first line treatment in patients with hypertension remains illogical."²

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1 British Hypertension Society Working Party. Treating mild hypertension. *Br Med J* 1989;298:694-8.

2 Poulter N, Sever P, Thom S. Antihypertensive and adverse biochemical effects of bendroflumazide. *Br Med J* 1990;300:1465. (2 June.)

AUTHORS' REPLY.—The brief of the British Hypertension Society working party was to review the results of published trials of drug treatment in mild hypertension, to make recommendations based on observations from the trials, and, in so doing, to try to correct the wrong impression disseminated through the popular and medical press that "mild hypertension is not worth treating." It was not within our remit to comment on alternative treatments, none of which have been subject to large controlled trials of their effects on morbidity and mortality from cardiovascular disease. Thus, based on the evidence from only the intervention trials, the working party stated that "first line treatment with a diuretic or β blocker is equally acceptable."

Our letter highlighted the potential importance of the adverse metabolic effects of diuretics on important risk factors for coronary artery disease, which are also evident with low doses of diuretics.¹ Because over 70% of hypertensive patients in the United Kingdom (more than 90% in one series²) have serum cholesterol concentrations greater than 5.2 mmol/l it is illogical to use drugs that may exacerbate the metabolic problem, particularly when alternative first line treatments (angiotensin converting enzyme inhibitors, calcium entry blockers, α_1 adrenoceptor blockers) do not produce these adverse effects.

I accept that views differ on the extent to which these alternative treatments should replace diuretics (and possibly β blockers) as drugs of first choice. Some doctors demand evidence from large trials of long term benefit with these newer drugs. Such evidence, even if the trials were funded, would not be available for seven to 10 years. Others are influenced by the disappointing impact of diuretics and β blockers on the incidence of coronary heart disease and the circumstantial evidence that newer drugs may be preferable because of their better metabolic profile.

These views are clearly set out in a fact file on hypertension treatment prepared by the British Hypertension Society, which will shortly be distributed to general practitioners by the British Heart Foundation.

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1 Poulter N, Sever P, Thom S. Antihypertensive and adverse biochemical effects of bendroflumazide. *Br Med J* 1990;300:1465. (2 June.)

2 Langdon CG. Doxazosin: a study in a cohort of patients with hypertension in general practice—an interim report. *Am Heart J* (in press).

Doctors' safety: who cares?

SIR,—We would like to express our support for the points made by Drs Dawn Black and Elspeth Guthrie in their Personal View article.¹ They rightly drew attention to the dangers faced by psychiatrists and general practitioners concerned with psychiatric emergencies in the community. The Royal College of Psychiatrists has begun to address these problems at various levels, which will, we hope, go some way towards rectifying the situation.

The collegiate trainees' committee of the royal college has been concerned about the lack of

training for junior psychiatrists in preventing and managing violent incidents. In 1989 a working party was convened to investigate the extent of the problem and make recommendations for training. An informal survey of committee members and of trainees in four regions was conducted. A disturbing lack of teaching on this subject, as well as a general absence of support for doctors who had been assaulted, was found. The working party has made several recommendations, including:

- Trainees should receive adequate formal training in all aspects of the psychiatric management of violent incidents at an early stage in their careers
- Trainees should receive appropriate induction when starting work in a new site with respect to the facilities available for managing violent incidents
- Trainees should be given basic guidance about the protection of personal safety. Advice should be given with respect to settings where violence is occurring or imminent. Trainees should also be informed about the need to consider protection of their private lives—for example, by having ex-directory telephone numbers and taking the option of not listing a personal address or telephone number in the *Medical Directory*
- Trainees should be offered guidance beforehand about what to do if assaulted. Each training scheme should have an identified person, either the clinical tutor or someone appointed by him or her, to counsel trainees who have been subject to an assault. Help should be available regarding the appropriate course of action to take from a legal point of view
- All training schemes should be encouraged to monitor violent incidents, particularly with respect to the role of trainees in such incidents, and regularly to review local arrangements regarding training and supervision.

Efforts are also being made through the college approval visits to ensure safe working conditions for trainees. It may be, however, that safety outside the hospital setting needs to be further emphasised. Consideration may also have to be given to encouraging psychiatrists to train in self defence—for example, by attending a course of instruction on breakaway techniques.

