

make that service better rather than indulging in nostalgia. It doesn't help recruitment.

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1 Fugelli P, Heath I. The nature of general practice. *BMJ* 1996;312:456-7. (24 February.)

### Patient centred model of practice is unsuited to reforms

EDITOR,—Per Fugelli and Iona Heath argue that "affirmation of the traditional model of general practice demands the rejection of those changes which threaten it."<sup>1</sup> The debate has done little to clarify the definition of the traditional model of general practice as practised by general practitioners themselves. From an educational perspective, the model that has been taught in many vocational training schemes for registrars in general practice has been based on patient sensitive<sup>2</sup> or patient centred<sup>3</sup> consulting styles. This is in contrast to the biomedical model that forms the basis of much teaching in medical schools.

Of these two models of practice, the biomedical model with its scientific rationale can tolerate the addition of other scientific disciplines—for example, health economics and management science. To be economically efficient and effective general practitioners must practise in a highly doctor centred and task oriented way. There is little room for the premises of health economics in a patient centred, behavioural consultation style.

Howie *et al* have suggested that patient centred doctors may be more stressed when their partners practise in a different way and there is a mismatch between personal and organisational factors.<sup>4</sup> If the proportion of trained general practitioners who are stressed in this way is substantial it is not surprising. Our education in general practice has not prepared us for the current health care reforms.

There is a paradox. Patient centred doctors are forced to comply with a mechanistic system that they do not believe in. They have choices. They should alter working practices, get further education, or get involved in medical politics.<sup>5</sup> For those about to enter general practice, if the system isn't going to change then training must. The Royal College of General Practitioners should take note.

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### Myocardial infarction at work cannot be regarded as an accident

EDITOR,—M C Petch argues that sudden cardiac death or myocardial infarction occurring within hours of unaccustomed physical effort may justify a claim for benefit payments or occupational injury.<sup>1</sup> Although the mechanism of the final thrombosis may indeed be related to exercise,<sup>2</sup> these patients have pre-existing arterial disease, and most previous claims have been for "acceleration of heart

condition" after physical exertion.<sup>3</sup> The long term benefits of exercise in reducing the progression of atherosclerosis and risk of myocardial infarction are well established.<sup>4</sup>

It is alarming that Petch considers that "a myocardial infarction occurring at work may be regarded as an accident." Despite a routine declaration at the start of work that employees have no known heart disease, underlying coronary artery disease may well be present and would still be undetectable by a simple test such as resting electrocardiography. Should all employers who engage staff for heavy lifting duties arrange for coronary angiography to protect themselves against future claims or simply not employ anyone over the age of 30? (The incidence of sudden cardiac death in male joggers aged 30-63 in Rhode Island, in the United States, has been reported to be 1 in 7620 and in joggers younger than 30, 1 in 280 000.<sup>5</sup>) Should hospital trusts screen all doctors for undiagnosed cardiomyopathies in case one of them might have a sudden cardiac death while running for an arrest call? Are the police liable if they chase a mugger who then suffers a myocardial infarction?

The inclusion of myocardial infarction or sudden cardiac death (except that due to direct chest trauma) as an "accident" at work makes a mockery of scientific knowledge of the pathophysiology of myocardial infarction and the legitimate claims for certain occupational diseases.

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### Redefining authorship

#### Drug industry is increasingly allowing employees to be named as authors

EDITOR,—I look forward to the meeting to discuss authorship and the debates that may arise from it.<sup>1</sup> While those in academia often focus on "gift" authorship, when undeserving names swell the lists of authors, those of us employed in industry are concerned with the opposite problem—that of the disappearing author. Although most journals require that funding for studies must be acknowledged, sponsoring companies are often keen to emphasise the contribution of independent investigators and may discourage employees from being named as authors despite their fulfilling accepted criteria.

In drawing up company guidelines on this issue I did a small survey to see if I could detect any trends within the industry. I chose three journals that happened to be in the company library and that published a high proportion of studies sponsored by industry, and I looked to see how often the authors of such papers were employees of the funding company. In all three journals I found an increase in the proportion of sponsored studies that included at least one author whose address was that of the sponsoring company. The figure increased from 10 (37%) to 17 (50%) between 1988 and 1993 in *Alimentary Pharmacology and Therapeutics*; from 14 (36%) to 33 (55%) between 1977 and 1993 in the *British*

*Journal of Clinical Pharmacology*; and from 6 (27%) to 13 (59%) between 1976 and 1993 in *Current Medical Research and Opinion*. (The total number of papers scanned was 393, of which 204 acknowledged support from the industry; a total of 1671 authors was listed.) In these three journals 48-76% of the reported studies are funded by the pharmaceutical industry, so I had fewer papers to scan than if I had chosen a journal such as the *BMJ*, which carries a smaller proportion of funded studies.

This simple survey, reinforced by anecdotal evidence from other companies, led me to believe that, at least in the past, scientists employed by the industry were probably omitted from lists of authors despite fulfilling accepted criteria. It also suggested, however, that the situation is improving and that companies are becoming increasingly willing to allow their employees to be named as authors when this is appropriate. Although this problem may be diminishing, I do not believe that it has disappeared altogether. I suggest that we should remember it when we debate the definitions of authorship and advise those who formulate policy to ensure that authorship is fairly allocated.

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1 Horton R, Smith R. Time to redefine authorship. *BMJ* 1996;312:723. (23 March.)

#### Relative contribution should be given after each author's name

EDITOR,—Richard Horton and Richard Smith's editorial addresses the continuing problem of authorship.<sup>1</sup> The authors suggest that a "film credit" style of authorship might be possible. This would be unwieldy. An even less plausible alternative is the use of font size to indicate relative contribution to a scientific paper.<sup>2</sup> This would result in visually interesting title pages but would not solve the problem because this method has no upper bound.

We propose another, more practical solution. This would be simply to record after each author's name his or her fractional (or percentage) contribution to the paper in question. There would be no further need for the faintly embarrassing statement, "these authors contributed equally to the work" (on what basis is priority therefore decided?), as it would be clear that the percentage contribution was the same, and then all the authors could be listed alphabetically. This new method would also lessen the need for "senior" (that is, last) authors to resign from positions of responsibility when papers published under their name are discovered to be fraudulent. If their contribution was marked as 1% they could claim 1% of the credit when things went well and 1% of the blame when everything went sadly awry. As a British Conservative cabinet minister might ask—"Is that a resigning issue?"

In the spirit of this enterprise, one of us (WF) wrote this letter, which is on a topic that both of us have often discussed over the past year or so. So, by mutual agreement, WF scores 0.7 and NN scores 0.3.

This proposal would, of course, create another problem, since the fractional contributions would have to be argued over. But it would at least allow those interested to make more useful estimations of relative contributions.

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1 Horton R, Smith R. Time to redefine authorship. *BMJ* 1996;312:723. (23 March.)

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