

ASSESSING THE RISK OF BIAS IN SYSTEMATIC REVIEWS

Systematic reviews (SR) are synthesis of all the existing knowledge concerning a clinical relevant question. (e.g. “is paracetamol good for back pain?”)

While compiling a review it is important to **assess the “quality”** of the individual studies included in the review since these can be affected by **bias**.

Cochrane, an international network of doctors and researchers, developed a tool (the **RoB tool**) that is the most widely used to assess the risk of bias, but **is its use replicable by different researchers in different moments and settings?**

OUR STUDY

Compare **how 1 500 overlapping studies were assessed by different researchers** in a large collection of recent Cochrane systematic reviews



**RESEARCHERS
DISAGREE ON RISK
OF BIAS
JUDGEMENTS**



**AGREEMENT REMAINS
SUBOPTIMAL**

MAIN REASONS OF DISAGREEMENT

Different interpretation of same information
Vague/incomplete description of the study

| | Random sequence generation (selection bias) | Allocation concealment (selection bias) | Blinding of participants and personnel (performance bias) | Blinding of outcome assessment (detection bias) | Incomplete outcome data (attrition bias) | Selective reporting (reporting bias) | Other bias |
|----------------|---|---|---|---|--|--------------------------------------|------------|
| Geurts 2014 | + | ? | ? | + | + | + | + |
| Hofmeijer 2009 | + | ? | ? | + | + | + | + |
| Jeffrey 2014 | + | ? | ? | + | + | + | ? |
| Jüttler 2007 | + | + | ? | + | + | + | ? |
| Jüttler 2014 | + | ? | ? | + | + | + | + |
| Slezins 2012 | + | ? | - | - | + | + | ? |
| Vahedi 2007 | + | ? | ? | + | + | + | + |
| Zhao 2012 | + | + | ? | + | + | + | + |

<https://www.nature.com/articles/srep07070/figures/2>

Example of review author’s judgements about risk of bias items (top line) in each study. ‘+’: low risk of bias, ‘-’: high risk of bias, and ‘?’: unclear risk of bias.