The suggestions made by Drs Black and Guthrie are very welcome and will be incorporated into the report. Fuller details of the report should be published in the *Psychiatric Bulletin* later this year after discussion by the full committee, and copies will be available from the royal college.

Working under conditions that induce fear must surely compromise patient care. Clearly this is a matter of concern, warranting the support of management, psychiatrists, general practitioners, social services, and the police. The collegiate trainees' committee will continue to press for the coordinated action of these agencies to ensure that psychiatrists are not exposed to unacceptable dangers.

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1 Black D, Guthrie E. Doctors' safety: who cares? *Br Med J* 1990;33:1471. (2 June.)

Health checks for adults

SIR,—Drs Godfrey Fowler and David Mant state that one of the main problems in implementing mass screening programmes is the predominance of "worried well patients."¹ However, there is no evidence to support this. Another problem may be that patients who do not visit their general practitioners regularly are relatively resistant to invitations to attend general health checks, even

though it is at this population that health checks are directed.

To investigate these potential problems we surveyed patients from a practice with five partners in suburban Essex. Two groups of patients were studied: the first group, the attenders, comprised 315 consecutive patients who were surveyed when they attended the practice, and the second group, the non-attenders, comprised 93 patients who had not attended the practice for at least 12 months. Patients in both groups were provided with a short, anonymous questionnaire. This included questions on demographic characteristics and medical history. The second section included the stem: "If you were sent a letter at home, inviting you to come to this practice for a quick, general check-up—although you felt perfectly well . . ." and was followed by the questions: "Would you think that having a quick, general check-up is a good idea?"; "Would you make an appointment and come to the practice for a quick, general check-up?"; "Even if we did not send you a letter, would you come for a quick, general check-up anyway?" The attenders completed their questionnaires in the practice waiting room, and the non-attenders, who were selected randomly from the practice lists, were sent questionnaires by post and provided with stamped and addressed reply envelopes (the response rate was 48%).

The results showed that although roughly equal proportions of the attenders (293/315; 93%) and non-attenders (82/93; 88%) indicated that general health screening was a good idea, a significantly greater proportion of the attenders (260/315; 83%) indicated that they would make an appointment and attend the practice for health screening compared with the non-attenders (61/93; 66%) ($p < 0.002$). Similarly, a significantly greater proportion of the attenders (103/315; 33%) indicated that they would seek general health screening anyway, even if not contacted by their doctor, compared with the non-attenders (15/93; 16%) ($p < 0.001$).

In this practice patients were greatly in favour of general health screening, which they would attend and would not have obtained otherwise. These findings support fears of a predominance of worried well patients.^{1,2} This study also showed that patients who attended the practice infrequently were less likely to respond to an invitation for health screening or arrange their own health screening. These patients may represent a population who are relatively resistant to health screening.

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1 Fowler G, Mant D. Health checks for adults. *Br Med J* 1990;300:1318-20. (19 May.)

2 Pill R, Stott N. Invitation to attend a health check in a general practice setting: the views of a cohort of non-attenders. *J R Coll Gen Pract* 1988;38:57-60.

Dietary intake and plasma lipid levels

SIR,—We welcome the findings of Ms Margaret Thorogood and colleagues on dietary fat intake and plasma lipid concentrations.¹ We strongly believe that dietary manipulation is the cornerstone for controlling lipid concentrations both in individual people and in populations.

The correlations between dietary intakes and lipid concentrations in this report were, however, weighted by the vegan diets. In vegans the mean ratios of polyunsaturated fat to saturated fat (1.85 in men, 1.77 in women) and mean cholesterol intakes (7 mg/day in men, 4 mg/day in women) were considerably different from the values in

	Patients with type I diabetes (n=13)		Patients with type II diabetes (n=37)	
	r Value	p Value	r Value	p Value
<i>Plasma cholesterol</i>				
Fat as % energy	0.410	0.169	-0.071	0.675
Polyunsaturated:saturated ratio	-0.280	0.354	-0.061	0.718
Cholesterol intake	0.289	0.339	-0.034	0.842
<i>Plasma triglycerides</i>				
Fat as % energy	0.443	0.129	0.082	0.630
Polyunsaturated:saturated ratio	-0.490	0.089	0.119	0.482

the three other groups (ranges 0.49-0.75 and 201-306 mg/day). We would be interested to know whether the correlations found in this study remain significant when vegans are excluded as these would be more representative of dietary intakes in outpatients and in the general population.

