We are trained professional nurses working alongside and with our medical friends and colleagues and in our own right, when qualified to do so, in certain spheres of professional nursing activity.

Dr Tomlin's concern for the prevention of stress in nurses is much appreciated and it is upon us all to work together to prevent stress in all its disguises along the lines he suggests and in other ways. Fortunately developments are taking place. Unfortunately, stress does develop in both nurses and doctors and is not confined to those who work in intensive care units.

Myself, I have always been so thankful for the support and gratitude of my medical colleagues with whom I have worked and to whom I owe so much.

GWEN M PRENTICE

London SE22

Tuberculin testing in hospital staff

SIR,—In your leading article on this subject (3 September, p 592) you give an excellent synopsis of an ideal policy to protect hospital personnel from contracting tuberculosis from patients or specimens. However, in reviewing our paper¹ you say that an unsatisfactory time test may have been one reason for the unexpectedly high number of negative reactors (68%). This would be true if doubtful time reactors were regarded as negative, because we found that all of them were Mantoux-positive. However, in our results they were included as positive in calculating the overall incidence of 68% negative reactors among the high-risk group of hospital staff.

An official policy should encompass prophylaxis of all hospital workers not only against tuberculosis but also against other infections. The present unsatisfactory situation emphasises the need for an occupational health service within the NHS.

C A BARTZOKAS

Department of Medical Microbiology,
University of Liverpool

¹ Holley, M P, and Bartzokas, C A, *Journal of Hygiene*, 1977, 78, 325.

Screening children for visual defects

SIR,—Your recommendation (3 September, p 594) that there should be a proper administrative structure for a revised scheme to screen children for visual defects would have been enhanced by a more accurate account of current arrangements. Since April 1974 there have been no local authority child health clinics and the former school health service has been replaced by a medical and dental inspection and treatment service for those children at local education authority maintained schools whose parents can be persuaded to avail themselves of it. The repeal of the greater part of section 48 of the 1944 Education Act has seriously weakened the power of the school doctor (or dentist or nurse) in providing an effective regular inspection service.

The suggestion of continuing an "annual school vision examination" (presumably applying to all schoolchildren) is rather naive. Such annual inspection was never mandatory or commonplace and would probably be considered by most school doctors and by

ophthalmologists to be a complete waste of time. Your mention of the "child health visitor" seems unusual, the concept advocated by the Court Committee for this type of nurse having been rejected by the BMA and by most other professional bodies representing doctors and nurses. Reference to the BMA *Members' Handbook* would have made it clear that the profession itself had considered (ARM, 1950) that it was not necessary for a school doctor to have prior consultation with a child's own doctor if referring a child for ophthalmic examination only. It is, of course, a usual courtesy to do so.

G R BRACKENRIDGE

Northallerton, N Yorks

Shortage of anaesthetists

SIR,—Mr A W Fowler (27 August, p 576) mentions fear by patients as a possible deterrent to the use of local anaesthetics. In contrast to this situation in the UK, when working in Malawi I found that many patients were more afraid of a general anaesthetic than of surgery and some would refuse major surgery until offered it under local anaesthesia. Local anaesthesia made surgery possible in some extremely shocked patients when modern anaesthetic facilities were not available. It proved possible to operate successfully on women with ruptured uterus brought in after prolonged labour, using 100 mg of pethidine plus local anaesthesia, and to do major resections of bowel with the same combination.

In district and mission hospitals in Malawi it was usual for a single doctor to provide a wide range of services along with locally trained medical assistants and other staff. Some local medical assistants, with 2-4 years' training after primary school education followed by more training on the job, developed great skill as anaesthetists, in general anaesthesia and in other methods. I had the good fortune to work with two medical assistants who had been trained by an Israeli surgeon to give epidural anaesthesia and did it superbly.

If we in the "over-developed" countries are to have satisfactory health services in the future we may have to learn from some of the less developed countries about the appropriate use of limited resources of cash and manpower. Medically qualified anaesthetists should feel in no way threatened by recognition that non-physicians can be trained and employed to provide excellent anaesthetic services. The same applies in many other aspects of health services.

DAVID STEVENSON

School of Tropical Medicine,
Liverpool

Fetal monitoring and fetal deaths in labour

SIR,—Professor R W Beard (23 July, p 251) states that "with good monitoring facilities there should be no fetal deaths during labour." However, as the following case report illustrates, this is not always so.

A 29-year-old para 1+2 patient whose only previous successful pregnancy had ended in the normal delivery of a 3500-g infant presented at 39 weeks' gestation following an uneventful antenatal course complaining of backache and diminished fetal movements. On examination full systems review was normal, urine analysis was clear, and

she was normotensive. The uterus was soft, with a fundal height equivalent to the dates, the lie was longitudinal, and the head was engaged. Vaginal examination showed a closed cervix with intact membranes. In view of the symptoms the patient was admitted and continuous fetal heart rate monitoring and uterine pressure recording was started using external cardiotocography with ultrasound (Sonicaid FM3).

