

Evidence-based Medicine and Electronic Publication: Is There a Common Thread?

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Evidence-based medicine (EBM) and electronic publication (EP) formed the basis of two back-to-back workshops (EBM Workshop—6 & 7 June 1998 and EP Workshop—8 June 1998) held recently in Singapore. It was not purely by coincidence that they were organised to follow one another. They are both topics of much current interest influencing the thought processes and clinical practice of medicine.

EBM may be defined as the “conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients”.¹ It involves the integration of individual clinical experience with the best available evidence that can be gleaned from the published data. To date, such data is available by and large in the printed form but in the foreseeable future, it may well be in the electronic format derived from the World Wide Web or the Internet.

Whether the evidence comes from the information superhighway or the printed medium, the important issue for the practising clinician and the reader is the quality of the content. In the EBM workshop, we learned how to critically appraise published research by looking at the appropriateness of the study design, the objectives and methodology of the research, the quality of the measurements and outcomes, the completeness of the studies, the distorting influences and the final analysis.² Such critical appraisal will lead to hard data being sieved and gathered, from which clinical guidelines will be drawn up and practised.

How can we ensure that quality control is maintained when research findings are not subjected to the rigours of the editorial peer review process and are put up on the Internet? The proponents for electronic publication justify using the new electronic medium on the grounds of rapid turnaround time for papers, greater interactivity and discourse between authors and reviewers, a more transparent and open review system, lower cost since all printing costs are avoided and wider distribution. All the major journals in the world (NEJM, BMJ, JAMA, Lancet) through various editorials and articles, have expressed their concern and reservation about the quality of peer review on the Internet.³⁻⁶ Several scientific journals have come down firmly against authors putting drafts of their papers on the Internet before publication. BMJ has instituted a debate on pre-prints⁷ and it has finally become the first general medical journal to appear on the web and all readers are invited to visit their homepage—<http://www.bmj.com>—free of charge. Will this be the trend for all established peer-reviewed journals to be launched in cyberspace?

The Annals, Academy of Medicine, will follow very closely the development of the Phase II Internet peer review study of the Medical Journal of Australia (MJA). Craig Bingham who is co-ordinating this study has shared his experience of the eMJA both in terms of the peer review process as well as the economic issues for electronic publication at our recently concluded workshop. It is interesting that 80% of the membership of the Australian Medical Association are still not plugged on to the Internet for personal use and that fewer than 2% of the readers of the online peer review trial used the opportunity to comment on articles.⁸ He has found that the most popular documents on the website pertain to clinical guidelines and practical review articles. The MJA is still largely a print journal and so is the Annals. We will for the present, continue to monitor closely the results of eMJA second phase study before going totally online. At the moment, there is no hard evidence to support the hypothesis put forth by Ron Laporte in his article “the death of biomedical journals”⁹—the printed journal is still very much in evidence and thriving.

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