

satisfied. A doctor may be on the limited register for no more than five years. The doctor may later be granted full registration if he applies formally and if "the Council thinks fit so to direct having regard to the knowledge and skill shown and the experience acquired." Guidance on acceptable qualifications and experience for exemption may be obtained from the GMC.

Candidates coming to Britain should be conversant with the exam and devote time to preparing for it. Candidates are allowed only three attempts (or in special circumstances four). A clinical attachment before taking the exam would help candidates to understand the type of medicine practised in Britain.

No exam is ever considered perfect—least of all by those

who fail. But it is encouraging to know that the GMC working party endorsed PLAB and that the entire exam is constantly under review by four panels of experts and by the board to whom they report. Furthermore, when the GMC monitored the exam (from 1975 to 1987) by asking consultants their opinion of candidates who had had 12 months' professional experience after passing the test, adverse reports never exceeded 2%.

F B GIBBERD

Consultant Physician and Neurologist,
Westminster Hospital,
London SW1P 2AP

1 Working Party on the PLAB Tests. *Report*. London: General Medical Council, 1986.

Structured abstracts

Now required for all papers reporting clinical trials

Since the beginning of serious scientific publication in 1665 there has been a continued attempt to improve both the content and the presentation of articles. Thus probably about two thirds of biomedical journals use peer review—although this often dates back only to the second world war—and most original articles use the IMRAD formula: separate sections of introduction, methods, results, and discussion.¹ The latest development is structured abstracts,^{2,3} and we will now require these for all papers reporting clinical trials.

Voices have been raised against both peer review and the IMRAD formula. Peer review carries the recognised dangers of delay, bias, and expense, yet it remains the best method of evaluating scientific work that we have, apart from time, and has survived for over 300 years. The IMRAD formula has been termed a straitjacket around the author, resulting in articles that lack personality or sparkle; others argue that it does not reflect science as it happens. Medawar went so far as to describe the scientific paper as a fraud.⁴ This view supposes that readers go through articles savouring their stylistic nuances. The evidence suggests, however, that readers skim, concentrating on particular passages; an expert, for example, who finds the methods outdated or invalid will read no further. And the IMRAD formula does allow readers to find the answer to any of Bradford Hill's questions. Why did you start? What did you do? What answers did you get? What does it mean?

In practice, I suspect, most readers are content to read a paper's title and abstract, casting an eye over the remaining sections. The abstract, then, has a pivotal role not only in briefly answering all of Hill's questions but also in being able to stand on its own as a packet of information. This latter function has become particularly important now that many on line databases do not supply the full text of articles but only the title, name of the authors, bibliographical details, and the abstract. A subscriber in a provincial town or even a city in the Third World may be able to get no more without sending for a full copy.

Some of the abstracts supplied with the papers are adequate for these purposes, but many are not. Omissions may be put

right, but prevention is better than cure. Thus structured abstracts for clinical trials have been worked out by a McMaster team and the *Annals of Internal Medicine*,^{3,4} and starting in this issue (p 163) we too will use them.

The proposals, which arise out of work developing rules and appraisal skills for reading clinical journals,^{5,8} are based on describing key aspects of the purpose, methods, and results of a trial in a consistent way and using a standard glossary of terms (such as cohort, cost-benefit analysis, and randomisation). The structured abstract must mention seven key aspects: objective, design, setting, patients or participants, interventions, measurements and results, and key conclusions; Altman and Gardner have recently added an eighth—outcome measures or endpoints.⁹ Detailed instructions on how to prepare a structured abstract have been published in the *Annals of Internal Medicine*.³

The proposals were reviewed widely at the *Annals of Internal Medicine* and by an ad hoc international group before being introduced in the *Annals* in April 1987,^{3,4} and the reactions have been favourable. Indeed, one of the structured abstracts that we will be publishing was submitted unsolicited. As with statements of power and confidence intervals structured abstracts will, we hope, become just another essential element in a well executed and reported clinical trial.

STEPHEN LOCK

Editor, *BMJ*

1 Lock S. *A difficult balance. Editorial peer review in medicine*. London: Nuffield Provincial Hospitals Trust, 1985.

2 Ad Hoc Working Group for Critical Appraisal of the Medical Literature. A proposal for more informative abstracts of clinical articles. *Ann Intern Med* 1987;106:598-604.

3 Huth EJ. Structured abstracts for papers reporting clinical trials. *Ann Intern Med* 1987;106:626-7.

4 Medawar PB. Anglo-Saxon attitudes. *Encounter* 1965;25:52-8.

5 Department of Clinical Epidemiology and Biostatistics, McMaster University Health Sciences Center. How to read clinical journals. VI. To learn about the quality of clinical care. *Can Med Assoc J* 1984;130:377-81.

6 Department of Clinical Epidemiology and Biostatistics, McMaster University Health Sciences Center. How to read clinical journals. VII. To understand an economic evaluation (part A). *Can Med Assoc J* 1984;130:1428-34.

7 Department of Clinical Epidemiology and Biostatistics, McMaster University Health Sciences Center. How to read clinical journals. VII. To understand an economic evaluation (part B). *Can Med Assoc J* 1984;130:1542-9.

8 Sackett DL. Evaluation: Requirements for clinical application. In: Warren KS, ed. *Coping with the biomedical literature. A primer for the scientist and the clinician*. New York: Praeger, 1981:123-57.

9 Altman DG, Gardner MJ. More informative abstracts. *Ann Intern Med* 1987;107:790-1.