A technically excellent cardiotocographic tracing was obtained. The fetal heart pattern showed a rate between 120 and 130 beats/min, with normal beat-to-beat variation. There were no decelerations. One hour later, however, the pattern changed, with variability between 190 and 80 beats/min. Within four minutes the fetal heart stopped. On re-examination it was noted that the cervix had dilated to 4 cm, allowing artificial rupture of the membranes to be carried out. Clear liquor (200 ml) was obtained. Within 90 min the patient was delivered of a fresh, stillborn male infant weighing 3000 g. The placenta followed immediately upon the delivery of the infant and approximately 800 ml of retroplacental clot was noted. Post-mortem examination confirmed that death was due to acute anoxia in a normal infant.

Although others^{1,2} have described precise (pathological) cardiotocographic patterns during fetal death in utero, in our case fetal monitoring failed to give timely warning of death. It would appear that the initial fetal insult was too slight to cause distress until placental abruption was so sudden and acute that cardiotocographic evidence of fetal distress was of little value to the clinician.

CYRIL THORNTON

Rotunda Hospital,
Dublin

¹ Tushuizen, P B, Stoot, J E G M, and Ubachs, J M H, *American Journal of Obstetrics and Gynecology*, 1974, 120, 922.

² Cetrulo, G L, and Schiffrin, B S, *Obstetrics and Gynecology*, 1976, 48, 521.

Stress incontinence

SIR,—I should like to reply to the numerous points raised in the letter from Mr D H Lees and Mr A Singer (27 August, p 575).

I emphasised in my own letter (23 July, p 261) that simple stress incontinence does not need elaborate investigation; this probably applies to 70-80% of cases of female incontinence presenting to the gynaecologist for the first time. It is, however, for those patients in whom incontinence surgery has failed or symptomatology is mixed that urodynamic investigation is imperative. It has been amply demonstrated^{1,2} that the patient's description of her symptoms is by no means reliable either for its accuracy or in enabling the clinician to make a precise diagnosis. While this might have sufficed some years ago, investigative facilities are available today to help diagnose just these difficult cases to which they refer.

It is well known that detrusor instability can present with stress incontinence and minimal urgency incontinence. There is at the moment no adequate method of determining in advance whether or not continence surgery will control incontinence due to instability; we do know, however, that the cure rate for incontinence due to instability is less than that due to urethral sphincter dysfunction (genuine stress incontinence). The purpose of having an accurate urodynamic investigation beforehand is to inform the patient that surgery is less likely to provide an effective cure and that it is reasonable to defer this until conservative methods have

been tried and failed. If surgery does succeed, then certainly both stress incontinence and urgency incontinence can be cured.

Similarly, when the detrusor is stable both stress and urgency incontinence may be present. The aetiology of the latter is uncertain. Following surgery it has been shown that where frequency is improved urgency incontinence is also improved and vice versa.² It is this imprecise nature of "clinical urgency" which demands urodynamic investigation. It is not clear from the comments of Mr Lees and Mr Singer on the cases quoted why the decision to delay surgery had been correct.

I should like to know how they gauged the effectiveness of their operation without objective evidence. The simple procedure of coming to the examination couch with an empty bladder will naturally fail to disclose stress incontinence. Do they therefore ensure that patients are examined with the same volume of fluid in the bladder at each visit? How did they diagnose that the patient with recurrent incontinence had genuine stress incontinence rather than incontinence due to detrusor instability?

Finally, while readily accepting the importance of elevation of the bladder neck and proximal urethra in the control of incontinence, I should like to know what evidence there is that the pubocervical fascia is the essential element in this manoeuvre.

STUART STANTON

Department of Obstetrics and
Gynaecology,
St George's Hospital Medical
School,
London SW17

¹ Bates, C P, Loose, H, and Stanton, S L, *Surgery, Gynaecology and Obstetrics*, 1973, **136**, 17.

² Stanton, S L, and Ritchie, D, *American Journal of Obstetrics and Gynaecology*, 1977, **124**, 461.

³ Stanton, S L, Williams, J E, and Ritchie, D, *British Journal of Obstetrics and Gynaecology*, 1976, **83**, 890.

Spectacle lenses and eye injuries in children

SIR,—I would be most grateful to know if there are any doctors in general practice or in casualty departments who would be kind enough to let me know if there have been any accidents to children as a result of their wearing spectacles with glass lenses as opposed to plastic lenses while engaged in school activities such as games or physical education.

I raise this because of recent concern in the medical profession over the matter of swimming goggles which shatter because they are made from acrylate rather than polycarbonate plastic.

DAVID LARDER

Director of Safety Education,
Royal Society for the Prevention
of Accidents

Cannon House,
The Priory Causeway,
Birmingham B4 6BS

Immunisation and brain damage

SIR,—Earlier this year (30 April, p 1159) you kindly published my request for proof that the pertussis component of the triple immunisation was the causative agent in such cases of brain damage that could be regarded as sequelae to the immunisation. A few weeks later (28 May, p 1411) you also published a reply from Professor W Ehrengut in Hamburg who drew attention to a paper he had published in 1974¹ proving just that, and also demonstrating a

rate of serious complications of pertussis vaccination that seems greatly in excess of the rate of such complications as reported in Britain.

