I suggest a simple measure that could be taken by all cyclists. Every accident should be reported to the police and any damages claimed enthusiastically from the driver's insurance company. The more trivial the accident the more important it is to report it. The threat of a prosecution or a formal caution might make it easier for drivers to "see' cyclists before they hit them.

RICHARD READING

Beaconhill Children's Centre, Cramlington, Northumberland NE23 8EH

SIR,—Among the injured cyclists studied by Mr A H R W Simpson and others (23 April, p 1161) only 0.7% had been wearing a helmet. We are not told whether this group had less serious head injuries than the unprotected majority.

I estimate that at least 10% of my cycling colleagues wear a helmet regularly, and all of these are bright and easily visible. One of the main advantages of wearing a helmet is the increased visibility it confers on the wearer. This would explain the low number of helmet wearers in the injured group in the study. Many injuries to cyclists occur because the cyclist was not seen by a motorist before the accident.1 Visibility is an essential factor in road safety and should be an important factor in the choice of a helmet. It should be included in a revision of the British Standard specification.

Department of Child Health. University of Newcastle upon Tyne, Newcastle

1 Department of Transport. Road accidents Great Britain, 1983. London: HMSO, 1984.

### Treatment for mild hyperparathyroidism

SIR,—Dr John C Stevenson and Mr John A Lynn (9 April, p 1016) criticise the concept that surgery is not necessarily essential in mild primary hyperparathyroidism.1-3 We agree about the importance of performing a good prospective study looking at bone loss,<sup>24</sup> but to date there is no good evidence that mild hyperparathyroidism is responsible for the devastating effects which the authors mention.

Measurement of the serum creatinine concentration is a useful and reproducible method of assessing renal function, particularly in elderly patients, in whom accurate timed urine collections are frequently difficult and inaccurate. The evidence for the development of renal failure in some patients with mild hyperparathyroidism comes from the Mayo Clinic study. 5-7 The criterion used was a decrease in creatinine clearance of 10% or more. A variation of this degree is found in day to day studies of motivated laboratory staff, and in patients a variation of nearer 30% can be expected. In the Mayo Clinic study five patients in the 10 year study were found to have developed impaired renal function in the first two and a half years, none in the second two and a half years, and one in the next five years. If renal function deteriorated progressively we would have expected that more rather than fewer patients would have developed impaired renal function with time.

We agree that confusion or dementia in the elderly patient with hyperparathyroidism may occasionally improve after parathyroid surgery. In our series these patients were advised to have surgery rather than conservative management. We have not been impressed by depressive symptoms or subtle physical and psychological changes, which usually persist after successful parathyroid surgery.

The increased mortality in patients with un-

treated hypercalcaemia over that in controls is slight,8 but there is also an increased mortality in those treated surgically.9 In patients over the age of 70 with conservatively managed hypercalcaemia, however, the mortality was no different from that of control subjects.8

We are fortunate in having an experienced endocrine surgeon, but there are many hospitals without this facility. We do not believe it would be in the interests of large numbers of symptomless patients to be operated on by inexperienced endocrine surgeons or to be persuaded to travel, perhaps considerable distances, to have surgery at appropriate centres. In the absence of a prospective randomised study we believe that most elderly patients with mild asymptomatic hyperparathyroidism should be managed conservatively.

> W van't Hoff E I BICKNELL F W BALLARDIE M J SAMPSON

Department of Endocrinology and Diabetes Mellitus, North Staffordshire Royal Infirmary, Stoke on Trent ST4 7LN

- 1 Rohl PG, Wilkindon M, Clifton-Bligh P, Posen S. Hyperparathyroidism. Med 7 Aust 1981;i:519-21.
- 2 van't Hoff W, Ballardie FW, Bicknell EJ. Primary hyperpara thyroidism: the case for medical management. Br Med 3 1983;287:1605-8.
- 3 Paterson CR, Burns J, Mowat E. Long term follow up of untreated primary hyperparathyroidism. *Br Med J* 1984;289:
- A G STUART 4 Sampson MJ, van't Hoff W, Bicknell EJ. The conservative management of primary hyperparathyroidism. Q J Med 1987;65:1009-14.
  - 5 Purnell DC, Smith LH, Scholz DA, Elveback LR, Arnaud CD. Primary hyperparathyroidism: a prospective study. Am J Med
  - 6 Purnell DC, Scholz DA, Smith LH, et al. Treatment of primary
  - hyperparathyroidism. Am J Med 1974;56:800-9.
    7 Scholz DA, Purnell DC. Asymptomatic primary hyperparathyroidism 10 1981;56:473-8. 10-year prospective study. Mayo Clin Proc
  - 8 Palmér M, Adami H-O, Bergström R, Jakobsson S, Akerström G. Ljunghall S. Survival and renal function in untreated hypercalcaemia. Lancet 1987;i:59-62.
  - 9 Palmér M, Adami H-O, Bergström R, Akerström G, Ljunghall S. Mortality after surgery for primary hyperparathyroidism: a follow-up of 441 patients operated on from 1956 to 1979. Surgery 1987;102:1-7.