We examined correlations between plasma lipid concentrations and dietary intake in diabetic patients aged 17-81 years by using a seven day food record. We found similar correlations in 13 subjects with type I diabetes (which were not significant because of the low numbers) but not in 37 subjects with type II diabetes (table).

Ms Thorogood and colleagues suggest that the reduction in saturated fat intake was compensated for by an increase in unsaturated fat intake rather than carbohydrate intake. This may not be so. All groups reduced their total fat intake compared with the national average of 42.2%¹ (male vegans reduced their fat intake to as low as 33.5%). The national average carbohydrate intake is 44.3%, and the vegans (with high polyunsaturated to saturated fat ratios) obtained 52.5% of their energy from carbohydrate—a significant increase. If the general population were to reduce their saturated fat intake but maintain their total fat intake they would have to increase their intake of monounsaturates or polyunsaturates, or both. If these were increased in the same proportion as in vegans the percentage of energy from polyunsaturates would be 14.5%. This has been shown to lower plasma high density lipoprotein concentrations, predispose some patients to gall stones, and, in animals, suppress the immune system and promote development of tumours.¹ The percentage of energy from monounsaturates would be 19.9% if the general population adopted the vegan diet and 22.4% if this was adjusted to reduce intake of polyunsaturates to 12%—the accepted upper limit. This would prove an impractical diet to recommend.

We conclude that it is still necessary to recommend to the general population a diet that obtains less energy from both total and saturated fat.

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1 Thorogood M, Roe L, McPherson K, Mann J. Dietary intake and plasma lipid levels: lessons from a study of the diet of health conscious groups. *Br Med J* 1990;300:1297-301. (19 May.)

2 Ministry of Agriculture, Fisheries, and Food. *Household food consumption and expenditure 1987*. London: HMSO, 1989.

3 Grundy SM. Dietary therapy for different forms of hyperlipoproteinaemia. *Circulation* 1987;76:523-8.

AUTHORS' REPLY.—We chose the dietary groups that we studied, including the vegan group, to ensure as wide as possible a range of dietary intakes among subjects who were otherwise exposed to a similar social environment. We consider this to be a strength rather than a weakness of our study. We do not claim that these subjects were in any way

representative of outpatients or, indeed, of the general population, and we believe that we made this clear.

Dr J A Lockton and colleagues ask whether the correlations that we reported would still be significant if we excluded vegans from the analysis. We excluded the data on vegans and recalculated the simple Pearson coefficient of correlation between the Keys dietary score and total plasma cholesterol concentration. This gave a correlation of 0.22 ($p < 0.01$); the correlation when vegans were included was 0.37 ($p < 0.01$).

In the absence of more information about the study by Dr Lockton and colleagues, particularly about the age and sex of the subjects, the methods of measuring portion sizes, and the relation of estimated energy intake to estimated basal metabolic rate, it is not possible to comment on their results. The dyslipidaemia of diabetic patients has a complex aetiology and is characterised by qualitative as well as quantitative changes in lipoproteins. The relation between nutrients and total cholesterol and triglyceride concentrations would therefore not necessarily be the same in people with diabetes as in the general population.

Dr Lockton and colleagues are quite correct in stating that the average fat intake in our population was lower than that in the general population, and we referred to this in the discussion. Our message was not that the general population does not need to modify fat intake but rather that the strict reduction in total fat intake recommended by the Committee on Medical Aspects of Food Policy on Diet and Cardiovascular Disease (COMA) report may not be necessary if the ratio of polyunsaturated fat to saturated fat is increased appreciably. In the subjects we studied this was achieved by a substantial reduction in the intake of saturated fatty acids with a moderate increase in the intake of polyunsaturated fatty acids. There is no evidence from our study that the increase in polyunsaturated fat intake reduces high density lipoprotein concentrations. The only factors affecting high density lipoprotein concentrations were gender (they were lower in men) and fish and alcohol intakes. Furthermore, it has been shown that vegetarians are at a lower rather than an increased risk of gall stones.¹

We agree with Dr Lockton and colleagues that modification of the diet of the British population is important for reducing the incidence of cardiovascular disease but emphasise that a reduction in saturated fatty acid intake with a modest increase in the intake of polyunsaturated fatty acids may be a more acceptable and, consequently, more effective means of achieving this than the reduction in total fat intake recommended in the COMA report.

