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0521799627 - Systematic Reviews in Health Care: A Practical Guide

Paul Glasziou, Les Irwig, Chris Bain and Graham Colditz

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Systematic Reviews in Health Care

A Practical Guide

What do we do if different clinical studies appear to give different answers? This user-friendly introduction to this difficult subject provides a clear, unimposing and structured approach to systematic reviews and incorporates several key features:

- A practical guide to meta-analysis and the fundamental basis of evidence-based medicine
- A step-by-step explanation of how to undertake a systematic review and the pitfalls to avoid
- Liberally illustrated with explanatory examples and exercises
- A review of the available software for meta-analysis

Whether applying research to questions for individual patients or for health policy, one of the challenges is interpreting apparently conflicting research. A systematic review is a method of systematically identifying relevant research, appraising its quality and synthesizing the results. The last two decades have seen increasing interest and developments in methods for doing high-quality systematic reviews. Part 1 of this book provides a clear introduction to the concepts of reviewing, and lucidly describes the difficulties and traps to avoid. A unique feature of the book is its description, in Part 2, of the different methods needed for different types of health care questions: frequency of disease, prognosis, diagnosis, risk and management. As well as illustrative examples, there are exercises for each of the sections.

This is essential reading for those interested in synthesizing health care research, and for those studying for a degree in Public Health.

Paul Glasziou is Professor of Evidence-based Medicine in the School of Population Health, University of Queensland and a general practitioner. He is co-editor of the *Journal of Evidence-Based Medicine*, and Chair of the Cochrane Collaboration's Methods Group on Applicability and Recommendations. As well as developing new meta-analytic methods, he has published numerous systematic reviews, including *Cochrane Reviews* in otitis media, sore throat, tonsillectomy and colorectal cancer screening.

Les Irwig is Professor of Epidemiology at the Department of Public Health and Community Medicine at the University of Sydney. His major interest is in epidemiological methods relevant to decision making. In addition to several

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published papers on how to review the accuracy of diagnostic tests systematically, Les Irwig was the founding chair of the Cochrane Collaboration Methods Working Group on screening and diagnostic tests and main author of its guidelines on systematic review in this area.

Chris Bain is reader in Epidemiology at the School of Population Health, University of Queensland. His research has mostly addressed the aetiology and prognosis of cancer, nutrition and disease, and health services research, with a strong emphasis on the practice and theory of systematic and quantitative reviews of health data. His own systematic reviews have covered oestrogen replacement therapy and cardiovascular disease, obesity and breast cancer, and he has contributed to a seminal international collaborative re-analysis of data on breast cancer and oral contraceptive use.

Graham Colditz is Professor in Epidemiology at the Harvard School of Public Health and Principal Investigator of the ongoing Nurses' Health Study, which follows 121 700 US women with questionnaire assessment of lifestyle factors and the use of biomarkers to assess risk of chronic diseases among women. He teaches cancer prevention, principles of screening, research synthesis/meta-analysis applications in health policy, and a course on implementing prevention.

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