Title	**Indirect Evidence: Indirect Treatment Comparisons in Meta-analysis**
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Reference	CADTH Technology Report, March 2009.
	ISBN 978-1-897465-88-2 (print), 987-1-897465-89-9 (electronic)

Aim

To identify and review methods for making indirect treatment comparisons in meta-analysis and illustrate their application, and to use Bucher's approach (see below).

Conclusions and results

The authors identified and reviewed popular methods used to make indirect treatment comparisons, and using Bucher's approach: derived general methods and procedures for effect measures of discrete and continuous outcomes in complex webs of evidence; determined the distributional properties of the indirect estimates, using simulations and derived bias and mean square error tables and charts providing guidance on the indirect treatment comparison results; and developed a user-friendly program to conduct indirect treatment comparisons for the methods and procedures derived. Using this program, they replicated the indirect treatment comparison results in several examples from the literature.

Recommendations

Not applicable.

Methods

A comprehensive literature search identified common methodologies that have been proposed for conducting indirect treatment comparisons. Several of the more common methodologies were illustrated by outlining the techniques used by each, the assumptions under which they work, their strengths and limitations, and by giving an example of their application. A "reviewer-friendly" program to facilitate evaluation of indirect evidence, The Indirect Treatment Comparison program, was developed in Visual Basic.

Further research/reviews required

The authors state that using data from nonrandomized studies to perform indirect comparisons requires further study, and they list several topics, related to indirect comparisons, for future research.

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