sampling. Even where culture is possible its efficiency may be low. Estimates range from 40 to 90%.¹

We have recently applied the enzyme immunoassay (Elisa) technique to the detection of antibodies in gonorrhoea. The test we have developed uses an extract of outer membrane proteins from *Neisseria gonorrhoeae* as antigen and is sufficiently sensitive to allow the patient's serum to be tested routinely at a dilution of 1/1000. Details will be published elsewhere. The important finding from the point of view of screening is that appreciable antibody titres could be detected in 50% of patients within a few days of infection and in a similar proportion of asymptomatic carriers, both male and female. Moreover, antibody levels were not affected by a past history of gonorrhoea unless there had been an attack within the previous 12 weeks. In the control populations used 16% of men and 11% of women had antibody levels above the diagnostic threshold chosen, but the frequency distributions suggest that some of the 'false-positives' may have been real.

In patients with systemic gonococcal infection antibody levels were extremely high and the test could prove useful in the diagnosis of esoteric manifestations.

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- ¹ Brinton, C C, *New York Times*, 1977, 30 June, p 15.
² Handsfield, H H, et al, *New England Journal of Medicine*, 1974, **290**, 117.
³ McCormack, W M, et al, *Lancet*, 1977, **1**, 1182.
⁴ Norins, L C, *Journal of Infectious Diseases*, 1974, **130**, 677.

Diagnosing familial hypercholesterolaemia in childhood

SIR,—Following the report of Dr J V Leonard and others (18 June, p 1566) on the diagnosis of familial hypercholesterolaemia (FH) in childhood by the use of serum cholesterol estimations, we pointed out (9 July, p 127) some of our experience on the regulation of 3-hydroxy-3-methylglutaryl (HMG) CoA reductase activity in freshly isolated leucocytes of FH patients¹ and its possible application as a screening procedure. Further letters on the subject have been published that refer to our work and we would like to reply to points raised.

Dr J V Leonard and his colleagues (13 August, p 455) state that our data failed to support the hypothesis that the diagnosis of FH can be made by measurement of HMG CoA reductase activity in the system we used. Presumably they are not criticising our biochemical method; if they are they do not state any of their criteria. So far as we understand, their objections centre on the discordance between HMG CoA enzyme regulation and serum cholesterol estimations in members of the family studied. Central to their argument is subject II₄, sister of the index patient, who had a serum cholesterol of 8.58 mmol/l (331 mg/100 ml) but showed normal regulation of reductase activity. According to Leonard *et al*, this subject has a "high probability of being affected." As pointed out in the study, however, the member of the kindred was clinically well (and still is). We would be very surprised if a person (now aged 50) who has

no arcus senilis, xanthomata, or evidence of premature vascular disease and whose serum cholesterol has returned to normal on simple dietary advice is carrying the gene for FH.

With regard to the letter of Dr Postle and his colleagues (8 October, p 957), we do not think that their preliminary data on five patients with FH studied by a method that has been in use in our laboratory (and many others) for some years "may overcome some of the problems raised . . ." in our work. We have considerable experience in both the regulation of sterol synthesis and HMG CoA reductase activity in approximately a hundred subjects,¹ and if Postle *et al* have anything new to say on the subject of the biochemical basis or the diagnosis of FH that will throw light on "problems" with our work then they should state it clearly.

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- ¹ Betteridge, D J, Higgins, M J P, and Galton, D J, *British Medical Journal*, 1975, **4**, 500.
² Higgins, M J P, Galton, D J, and Betteridge, D J, *Clinical Science and Molecular Medicine*, 1975, **49**, 24.
³ Higgins, M J P, Lecomwasam, D S, and Galton, D J, *Lancet*, 1975, **ii**, 737.
⁴ Betteridge, D J, Higgins, M J P, and Galton, D J, *Proceedings of the Royal Society of Medicine*, 1976, **69**, Suppl. 2, 104.
⁵ Higgins, M J P, and Galton, D J, *European Journal of Clinical Investigation*, 1977, **7**, 301.
⁶ Higgins, M J P, Galton, D J, and Betteridge, D J, *Colloquium XXV on Protides in Biological Fluids*, 1977 (in press).

Net beds in general practice

SIR,—There have been recent references to the use of net suspension beds in neuro-surgical centres and dermatology units.^{1 2} Your readers might be interested to hear of the use of this device, in which the patient is suspended on a loose woven nylon net hung above a bed on two rollers, in general practice. A 76-year-old man had to have both his legs amputated above the knee for arteriosclerotic gangrene. At his own request he was sent out of hospital to an extended family of agricultural field workers. His stumps were well healed, but he had deep pressure sores over each greater trochanter of the femurs, over each ischial tuberosity, and a huge confluent sacral sore.

The family saw a net suspension bed being demonstrated on television and, as they were willing to provide the necessary hiring fee, I felt I had little to lose. The device arrived with a demonstrator and was fixed to a standard hospital bed obtained through the nursing service.

