

research are unlikely to have a high number of clinically based trials directed towards them. Equally journals which publish qualitative research are disadvantaged in a table based on randomised-controlled trials or systematic review. However rating journals on the basis of their number of citations is equally open to challenge as noted above.

Well-conducted randomised-controlled trials and systematic reviews based on them have great potential for answering questions about whether a treatment does more harm than good particularly in the clinical situation. Therefore a rating process based on the numbers seems more appropriate. However, if we only consider journals based on randomised-controlled trials or systematic reviews we will miss many good quality research articles which use a qualitative approach. Qualitative research is very important and qualitative research designs are often the most appropriate method of answering par-

ticular research questions. This is why the evidence-based supplement will also endeavour to include these when appropriate and well conducted.

It is equally important that only well conducted and reported randomised-controlled trials or systematic reviews are included. If we were to look in detail at both the randomised-controlled trials and systematic reviews identified by the search strategy above many would not meet our quality criteria (see page 32). This supplement will endeavour to include only good quality articles relating to treatment, diagnostic testing, screening, prognosis, economic analyses and guidelines that meet predefined criteria.

Our aim will be to bring to the practising dentist summaries of the best available dental literature based on a core list of journals producing the greatest yield of useful papers. However it will not restrict itself to that list. Any core list of journals or books that are accepted unquestioningly quickly

become dated and irrelevant. Because of this we will seek to both review our core list regularly and also look beyond this list. If any reader feels any particular article is important and should be included please feel free to contact the editorial office with the reference. We will then include it in our review process. Provided it passes the quality filters it will appear in the supplement.

Acknowledgements

To Christine Allot, Librarian, at the Berkshire Health Authority who conducted the medline searches.

- 1 Montgomery J. BDJ readership survey. *Br Dent J* 1998; **184**: 563-564.
- 2 Haynes R B, McKibbon K A, Fitzgerald D, Guyatt G H, Walker C J, Sackett D L. How to keep up with the medical literature: II. Deciding which journals to read regularly. *Ann Int Med* 1986; **105**: 149.
- 3 Sackett D L S, Haynes R B, Guyatt G H, Tugwell P. *Clinical epidemiology, a basic science for clinical medicine*, 2nd edn. Boston: Little, Brown and Co., 1991.

The Cochrane Collaboration: an introduction

P. Alderson¹

This brief introduction to the work of the Cochrane Collaboration is an abridged version of the full text appearing in The Cochrane Collaboration Brochure available from the following web site:

<http://som.flinders.edu.au/fusa/cochrane.html>

In 1972,¹ Archie Cochrane, a British epidemiologist, drew attention to our great collective ignorance about the effects of health care. He recognised that people who want to make more informed decisions about health care

do not have ready access to reliable reviews of the available evidence. In 1979, he wrote:²

'It is surely a great criticism of our profession that we have not organised a critical summary, by specialty or sub-specialty, adapted periodically, of all relevant randomised controlled trials.'

In 1987 Cochrane referred to a systematic review of randomised controlled trials (RCTs) of care during

pregnancy and childbirth as 'a real milestone in the history of randomised trials and in the evaluation of care', and suggested that other specialties should copy the methods used.³ In the same year, the scientific quality of many published reviews was shown to leave much to be desired.⁴ As Cochrane had emphasised, reviews of research evidence must be prepared systematically and they must be kept up-to-date to take account of new evidence.

If this is not done, important effects of health care (good and bad) will not be identified promptly, and people using health services will be ill served as a result. Without systematic, up-to-date reviews of previous research, plans for new research will not be well informed.

¹Deputy Director, UK Cochrane Centre, NHS Research & Development Programme, Summertown Pavilion, Middle Way, Oxford OX2 7LG, UK

As a result, researchers and funding bodies will miss promising leads, and embark on studies asking questions that have already been answered.⁵

The Cochrane Collaboration

The Cochrane Collaboration developed in response to Cochrane's call for systematic, up-to-date reviews of all relevant RCTs of health care. The UK National Health Service Research and Development Programme took up this suggestion and provided funds to establish a 'Cochrane Centre', to collaborate with others to facilitate systematic reviews of randomized controlled trials across all areas of health care.^{6,7} A year later, in October 1993, 77 people from nine countries founded 'The Cochrane Collaboration'.