SIR,—We agree with Dr J C Stevenson and Mr J A Lynn (9 April, p 1016) that most patients in whom a confident diagnosis of primary hyperparathyroidism is made should be advised to have an exploration of their neck. General advice that all patients should have surgery may not have been the authors' intention but may be the effect.

Their use of the findings of Palmér and his colleagues could be misleading.1-4 The patients managed conservatively were not comparable with those treated surgically; they differed in age, sex ratio, and serum calcium concentrations. These patients were compared with age and sex matched control subjects who did not have hypercalcaemia. Their mortality was higher than that of the controls, but this difference was true only of patients aged under 70. Palmér and his colleagues recognised the limitations of the conclusions that could be drawn from their data: "before we cite the higher mortality among patients under 70 years of age as an argument for operating on symptomless persons in this age group, we should bear in mind that parathyroid surgery has not been shown to reduce

The authors also do a disservice to Palmér and colleagues in drawing misleading conclusions from the studies of 441 patients treated surgically. They did not have "mild hyperparathyroidism"; 21% had mean serum calcium concentrations greater than 3.0 mmol/l, and only 29% were symptomless.<sup>3</sup> Eight died soon after operation, and for women it was nine years after operation before the survival

rate was similar to that in the general population.<sup>3</sup>

Our experience of the effectiveness and safety of parathyroid surgery is similar to that of Dr Stevenson and Mr Lynn, but most endocrinologists have a group of patients who, for various reasons, do not have surgery. Our experience indicates that, even in patients for whom we would recommend surgery, the prognosis if left untreated is fair.5 We have some patients in whom age or coincidental disease makes conservative management more appropriate. No surgery or anaesthetic is entirely without risk, and postoperative deaths do occur after parathyroidectomy. 16-8 The risk is greatest in elderly patients with cardiovascular disease.18 We advise a parathyroid exploration for most patients but urge that the risks should be considered for each case individually.

> C R PATERSON **J Burns** A GUNN

Ninewells Hospital and Medical School, Dundee DD1 9SY

- 1 Rudberg C, Åkerström G, Palmér M, et al. Late results of operation for primary hyperparathyroidism in 441 patients. Surgery 1986;99:643-51.
- 2 Palmér M, Adami HO, Bergström R, Jakobsson S, Åkerström G, Liunghall S. Survival and renal function in untreated hypercalcaemia. Lancet 1987;i:59-62.
- 3 Palmér M, Ljunghall S, Åkerström G, et al. Patients with primary hyperparathyroidism operated on over a 24-year period: temporal trends of clinical and laboratory findings. J Chronic Dis 1987;40:121-30.
- 4 Palmér M, Adami HO, Bergström R, Åkerström G, Ljunghall S. Mortality after surgery for primary hyperparathyroidism: a follow-up of 441 patients operated on from 1956 to 1979. Surgery 1987;102:1-7.
  5 Paterson CR, Burns J, Mowat E. Long term follow up of
- untreated primary hyperparathyroidism. Br Med J 1984;289:
- 6 Gough MH, Smith R, Bishop MC. Parathyroidectomy for symptomless hyperparathyroidism: a surgical dilemma. Lancet 1971:i:1178.
- 7 Dixon J, Smith JF. Progressive renal failure in surgically treated
- hyperparathyroidism. J Clin Pathol 1981;34:730-7. Cowie AGA. Morbidity in adult parathyroid surgery. J R Soc Med 1982;75:942-5.

SIR,—Dr John C Stevenson and Mr John A Lynn (9 April, p 1016) recommend that all patients with mild hyperparathyroidism should have parathyroid surgery. The issue is not as clear cut as they outline.

In a survey of all patients with hypercalcaemia in Birmingham we identified, over six months, 111 new patients with hyperparathyroidism with a calcium concentration of 2.80 mmol/l or higher.1 There was a similar number with calcium concentrations below 2.8 mmol/l, suggesting that in Birmingham at least 440 new cases might be identified each year. These figures are similar to those reported from the United States.2

Of these cases 57% were asymptomatic, and it is likely that a greater proportion of the cases with calcium concentrations below 2.8 mmol/l would be asymptomatic. Sixty three per cent were aged over 70, and 17% were aged over 80.