To my surprise the family rapidly adapted themselves to its handling, and at the time of his death four months later in uraemic coma all his bed sores were healed except for the sacral sore, which was reduced to under half its original size. He was a heavy ill man with painful bed sores, quite helpless, with poor circulation, and no legs, whom I would normally have expected to deteriorate further. As it was he had a reasonable quality of life for his last few months.

The lessons we learnt were that although the net suspension bed made for great ease of handling and turning, and appeared to be comfortable, and certainly spread the load on his pressure areas, it is no substitute for good general nursing care. This my district nurse and her colleagues provided in abundance. This also meant giving instruction in the handling of the bed to whichever member

of the family whose turn it was to look after "grandad." Continuous vigilance was necessary and we nearly had another pressure sore on one shoulder when he was kept on his side for a little too long. The equipment was hired for a period of three months and after that period there is the option to purchase at a reduced rate. It has a definite place in the handling of bed-ridden cases, but I must insist that it is ancillary to, and no substitute for, good general nursing care.

DAVID SCOTT

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Lincs

- ¹ Gibbs, J R, *Lancet*, 1977, **1**, 174.
² Dahl, M G C, *Lancet*, 1977, **1**, 311.

Widespread atheromatous arterial disease

SIR,—While agreeing with all that Dr A Smith and Professor M D Rawlins says (6 August, p 378) about the use of beta-blockers in hypertension and coronary artery disease, I am surprised that the latter advocates their use in a patient with intermittent claudication and a smattering of absent lower limb pulses: surely beta-blockade aggravates peripheral vascular disease of this nature.

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* * * We sent a copy of Dr Malcomson's letter to Dr Smith and Professor Rawlins, who reply as follows—ED, *BMJ*.

SIR,—Patients receiving beta-blockers may develop symptoms of Raynaud's phenomenon involving both hands and feet, and there are reports of progression to frank gangrene of the extremities.^{1 2} However, while hand blood flow is largely controlled neurogenically, the dominant stimulus to increased muscle flow during ischaemia and exercise is locally mediated. Consequently, there is a sound basis for suggesting that beta-blockade might have a deleterious effect on skin blood flow in patients with intermittent claudication and careful supervision is essential. We cannot accept, however, that the use of beta-blockers is contraindicated.

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- ¹ Zacharias, F J, *Postgraduate Medical Journal*, 1971, **47**, Suppl. p 75.
² Marshall, A J, et al, *British Medical Journal*, 1976, **1**, 1498.

Dystonic reaction to high dose propranolol

SIR,—A 35-year-old married woman in this hospital has suffered from a schizoaffective disorder from the age of 16 which failed to show a convincing response to the various approaches now available for the treatment of this condition. Her illness and admissions to hospital were at first intermittent, but she has now been an inpatient here continuously for the past 10 years.

On ten occasions over the past 15 years she has been observed both here and elsewhere to exhibit dystonic episodes while taking certain neuroleptic drugs. Specifically these were chlorpromazine hydrochloride (Largactil) 50 mg three times a day intramuscularly; trifluoperazine (Stelazine) 5 mg three times a day by mouth; haloperidol (Serenace) 5 mg or more intramuscularly; and fluphenazine decanoate (Modectate) 25 mg intramuscularly two-weekly. The dystonia was recorded by her doctors as severe opisthotonos, torsion of the neck with deviation of the mouth and eyes, dysarthria, forced flexion of the left arm, paroxysmic rigidity and stiffness of the neck and limbs, trismus, grimacing, and oculogyric crises.

In March 1975 she was started on propranolol in gradually increasing doses as described by Yorkston and his colleagues¹ for the treatment of schizophrenic symptoms. On reaching a dose of 600 mg twice a day, despite neuroleptics having been omitted for some months, she developed further dystonic episodes. In these, according to relatives and nursing staff, her eyes rolled up, teeth were clenched, perspiration and salivation became marked, and limbs and trunk exhibited distorted postures, the legs being extended and arms and wrists flexed, with arching of the back leading to a tendency to slide repeatedly on to the floor from chair or bed. This lasted half an hour and recovered without administration of antiparkinsonian agents. Such episodes recurred at intervals over a few days until propranolol was discontinued. The mental state had not materially improved.

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¹ Yorkston, N J, *et al*, *British Medical Journal*, 1974, 4, 633.

Describing urinary symptoms

SIR,—In his article on urinary symptoms Dr Norman Jones (24 September, p 818) writes, "dysuria, sometimes described as a sensation of scalding on micturition . . ."

This phrase underlines how unsatisfactory a term "dysuria" has come to be. The prefix "dys" can mean pain, as in dysmenorrhoea, or difficulty, as in dysphagia. Unfortunately people suffering from symptoms of lower urinary tract disorders can have pain or difficulty or both so that dysuria is an inaccurate and sometimes misleading word. In order to overcome this we have recently encouraged in this department the use of the word "uralgia" specifically to apply to a condition in which the patient has pain on passing water and I would commend this word to general use. Both parts of it are derived from Greek, it is precise in its meaning, and furthermore it rolls off the tongue with a pleasing euphony.