The Cochrane Collaboration has evolved rapidly, but its basic objectives and principles have remained the same. It is an international organization that aims to help people make well informed decisions about health care by preparing, maintaining and ensuring the accessibility of systematic reviews of the effects of health care interventions. The Collaboration is being built on eight values:

- collaboration
- building on the enthusiasm of individuals
- avoiding duplication
- minimising bias
- keeping up to date
- ensuring relevance
- ensuring access
- continually improving the quality of its work.

Preparation and maintenance of Cochrane reviews is the responsibility of international collaborative review groups. At mid-1998, the existing review groups (over 40) cover most of the important areas of health care. The members of these groups — researchers, health care professionals, consumers, and others — share an interest in generating reliable, up-to-date evidence relevant to the prevention, treatment and rehabilitation of particular health problems or groups of problems. An example is the Cochrane Oral Health Group.

The methods used in preparing systematic reviews draw on the work of Cochrane methods working groups. These organise and disseminate the work of methodologists who have come together to improve the validity and precision of systematic reviews.

The work of the Cochrane groupings described above is facilitated in a variety of ways by the work of Cochrane centres. The characteristics of each Cochrane centre reflect the interests of the individuals associated with it and the resources made available to them; but all centres share a responsibility for helping to co-ordinate and support the Cochrane Collaboration.

Consumers participate throughout most of the organisation. Collaborative review groups, fields and Cochrane centres all seek input and feedback from consumers, which the Cochrane Collaboration considers essential in order to fulfil its goals.

The Cochrane Library

Cochrane reviews and information about the collaborative review groups, together with information about all the other groupings registered as contributors to the Collaboration are published quarterly in The Cochrane Library.

Several databases are included in The Cochrane Library. One of them, The Cochrane Database of Systematic Reviews, contains Cochrane reviews and another, The Cochrane Controlled Trials Register, is a bibliographic database of controlled trials. The Database of Abstracts of Reviews of Effectiveness (DARE) includes structured abstracts of systematic reviews which have been critically appraised by reviewers at the NHS Centre for Reviews and Dissemination in York and by other people, e.g. from the American College of Physicians' Journal Club and the journal Evidence-Based Medicine. The Cochrane Review Methodology Database is a bibliography of articles on the science of research synthesis.

The Collaboration is still very young but it has already achieved a great deal.⁸ The continued enthusiasm and goodwill of individuals, combined with strategic alliances developed within the

context of the Collaboration's eight guiding principles, will ensure that it succeeds in getting to grips with the important agenda bequeathed by Archie Cochrane.

- 1 Cochrane A L. *Effectiveness and Efficiency. Random Reflections on Health Services*. London: Nuffield Provincial Hospitals Trust, 1972. (Reprinted in 1989 in association with the BMJ)
- 2 Cochrane A L. 1931-1971: a critical review, with particular reference to the medical profession. In: *Medicines for the year 2000*. London: Office of Health Economics, 1979, 1-11.
- 3 Cochrane A L. Foreword. In: Chalmers I, Enkin M, Keirse M J N C (eds). *Effective care in pregnancy and childbirth*. Oxford: Oxford University Press, 1989.
- 4 Mulrow C D. The medical review article: state of the science. *Ann Int Med* 1987; **106**: 485-488.
- 5 Antman E M, Lau J, Kupelnick B, Mosteller F, Chalmers T C. A comparison of results of meta-analyses of randomized control trials and recommendations of clinical experts. *JAMA* 1992; **268**: 240-248.
- 6 Chalmers I, Dickersin K, Chalmers T C. Getting to grips with Archie Cochrane's agenda. *BMJ* 1992; **305**: 786-788.
- 7 Editorial. Cochrane's Legacy. *Lancet* 1992; **340**: 1131-1132.
- 8 Chalmers I, Sackett D, Silagy C. The Cochrane Collaboration. In: Maynard A, Chalmers I (eds). *Non-random reflections on health services research: on the 25 anniversary of Archie Cochrane's Effectiveness and Efficiency*. London: BMJ Books, 1997: 231-249.

How to contact Evidence-Based Dentistry

Written communications should be sent to: *Evidence-Based Dentistry*, British Dental Association, 64 Wimpole Street, London W1M 8AL, UK

Telephone: 0171-935 0875
Facsimile: 0171-224 0603

To get in touch by e-mail contact:
CEBD@bhadentph.demon.co.uk