cheaper for the state to treat an average illness than it is to service a washing machine. In view of this, one would disagree with Dr Richards's stated conclusion that "Services provided by doctors are expensive to the National Health Service."

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Reference

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PRESENTATION OF CLINICAL DATA

Sir,

As the complexity of medicine increases it is becoming increasingly important that individual clinicians are capable of weighing the evidence critically for themselves rather than swallowing holus-bolus the opinions of others. To develop this capability in medical undergraduates is an uphill task, often discouraged by much of the contemporary curriculum. It is sad, therefore, to find the *Journal* occasionally doing the same for its readers.

Two recent examples will perhaps suffice. The first concerns the use of abstracts. In the October *Journal* under the heading "The Treatment of Vaginal Candidosis" appears the sentence "Of the three preparations, miconazole was found to be the most effective."

Now, it is true that you provide the relevant reference, enabling those who will to read the original paper and consider the evidence on which this statement is based. But, in the knowledge that most of us do not do so, this is precisely the method of presentation relied on by the commercial 'glossies'. Moreover, the journal in question does not happen to be available in at least one, well-stocked university library.

Should we not agree, therefore, that bald conclusions should be included in abstracts only if there is also some brief comment on the methodology used and/or the validity of the argument?

The second example is Fry's article on "The Natural History of Angina in General Practice". Here clinical data are presented, but presented in such a way as to defy independent conclusions.

For example: "The incidence during the 20-year period . . . is shown in Table 2" (page 644). This table appears to show, amongst other things, that there were 76 males aged 40 to 49 and 104 females aged 70 or over presenting as new patients with angina per year per thousand at risk. Do these figures refer to incidence or to prevalence, and are they being expressed per thousand at risk, or per thousand age-related at risk?

Secondly, throughout the paper, the author does not indicate whether he is dealing with incidence (and prevalence) or with *reported* incidence (and prevalence); nor is his method of follow-up defined. Thus, it is not possible to know whether the heading "Angina Goes" (Table 3) means that these patients had been recently reviewed and found asymptomatic, or whether they simply did not contact the doctor (although still registered with him).

Thirdly, "many associated clinical features were anaemia, a bleeding peptic ulcer . . . " (page 644). Now these clinical conditions are either important to the outcome or not important. If they are *not* important why mention them (any more, say, than mention corns or osteoarthrosis, which doubtless in some instances must also have been associated conditions)? If they *are* important then plainly Table 4 becomes meaningless. Further, in spite of Table 4, the advice given in the final two paragraphs of the paper pays no attention to age or sex.

If there are indeed valid lessons which the reader can learn from a published paper all well and good, but if he has no means of assessing the validity of what he reads it were better not to add to the mountain of paper under which he is already buried.

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THE ARTS AS AIDS TO LEARNING

Sir,

Your Editorial and theme in the August *Journal* bearing on cultural factors in medicine have been commented on by Professor I. M. Richardson (November *Journal*) in encouraging tones. However his last paragraph suggests, unhappily I believe, "that the arts should be given an educational place in the preparation of most medical students."

Many doctors have written about, and practised 'whole-person' medicine; fewer have realized, until recently, our need to be 'whole persons' ourselves, and the contribution to this aim which an interest in and study of the arts in their widest sense can make. There are two aspects implied in this statement which have, as it were, disadvantageous side-effects; first, that one can *make* a doctor a whole person by giving the arts an educational place. Surely the best that a medical school or university can do is to avoid positive discouragement, for example by a curriculum not unduly overloaded and by the example of the teachers themselves as educated and sensitive people.

Secondly, there are implications for our work as general practitioners with the emphasis now on team work. I do not wish to develop this argument here, but would merely point out some conflict between the aims of the doctor with his patient (each to develop as a whole person) and the nature of team work as currently discussed, which shows some danger of detracting from the responsibilities and fulfilments of each individual member of the team.

I hope that, in spite of this caveat, you will continue to provide in the *Journal* opportunity for your readers to be as aware of their artistic needs as of their scientific nourishment.

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MEDICAL COMPUTING

Sir,

I think a note of caution should be raised on this topic since medical computing has been an actively pursued subject for many years in many countries and some of the systems which have been introduced have been expensively abandoned. There is obviously a great application for dedicated computers for the analysis of numerical data, for example the EMI scanner, but the normal mode of entry to the data bank is via a keyboard and most general practitioners are particularly loath to use a typewriter.

The computer has the ability to retrieve and collate a great deal of information at high speed so that the age-