From a private communication from Professor Ehrengut as well as from other German publications I also understand that in West Germany pertussis vaccination is no longer offered as a routine measure but is now restricted to children living in institutions, in very large families, or under unusually poor hygienic conditions.

Meanwhile leading articles on this problem have appeared in the *BMJ* (2 July, p 5) and in the *Lancet*² advocating continued generalised pertussis vaccination. The abandonment of such generalised pertussis vaccination in West Germany is not mentioned in either of these articles, and among the 13 and 24 references appended respectively the paper by Professor Ehrengut does not appear. Why?

G SCHOENEWALD

Greenford, Middx

¹ Ehrengut, W, *Deutsche medizinische Wochenschrift*, 1974, **99**, 2273.

² *Lancet*, 1977, **2**, 71.

Use of ritodrine in pregnant diabetics

SIR,—To avoid any misunderstanding may I add to my letter on the use of ritodrine in pregnant diabetics (9 July, p 124)? The controlled trial referred to was that of Blouin *et al*¹ in which oral ritodrine was given for up to 10 weeks to non-diabetic women who were pregnant.

In common with other β -mimetic drugs (Dr D J B Thomas and others, 13 August, p 438) intravenous ritodrine may cause a rise in blood glucose levels for up to 48 h. Despite continuing ritodrine infusion the glucose and insulin profiles return to normal within this time and remain normal during further treatment.² In a report of ritodrine treatment in two diabetic patients Dr Judith M Steel and Mr J Parboosingh (2 April, p 880) concluded that the drug has a place in the management of pregnant diabetics provided that the strong hyperglycaemic effect of the drug on intravenous injection is anticipated and countered by appropriate monitoring and adjustment of the insulin dose. On oral treatment no variations of glucose levels have been reported.

T C G SMITH

Medical Director,
Duphar Laboratories Ltd

Southampton

¹ Blouin, D, Murray, M A F, and Beard, R W, *British Journal of Obstetrics and Gynaecology*, 1976, **83**, 711.

² Bergstein, N A M, *et al*. Report on file, Duphar Laboratories.

Domiciliary oxygen

SIR,—I should like to make a few comments on your leading article on this subject (9 July, p 77).

The Portogen, referred to in your fifth paragraph, could be modified to run at 2 l/min, when it would last 50 min. Last year we offered to introduce a 230-l capacity cylinder with a refill back-up service if the Department of Health and Social Security would include it in the Drug Tariff. This was unacceptable to the Department because existing arrangements for supplying portable oxygen equipment through

the hospital and specialist services were considered adequate. Additionally, economic considerations apart, it was considered inappropriate to make any major change in domiciliary oxygen policy in advance of the conclusions of the current Medical Research Council trials on long-term oxygen therapy.

In your eighth paragraph you state that only the standard-size cylinders (1360 l) are prescribable on FP10 and that the cost of supplying 10-12 of these weekly is about £2500 per annum. Some hospitals obtain size G (3400 l) cylinders for domiciliary patients. For four of these per week we would only charge the hospital at the annual rate of about £270 at current prices.

J R JUNNER

Marketing and Sales Manager,
Medical Gases,
British Oxygen Co Ltd

Brentford, Middx

Acute suppurative thyroiditis caused by *Pseudomonas aeruginosa*

SIR,—In their report (27 August, p 580) of a thyroid abscess caused by *Pseudomonas aeruginosa*, Dr M Weissel and his colleagues describe the patient's rapid recovery following surgical drainage and "appropriate antibiotic therapy with penicillin."

Ps aeruginosa is naturally resistant to penicillin, which is therefore quite inappropriate for treatment. I suggest that the good recovery was due to surgical drainage and that no antibiotic was required. For infections with *Ps aeruginosa* that do warrant systemic antimicrobial therapy drugs such as carbenicillin and gentamicin are indicated, and, time permitting, the choice is best based on the results of sensitivity testing of the organism.

M BARNHAM

Department of Bacteriology,
St Mary's Hospital (Harrow Road),
London W9

Late infection after hip replacement

SIR,—Your leading article on this subject (23 July, p 213) contains several points which we think are worthy of comment.

Most of the confusion regarding the factors which are important in the prevention of infections of hip joint replacements could perhaps be dispelled by a thorough comparative study of the bacteria present in all of the possible source sites (for example, surgeon, air, patient) and those which subsequently are found to be implicated in deep infection of the arthroplasty. Faced with a similar problem in the case of shunting devices for hydrocephalus we were able to show by such methods that the source of the organisms was the patient's own skin.¹ Such a study should be carried out preferably *before* any conclusions are drawn as to the solution of the problem, otherwise a great deal of time and money is likely to be wasted.

In all of the publications to date dealing with a reduction in sepsis rate many differences in methods and conditions exist, and comparison is difficult. Indeed, it is true that similar results can be obtained with and without the use of "clean air"²⁻⁵ and the problem is probably multifactorial. The contributions of changes in technique and the use of prophylactic antibiotics, for example, cannot be ignored.