

Supported by sanofi-aventis

**Fujian Song**

BMed MMed PhD  
Reader in Research  
Synthesis, Faculty  
of Health, University  
of East Anglia

# What is indirect comparison?

- **Indirect comparison** refers to a comparison of different healthcare interventions using data from separate studies, in contrast to a direct comparison within randomised controlled trials. Indirect comparison is often used because of a lack of, or insufficient, evidence from head-to-head comparative trials.
- **Naive indirect comparison** is a comparison of the results of individual arms from different trials as if they were from the same randomised trials. This method provides evidence equivalent to that of observational studies and should be avoided in the analysis of data from randomised trials.
- **Adjusted indirect comparison** (including mixed treatment comparison) is an indirect comparison of different treatments adjusted according to the results of their direct comparison with a common control, so that the strength of the randomised trials is preserved. Empirical evidence indicates that results of adjusted indirect comparison are usually, but not always, consistent with the results of direct comparison.
- Basic assumptions underlying indirect comparisons include a **homogeneity assumption** for standard meta-analysis, **similarity assumption** for adjusted indirect comparison and **consistency assumption** for the combination of direct and indirect evidence. It is essential to fully understand and appreciate these basic assumptions in order to use adjusted indirect and mixed treatment comparisons appropriately.

For further titles in the series, visit:  
[www.whatisseries.co.uk](http://www.whatisseries.co.uk)