biopsy. The main advantage is the speed and accuracy of needle operation when the specimen is taken.

Although both the machine and manual needles are of similar gauge and notch size—14 gauge and 200 mm respectively—generally a larger piece of tissue is obtained with the automated system. For example, one core was taken from the same kidney with each technique: the diameters were 1.15 and 1.00 mm for the automated and manual systems respectively. Using the device with a smaller gauge needle, serial multiple specimens can be taken in the transplanted kidney, making this an alternative to fine needle aspiration for the investigation of suspected rejection. The use of the gun in transplanted kidneys is well reported.²

The gun can be used singlehandedly, allowing ultrasonic imaging to be carried out by one operator. The only disadvantage is that it is a more expensive technique as the modified needle for the gun costs more. The gun can be sterilised for use in the operating room, but the needles are not reusable.

This is a major improvement on manual percutaneous renal biopsy, and the technique should be more widely known.

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Health of long term benzodiazepine users

SIR,—In France, as in Britain, benzodiazepines are the most commonly prescribed psychotropic drugs, accounting for a third of all those prescribed.

In January 1984 we carried out a study in which all patients admitted to an internal medicine unit were asked about benzodiazepine use during the previous year.¹ Alcohol, tobacco, and concurrent drug consumption and past illnesses and operations were also recorded. There were 129 patients, and 49 were identified as benzodiazepine users; the remaining 80 had not used benzodiazepines in 1983. Twenty four of the users were long term users (daily intake of at least one benzodiazepine for over four months) and 25 intermittent users (less than four months' use). Seventeen of the long term users had taken the drugs for over a year.

Users and non-users did not differ in sex ratio, and tobacco and alcohol consumption was similar in non-users, long term users, and intermittent users. The long term users were predominantly elderly. The users had had substantially more

medical conditions and surgical procedures than the non-users, and there was a strong association between use of benzodiazepines and concurrent drug use (table). Cardiovascular and musculoskeletal disorders were the most common diseases in the users. Among the long term users the drugs had been prescribed for insomnia (6) or anxiety (6), or both (12). Generalists had more often prescribed them than psychiatrists, though psychiatric morbidity had been found in 11 patients. Seven patients had a diagnosis of depression.

Our data agree with those of Dr E K Rodrigo and others (27 February, p 603), although the prevalence of long term use was lower in their study (2.2%) and in that of Dr Kevin Morgan and others (p 601) (11.2%) than in ours (18.6%). This difference might be due to the fact that we studied inpatients, who have a higher rate of chronic diseases than outpatients. Nevertheless, like Dr Rodrigo and others, we found a strong association between benzodiazepine use and concurrent psychotropic and non-psychotropic drug use, and in both studies cardiovascular and rheumatological diseases were the most commonly associated illnesses. Our long term users had had more surgical procedures, however, and this was the only difference between our long term and our intermittent users.

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A better deal for senior house officers

SIR,—As vocational training scheme course organisers we wholeheartedly agree with the leading article by Stella Lowry (27 February, p 590). Since the inception of the Derby scheme in 1973 a half day release course has operated for all trainees in hospital posts and in general practice for about 30 weeks each year, and there have always been problems of trainees in some hospital posts being released to attend these meetings. We do not expect 100% attendance but would suggest that 60-70% should be possible. In practice, however, some senior house officers manage only 10-20% of sessions. When we question why this is so we are told that service commitment or staff shortages have prevented their attendance. This problem has not lessened with the large increase in hospital staffing or with personal approaches to the consultants concerned, despite them all agreeing

in principle to allow their senior house officers to attend. If we press the argument home on educational grounds we are often met with the answer that the post can always be withdrawn from the scheme.

To introduce educational aims and set sessions for all senior house officers is of paramount importance but will come about only through the colleges asking to see the educational plans that consultants have constructed for their senior house officers on visits to reapprove posts for training purposes, asking the doctors concerned whether tutorial time is made available, and, more importantly, encouraging consultants to attend courses on learning and teaching.

