

Letters

Quality of Cochrane reviews

BMJ 2002; 324 doi: http://dx.doi.org/10.1136/bmj.324.7336.545/a (Published 02 March 2002) Cite this as: BMJ 2002;324:545

Quality of Cochrane reviews is better than that of non-Cochrane reviews

Mark Petticrew, associate director (mark@msoc.mrc.gla.ac.uk), Paul Wilson, research fellow, Kath Wright, information scientist, Fujian Song, senior research fellow

MRC Social and Public Health Sciences Unit, University of Glasgow, Glasgow G12 8RZ
NHS Centre for Reviews and Dissemination, University of York, York YO10 5DD
Department of Public Health and Epidemiology, University of Birmingham, Birmingham B15 2TT
Department of Orthopaedic Surgery, Clinical Research Unit, Princess Margaret Rose Orthopaedic Hospital, Edinburgh EH10 7ED

East Riding and Hull Health Authority, Willerby, East Yorkshire HU10 6DT

EDITOR—Olsen et al assessed a sample of Cochrane reviews from 1998 and highlighted some areas where improvement is possible. They found that 29% of reviews had major problems, including inappropriate methods and conclusions. As they say, improvement is still possible, but this figure nevertheless represents a major improvement on the quality of non-Cochrane reviews.

We have reviewed the methods of 480 systematic reviews on the database of abstracts of reviews of effectiveness (DARE) at the University of York. 2 3 Methodological details of the reviews were coded and checked by two reviewers working independently. We found that only half (52%) of the reviews had systematically assessed the validity of the included studies; that most systematic reviews were unlikely to be comprehensive (they had searched either one or two databases); and that overall only a quarter (26%) of reviews met three key methodological criteria (relating to a thorough search, assessment of the validity of the included studies, and investigation of heterogeneity). Narrative reviews were less likely to meet all three criteria (20% *v* 30%, P=0.02) and more likely to be coded by raters as inconclusive.

Up to half of non-Cochrane reviews are thus potentially misleading. Against this, Olsen et al's estimate of 29% for Cochrane reviews compares favourably. Although more recent research syntheses are likely to be of higher quality, particularly if reviewers follow current guidelines, **4 5** problems with the reliability of systematic reviews will probably remain. Since our study was

conducted the criteria for including systematic reviews on the database of abstracts of reviews of effectiveness have been revised (from October 2000 onwards) to ensure that only reviews of potentially high methodological quality are included.

We would support Olsen et al's suggestion that users of any systematic review should assess its reliability. We would also recommend that for a critical assessment of the quality of non-Cochrane reviews users should first look at the database of abstracts of reviews of effectiveness.

References

- 1.Olsen O, Middleton P, Ezzo J, G⊘tzsche PC, Hadhazy V, Herxheimer A, et al. Quality of Cochrane reviews: assessment of sample from 1998. *BMJ* 2001; **323**: 829–832
- 2.DARE database. http://nhscrd.york.ac.uk/welcome.htm.
- 3. Petticrew M, Song F, Wilson P, Wright K. The DARE database of abstracts of systematic reviews: a summary and analysis. *Int J Technol Assess Health Care* 2000; **15**: 671–678.
- 4.Moher D, Cook DJ, Eastwood S, Olkin I, Rennie D, Stroup DF, for the QUOROM Group. Improving the quality of reports of meta-analyses of randomised controlled trials: the QUOROM statement. *Lancet* 1999; **354**: 1896–1900
- 5.NHS Centre for Reviews and Dissemination. *Undertaking systematic reviews of research on effectiveness: CRD's guidance for those carrying out or commissioning reviews.* York: CRD, 2001. (Report No 4 (2nd ed).)

Another study found that most Cochrane reviews are of a good standard

Helen Handoll, research fellow, Hull University (h.handoll@ed.ac.uk), Rajan Madhok, director of health policy and public health

MRC Social and Public Health Sciences Unit, University of Glasgow, Glasgow G12 8RZ

NHS Centre for Reviews and Dissemination, University of York, York YO10 5DD

Department of Public Health and Epidemiology, University of Birmingham, Birmingham B15 2TT

Department of Orthopaedic Surgery, Clinical Research Unit, Princess Margaret Rose Orthopaedic Hospital, Edinburgh EH10 7ED

East Riding and Hull Health Authority, Willerby, East Yorkshire HU10 6DT

EDITOR—We would extend Olsen et al's observations on Cochrane reviews.1 Last year we undertook a study of the utility of the Cochrane Database of Systematic Reviews in informing health policy and practice.2 We produced summary documents listing the conditions or diseases reviewed; the statements of evidence and effect; and, where available, conclusions for policy and practice for the reviews from collaborative review groups that covered cancer (including tobacco addiction), vascular disease, and fractures. In assessing the Cochrane reviews we scrutinised high profile sections (review title, abstract, objectives, conclusions, synopsis), just as a busy