the form for your next PIC stem. Click "Back to Analyses" when done. In the end, each PIC stem should be numbered (1, 2, etc.) and each outcome listed under its respectful stem (1.1, 1.2, 1.3, etc.).



12. Under the "Figures" option on the left-hand toolbar, you will also find the "Risk of Bias graph" and the "Risk of bias summary".



13. The Forest Plots, and the above graphs can be exported for use in the manuscript.

Other RevMan Resources:

- A Quickstart User Guide: https://documentation.cochrane.org/revman-kb/get-started
- The RevMan Web Knowledge Base: <u>https://documentation.cochrane.org/revman-kb/</u>
- Training Videos: <u>https://training.cochrane.org/online-learning/core-software-cochrane-reviews/revman/rmw-training-videos</u>