Marvin[3] in 1926 found it almost equally effective in sinus rhythm as in atrial fibrillation. Indeed Sir Thomas Lewis[4] stated in 1946 that digitalis was generally recognised to be of value in failure with sinus rhythm.

In our study 16 of the 46 patients deteriorated clinically on placebo. In the remainder an increase in airways resistance, reversed by reintroduction of digoxin, was demonstrated. This reversible airways obstruction (asthma) may have progressed to overt pulmonary oedema had the placebo phase been extended. Digoxin also improved left ventricular function in a random sample from those in sinus rhythm who did not deteriorate clinically on placebo, as evidenced by shortening of left ventricular ejection time.

Thirteen of the patients studied were in atrial fibrillation, there being similar proportions among those who deteriorated clinically on placebo (4/16) and those who did not (9/30). All the patients in fibrillation had impaired atrioventricular conduction. Far from requiring digoxin to control their ventricular rate, six of these developed bradycardia at serum digoxin concentrations recommended for control of fibrillation. The study shows the value of maintenance digoxin after an episode of failure not only in patients in sinus rhythm but also in "slow fibrillators," in whom a lower serum digoxin concentration is recommended.

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1 Mackenzie, J, *Diseases of the Heart*, p 282. Oxford, Oxford University Press, 1910.
2 Windle, D, *Quarterly Journal of Medicine*, 1917, **10**, 274.
3 Marvin, H M, *Journal of Clinical Investigation*, 1926, **3**, 521.
4 Lewis, T, *Diseases of the Heart*, p 39. London, Macmillan, 1946.

Anonymous barbs

SIR,—I must deplore the editorial policy of allowing the author of Personal View (16 April, p 1026) to hide behind anonymity while firing his barbs into anaesthetists and nursing personnel. With respect to the former it is, of course, poor medical practice to omit a preoperative visit, but such an omission is a little less than credible in this age of increased patient enlightenment. Nevertheless, I think that Personal View is an inappropriate forum for such remarks presented in this fashion. I hope that the author's practice of surgery would bear similar critical review by his colleagues, anonymously, of course.

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Adjunctive chemotherapy and breast carcinoma

SIR,—Premature reporting of the results of adjunctive chemotherapy in carcinoma of the breast has done untold damage to clinical trials in general and the management of carcinoma of the breast in particular.

When survival is the end point of a trial results should not be published for at least five years. With regard to adjunctive chemotherapy in carcinoma of the breast the idea is to prevent the colonisation of micrometastases. In view of the so-called doubling time of the malignant cell, then should patients die within the first three years it is obvious that bulk metastases were already present at the time of treatment. Our present methods of treatment are not sufficiently adequate to cure bulk metastases and therefore three-year survival rates are meaningless. It is probably unlikely that drugs can have much effect on malignant cells which may be in a resting phase, but as long as there is a slight possibility that results may be improved then the present trials must be allowed to continue.

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The thyroid and the psychiatrist

SIR,—You state in your leading article on this subject (9 April, p 931) that few psychiatrists would agree with Asher that psychotic states secondary to myxoedema are common and often missed. Asher's view may be correct, but only a few surveys of thyroid function in psychiatric patients have been reported.

We assessed thyroid function in 98 unselected female psychiatric admissions and found four cases of hypothyroidism, of which only one had been recognised clinically.[1] Routine screening for thyroid disease in women over the age of 40 presenting for the first time with a psychotic disorder might be well worth while.

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1 Nicholson, G, Liebling, L I, and Hall, R A, *British Journal of Psychiatry*, 1976, **129**, 236.

Cost of ECG electrodes

SIR,—Disposable pre-gelled electrodes with a large adhesive surface are now commonly used in electrocardiographic monitoring. NHS expenditure on these electrodes cannot be insignificant and we consider that their cost and performance merit careful scrutiny.

We know of 12 brands of pre-gelled disposable electrode on the UK market. Two of these are British products and all but one of the remainder are manufactured in the USA. Although we estimate that the cost of raw materials is unlikely to exceed 10p, current prices range from 25 to 38p, with an average of 32p per electrode. On the important, but not necessarily valid, assumption that the electrodes remain in place the average cost of monitoring a patient with a three-lead system is thus 96p.

Comparisons on which those responsible for purchasing disposable electrodes could base a decision are needed but are not at present available. In a preliminary study of 12 pre-gelled electrodes we have found the performance of the majority to be broadly similar but have identified two electrodes which are inferior because of poor adhesion or a tendency to produce frequent skin reactions.