If Dr Stevenson's and Mr Lynn's policy were applied to Birmingham at least 160 asymptomatic patients over the age of 70 would have surgery each year. These elderly patients, who have presumably had their disease for many years, show no evidence of renal failure and have no greater evidence of bone disease than other patients of the same age. Medical follow up in it simplest form is cheap and, in the main, consists of checking a biochemical profile each year. The figures suggesting that long term medical treatment was more expensive were from American studies where a large battery of tests were performed at frequent intervals. The study of increased deaths from cardiovascular disease in patients with mild hypercalcaemia requires further investigation, and, if confirmed, it needs to be shown that surgical treatment corrects the increased mortality. I would find it difficult on the present evidence to ask a fit, asymptomatic, elderly patient to agree to undergo parathyroidectomy.

DAVID HEATH

Queen Elizabeth Hospital, Edgbaston, Birmingham B15 2TH

- 1 Mundy GR, Cove DH, Fisken R, Somers S, Heath DA. Primary hyperparathyroidism: changes in the pattern of clinical presentation. *Lancet* 1980;i:1317-20.
- 2 Heath HW, Hodgson SF, Kennedy HA. Primary hyperparathyroidism: incidence, morbidity and potential economic impact on the community. N Engl J Med 1980;302:189-93.

# Non-mydriatic Polaroid photography in screening for diabetic retinopathy

SIR,—I have been using a non-mydriatic camera in a district general hospital diabetic clinic for the past three years and think that the finding by Dr D Jones and colleagues (9 April, p 1029) that one in the Polaroid photographs are uninterpretable is a remarkably high figure; in our experience failures are fewer than 1 in 10.

The age distribution of patients in their study is not mentioned; problems caused by constricted pupils and lens opacities rise progressively over the age of 65. If both eyes are photographed at the same clinic visit we have found that the second photograph is invariably of poorer quality than the first, and our practice now is to photograph the contralateral eye at the next clinic visit.

We have been screening all patients under 65 attending the diabetic clinic. Those with visual symptoms and those known to have retinopathy who were already under review by an ophthal-mologist were excluded. The patients' mean age was 42·8 years (range 16-65) and mean duration of diabetes 9·8 years (range 0-47); 63% had type 1 diabetes. A total of 1166 retinas were examined with a Canon CR2-NM camera and Polaroid 779 film. Retinopathy (maculopathy, cotton wool spots, new vessels, and intraretinal microvascular abnormalities) was identified in 54 retinas (4·6%).

In an ideal world diabetic patients would undergo annual fluorescein angiography or be examined through dilated pupils by a consultant ophthalmologist (although many of my patients would be unwilling to submit repeatedly to either of these experiences). This utopian situation is unlikely to occur in most district general hospital diabetic clinics and the non-mydriatic camera should not be dismissed without further evaluation.

R C PATON

General Hospital, Milton Keynes MK6 5LD

### What sort of health checks for older people?

SIR,—The leading article by Dr E G Buckley and Professor J Williamson (23 April, p 1144) commenting on the white paper *Promoting Better Health* raises the problem of the organisation of health services research and the dissemination of its findings.

In the late 1960s and 1970s comprehensive reviews of the value of screening for a variety of conditions and the criteria to be observed before introducing screening were published. <sup>1-3</sup> Furthermore, the Department of Health funded a major controlled trial of the value of multiphasic screening in middle age. <sup>4</sup> In suggesting that health checks might be of value the authors of the white paper do not appear to have taken into account the results of these studies (funded by the Department of Health and Social Security).

In view of the correct insistence by the present government on the improvement of efficiency and effectiveness in the National Health Service, it is disappointing to find its own white paper wanting to perpetuate ineffective and inefficient procedures.

W W HOLLAND

Department of Community Medicine, St Thomas's Campus, London SE1 7EH

- 1 Wilson JMG, Jungner G. Principles and practice of screening for disease. Geneva: World Health Organisation, 1968.
- 2 Nuffield Provincial Hospitals Trust. Screening in medical care. Reviewing the evidence. Oxford: Oxford University Press, 1968.
- 3 Lancet. Screening for disease: a series from the Lancet. London: Lancet. 1975.
- 4 South East London Screening Study Group. A controlled trial of multiphasic screening in middle age. Int J Epidemiol 1977;6: 357-63.

## Frequency of attendance at anticoagulant clinics

SIR,—We would like to add our comments to the findings of Drs M R Howard and D W Milligan (26 March, p 898) that 12 weeks between visits is compatible with good control in patients receiving long term anticoagulant treatment. It is our practice to work up to a 12 week period in all patients receiving anticoagulants. Once they are stable on an oral anticoagulant dose for this period we are very cautious about reducing the interval unless there is a genuine reason why the patient may require closer monitoring.

