Association of Dermatologists last July, I pointed out that of 51 registrars in training, 18 are women, and of 44 senior registrars, 9 are women.

The problems the part-time married women face are still immense. In England and Wales it is possible for them to obtain manpower approval for training on a personal basis, but such applications are considered only once a year. If this is obtained, they then have to find a post in a hospital near to their place of residence, this post has to be approved as suitable for training by the Joint Committee on Higher Medical Training (JCHMT), and the funding of this post is by no means mandatory but is subject to the whim of the relevant health authority. If the woman is fortunate enough to obtain such a post and her husband (often also a hospital doctor in training) moves to another region, the whole performance starts again.

The JCHMT have not yet given definite guidance on the numbers of weekly sessions they require and the numbers of years these women have to spend in training before they can be considered for specialist accreditation.

If they successfully negotiate these hurdles, they then have to find a part-time consultant post which is reasonably near to their place of residence. At present it is very difficult to establish new consultant posts even in those regions where the work load is excessive. Without a new approach to this ever increasing problem the outlook for many of these bright young women is bleak, and their skills will be lost to medicine.

If it is impossible to find a solution to this situation, it may be necessary to apply a quota on the numbers of women admitted to medical schools. I am sure that such a suggestion would cause a massive uproar.

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A better system for polio vaccination in developing countries?

SIR,—Professor T Jacob John and others (23 August, p 542) suggest that vaccination of groups of children with live polio vaccine leads to higher seroconversion rates if vaccinations are carried out over a short period of time ("pulse") than if vaccinations are spread over a longer period of time. They may be correct, but their argument that "pulse" vaccination leads to greater interperson transfer of vaccine virus is unconvincing.

The authors compare results of two polio-vaccine trials, one in which vaccines were given over a period of time to children of several communities and another in which vaccine was given simultaneously to children in a single community. Unfortunately the two trials used different vaccines, the target children were of different ages (6-51 weeks in trial 1, 3 months-5 years in trial 2), and the trials were carried out several years apart and in different communities. Given so many differences between the two trials, any comparison between their results should be made with great caution. In particular, it does not seem justified to focus upon the different schedules of the trials alone.

On the other hand, the authors may have made a useful point even if for the wrong reasons. It is not unlikely that intensive vaccination campaigns do give better seroconversion rates than do routine programmes. Among the

major reasons for this is the greater quality control of vaccines and of vaccine administration which is possible in intensive special campaigns in contrast to the situation when vaccination is left to routine child health services.

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Hormone receptors and human breast cancer

SIR,—The recent leading article on hormone receptors and human breast cancer (13 September, p 694) was both succinct and up to date, but was also surprisingly deficient in its references to the postulated effects of hormones on the so-called hormone-related cancers.

Although the association between endocrine function and immunity has only recently been recognised, a gross effect of hormones on lymphoid tissue has in fact been documented in experimental animals for at least 75 years.¹ With the development of more sophisticated techniques this and other findings²⁻⁴ have been shown to be crude indications of more subtle immunological changes.⁵⁻⁷ From the latter investigations in particular it was concluded that hormonal manipulation can profoundly influence cell-mediated immunity. As a direct effect of these animal studies a prospective study was carried out in patients with advanced breast cancer receiving hormone treatment, the results of which showed a high degree of correlation with the earlier animal findings.^{8,9}

In the hormonal treatment of cancer there is now mounting evidence for concurrent mechanisms governing the process of tumour regression, which undoubtedly should be considered in any analysis. Nevertheless, some observers continue to ignore such data and attribute positive responses solely to the genetic "hormonal responsiveness" of a particular tumour. Since regression is a highly complex phenomenon, it would seem reasonable that this will involve multiple biological mechanisms and is unlikely to be due to one factor in isolation of others.

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¹ Hammer JA. *Anat Anz* 1905;23:41.

² Dougherty TF, White A. *Am J Anat* 1945;77:81-116.

³ Hills AG, et al. *Blood* 1948;3:753-68.

⁴ De La Balze FA, et al. *J Clin Endocrinol* 1946;6:312-9.

⁵ Franks CR, et al. *Br J Cancer* 1975;31:100-10.

⁶ Castro JE, Hamilton DN. *Transplantation* 1972;13:615-6.

⁷ Castro JE. *Br J Surg* 1972;59:904.

⁸ Franks CR, Williams Y. *Br J Cancer* 1976;34:641-4.

⁹ Franks CR, Williams Y. *Clin Oncol* 1978;4:19-24.

Tapping ascites

SIR,—I would like to comment on the articles "Tapping of Ascites" by Drs E Ryan and G Neale (16 August, p 499, and 23 August, p 550). Although the medical aspects of paracentesis were thoroughly covered, the section on tapping the acute abdomen contained some points with which I disagree.

