would like to see more democracy rather than apparent autocracy. I would certainly like to know how they go about selecting their council members, and also a little more about the day to day management of these organisations. Neither matter seems to be covered in their annual reports.

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SIR,—Dr Ashton (1 January, p 48) draws attention to the increased annual subscription to the Medical Defence Union. I should like to point out that the Medical Defence Union, as well as the other defence societies, have agreed that all doctors on the retainer scheme should pay only half the annual subscription from January 1983 onwards. This decision was reached after prolonged discussions with the Medical Women's Federation and reported at the last annual general meeting.

I should like to take this opportunity of thanking the defence societies for their generosity.

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Sudden infant death syndrome—a possible cause

SIR,—Your recent leading article discussing near miss cot deaths has again highlighted the need to identify infants at risk of the sudden infant death syndrome (20 November, p 1441). At the recent fifth international congress of muscle disease held in Marseille Professor M A Denborough, professor of clinical science at Canberra, reported that some cases of the sudden infant death syndrome had a genetic basis never before suspected. The father of an infant found dead in its cot had come to him for information. At the end of the interview the father mentioned that he himself had almost died five years previously when his temperature rose dramatically during an operation and he wondered if that could have any bearing on the death of his child. Such a history is virtually diagnostic of malignant hyperpyrexia, and so Professor Denborough, who himself described the first family with the malignant hyperpyrexia abnormality in 1961, began investigating a small series of parents of infants who had succumbed to the sudden infant death syndrome by muscle biopsy including the in vitro tests of muscle susceptibility to malignant hyperpyrexia. One third were shown to be positive and therefore in danger of developing malignant hyperpyrexia if subjected to routine anaesthesia.

It is not clear how the malignant hyperpyrexia gene(s) could be responsible for sudden death in infancy, but there are reports^{1 2} of malignant hyperpyrexia and even of sudden death being triggered in families with the malignant hyperpyrexia abnormality by factors other than anaesthesia such as anxiety, heat stress, and unaccustomed exercise.

The investigation of parents of infants who have succumbed to the sudden infant death syndrome needs to be undertaken on a larger scale here, where there is a malignant hyperpyrexia investigation unit serving the entire country. In view of the serious implications of susceptibility to malignant hyperpyrexia such parents should find out whether one or

the other of them carries the malignant hyperpyrexia trait. To wait until malignant hyperpyrexia develops under anaesthesia is unwise for the mortality is still around 50%. If any doctors know of parents of infants who have succumbed to the sudden infant death syndrome who would like to be assessed for susceptibility to malignant hyperpyrexia or would like more information would they please write to the undersigned. We have a long waiting list of members of known families with the malignant hyperpyrexia trait but will give these parents equal priority.

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¹ Wingard DW. Malignant hyperthermia: a human stress syndrome. *Lancet* 1974;ii:1450.

² Wingard DW. Malignant hyperthermia: acute stress syndrome of man? In: Henschel EO, ed. *Hyperthermia—current concepts*. New York: Appleton Century Crofts, 1977:79-95.

Better science not less science

SIR,—I was surprised that nearly seven weeks elapsed before my personal view (2 October, p 969) was attacked in the rather obvious way by Mr A G Johnson and Mr J M Simms (1 January, p 57). Of course, all the elements in the academic approach to medicine are valuable—the difficulty is the serious overgrowth of one aspect of our work and the displacement of others that are important.

Richard Taylor, in his scathing study, *Medicine Out of Control*,¹ illustrated the cost and waste which accrued when new treatment systems were established without rigorous preliminary evaluation. The difficulty and complexity of such evaluations have recently been shown in the studies of cost effectiveness of slightly different approaches for the early supervision of head injuries.

I am not confused as to the real nature of science, but assert that it demands qualities often alien from what is needed by the practising doctor. We do need good science, and we need to be relieved from the mass of publications generated for ulterior reasons by those who have little talent for it. Because circumstances and individual talents vary so greatly practitioners should be self reliant and self critical. It may, however, be an abuse of resources (if not downright impossible) to establish a level of self assessment that would be rigorously scientific. I am unrepentant in my claim that the elements that we call academic have grown much too large. The publication of some 20 000 medical journals, the speed of innovation, the extension of formal teaching and examination, and limitation of early practical experience are serious matters.

I have been concerned with artificial hip surgery for 16 years and have seen that an implant conceived almost with scientific naivety is at least as good as an alternative system designed with high scientific ingenuity and care. In all the subsequent years few advances have been achieved. It is probable that we should revert to earlier methods rather than seek new ones for problem cases. This seems also relevant to knee arthroplasty.

We have drastically to control the various elements which we call (perhaps for want of a better word) academic. Students and practitioners indeed are becoming punch drunk with information, innovation, and high technology. Alternative treatments require relaxation, time, confidence and thoughtfulness so that each doctor can develop coherent skills and systems appropriate to his circumstances. We also need to develop our own culture and humanity if we are to gain wisdom to cope with the enormous range of individual patient's needs and to have an understanding and communication skill to minimise the harm caused by their misfortunes.

There is a serious problem of rising costs and falling throughput. Much of this is due to overgrowth of academic factors in our practice. I do not believe it is reflected by "high standards of care"; by stimulating ill judged changes in practice it sometimes has the opposite effect. The unique function of doctors is to achieve a panoramic understanding of the patient's problem. This function is being destroyed by the excessive burden of academicism.

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¹ Taylor R. *Medicine out of control*. Melbourne: Sun Books, 1979.

Midarm circumference and malnutrition in Crohn's disease

SIR,—Dr A D Harries and others (6 November, p 1317) claim that midarm circumference is a useful test for identifying patients with Crohn's disease who are at risk of malnutrition. Some points need comment.

(1) Although the authors investigated patients between the ages of 18 and 72, no allowance was made for age when documenting their reference standards. The authors quoted a figure of 25.7 cm for women. The United States health and nutritional examination survey examined 19 097 subjects below the age of 74 years.¹ The tenth percentile value for midarm circumference differed between 18 year old women (22.7 cm) and 70 year old women (25.2 cm). In fact the figure quoted by Dr A D Harries and others is at the 50th percentile for 18 year old women. Their reference standards are clearly inadequate.

(2) Another problem is the inability of midarm circumference measurements to reflect changes in body composition. A muscular arm covered by a thin rim of fat may have the same circumference as the arm of a fat person who is suffering from protein undernutrition.

(3) The term risk of malnutrition was never defined and no "gold standard" was established. Clinical evaluation was ignored, which meant that the utility of the test was never established. There were no statements about specificity, sensitivity, or predictive values, which one usually associates with the proper evaluation of a diagnostic test.²

(4) There were no statements concerning the reproducibility of measurements of midarm circumference. This may be of particular importance if several observers are performing the measurements, especially if a uniform technique has not been adopted by all of the observers.

(5) The patients were selected from an outpatient population—the study did not include inpatients. There was a selection bias against patients being considered for surgery, the patients at greatest risk of developing undernutrition.

(6) The statistical methods used to promote the use of midarm circumference measurements included correlation coefficients and *t* tests. While these techniques may be relevant to groups of patients they fail to document the importance of such measurements for individuals. Clinical de-