

Lara Maxwell, Canada

Risk of Bias

Short bio

Lara Maxwell is based in Belgrade and works remotely for the Ottawa Hospital Research Institute, Ottawa, Canada. Since 2004 she has been involved with the Cochrane Collaboration and OMERACT. As Co-Managing Editor of the Cochrane Musculoskeletal Group, she conducts and facilitates the production of systematic reviews on a wide range of interventions for arthritis. She is involved in the risk of bias and multiple intervention methods initiatives within the Cochrane Collaboration. In addition to systematic review methodology, her research interests include developing knowledge translation strategies for the dissemination of results of systematic reviews, including the development of patient decision aids, and the assessment of measurement properties of pain scales. She received a MSc in epidemiology from the University of Ottawa and is currently enrolled in the TRIBE PhD program at the University of Split, Croatia.

Lecture synopsis

Cochrane systematic reviews aim to collate, summarize, and assess existing evidence meeting a pre-specified inclusion criteria (often, but not always, from randomized controlled trials) to help people make informed decisions on the effects of healthcare interventions. The purpose of a randomized controlled trial is to ensure that any characteristics that might influence the effect of a treatment are evenly distributed between groups so that any differences in outcomes at the end of the trial may be attributed to the effect of the treatment.

However, the estimate of the intervention effect in a randomized trial may be influenced by characteristics related to the design, conduct, analysis, or reporting of the trial and this can lead to an underestimation or overestimation of the true effect of the intervention; that is the result can be 'biased'. The Cochrane Collaboration has developed a risk of bias tool to assess the main sources of bias in clinical trials.

In this lecture we will discuss the definition of risk of bias, the different sources of bias and how to assess them, as well as how to incorporate risk of bias findings into a systematic review.