

*As dentists we often know what is clinically right for our patients yet they may choose to ignore our recommendations. . .*

## QUOROM and systematic reviews

In today's world of evidence-based thinking one of the main aids for practitioners and researchers alike is the systematic review. But not all reviews are alike, and, depending on the quality of the research, systematic reviews have been described as miracles or minefields<sup>1</sup>. So how can the reader judge? One way is for the researchers to follow accepted guidelines, and in this issue of the *BDJ* we are officially announcing that the *BDJ* will be adopting the QUOROM statement as a means to improve the quality of systematic reviews of randomised controlled trials that we publish<sup>2</sup>.

The benefit of the systematic review is that it enables practitioners to base decisions about patient care upon a systematic appraisal of the evidence. The review should be complete (all relevant evidence), contemporary, appraise the quality of included studies and be objective. These properties are inherent in well conducted systematic reviews and account for their status as the highest level of evidence for medical interventions<sup>3</sup>. But, while some systematic reviews are excellent and fully deserve this status, other reviews are flawed and may produce invalid conclusions. Thus we are left with the question asked earlier - how can the reader judge the value of the review before possibly changing a method of working?

The answer lies in the protocol used for the review itself. We know that the methods of clinical trials and systematic reviews are similar, partly because both types of research go to great lengths to minimise bias. For systematic reviews, a protocol is designed before commencing the review proper and the protocol guides all subsequent steps of the review process. One of the simplest ways to bias a traditional review article is not to select research that is contrary to the beliefs of the reviewer. In a traditional review, the 'rules' that the reviewer follows to select the studies are not usually published and therefore cannot be evaluated by the reader or referee. In contrast, the protocol of a systematic review will not only contain methods designed to ensure an unbiased selection of studies, but those methods used will be clear for evaluation.

QUOROM, like CONSORT<sup>4</sup>, provides guidance to ensure proper reporting of systematic reviews and was first published in 1999.<sup>2</sup> The nuts and bolts of QUOROM are a checklist of items that need to be addressed by authors and a flow diagram to show progress of articles through the review. The checklist is used during refereeing and will not be part of the final paper (although the prescribed information will be in the published article) whereas the flow diagram will be published as part of the paper. The checklist describes 18 items that should be described as well as asking for the location of each item within the manuscript. Thus, a prospective systematic reviewer will need to detail the search methods, such as which databases were used, which search terms were entered, how decisions were made on including or excluding studies and the reasons for each excluded study. Furthermore, clear information should be contained in the review on how the quality of research was assessed, how analyses were conducted and what quality assurance steps were contained in the review.

We see three benefits to adopting QUOROM; firstly, helpful guidance to authors, secondly, more objective refereeing, thirdly, higher quality reviews for the readership. The guidelines for QUOROM are printed on page 662 and will form a part of the 'Instructions to Authors'. As the first dental journal to adopt these guidelines we hope that this further demonstrates our commitment to quality. Furthermore, we hope that authors will see the *BDJ* as the natural home for publishing high quality systematic reviews.

**Ian Needleman (Clinical Editor), Mike Grace (Editor) and Philip Sloan (Scientific Editor)**

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