The authors suggest that four-quadrant tap should precede peritoneal lavage with cases of abdominal trauma. The evidence, however, is in favour of lavage from the outset. It has been shown with paracentesis alone that a positive

tap is only obtained with 200 ml of intra-peritoneal blood 20% of the time and with 500 ml only 80%.² Also in a study comparing paracentesis with lavage in 267 patients, it was found that 79% of those who had negative taps but positive lavage had significant intra-peritoneal injury at subsequent laparotomy.² The major objection to simple paracentesis is the high percentage of false-negative results. Conversely, lavage is too sensitive and gives false-positive results. An important technical point is that local anaesthesia must be used, with lignocaine and adrenaline. This permits careful haemostasis at the subumbilical entry point and avoids blood tracking into the peritoneal cavity from the wound, thereby reducing the false-positive rate.

Finally, it is essential that the bladder be empty. Simply requesting these patients to pass urine is inadequate, as they may be unconscious, under the influence of alcohol, or in pain. The safest course is probably catheterisation, provided there are no signs of urethral injury.

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¹ Giacobine JW, Silber VF. *Surg Gynecol Obstet* 1960;110:676-86.

² Thal ER, Shires GT. *Am J Surg* 1973;125:64-9.

Hyperlipidaemia advances and retreats

SIR,—What does Professor C R Klimt (13 September, p 744) mean by "modest benefits that were not statistically significant?" If the benefits are not statistically significant, do they exist at all?

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Treatment of severe hypertension using chlorpromazine

SIR,—Dr Robert J Young and others (28 June, p 1579) have used chlorpromazine (50 mg intramuscularly) together with frusemide (50 mg intravenously) in treatment of nine patients with severe hypertension (BP $\geq$ 210/130 mm Hg supine after one hour's bed rest) and reported a good blood pressure reduction in hourly measurements without side effects. The authors write that these drugs in combination reduce severely raised blood pressure satisfactorily and safely and that this has not been recorded before.

Firstly, we want to point out that chlorpromazine has been used for several years in the Scandinavian countries in treatment of these patients, often given as small intravenous bolus injections. Recently we have shown in a Danish multicentre trial that chlorpromazine was quite as effective as diazoxide and dihydralazine. Secondly, we want to point out, that the dose of chlorpromazine used by Dr Young and others (50 mg intravenously) is quite high. Our experience is that even 25 mg chlorpromazine intravenously might in some patients induce severe hypotension. In our study we gave only chlorpromazine intravenously, initially 2.5 mg followed by 5-10 mg every quarter of an hour until good blood pressure reduction was achieved (diastolic BP $\leq$ 110 mm Hg). A few patients developed transient hypotension after even very small doses. Ledingham and Rajagopalan¹ have described patients who after being given large

doses of chlorpromazine intravenously had an initial reduction in high pressure that was followed by a severe pressure drop and a fatal outcome.

We feel like Dr Young and colleagues that the hypotensive effect of phenothiazines, to which group chlorpromazine belongs, is not well known among physicians, and we once again would caution against too high initial doses of these drugs when used in emergency treatment of severe hypertension.

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¹ Ledingham JGG, Rajagopalan B. *Q J Med* 1979;48: 25-41.

Bayes's theorem and the evaluation of tests

SIR,—In Dr C C Spicer's recent excellent article on "Bayes's theorem and the evaluation of tests" (30 August, p 592) three basic assumptions of the theory are not discussed. These are: (1) New cases come from a population for which full incidence and prevalence data are available for the disease in question and its associated symptoms. (2) The population is static. (3) A definite diagnosis is made in every case: in Dr Spicer's example the need, or lack of it, for admission is quite clear in every case.

Despite these limitations Bayes's theorem is of proved value in computer diagnosis but does not obviously illuminate the way doctors make diagnoses.

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The hospital practitioner grade

SIR,—I support strongly the letter from Dr D C Banks, (9 August, p 458) on the hospital practitioner grade, and his pleas that its scope be widened to include those who are not principals in general practice.

Consultant colleagues in many specialties, and certainly in my own field of dermatology, agree with Dr Banks and would oppose the views expressed by Mr G S McCune at the ARM debate, as reported in the *BMJ* (26 July, p 334) and amplified in his letter (30 August, p 623). Mr McCune is concerned that this grade will be filled with women doctors with domestic commitments and that the status of hospital practitioner will lessen their chances of promotion and reaching consultant status. Most of us realise that there are excellent women doctors who have no wish to strive for consultant status and others who will not achieve it.

In this respect your leading article "Women in hospital medicine" (13 September, p 693) is timely, as is the excellent and comprehensive report from the Oxford Region by Dr A J Swerdlow and his colleagues in the same issue (p 754). Both remind us that the proportion of women medical students will increase to a projected 50% in the mid '80s.

