temperature for 14 days following activation.³ With the recently introduced alkaline glutaraldehyde formulations developments in activation techniques, using modified initial pH and buffer systems, have considerably reduced the extent of glutaraldehyde polymerisation after activation. This greatly diminishes the hazard of inactivation from in-use dilution with water carry-over during sterilisation and disinfection cycles.

It is recognised that in-use dilution and inactivation, rather than chemical instability, are now the major factors limiting the use life of many of the recently introduced alkaline glutaraldehyde preparations.³ Although certain manufacturers recommend a 28-day life in situations of low dilution and low-to-moderate throughput, authorities in cross-infection control in the United Kingdom have questioned the desirability of repeated use of disinfectant solutions. Despite improved chemical stability they are reluctant to recommend repeated use of a solution for more than 7-14 days.⁴

Freedom from corrosivity has always been a desirable feature of a glutaraldehyde-based steriliser and disinfectant formulation, and is a more essential prerequisite with the increasing application to decontamination, where the solution is confronted with a wide variety of metals in equipment.⁵

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¹ Boucher, R M G, *American Journal of Hospital Pharmacy*, 1974, **31**, 546.

² Rasmussen, K E, and Albrechtsen, J, *Histochemistry*, 1974, **38**, 19.

³ Miner, N A, et al, *American Journal of Hospital Pharmacy*, 1977, **34**, 376.

⁴ Ayliffe, G, Collins, B J, and Babb, J R, *British Medical Journal*, 1979, **1**, 1019.

⁵ Expert Group on Hepatitis in Dentistry, *Report to the Chief Medical and Dental Officers of the Health Departments of Great Britain*. London, HMSO, 1979.

Health visitors and community midwives

SIR,—I should like to comment on the opening sentence of the review of *The Specialised Health Visitor for the Handicapped Baby, Young Child and School Child* (18 August, p 437)—namely, "The health visitor is the only person with an implicit obligation to visit the home of every newborn baby—thus she is in the best position to advise and support parents of handicapped children."

It is true that one of the duties of the health visitor is to make a visit to the home of every baby on or after the 11th day of life. There is, however, no legal requirement in this, nor is there any requirement on the part of the parents of the child to allow access to the baby.

The community midwife is in a very different position, in that she has a legal obligation to make daily visits to the newborn baby and his or her mother for a minimum of 10 days and a maximum of 28 days. More health districts are now requiring the community midwives to make these postnatal visits for the full 28 days. Where this is so, the health visitors' visits may overlap with those of the midwives, or they may defer the initial visit until after the 28th day.

It would appear that, should all mothers and babies have the midwife's continued care and supervision for the first 28 days following delivery, the health visitor would be available to provide the extra advice and

support required by those families with special problems associated with the handicapped child.

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The oesophageal airway

SIR,—Dr M G Harries in his excellent article (18 August, p 426) says that nobody in Britain has been trained in the use of the pharyngeal airway invented by Dr Don Michael.

In Brighton, cardiac ambulancemen are in their second year of using the oesophageal airway ("EOA") with great success. These cardiac men, who are also qualified to intubate the trachea, are free to use the EOA if they prefer, when they have been trained to do so. Of the last 100 intubations in Brighton, about 35% have been with the oesophageal airway—so far, fortunately, without complications.

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Genetic association with bladder cancer

SIR,—In a recent leading article (1 September, p 514) you refer to a paper published by myself and my collaborators on the putative role which intrinsic variability might play in the pathogenesis of transitional cell carcinoma of the bladder.¹ You rightly drew attention to some of the difficulties inherent in such studies but made no mention of perhaps a more fundamental inconsistency. If there is a measurable genetic association with bladder cancer, as postulated in our paper, then more than one susceptible person should occur in some families and in turn more than one clinical case is likely. However, a search of the world literature revealed very few reports of such familial cases.¹ If our postulates were correct, familial bladder cancer should not be uncommon.

I am now able to report some preliminary results from a case-control study currently taking place in Yorkshire. Each of 1261 individuals, patients with bladder cancer together with age- and sex-matched controls, was asked about other cases of bladder cancer in first- or second-degree blood relatives. Overall 84 (7.6%) gave evidence that one or more family members also had the disease. Case-control analyses of these data by the method of Mantel and Haenszel² give an estimate of the odds ratio of the risk of familial bladder cancer of 1.345. This result is not statistically significant and shows that cases of bladder cancer are only slightly more frequent in the families of the cases.