It is worth pointing out that although Dr Jones mentions many different causes for lower urinary tract symptoms he does not mention bladder cancer. Not all patients with bladder cancer have haematuria, and the exclusion of malignant disease in patients with uralgia is always in the forefront of the urologist's mind.

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Left-handed pipers

SIR,—I bow to the knowledge of Mr M Beckett (8 October, p 961) and my other artistic colleagues. As stated, the likelihood is that it is a right-handed piper, hence the proviso, "*thought to be a self-portrait*." However, the possibility remains that it is truly a left-handed piper, a possibility strengthened by the difficulty in painting (while piping) a side view with the head looking forward. Mr Beckett asks for further evidence for left-handed pipers. With respect to the Scots Highland bagpipe, there are two further indications: a picture by David Allan (1744-96) depicts a family scene with a left-handed piper; a manuscript by Donald MacDonald (1822) states that the position of the hands and the side for the bag are dependent on the player. Angus Mackay, in his manuscript of 1838, avoids definition of hand positions.

The Scots Highland bagpipe is a late development; evidence for left-handed players of earlier bagpipes is manifold: two mediaeval knife handles from Richborough and Whitby Abbey; Gorleston Psalter illustration (c 1330); Stone carvings at Melrose Abbey (14th century), at Roslin Chapel, Midlothian (15th century), and at Davidstowe Church, Cornwall (16th century); engraving on the silver armour of Henry VII; the picture, "Southwark Fair," by Hogarth (1733); and an Albrecht Dürer engraving (1514), possibly a reversal of a right-handed piper.

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*.*This correspondence is now closed.—ED,
BMJ.

Minerva trips up

SIR,—Minerva (22 October, p 1091) must be corrected in her belief that George Gale's article on oral contraception appeared in the *Daily Mail*. It did not. It was published in another newspaper for which the *Daily Mail* has no responsibility.

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Report on first MASC meeting

SIR,—As a medically qualified preclinical teacher with nine years of experience in medical physiology I was very disappointed with the report of the first meeting of the Medical Academic Staff Committee (MASC) in the *BMJ* of 8 October (p 972). I waded through nearly three pages dealing with the problems of clinical academic staff in order to find a frustratingly small amount of information on the proceedings of the preclinical section. This imbalance seems to me to make a mockery of the serious situation which exists in the preclinical sector. The exodus of medically qualified staff from preclinical departments has been reported to be accelerating. The medical profession at large should be made aware of the present situation in the hope that remedial action can be taken before preclinical departments are denuded of medically qualified staff. I hope that in future the *BMJ* will devote space commensurate with

the seriousness of this problem in medical education.

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*.*The conference divided into two parts and the *BMJ* had only one reporter present. As the clinical academics are the larger electorate it was decided to report their part, but this does not mean that the *BMJ* is biased against preclinical teachers or unaware of their serious problems.—ED, *BMJ*.

Ethics and etiquette of doctor-managers

SIR,—Mr John Potter (15 October, p 1030) invites discussion on the ethics of doctor-managers. Like many of us he is concerned that our loyalties to our individual patients may conflict with management decisions. In such predicaments is it better to detach from the decision-making process or to contribute our professional expertise and informed opinion from inside the group responsible for making the decision?

For a variety of practical reasons, including access to current information, opportunities for developing more fruitful working relationships with colleagues in allied professions, and the creation of mutual trust between managers of different disciplines, many clinicians find that they can influence decisions more effectively from within a decision-making group. Nevertheless, we cannot expect the interests of our own patients to predominate disproportionately. A member of such a group must be prepared to be influenced as well as to influence others—whence "consensus."

Besides this, who are our own individual patients? Do they include patients whose management we share with other clinical colleagues in general practice and in hospital and patients we are going to see in the immediate or more distant future? The demarcation lines are blurred. Perhaps, after all, we hospital clinicians have some responsibility for the health care of our neighbours in the community. If so, and resources are limited and in many places diminishing, we should take a full part in discussing and deciding priorities.

The more fully clinicians are involved in these decisions the more likely it is that the scarce resources will be used to the best advantage of all the patients. We need both concern for our individual patients and commitment to the National Health Service in which we work and which provides as much care for patients as resources, management, and all our efforts allow.

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SIR,—I believe that Mr John Potter (15 October, p 1030) has raised a very important matter and one that has become increasingly important to doctors since the recent ill-conceived administrative reorganisation of the NHS. I am also sure that the profession should look very closely at the ethical problems of medical participation in NHS management. It is easy for those without responsibility for beds and patient care to make very sweeping proposals often harmful to the interests of their clinical colleagues' patients and to consider