At a time when the number of patients monitored is increasing methods of limiting NHS expenditure on ECG electrodes should be explored. We suggest that it should not be impossible to develop a reliable, high-performance, reusable or partially reusable monitoring electrode. In the short term the cost of disposable pre-gelled electrodes might be reduced if these were manufactured under contract to the NHS.

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Double-blind trials and the patient

SIR,—The double-blind trial of drugs is an established and widely used procedure. Difficulty may arise when an intelligent patient inquires what therapy is being used, and the experimenter must make his own ethical decision about the answer to be given. Sometimes, however, the new drugs may interact with other therapy to which the patient may be exposed elsewhere. It would seem, therefore, that whenever any patient is entered into any programme where this method is being used, provision should be made for full information to be available at any time from the trial centre on the drugs or placebo given to any individual involved or even for patients to be informed that they are part of such a trial. Although this may be inconvenient to researchers, the provision of a suitable card giving details of the centre and information source would seem a small price to pay for the safety it would help provide.

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Oestrogen-like effect of tamoxifen on vaginal epithelium

SIR,—Tamoxifen is an antioestrogenic compound used in breast malignancy. It is known for its binding to oestrogen receptors,[2 3] is capable of some oestrogen-like or anti-oestrogen effects in experimental models,[2] and is probably effective also in antagonising prolactin secretion.[4] The difference between oestrogen and tamoxifen stimulation of certain target cells seems to be the lack of replenishment of oestrogen receptors in tamoxifen-stimulated target cells.[1]

In our unit 86 postmenopausal women with late breast malignancy have been treated with 30-40 mg of tamoxifen orally per day. All the patients had proved resistant to previous standard endocrine treatment and to multiple chemotherapy. All previous hormone treatment had been stopped at least two months before tamoxifen administration was started.

In 35 cases vaginal smears were taken just before and again after 30-45 days of tamoxifen treatment. From the smears the percentage of pyknotic cells (KPI), a good index of oestrogen activity, was calculated.[5] In fertile normal women the index ranges in our experience from 40% to 80% during the proliferative phase of the menstrual cycle

A zero value had been found in all cases before tamoxifen treatment, but after tamoxifen the index regularly increased to values between 10 and 30%, reaching 50% or more in four cases and 80% in one. This effect has not previously been described in humans. The smears returned to an atrophic pattern within two months after tamoxifen withdrawal. Overall, 32% of the patients responded favourably to tamoxifen, showing an objective tumour regression.

No sure relationship has been evidenced between the post-treatment rise in KPI and the response of cancer to tamoxifen treatment. As in some animal models, the drug seems to have an oestrogen-like effect on the vaginal epithelium. It is still not clear whether the tumour may also react to tamoxifen as if it was an oestrogen.

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[1] Clarke, J H, Peck, E, jun, and Anderson, J N, *Nature*, 1974, **251**, 446.
[2] Harper, H J K, and Walpole, A L, *Nature*, 1967, **87**, 212.
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[5] Weid, G L, *Acta Cytologica*, 1957, **1**, 75.

Royal College of Physicians and fluoridation

SIR,—The selective use of research material from studies by Dr Robert Weaver quoted by the authors of the Royal College of Physicians' report *Fluoride, Teeth and Health*[1] is surprising and merits explanation.

On p 9 of their report they refer to a paper published by Dr Weaver[2] showing that 5-year-old children in South Shields with naturally fluoridated water at 1·4 ppm had on average 3·9 decayed, missing, or filled (DMF) teeth compared with 6·6 in children in North Shields with 0·25 ppm fluoride in the drinking water. Moreover, says the report, "at the age of 12 the number of DMF teeth in South Shields was 56% of that in North Shields."

In Weaver's second study[3] evidence was given "which suggests that fluorine is a caries-postponing rather than a caries-preventing factor." Table III of this paper shows that by the age of 15 years children from South Shields had an average of 4·4 DMF teeth compared with 4·3 at the age of 12 years in North Shields. By the age of 17 those in the high-fluoride areas had 6·5 DMF teeth compared with 7·2 in the low-fluoride areas, a difference of about half a decayed tooth on average and a difference which steadily lessens with increasing age. A survey to discover if the effects of water-borne fluorides continued into adulthood showed that young South Shields mothers had a dental advantage of about five years, but for the over-30s the difference was negligible.

Dr Weaver's third paper,[4] also unmentioned in the RCP's report, contains his final and considered conclusions in which it was shown that "only a limited effect could be expected from the ingestion of fluoride in drinking water." Weaver remarked that if the protection given by fluorine in South Shields had not been shown to be of brief duration the dental profession would have been faced with an embarrassing question, which would have been, "If the incidence of dental caries in South Shields is so very much less than in North Shields, why is it that the population of South Shields is no healthier than that of North Shields? The answer is that the figure of 56% which I have given in connection with the findings in 12-year-old children is misleading. There is no very striking difference in the incidence of caries in the two towns."

