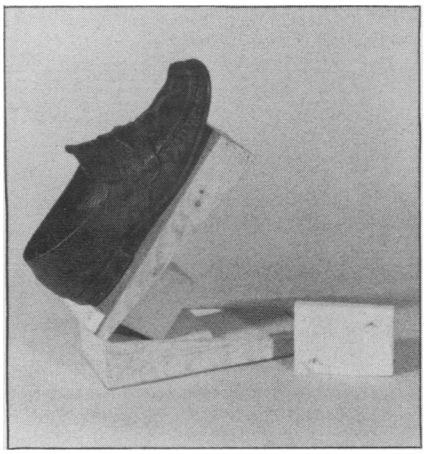

It has been found that even the most immobile of patients can use the pedal for a set time, say half an hour, twice daily, gradually increasing the load. This simple exerciser actually shortens the time taken to heal even the most stubborn ulcer.

I am indebted to the Isle of Wight Branch of the Rehabilitation Engineering Movement Advisory Panel (REMAP) for producing this apparatus. It can be made simply and cheaply, and I recommend your readers to apply to their local branch of REMAP to help.

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RUBELLA IMMUNIZATION

Sir,

I feel I must comment on the article on rubella immunization and contraception (November *Journal*).

Whilst I am sure that Drs Rose and Mole had the best of intentions, I feel that the conclusions they come to are based on too small a sample to have much significance, and their study design has some defects. However, there are lessons to be learned from what they did.

In their article they state that "a total of 70 women had to be interviewed in order to obtain these 50 results". This is very misleading as in fact when they offered the venepunctures at the surgery they had only one refusal out of 45. Thus the first 18 drop-outs were presumably due to the inconvenience of having to go to the laboratory rather than reluctance to have blood taken.

After explaining the problem of rubella in pregnancy and taking a blood sample, they let up to two months elapse before attempting to notify seronegative women that they needed immunization. With so great a lapse in time it is little wonder that enthusiasm waned and the response rate was so poor. The patients should have been notified with a prescription and an appointment as soon as the negative result was obtained which, in our experience, is about ten days later. Perhaps this explains why only one in three of those needing immunization returned (though one other claims she was vaccinated elsewhere).

On this evidence of poor patient cooperation they put forward a case for vaccinating all adult women without prior screening. This surely is not only unethical but potentially dangerous. Despite strict instructions to avoid pregnancy for two months following vaccination, it has been known for women to become pregnant during this time. If we do not know their pre-existing immune status, testing for antibody levels in early pregnancy introduces a delay before a decision can be taken, and as it is not always possible to guarantee that the result is 100 per cent reliable, to err on the side of caution, a perfectly healthy fetus may be unnecessarily aborted. All in all I feel there has been insufficient evidence to condemn the whole scheme of checking for immunity and I would disagree strongly with their conclusions as to the possibility of this scheme.

We have carried out a similar scheme in our own practice where we took blood samples from about 280 patients and found only two subjects who were unwilling to have blood taken. Of those tested, we found about 20 per cent to be seronegative and, of these, 80 per cent were in fact vaccinated. Furthermore, 80 per cent of those vaccinated have even returned for a second sample of blood to be taken so that we could assess the effectiveness of the vaccine.

Our findings are currently being statistically analyzed and we hope to publish them in the near future. I think they will confirm the policy of the DHSS, that this is a very feasible way of lessening the number of people in our communities who are susceptible to having a child congenitally deformed by rubella.

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Reference

Rose, A. J. & Mole, K. F. (1976). *Journal of the Royal College of General Practitioners,* **26,** 817-821.

SOCIAL WORKERS IN GENERAL PRACTICE

Sir,

I support Dr Ratoff (November *Journal*) in his statement that social workers see themselves as autonomous and independent professionals and not as medical ancillaries, and that they should work in close liaison with general practitioners. This is logical both from the point of view of having one portal of entry to the medical and social services and because medical and social problems are so often interrelated.

The principles put forward in Dr Paine's paper (September *Journal*) are also worthy of support in that there may be a reservoir of persons who cannot undertake full-time work with a social services department and would prefer part-time work of the type he described. It is, however, important to ensure that the patient's access to the social worker is not confined to referral by the general practitioner; patients should be encouraged to make their own approach independently of the general practitioner. In addition, there will undoubtedly be occasions when the general practitioner refers a patient to a social worker.

