derivative as being a cause for false negatives. The results were still identical.

It appears to be all a matter of technique—that is, firm pressure, careful sitting on the ulnar aspect of the mid forearm, adequate stretching of the skin, and checking that the tines have produced satisfactory puncture holes. However, I still prefer the Heaf test for routine screening of contacts and hospital staff as tine tests have certainly shown false negatives when used by the uninitiated.

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Recording of blood pressure readings

SIR,—There seems to be increasing confusion over the recording of the diastolic blood pressure, with some physicians recording the fourth sound and others the fifth sound. Would it not be possible for all blood pressure readings to be recorded with all three readings on each occasion? Thus instead of writing 180/90 we would write 180/90/90 if the fourth and fifth sound occurred together, but if the fifth sound was at a lower level it would be recorded as 180/90/60.

If only the fourth sound were measured the physician would record 180/90/—, indicating non-measurement of the fifth sound; and likewise if only the fifth sound were measured he could record 180/—/60. With this simple technique in recording, consecutive blood pressure readings by different physicians would have greater significance than at present. Perhaps a new name should be coined for the fifth sound to further avoid confusion. Any suggestions?

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Medical manpower in the year 2000

SIR,—Your leading article (3 March, p 573) concludes that the DHSS study¹ and our own study² indicate that the primary requirement for more sophisticated medical manpower forecasting is that the quantity and quality of data are improved. As is clear from our work, I agree very strongly with this conclusion. We have little idea about the level of women doctors' participation in the labour force (except for Dr Berenice Beaumont's excellent efforts). We know little about the career intentions of foreign doctors, although the Policy Studies Institute has recently completed some work on this for DHSS. We could "model" UK emigrant doctor flows but the DHSS does not bother. The manipulation of the data with regard to aspects of regional and career structure is to date very limited. Little account is taken of the RAWP report, *Priorities for Health and Personal Social Services in England, The Way Forward*, or other public policy pronouncements in DHSS forecasts. Much of the official forecasting seems to be blinkered and myopic.

We have had all these arguments before, in the Goodenough, Willink, and Todd reports of 1944, 1957, and 1968. This time round I hope that the DHSS will decide to (i) collect more and better data series on a regular basis; (ii) use this improved data stock to produce forecasts on a yearly or biannual basis for discussion with the profession; (iii) extend their forecasts to include regional and career

structure problems; (iv) integrate the forecasting of doctor manpower with the forecasting of nurse and other health personnel manpower; and (v) cost these forecasts in a detailed and sensible manner.

Forecasting will always be difficult but more sophisticated techniques could be used to manipulate the existing stock of data (and, one hopes, in the future a better stock of data). Clearly the inadequacies of the data stock and its manipulation by the DHSS in the recent past indicates that, implicitly or explicitly, the Department views such policy analysis as unimportant. Each doctor costs (according to DHSS estimates whose basis would incense any undergraduate economist by its crudity) £40 000 to produce and the medical schools are swallowing some of the brightest "person power" in the country. More careful data collection and forecasting might make us better able to use these scarce resources more prudently than we do at present.

If the DHSS fails to invest resources in forecasting perhaps a cost-effective allocation of BMA resources would be for the profession itself to collect and manipulate its own medical manpower data. Competing forecasts might be an efficient way of improving the quality of forecasts and the efficiency of resource utilisation.

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¹ Department of Health and Social Security (1978), *Medical Manpower—The Next Twenty Years*. A discussion paper. 1978.

² Maynard, A, and Walker, A, *Doctor Manpower 1975-2000: Alternative Forecasts and their Resource Implications*. Report for the Royal Commission on the National Health Service, Research Paper No 4. London, HMSO, 1978.

SIR,—Medical manpower is the subject of your leading article (3 March, p 573) and also a short paper (p 595). I have recently had to make a careful study of the DHSS paper on this subject and there are important points which are not brought out in either your editorial or Dr James Parkhouse's article.

The DHSS paper contains a great deal of valuable information and does not in my opinion show evidence of the hasty production which you infer. That aside, it does lead to the inescapable conclusion that it is impossible to calculate the number of doctors required in the next 20 years, for the following reasons. (1) There is no way of knowing what the population will be. (2) There is no way of knowing the number of foreign graduates that will be working to prop up the NHS. (3) Geographical maldistribution of doctors influences regional requirements. (4) Though the number of women doctors can be controlled, the amount of employment that they seek cannot.

Given these imponderables, any attempt to enumerate the doctors needed between now and the end of the century, which is the hope of the DHSS paper, is no better than a guess. Willink was wrong in 1957, Todd was wrong a decade later. The only concept that seems important to me is the doctor: population ratio; the current figure of roughly 1500 doctors per million population is certainly enough for our foreseeable requirements, provided good use is made of them; it is deployment rather than pure numbers that really matters, and I believe that our negotiators should hammer home the following six points to the DHSS.

(1) It is essential to improve the support services for family doctors, both staff and

physical facilities, so that doctors can make more efficient use of their time. (2) Domiciliary care of the sick requires far greater finance than it is receiving. (3) Because a GP spends so much time on social problems we should be exploring methods of training lay people as social counsellors, to release the GP for the more important clinical matters for which he is after all specially trained. (4) It seems likely that by 1990 50% of graduates will be women; it is therefore vital to provide adequate part-time career opportunities in the NHS. (5) It would be politic and prudent to try to reduce our dependence on foreign graduates, who currently account for 27% of NHS medical staff. (6) Surely the means are available to keep annual counts of the number of doctors on the NHS payroll and relate this to the population, so that any deviation from the appropriate doctor: population ratio can be detected promptly and acted on.

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Hazards at work

SIR,—I was most interested in the efforts of Dr B J Boucher and her committee to promote health and safety at work at a district level (3 March, p 599), particularly with regard to her comments about the lack of direct guidance given by the DHSS.

Perhaps correspondence in these columns could help to make clear how much we should rely on our own safety codes at district level and how much we can assume that accepted NHS practice automatically includes an adequate degree of safety cover for staff and patients. For instance, it would be reasonable to expect that equipment offered to hospitals in bulk would already have been vetted centrally by the NHS for possible hazards to users. That this is not a safe assumption is illustrated by the following example. During the recent industrial dispute an emergency supply of disposable paper surgeons' suits was obtained to meet a possible laundry shortage. These suits seemed a fire hazard and on testing I found that they were quite easy to ignite with a match, lighter, or cautery-probe. They burned vigorously, giving off dense, acrid smoke; and the material fused, shrank, and clung to surfaces in a frightening manner. The flames were difficult to extinguish with water, no doubt because the material had been partially waterproofed. While smokers pose the greatest risk, to themselves and others, in these suits any wearer would be at a serious disadvantage should an accident arise involving fire in the operating theatre.

Subsequently, I tested an array of disposable paper items for inflammability and found that surgeons' caps and masks, bed sheets, pillow cases, and triangular bandages also burned readily, with the production of choking fumes. In future these items should be over-stamped with a caution about inflammability by the manufacturers.

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The new consultant contract

SIR,—I was surprised to read the letter in your correspondence columns (17 March, p 755) from my friends at Northwick Park. It would seem a little late to attack the principles underlying the new consultant