Centre for Reviews and Dissemination

Using meta-analysis to inform clinical trial design

Julian Higgins

Tuesday 27 November, 4:30-5:30pm
ARRC Auditorium

Because science is cumulative, planning of clinical trials should be informed by the best available relevant evidence, which may come in the form of a meta-analysis.

To facilitate this, authors of meta-analyses should present and interpret the evidence in a way that can be used to inform clinical trials.

I will overview some of the ways in which meta-analyses - and systematic reviews more generally - can inform planning of clinical trials, covering the perspectives of both the trialist and the meta-analyst.

I will discuss some simple quantitative methods for determining how much future research is needed, and will raise the question of whether trials should be powered in isolation or in the context of the wider body of evidence.

Julian is Professor of Evidence Synthesis at CRD and a Programme Leader at the MRC Biostatistics Unit in Cambridge. He previously worked at the Royal Free and University College Medical School, and at Imperial College School of Medicine in London.

He is an active contributor to The Cochrane Collaboration, currently being a member of its Steering Group, Co-convenor of its Methods Board and Methods Executive, and Co-editor of the *Cochrane Handbook for Systematic Reviews of Interventions*.

His broad range of interests covers the whole systematic review process from question formulation to interpretation. He has particular research interests in investigating heterogeneity, bias, missing data, individual participant data, Bayesian approaches and network meta-analysis.

Julian was a founding trustee of the Society for Research Synthesis Methodology, and sits on advisory committees for the Campbell Collaboration and the Collaboration for Environmental Evidence. He is Associate Editor of the *International Journal of Epidemiology* and of *Research Synthesis Methods*.

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