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1 Pixley F, Wilson D, McPherson K, Mann J. Effect of vegetarianism on development of gallstones in women. *Br Med J* 1985;281:11-2.

Patterns of disease activity in multiple sclerosis

SIR.—Mr Luc Truyen and colleagues offer several possible explanations for the discrepancy between our results and theirs concerning a correlation between abnormalities of magnetic resonance imaging and clinical state in patients with multiple sclerosis.¹ There is little doubt that variation in magnetic field strength, scanning sequences, and slice orientation influence the recognition of lesions on magnetic resonance imaging. In our study of patterns of disease activity in multiple sclerosis we found no correlation between the extent of abnormality of the brain on magnetic resonance imaging and disability in patients with multiple sclerosis,² an observation that has been made by many other authors, including a group in Vancouver.³ Recent serial studies have shown large fluctuations in the size of new lesions as they evolve.^{4,5} (A J Thompson *et al*, unpublished data), and this is but one important factor influencing the complex relation between abnormality on magnetic resonance imaging and disability, which we discuss at some length in a paper that is currently in press.⁶

Dr Truyen and colleagues emphasise the need for a clearly defined protocol, with which we agree. Our protocol for brain imaging is stated clearly in the methods section of our paper and entailed T₂ weighted imaging with spin echo time_{2000/60} of 5 mm contiguous axial slices.² Using this protocol we showed abnormalities on magnetic resonance imaging in 98% of patients with clinically definite multiple sclerosis⁷ and infratentorial lesions in over 60% of these. We found this method to have an interobserver reliability of 0.95.⁷ In summary, we are confident that our technique is well standardised, sensitive, and reliable.

We look forward to reading the paper of Dr Truyen and colleagues that is currently in press. Because of the great variation in the size of evolving lesions and the potential for activity to occur in the centre and at the edge of the new lesion it is now clear, however, that simply measuring the number and size of lesions may not give an accurate indication of disease activity. Enhancement with gadolinium-diethylenetriaminepentaacetic acid, indicating breakdown of the blood-brain barrier,⁸ is seen in the vast majority of new lesions and in reactivated old lesions in patients with relapsing or remitting multiple sclerosis,^{9,10} and this allows more accurate identification of disease activity. Gadolinium enhanced magnetic resonance imaging should play an important part in the serial assessment of patients with multiple sclerosis in therapeutic trials.

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1 Truyen L, Gheuens J, Martin J-J. Patterns of disease activity in multiple sclerosis. *Br Med J* 1990;300:1272. (12 May.)

2 Thompson AJ, Kermode AG, MacManus DG, *et al*. Patterns of disease activity in multiple sclerosis: clinical and magnetic resonance imaging study. *Br Med J* 1990;300:631-4. (10 March.)

3 Koopmans RA, Li DKB, Grochowski E, *et al*. Benign versus chronic progressive multiple sclerosis: magnetic resonance imaging features. *Ann Neurol* 1989;25:74-81.

4 Willoughby EW, Grochowski E, Li DKB, *et al*. Serial magnetic resonance scanning in multiple sclerosis: a second prospective study in relapsing patients. *Ann Neurol* 1989;25:43-9.

5 Grossman RI, Brannan BH, Brorson JR, *et al*. Multiple sclerosis: serial study of gadolinium-enhanced MR imaging. *Radiology* 1988;169:117-22.

6 Kermode AG, Thompson AJ, Tofts PS. Breakdown of the blood-brain barrier precedes symptoms and other MRI signs of new lesions in multiple sclerosis: pathogenic and clinical implications. *Brain* (in press).

7 Ormerod IEC, Miller DH, McDonald WI, *et al*. The role of NMR imaging in the assessment of multiple sclerosis and isolated neurological lesions: a quantitative study. *Brain* 1987;110:1579-616.

8 Miller DH, Rudge P, Johnson G, *et al*. Serial gadolinium