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Medical researchers in general practice

SIR,—Dr Richard Smith's excellent article *Medical researchers training and training* (26 March, p 920) has prompted me to write about the position of general practice research.

About 40% of all doctors in Britain are general practitioners and nearly all the people of Britain have a family doctor. About 96% of consultations are dealt with completely by the general practitioner, and only 4% are referred for a specialist's opinion. A very wide range of clinical medicine is seen by the general practitioner, giving considerable opportunity for research. The academic standards of new entrants to general practice are higher than ever. More high flyers are coming into general practice out of choice, and there is now no shortage of doctors who would be potentially good research workers.

The best way of learning research skills is to do research with the advice and help of experienced colleagues. General practice is now represented in every medical school in the country, in 16 with professorial departments, where research can be carried out in professional surroundings, with the facilities of a library, computing, and statistics. Research is carried out by the academic staff as well as research fellows and often funded by outside bodies. The Royal College of General Practitioners is at present offering research fellowships to allow a general practitioner to carry out research in this way. Most research, however, is carried out in the doctor's own practice, where he would also have a full clinical commitment. It is reasonable that a good study should be supported financially so that, in addition to paying the running expenses of a study, money should be made available to buy some of the doctors' time, so that partners are not penalised for the necessary absences of their researching partner.

One of the best ways of learning research methods in general practice, without being attached to an academic department, is to write an MD thesis. It is difficult to accept this challenge and at the same time have a clinical commitment but it can be done provided the doctor has the will and determination to do it.

In two studies of MD theses from British medical schools in 1958-72 an average of just over 3% were from general practice.^{1,2} The reasons given by the general practitioners for writing a thesis seemed to be more to do with the challenge to their intellectual ability than for any personal gain; 86% of the doctors in the two studies had carried on doing research afterwards.

Good thinkers, especially if they are determined and dedicated, are rare, and they should be en-

Characteristics of the three groups of patients

	Total (n=129)	Long term users (n=24) (1)	Intermittent users (n=25) (2)	Non-users (n=80) (3)	p Value	
					1 + 2 v 3	1 v 3
Cardiovascular and rheumatological diseases:						
Present	89	19	20	50	<0.05	NS
Absent	40	5	5	30		
Past operations:						
<2	93	14	11	68	<0.001	<0.005
≥2	36	10	14	12		
Associated drugs:						
<3	98	12	18	68	<0.001	<0.001
≥3	31	12	7	12		
Other psychotropic drugs:						
Yes	21	9	5	7	<0.005	<0.001
No	108	15	20	73		

couraged in general practice in the same way as they would be if they worked in a scientific department of an university.

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β Blockers, lipids, and coronary atherosclerosis

SIR,—Dr Robin Northcote stated that the most consistent effect of β blockers without intrinsic sympathomimetic activity on plasma lipids is an increase in the concentration of triglycerides and a reduction in high density lipoprotein (12 March, p 731). Cardioselectivity does not appear to affect these responses.

We had the opportunity to study the effects of atenolol (a cardioselective β blocker without intrinsic sympathomimetic activity), given over 12 weeks, on the plasma lipid concentrations of 31 patients with acute myocardial infarction. There were 20 men and 11 women whose mean age was 54 (range 35-74) years. Atenolol 100 mg/day was started a mean of three days after admission because of postinfarction angina or as a secondary preventive measure. None of this group received thiazide diuretics.

We also studied the plasma lipid concentrations of 66 patients admitted with acute myocardial infarction who did not receive either β blockers or thiazide diuretics. This group consisted of 47 men and 19 women and their mean age was 58 (range 35-73) years.

Plasma lipid values were measured at admission (mean of four hours from the onset of pain) and 12 weeks after myocardial infarction. The Mann-Whitney U test and Wilcoxon matched pairs signed ranks test were used for statistical analysis.