The Oxford report lists career choices, with the general medical specialties and psychiatry (both 14%) taking second place after general

practice. To achieve consultant status in a medical specialty the membership examination is essential. This report points out that women doctors with children fail the MRCP and FRCS examinations more often than those without children; clearly a number will eventually give up the unequal struggle. Then there will be others not so well looked after and ideally located as doctors in the Oxford Region, whose homes may be far distant from any teaching hospital. The additional hurdle of, say, a senior registrar appointment which entails hours of travelling could prove a deterrent to those with young children and uncertain domestic help. For these women colleagues, and for those of middle age who have spent years in our hospitals on a limited sessional basis, the hospital practitioner grade must be made accessible. It need not prove a barrier to promotion for those who are suitably qualified.

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Physician's assistant in general practice

SIR,—I read with interest Dr B L E C Ready and colleague's article, "The attachment of a physician's assistant to an English general practice" (6 September, p 664). Surely our academic brethren are leading us off up the wrong path again. We don't want surrogate doctors. Let the doctors be doctors. There are more pressing manpower needs in primary care.

When we opened our new health centre we were asked, "What extra services will be provided? Will there be x-ray, etc?" The answer, of course, was, "None. We will just be the same as before." The NHS is busy producing a new breed of keen vocationally trained doctors, working in new shiny health centres. It is not making any effort to provide the facilities which would allow them to use their skills at a primary care level and thus keep patients out of hospital outpatients and beds.

What we desperately need are facilities and personnel to do basic physiotherapy, etc. Surely what we must have are a series of diploma courses for practice nurses in such subjects as physiotherapy, radiography, laboratory studies, and clinical psychology. Each course would last six months and teach the basics. This happens in other countries such as Canada, where the "basic hospital technician" has a broad range of skills suitable for a small peripheral hospital.

Think of the work we could save the hospital service if GPs had the services of generally trained nurse-technicians in their own health centres.

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Physicians for Social Responsibility

SIR,—I write further to Dr Nini E Ettlinger's letter (2 August, p 390). The majority of doctors are reluctant to express views in public about questions which are controversial, political, and apparently not directly related to medical practice. The subject of preparations for nuclear war may seem to come into these categories, but these preparations must include the organisation of medical services in what is

left of the community after a nuclear attack. Those already involved in planning for major civilian disasters are asked now to help in this difficult task.

To make any realistic plans, it has to be assumed that the war is going to happen. The unthinkable has to be thought about and the unacceptable accepted. When we accept the possibility of such an event, I would submit that it becomes more likely to happen. Those in government, who make decisions on our behalf, become more ready to take action which could lead to war if they feel that the population is prepared for it. We may come to believe that we can cope with a disaster which would result in such devastation and death that in any other circumstances we would be using all our energies to prevent it.

I know that we must prepare for all sorts of dreadful eventualities, including disasters where there is massive loss of life and disruption of vital services, but when we are asked to prepare for nuclear war let us make it clear that the only adequate preparation is to make sure it does not happen.

I suspect there are many doctors who feel as I do. The organisation of Physicians for Social Responsibility may give us an opportunity to let our colleagues and the decision-makers in government know about our concern. This really is very much a medical matter. We are, after all, talking about forestalling a pandemic which would probably claim most of us, as well as most of our patients, as victims.

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Concern about "rickets" campaign

SIR,—As you know, the Department of Health and Social Security has recently, in conjunction with Save the Children Fund, agreed to support a national "rickets" campaign. The first step in the campaign was the advertisement for a campaign director. While the Government is to be commended for their support, there are a number of aspects of the campaign which are of concern.

Firstly, there is the role of the DHSS in determining the focus of the campaign. The Department sees the rickets problem as one of health education. The DHSS base their assessment of the campaign on the following assumptions: there is adequate fortification of foods with vitamin D; there appears to be a decline in the incidence of rickets. These assumptions ignore the fact that the diet of most Asians tends not to contain those foods currently fortified with vitamin D, and although the DHSS's evidence suggests that the incidence of rickets is declining it does not necessarily mean that the prevalence of the disease will do likewise.

Secondly, the DHSS has apparently rejected fortification of chapatti flour on the grounds that it would be expensive; difficult to control, as there is no single source of chapatti flour; and those most in need of fortified flour tend to eat little or no chapatti flour. The other factor prevailing against the fortification of flour, milk, and butter is the Department's concern with the dangers of toxicity of vitamin D. These arguments can be refuted. Opinion among Asians is that chapatti flour could be fortified economically and easily. Furthermore, the dangers of toxicity are, in the opinion of some members of the medical profession, overstated.

Thirdly, the campaign appears to be unidirectional in focus. This observation is based on the fact that the campaign is educational in orientation and directed solely at the Asian community. The lack of knowledge of the disease is not confined to the Asian community. Indeed,