Perhaps the authors of *Fluoride, Teeth and Health* would care to explain why they omitted these important statements and conclusions from one of their own references.

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[1] Royal College of Physicians of London, *Fluoride, Teeth and Health*. London, Pitman, 1976.
[2] Weaver, R, *British Dental Journal*, 1944, **76**, 29.
[3] Weaver, R, *British Dental Journal*, 1944, **77**, 185.
[4] Weaver, R, *Proceedings of the Royal Society of Medicine*, 1948, **41**, 284.

Academics and scientists

SIR,—It appears that Dr W B Hepburn chose to use the rather inappropriate medium of a book review (9 April, p 966) to air his individual prejudices. It is particularly difficult to understand why he felt it necessary to introduce an unrecognisable character sketch of the late Professor H A Harris into a review of a series of biographies which did not include him.

The strength of H A Harris's personality would have demanded deference, whatever had been his academic status, and I am sure that there can be few who knew him who would find "quaint" an appropriate descriptive adjective. While far from a midget in physical stature H A Harris was of a mental stature such as to inspire the respect, admiration, and eventually affection of many of his students and staff. Without the very real inspiration provided by him and his department the current shortage of medically qualified anatomists would have been even more desperate than it is. Among all the positive features of H A Harris's character it is regrettable that Dr Hepburn chose only to select two of his antipathies—whistling and undergraduate arrogance.

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Parascending: a safer alternative to hang gliding

SIR,—Dr G M Youill's presentation of the risks of hang gliding (26 March, p 823) complements Kirby's report on parachuting from aircraft.[1] The purpose of this letter is to draw attention to the existence of a third, much less dangerous aerial sport called parascending (parasailing in the USA). It is probably the simplest, cheapest, and safest way for the individual to get into the air. The parascender puts on the parachute harness with the canopy laid out behind him. A tow-line (usually 460 m (500 yards) long for the trained club member) from the harness is hitched to a Land Rover, which moves off at a speed appropriate to the wind conditions and the weight of the parascender. The parachute, held open by two wing-tip holders, inflates and the parascender goes up like a glider. At the desired height of 250-300 m (800-1000 feet) the parascender releases himself from the tow-line, steers his course, and makes his landing. The flight and landing techniques are the same as in parachuting from aircraft, but the risks of exit and of canopy maldevelopment are abolished; the parascender is not towed up if any fault appears when the canopy is opened on the ground.

The British Association of Parascending Clubs is the national body concerned with the licensing of instructors and national aspects of the sport. It is closely concerned with all matters of safety. The injury rate for 50 807 flights in the USA was reported to be about 0·5%,[2] but we consider the risk to be smaller. The injuries we encounter are abrasions, bruises, sprains, and minor undisplaced fractures which do not keep members off work, and even these are unusual outside the competitions which tempt a parascender to go for the target instead of landing defensively. From four club seasons with over 2000 flights two members have been admitted to hospital: one suffered acute pain from a known and previously disabling lumbar disc lesion and the other had a grand mal attack.

This information is presented because we believe that parascending should be dealt with in its own right by insurance underwriters and not classed with hang gliding or parachuting from aircraft.

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[1] Kirby, N G, *Proceedings of the Royal Society of Medicine*, 1974, **67**, 17.
[2] Hall, G W, *Aviation, Space and Environmental Medicine*, 1977, **48**, 164.

Night visiting rates by general practitioners

SIR,—I wish to comment on the article on this subject by Mr M J Buxton and others from the Centre for Social Studies (26 March, p 827) and Dr I C Gilchrist's letter (7 May; p 1217).

Mr Buxton and his colleagues record an increase of approximately 135% in the night visiting rate per 1000 patients between 1967-8 and 1975-6 for the country as a whole. In this group practice of four, by contrast, our night visiting rate in 11 years to 1976 *dropped* by 15·2%. We recorded our night calls (11 pm to 8 am) for six years, 1 January 1960-31 December 1965,[1] and again 11 years later, for 1976. The night call rate for the six years 1960-5 averaged 6·6 and this compares with 5·6 per 1000 patients in 1976 (64 night calls for our list of 11 440). We considered that only three (4·1%) of these calls were unnecessary.

The authors speculate on whether the number of night calls has risen since 1967, after which general practitioners began to be paid for these night calls. In this practice they have fallen. They also point out that deputising services and a high proportion of social class V patients increase the night visiting rate. In Farnborough we have our own rota for calls and the number of social class V patients is low. The figures provided by Mr Buxton and his colleagues also tend to confirm what other