that a senior member of a department of radiology can reduce barium studies to the status of entirely non-medical examinations. He should be aware, furthermore, that such barium studies would almost certainly be performed by junior radiographic staff, as their senior colleagues, in the absence of radiologists, would find their time fully occupied in trying to assist the clinicians in their attempt to undertake highly specialised examinations such as vascular or neurological procedures.

I take further exception to Dr Thomas's statement that radiology should be performed by technicians under the guidance of clinicians. These technicians presumably would be either personnel untrained in matters relating to radiation safety or radiographers. If the former, then this is highly undesirable; if the latter, then he is impertinent in thinking that radiographers can be simply "let out" to clinicians alongside the equipment and x-ray rooms. Any such major change in their role could not be contemplated without full consultation with the College of Radiographers.

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Beta-blockers in treatment of hypertension

SIR,—We agreed to the inclusion of labetalol in Dr R G Wilcox's study (5 August, p 383) to discover whether a once-daily regimen was an appropriate method of starting labetalol treatment. Dr Wilcox found that when treatment was begun using doses of 300 mg and 600 mg once daily it was ineffective in controlling the blood pressure over the full 24-h period and that there was more lethargy and nausea than with the plain beta-blocking drugs. This is what we expected from a drug which can lower the blood pressure within two hours of starting oral therapy; but it was necessary to examine a once-daily dosage regimen in clinical trial. Thus our recommended starting dose for labetalol (Trandate) in the treatment of hypertension is 100 mg thrice daily. This dose is doubled, if necessary, after one to two weeks. Further increases may be necessary in patients with more severe hypertension. These doses were chosen as the result of an extensive programme of clinical evaluation of labetalol.

We have monitored the use of labetalol in the treatment of hypertension in general practice for the past 17 months. Nearly 7000 patients from 2000 general practices entered

the survey. After treatment with 100 mg three times a day for three and six months 80.5% and 81.6% of patients had a reduction in diastolic blood pressure of at least 15 mm Hg. Similar figures were obtained in those patients who were treated with 200 mg three times a day and when labetalol was added to the existing antihypertensive treatment which over half the patients were receiving when they entered the survey, the drugs involved being given in divided doses according to the manufacturers' recommendations. The table records the commonest side effects encountered following the use of all the available beta-blocking drugs, methyl dopa, and labetalol. The overall incidence of side effects with labetalol is certainly not more than with the other drugs and may be less than that with plain beta-blockers. The special advantage with labetalol is, however, that its hypotensive effect results primarily from a reduction in the total peripheral resistance¹⁻³ and not, as with plain beta-blockers, from a reduction in the cardiac output.^{4,5} A more detailed account of the labetalol monitoring scheme is now being written for publication.

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¹ Koch, G, *British Journal of Clinical Pharmacology*, 1976, 3, suppl 3, p 725.

² Koch, G, *British Journal of Clinical Pharmacology*, 1976, 3, suppl 3, p 729.

³ Edwards, R C, and Raftery, E B, *British Journal of Clinical Pharmacology*, 1976, 3, suppl 3, p 733.

⁴ Tarazi, R C, and Dustan, H P, *American Journal of Cardiology*, 1972, 29, 633.

⁵ Lund-Johansen, P, *British Journal of Clinical Pharmacology*, 1976, 3, 445.

Investigating stroke

SIR,—Your leading article (10 June, p 1503) was appropriate, but Dr C Twomey (26 August, p 637) draws false and erroneous conclusions from his review of 1000 vascular strokes and 30 symptomatic brain tumours seen in a geriatric unit over a period of seven years. To suggest that "progressive mental and/or focal neurological symptoms are the two most significant features [of brain tumour] in the elderly, while headache or epileptic seizures are far less common than is the case with younger patients" is totally illogical because there is nothing special or characteristic about the clinical presentation of cerebral tumours in the age group Dr Twomey is concerned with. This creation of artificial and superficial differences between the different age groups in this instance where

none exists in reality is wholly unwarranted.

He also expresses surprise at finding only four patients with subdural haematoma compared with 1000 with vascular strokes and 30 with symptomatic brain tumours and concludes that even though many elderly people fall, only very few of them suffer from subdural haematoma as a result. The plain unvarnished truth is that if an elderly patient, irrespective of age, is suspected of having a subdural haematoma or an intracranial tumour the last place he or she will be referred to is a geriatric unit.

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Chlormethiazole addiction

SIR,—The very interesting case report by Dr Josephine M Cushnie and others (29 July, p 355) once again "underlines the dangers . . . of the long-term use of chlormethiazole in alcoholics" which have been previously stressed in your columns¹⁻³ and elsewhere.⁴

At a time when many practitioners regrettably seem to have started using the drug for their ambulant alcoholic patients for long periods these warnings are timely, but at the same time they should not be taken out of context. Our own experience over the past 15 years in the withdrawal treatment of many hundreds of male and female alcoholics at the St Bernard's Hospital Alcoholic Unit⁵ has not only fully confirmed the findings of many (mainly) Scandinavian and German observers that chlormethiazole is an extremely valuable drug in the treatment (and prophylaxis) of severe alcohol withdrawal symptoms (including delirium tremors)⁶ but has also indicated that when used in inpatients and for a limited period only (as a rule for no longer than six or seven days)⁵ the risk of dependence is extremely low. In fact we never saw any cases of dependence among these patients, but we have come across a number of cases of dependence (mainly psychological but in one or two instances also physical) in alcoholics who had been prescribed the drug by their doctors for lengthy periods on an ambulatory basis.^{4,7} In all these instances the patients were emotionally highly unstable individuals who often in the past had also misused other drugs apart from alcohol.

In our experience, therefore, the—undoubtedly very real—risk of chlormethiazole dependence applies in the main to its indiscriminate, lengthy use in unstable alcoholics treated as outpatients.⁷ This view conforms

Symptoms reported by hypertensive patients (percentages) receiving various antihypertensive drugs or no treatment

Side effect	α -Methyl-dopa (n=280)	Propranolol (n=96)	Oxprenolol (n=55)	"Slow" oxprenolol (n=55)	Atenolol (n=36)	Metoprolol (n=24)	Acebutolol (n=37)	Other β -blockers* (n=26)	No treatment (n=1832)	Labetalol			
										3 months		6 months	
										≤ 400 mg (n=1061)	401-600 mg (n=280)	≤ 400 mg (n=317)	401-600 mg (n=110)
Lethargy	15.4	10.4	7.3	10.9	13.9	12.5	5.4	14.3	1.4	3.9	5.0	2.5	3.6
Dizziness	9.3	4.2	3.6	9.1	8.3			14.3	5.3	4.5	3.2	2.5	3.6
Headache	5.7	4.2	3.6	3.6	8.3				6.8	1.9	5.7	1.6	2.7
Upper gastrointestinal tract symptoms (including nausea)	2.9	2.1	7.3	3.6	5.6	4.2	5.4	3.6	0.8	2.6	2.1	1.3	0.9
Postural hypotension	6.1		1.8	1.8					0.2	0.7	1.4	0.6	2.7
Depression	4.3			5.5			2.7		0.2	0.7	0.7		
Dyspnoea	1.8	1.0		1.8	5.6	4.2			1.3	1.4	1.4	0.9	2.7
Tingling sensation in skin/scalp†	0.7	1.0				4.2			0.5	1.0	1.1	0.3	1.8

*Pindolol, timolol, and sotalol.

†Includes other paraesthesiae.