These preliminary results show that a family history in cases of bladder cancer is not uncommon, and that this type of family history occurs also in the general population. It might have been expected that a stronger family history in the cases would support our genetic findings. This need not be the case if the genes in question are common, as we have suggested. My interpretation would be that certain quite common genes confer susceptibility to the disease but that only a fraction of such people ever get bladder cancer owing to their varying environmental exposures. Possibly the controls with a positive family history have the genes we described¹ and are

at a greater risk of bladder cancer. More analyses are required on the existing data, in particular to examine the genetics of the control group with a positive family history; but also a careful follow-up of both the controls and the families of the cases will be essential to see if the prediction about their susceptibility is true.

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¹ Herring, D W, Cartwright, R A, and Williams, D R R, *British Journal of Urology*, 1979, **51**, 73.

² Mantel, N, and Haenszel, W, *Journal of the National Cancer Institute*, 1959, **22**, 719.

Photographing slides during scientific presentations

SIR,—At several conferences that I have recently attended I have been somewhat disturbed, both as a delegate and as a speaker, by the presence in the audience of other delegates photographing slides as they are being presented. I am uncertain of the legal or ethical principles involved, but feel that the practice at least constitutes gross impoliteness since generally no prior permission of speaker or chairman has been sought.

As a relative newcomer to the world of scientific presentations I am loth to interfere with the rules of the game. However, since I feel that this is also a relatively new practice, and one which will ultimately lead to devaluation of the forum good conferences provide, might I appeal to organisers and chairmen to make an appropriate ruling and to publicise and enforce it?

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Treatment of reactions to hymenoptera stings

SIR,—Your experts advising on the prompt treatment of bee and wasp stings (17 March, p 726; 19 May, p 1334) recommend among other things the injection of 1/1000 adrenaline solution. This is not really very practical. When one is away from home it is cumbersome to carry on one's person, at all times during the season, the paraphernalia for injection treatment on the off-chance of being stung. The drawing up and injection by someone unaccustomed to this procedure, in what are likely to be inconvenient circumstances, probably out of doors, possibly with dirty hands (for example, when gardening), are bound to be difficult and fraught with the possibility of delay and error. Your first expert also suggests using a salbutamol aerosol, which is certainly handier in an emergency for the airways obstruction which causes 80% of deaths. This affords little protection for those who react to a sting with anaphylactic shock. Dr M A Ganderton (5 May, p 1216) recommends the inhalation of an adrenaline aerosol (Medihaler-Epi) in the belief that absorption would deal with general manifestations in addition to local relief of bronchospasm. How much would be absorbed by this route is questionable. Not all hymenoptera-sensitive patients are asthmatic, and those unaccustomed to the use of pressurised aerosols might experience difficulty in timing the discharge during inhalation—it needs practice.

For portability, ease of administration, and speed of action in the relief of bronchospasm it would be difficult to improve on sublingually administered isoprenaline. A tablet wrapped in foil could be carried at all times. What is needed is information, based on experience of this drug, on its effectiveness in shock due to stings. It has been objected that isoprenaline might aggravate shock,¹ but the fall in diastolic pressure only occurs in the upright posture. Anyone contemplating prescribing sublingual isoprenaline should specify Aleudrin (Lewis Laboratories Ltd), because prescribing "isoprenaline tablets" can result in erroneous dispensing of Saventrine tablets (which have to be swallowed). A prior test with a half tablet (10 mg) will establish whether a patient is unusually sensitive to its chronotropic action on heart rate.

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¹ McLean, J A, *A Manual of Clinical Allergy*, ed J M Sheldon, R G Lovell, and K P Mathews. 2nd edn. Philadelphia, W B Saunders, 1967.

Smoking and acclimatisation to altitude

SIR,—I was a fairly heavy smoker for about 10 years, and at the same time active in skiing and mountaineering. On several occasions I noticed that altitude sickness either did not affect me at all or, if it did, did not affect me as seriously as members of the group who were non-smokers.

Over the years a number of friends made similar observations. The main things the smokers had in common were that we had all been on several expeditions to about 4600 m or higher, we had all either smoked less or stopped smoking completely during these expeditions, and we had all suffered significantly less from altitude sickness than our non-smoking companions. Nobody had approached the matter scientifically, but we all assumed that our tissues had become so accustomed to oxygen starvation due to the cigarette smoking that we were already partially acclimatised to altitude before setting off.

It was therefore very interesting to read the article by Dr Judith M Davies and others (11 August, p 355) on the effect on oxygen availability of stopping smoking for 48 hours. The findings in Dr Davies's pregnant women appear to confirm our subjective and unscientific conclusions about partial acclimatisation. Perhaps the British Olympic Association should now be advised to consider the cost advantages of substituting controlled cigarette smoking for altitude training in the pre-Olympic training programme. The reported 8% increase in available oxygen might produce the extra puff our athletes need in 1980.

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Unbalanced view of a rare hazard?