In the β blocker group there was no appreciable difference in the plasma concentrations of cholesterol, triglycerides, or low density lipoprotein fraction between admission and 12 week values. There was, however, a significant increase in the high density lipoprotein by 12 weeks (table).

The control group showed no significant changes in the plasma cholesterol or triglyceride concentrations between admission and 12 weeks, although there was a significant reduction in the low density lipoprotein concentration and a significant increase in the high density lipoprotein at 12 weeks. We found no important difference in the concentrations of total cholesterol, triglycerides, or high density lipoprotein and low density lipoprotein fractions between the two groups at either admission or 12 weeks after myocardial infarction.

Our findings confirm other reports that atenolol does not cause significant changes in plasma total cholesterol or triglyceride concentrations.^{1,2} England *et al* found that atenolol given for 12 weeks produced a fall in high density lipoprotein values,¹ whereas Eliasson *et al* found no change in this lipoprotein after 32 weeks of atenolol treatment.² Many of the patients studied by England *et al* received concurrent thiazide treatment, which makes the results difficult to interpret.³ We conclude that atenolol, given for 12 weeks after myocardial infarction, caused no detrimental effect on plasma lipid concentrations.

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SIR,—Dr Robin J Northcote (12 March, p 731) quotes our study of treatment of hypertension in elderly patients¹ in support of the possibility that lowering diastolic blood pressure below 95-90 mm Hg may increase the risk of myocardial infarction.

In our trial there was no difference in the incidence of myocardial infarction (fatal or non-fatal) between the treated and control groups. There was a non-significant increase in the death rate from all cardiovascular causes with treatment in a small group of patients who had only systolic hypertension at the start of the trial—that is, systolic pressures of over 170 mm Hg and diastolic pressures of under 90 mm Hg. When we looked at mean attained diastolic pressures during the study the incidence of myocardial infarction formed a U shaped curve with higher rates at both high and low blood pressures.² This was present, however, in both the treatment and control groups, and the increased mortality at low pressures was therefore not an effect of treatment. We suggest that both the low pressure and the increased mortality are due to previous heart disease.

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Alive and well

SIR,—We are writing to you about your news item "Alas! poor Merrick" (12 March, p 794) concerning the whereabouts of certain museum specimens belonging to the collection of the Hospital for Sick Children, Great Ormond Street.

These specimens are now, and have been since 1985, in the care of the museum of pathology at the Royal Free Hospital, Hampstead. This relocation was made in an effort not only to preserve and record the collection but also to maintain the specimens until the entire collection can be returned when new accommodation is allocated. The photographs show the series of specimens presented by Barlow and Stills and part of the collection of bones known as Parrot's nodes.

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Mean (and 95% confidence interval) lipid concentrations in patients receiving β blockers and controls

Lipid	β Blocker group (n=31)			Controls (n=66)		
	Admission	12 Weeks	p Value	Admission	12 Weeks	p Value
Cholesterol	6.13 (5.76-6.50)	6.29 (5.82-6.76)	NS	6.60 (6.25-6.95)	6.58 (6.29-6.87)	NS
Triglyceride	2.07 (1.48-2.66)	2.09 (1.64-2.54)	NS	1.75 (1.51-1.99)	1.98 (1.69-2.27)	NS
Low density lipoprotein	4.21 (3.84-4.58)	4.13 (3.68-4.58)	NS	4.83 (4.50-5.16)	4.51 (4.24-4.78)	<0.05
High density lipoprotein	0.99 (0.87-1.11)	1.21 (0.93-1.49)	0.001	1.01 (0.93-1.09)	1.18 (1.08-1.28)	<0.001

Notice of inadvertent repetitive publication

We regret that the letter by Dr S Mindel on "The full potential of ultrasound" (26 March, p 929) was substantially the same as the letter by the same author published in the *Lancet* ("The full potential of ultrasound," 30 January, p 244). We were not informed that this letter had already appeared and regret this inadvertent duplicate submission, which is against our Instructions to Authors and internationally accepted conventions.