Reviewer’s report

Title: Systematic reviews, systematic error and the acquisition of clinical knowledge

Version: 4  Date: 25 April 2010

Reviewer: Patricia Dolan Mullen

Reviewer’s report:

The author has brought together important papers in the debate about the hegemony of systematic reviews and meta-analysis in evidence-based medicine. He is to be commended for his effort to integrate the sources and functions of different types of knowledge into a sequence of hypothesis generation (projection from basic science, clinical experience), hypothesis testing (a clinical trial), and synthesis (systematic review and meta-analysis), leading to informed clinical judgment, and in time, the generation of new, more sophisticated hypotheses. Unfortunately, after examining nearly all of the cited work, the contribution of this manuscript seems slight—RCTs and meta-analyses of RCTs receive top billing, with minor roles—hypothesis generation—for knowledge generated through extrapolation from basic science and experience. Examples would make the argument more accessible to the reader, as would more probing examination of the cited references. In my opinion, lacking these elements, the argument seems too general, and it does not provide the reader with a sense of the practical value. Cited references such as the debate category paper by Sehon and Stanley (A philosophical analysis of the EBM debate), or the original article category by Parker (False dichotomies…) or the editorial by Doust and DelMar (Why do doctors use treatments that do not work?) provide far more substance.

Major compulsory revisions: Add examples that illustrate the helpfulness of the model (see above).

Level of interest: An article of insufficient interest to warrant publication in a scientific/medical journal

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.