SIR,—I wish to comment on the published correspondence between Dr B M Laurance, a consultant paediatrician, and Mr Ian Trethowan, Director-general of BBC Television, in the columns of *Medicine and the Media* (30 June, p 1785), concerning a proposed television programme about a handicapped child.

The Association of Anaesthetists of Great Britain and Ireland is extremely concerned at the potential harm to parents and their children who await operation and anaesthesia from screening a programme which highlights an exceedingly rare occurrence—brain damage to a child after an anaesthetic for a minor operation. Indeed, this unbalanced view of the hazards of anaesthesia could easily deter parents from consenting to necessary operations on their children. It is particularly worrying to note Mr Trethowan's rather cavalier reply to Dr Laurance and the lack of consultation with our specialty.

I have written to Mr Trethowan to suggest that if the programme is to be screened a discussion should be included, with the participation of an anaesthetist, to balance the programme's potentially harmful effects and to ensure that correct emphasis is given to Mr Trethowan's claim that "problems arising out of anaesthesia are amongst the most common in medical negligence."

Our association would always be willing to assist the media with advice, and it is perhaps unfortunate that the BBC did not seek expert advice at an early stage in the planning of this programme.

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Patients before consultants

SIR,—As a valiant defence of consultant status by a consultant surgeon the article by Professor Norman Browse (15 September, p 682) takes its place at the pinnacle of that sorry pyramid. He states that patients' needs must be put before career structures and then proceeds to claim that patients are best looked after by a team of three doctors. This proposed team would consist of a consultant, a house officer, and a doctor "whose duties will stretch from helping and training the house officer to deputising for the consultant." What an interesting suggestion—having about as much foundation in reality as the Flat Earth Society. He suggests that a doctor whose training is sufficient to allow him to deputise for a consultant should spend half his time in general practice and thereby remove from patients in hospital a highly trained doctor. Of course, it is possible that Professor Browse believes that you do not need to be highly trained to deputise for a consultant. After all, he does not believe that general practice is truly a specialty in its own right. No doubt as a professor of vascular surgery he considers himself well qualified to make such judgments.

The article by Professor Browse is in one respect timely since it questions the present hospital staffing structure. Rather than beginning as he does from what a consultant considers to be his role, let that exercise begin by asking what are a patient's requirements and aspirations in hospital. Put patients before consultants. Patients expect to be under the care of a fully trained doctor while they are in hospital. If a doctor is not fully trained then it is inevitable that patients are exposed to a greater risk of wrong management. According to Doran,¹ 75% of all emergency operations at one hospital were performed by a registrar, and in the West Midlands Region 48.6% of all operations were performed by registrars. I wonder how many

consultant surgeons were operated on by registrars in the same period. It is well known that at least three out of every five registrars in surgery cannot proceed with their training owing to the present staffing structure. Thus patients probably are exposed to increased risks without any consequential benefit to society.

The medical profession needs to devise, rapidly, a hospital staffing pattern which provides a maximum of fully trained doctors to look after patients. Put patients before consultants.

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¹ Doran, F S A, *British Medical Journal*, 1978, 1, 385.

SIR,—Professor Norman Browse seems to argue (15 September, p 682) a good case for his proposed hospital career structure, certainly from the point of view of hospitals and hospital patients.

On the subject of general practice his reasoning becomes more emotional, which is perhaps significant, as it is from general practice that his recruits will, indirectly, come. He should tell us what effects his proposals will have on general practice. It is not enough, for example, merely to demonstrate how 24-hour practice cover can be provided by half-time GPs. Most patients want, within the limits of reasonable off-duty, the same, personal, family doctor in whom they can confide. If most GPs are to become half-timers, it is hard to see how that concept of general practice can survive.

Professor Browse says in his third paragraph, "But patients are what the hospital service is all about." Patients are what general practice is all about too.

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SIR,—There will be quite a few doctors who would be happy to work in the hospital practitioner grade, as proposed by Professor Norman Browse (15 September, p 682); but I am certain that their numbers fall far short of that required to provide "first-class 24-hour cover" to specialist units composed of equal numbers of consultants and house officers.

To provide 24-hour cover in one post throughout the year requires five whole-time equivalents to allow minimal off duty, annual and study leave, etc. This means that each unit would require 10 hospital practitioners, each of differing experience, making the organisation of cover incredibly difficult, even if such vast numbers were available.

The answer surely lies in the system adopted throughout much of Europe and North America. There, specialists look after all patients and only in the teaching hospitals are they assisted by any "subconsultant" staff. The system works because it depends on item-of-service payment. Of course, it is absurd to think that such a method of payment could be introduced into the NHS, but the system could work here if consultants' salaries were adjusted so that they could be expected to pay for whatever assistance they received from "subconsultant" medical staff engaged by the hospital.

As I have previously pointed out,¹ unless a price is paid for the assistance currently