In the past recall of such patients at an earlier date has proved to be superfluous, and indeed changes in their doses have rendered them outside the recommended international normalised ratio (INR) range. We have come to the conclusion that because oral anticoagulants are influenced by many interactions (drugs, alcohol, compliance, disease state) any one factor or a combination of factors could be a reason why a patient has an abnormal INR value. Long term stable patients presenting with an unusual or an abnormal INR are quizzed very thoroughly for a reason. The patients for whom no reasons for variation are found are brought back to the clinic early with their dosage unaltered. If on return their INR is still abnormal only then is their dose adjusted.

If a reason for variance is clear, however, then their dose is adjusted and they are brought back to the clinic early for restabilisation.

In our hospital we have recently switched over to the narrower guidelines suggested by the British Society of Haematology for anticoagulant control. We have found that, while initially it takes longer to stabilise the patients, consistent control within the narrower limits is possible once patients are established. Finally, we are under pressure to increase the time between visits to limit the number of patients in our clinic, which is having to serve ever greater numbers of patients as more patients undergo cardiac surgery and receive anticoagulants long term.

R PAREKH D MUKERGHEE

Wexham Park Hospital, Slough SL2 4HL

SIR,—Drs M R Howard and D W Milligan's study (26 March, p 898) produces some interesting questions but few solutions. In 1984 Wilson and James discussed the use of a computer in anticoagulant clinics. We have used their program, with minor refinements, for over two years. The international normalised ratio can be set for a particular patient, and extremes of anticoagulation of some groups of patients can be avoided.

Control of anticoagulation in our clinic has improved. There has been a reduction in people underanticoagulated (INR  $<2\cdot0$ ) from 14% to 6% and the number overanticoagulated (INR  $>4\cdot5$ ) has remained unchanged.

The importance of clerical help and a readily accessible database is highlighted by the apparent disappearance of 21 patients during the study by Drs Howard and Milligan. A computerised record system would help to prevent this. Increasing numbers of patients are being anticoagulated in the United Kingdom. We must provide a safe means of monitoring control. The use of computers in this regard has not yet been exploited fully.

P J WYLD T WILSON

Department of Haematology, Royal Hospital, Calow, Chesterfield S44 5BL

- Wilson R, James AH. Computer assisted management of warfarin treatment. Br Med J 1984;289:422-4.
- 2 Wyld PJ, Wilson TH, West D. Computer dosing in anticoagulant clinics—the way forward. J Lab Clin Haematol (in press).

#### Healthy cities

SIR,—Glasgow is often cited as an "unhealthy" city and has been included by the World Health Organisation in its healthy cities project, described by Dr Tony Delamothe (16 April, p 1117). It is considerably larger than any other city in Scotland, and the cost it places on the health care system is enormous. When the mortality data in Scotland for 1959-83 were reviewed, however, it became clear that Glasgow did not have the highest mortality.

Although Glasgow had an excess mortality of 15% between 1959 and 1963, nine towns had greater excesses, with the small town of Coldstream heading the list with an excess of 34%. In 1969-73 mortality from all causes in Glasgow did not even fall within the top tenth of the distribution, although it had an excess mortality of 12%. Doune, a small town in central Scotland, had the highest mortality with an excess of 50%. In 1979-83 the mortality from all causes was computed for the 56 districts of Scotland. Glasgow had an excess of 15%, which was second to the district of Cumnock and Doon Valley.

Nine towns were in the top tenth of the distribution during both 1959-63 and 1969-73, indicating persistent health problems. For example, Whithorn (in the south west) was ranked second highest for both periods with excesses of 32% and 46% respectively. During 1969-73 the disease profile for Whithorn showed an excess mortality for all cancers, coronary heart disease, and cerebrovascular disease; but excesses were also found for bronchitis, emphysema and asthma, breast cancer, stillbirths, and perinatal mortality. Similar disease profiles, showing that ill health is not the prerogative of the cities, can be constructed for many of Scotland's small towns.

While ill health in a small town will never pose the cost on the National Health Service that is imposed by a large city, the relatively high numbers of deaths found in some of Scotland's small towns should not be ignored. Health for all by the year 2000 is as relevant to the smaller towns in Scotland as it is to Glasgow.

F L R WILLIAMS O LL LLOYD

Department of Community Health, University of Dundee, Dundee

### Inhaling heroin during pregnancy

SIR,—Dr J E M Gregg and others (12 March, p 754) make the unsupported assertion that "the