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References

Paine, T. F. (1976). *Journal of the Royal College of General Practitioners,* **26,** 695-697.

Ratoff, L. (1976). *Journal of the Royal College of General Practitioners,* **26,** 841-842.

A MATHEMATICAL APPROACH TO EPIDEMIC CONTROL

Sir,

The paper by Dr Damms and his colleagues (December *Journal*) is most encouraging and should stimulate discussion and further work on an important and difficult subject. May I start the ball of friendly criticism rolling by voicing one or two dubieties:

1. The model depends (apparently) on the epidemic appearing in "waves occurring at fixed intervals". The corrected numbers in Figure B are said to show nine waves. There appear to be only seven or possibly eight in the figure although the uncorrected numbers show nine waves. If the model is so wave-dependent there is a more important criticism. The dates are said to be the days of doctor/patient contacts (except for the averaging of Sunday and Monday). It has been our experience that contact with influenza patients

occurs on different days of the disease. How would the model fare if it rested (as perhaps it ought, and this should be discussed) on dates of onset? Furthermore, dates of onset are sometimes difficult to assign, for example: "J.S. Coryza 8 days, cough 3 days, headache began yesterday. Was febrile last night. Today T. 101·2° (3.0pm) . . .". What date do I assign? The method would seem to be vulnerable to different interpretations of the nature of the disease and one should ask if it is as soundly based on the realities of the host-parasite interaction as it at first sight appears to be.

2. "The susceptible population for this practice is taken of those who become infectious or require medical treatment." I find this statement incomprehensible. "Hence, the initial state of the population in order to estimate R to fit the model C = RIS is I = 10, S = 280." Whence?

The present model does not explain why the Hong Kong influenza A epidemic of 1968/69, having got under way successfully, terminated having attacked perhaps only five per cent of susceptibles, nor why the 1969/70 epidemic only eight months later attacked more than twice as many in less than half the time and again terminated in the presence of abundant susceptibles. A model must be accounting for the realities of the host-parasite situation if it is to be useful in controlling influenza. At present there are such large gaps in our understanding of influenzal epidemiology that we need to take a long hard fresh look at our underlying concepts of epidemic mechanisms to make sure we have not got our thinking all wrong.

If Dr Damms and his colleagues continue their observations, as I hope they will, may I suggest that they base some models on different assumptions about how (and whether and when) influenza is spreading?

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Reference

Damms, V. G. S., Clarke, A. H. & Constable, G. M. (1976). *Journal of the Royal College of General Practitioners,* **26,** 911-916.

THE COST OF CARE

Sir,

Dr Richards's article (November *Journal*) was of no interest to me until I was horrified to see it reported in the *Daily Telegraph.* I subsequently heard many doctors talking about it and on reading the article was astonished to find it was written by a relatively inexperienced doctor, who had carried out a survey covering *two weeks.* None of this was mentioned in the newspaper.

Despite the College's elation at the number of young doctors sitting the membership examination, it still remains true that two-thirds of general practitioners are not members of our College, and we ought to ask ourselves why this is so, and not feel satisfied that 750 general practitioners are sitting the examination this year.

The article, of course, is utter nonsense. I refuse to accept responsibility for the cost of the nation's health. If irresponsible governments make a free-for-all health service, without any disincentives or deterrents when the country is at its lowest ebb and tottering on the brink of bankruptcy, the blame cannot be put on general practice. Nor can the onus for redressing the balance of irresponsible government be expected to be put right by general practitioners. This would be similar to saying that police officers were responsible for the enormous costs involved in the apprehension, trial, and incarceration of the great train robbers. This comparison is not ridiculous, as the public appetite both for medicine and for crime is increasing and insatiable.

The College should not appear to be an organization with its head in the clouds, or part of the establishment, but similar to other medical Royal Colleges, not one of which would publish a letter suggesting that more surgeons and physicians would increase the nation's health bill, but would regard the increase as a natural corollary of a national health service. Despite the protests that articles in the *Journal* do not reflect the official views of the College, that is the general impression.

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Reference

Richards, C. W. (1976). *Journal of the Royal College of General Practitioners,* **26,** 823-827.