

Far too many excluded studies listed in Cochrane Reviews

Peter C. Gøtzsche (MD, DrMedSci)

Nordic Cochrane Centre

Copenhagen

Denmark

Objective

To study the distributions of numbers of in- and excluded studies and reasons for exclusions in Cochrane Reviews.

Method

Cross-sectional survey of the 2619 Cochrane

	All reviews (N = 2619)	Nordic Cochrane Centre reviews (N = 12)
Included studies	7 (5 to 11)	13 (2 to 142) ¹
Excluded studies	8 (0 to 35)	5 (1 to 99) ¹
Difference, I-E	0 (-30 to 11)	9 (-9 to 47) ¹

Median (80% central range) shown, ¹: Placebo interventions, 182 incl. trials

P < 0.001 for comparison of Nordic Cochrane Centre reviews
with other reviews for difference I-E

73 reviews (26 review groups) had more than 100 excluded studies
One review had 607 excluded studies

First reason for exclusion (10 randomly selected Cochrane Reviews with at least 8 excluded studies)

Not RCT or unclear	68
Review	13
Duplicate publication	7
Wrong intervention	51
Wrong disease or population	48
Wrong or unclear outcome	8
Wrong timing	19
Unavailable data	21
Case report or case series ¹	54
Other	23

¹All from the same review, of RCTs

Largest negative differences between in- and excluded studies

Review group	No of reviews	Median difference
Schizophrenia	101	-16
Metabolic and endocrine disorders	34	-11
Behavioral	35	-8
Airways	177	-7
Hepato-Biliary	50	-6
Multiple sclerosis	15	-6
Drugs and alcohol	31	-6
Pain and palliative care	62	-6
Effective professional practice	40	-5
Wounds	38	-5

Smallest difference: +18 (Methodology, 11 reviews)

What seemed relevant to list?

Excluded studies	10 randomly selected reviews	12 Nordic Cochrane Centre Reviews
Total number	312	124
Relevant	19%	31%

Caveats:

- Rather subjective judgments
- Depends on research area, e.g. non-drugs intervention reviews may require more excluded studies

Problems with large reviews

No criteria given for exclusion for many of the excluded studies in reviews with more than 300 such studies

Cochrane Handbook, 4.2.5

Where does it mention “excluded studies”?

Cochrane Handbook, 4.2.5

Developing a protocol, p. 54:

3.6.2 Characteristics of excluded studies

Studies meeting the inclusion criteria, or appearing to meet the inclusion criteria, that were excluded should be identified and the reason for exclusion should be given (for example, inappropriate control group). This should be kept brief, and a single reason for exclusion is usually sufficient.

Cochrane Handbook, 4.2.5

Collecting data, p. 92:

Cochrane reviews include an excluded studies table for studies that appear to meet the inclusion criteria and which others might believe to be relevant, but upon closer inspection were excluded.

Cochrane Handbook, 4.2.5

Developing a protocol, p. 53:

Excluded studies: Studies that specifically do not meet the inclusion criteria and are not included in the review should be listed here.

Cochrane Handbook, 4.2.5

Developing a protocol, p. 40:

Date new studies found and included or excluded: The most recent date on which a search was done for new studies and some were found and added to the list of included or excluded studies.

Cochrane Handbook, 4.2.5

Collecting data, p. 92:

For example, an author may only include truly randomised trials in a review. A verification query on the data collection form might be: Randomised? Yes, No, Unclear. If the study used alternate allocation, the answer to the query is no, and this information would be entered in RevMan as the reason for exclusion.

Conclusions

The advice given in the Handbook is somewhat confusing and also needs to be consistent.

The number of excluded studies should be substantially reduced.



Presenting information in reviews and disseminating their findings

Chair: Jordi Pardo

Lansdowne