The use of one-sixth molar lactate, as suggested by Gaind and Saran,¹ paradoxically does not seem to be associated with an increased excretion of lithium, as administration of such therapy causes a cessation of toxic "fits" before the lithium excretion rate increases. It may be that the administration of lactate increases the epileptic threshold or that it accelerates the movement of lithium into the extracellular compartment.

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¹ Gaind, R, and Saran, B M, *Postgraduate Medical Journal*, 1970, 46, 629.

Reducing doctors' errors

SIR,—Your leading article on this subject (7 May, p 1178) comments that students and junior doctors are "fact gatherers" and suggests ways in which this deficiency should be tackled.

We in Glasgow have developed a series of computer models which become progressively more statistical and give the student an insight into how the clinician uses information to make clinical decisions. This method of instruction has been used widely by over 400 medical students and over 50 general practitioner trainees.^{1 2} They enjoy this method of instruction and feel that it should be made more freely available. The students' decision-making improves and approximates to that of the "experts"; they retain a significant amount of the content.³ With this instruction they become more aware of all levels of action⁴ and learn what they should do and what not to do in any given situation. Conventional teaching tends to stress the former and students are, in general, not aware of inappropriate actions.

We would argue that this learning experience will enable the student to make better use of the clinical information available to him and will alert him to its misuse. Studies in computer-aided diagnosis^{5 6} had suggested that decision-making by clinicians appeared to improve to a marked extent with practice. This was thought to be due to the doctor gaining an insight into his diagnostic mechanisms. Computer-assisted learning seems to have an important potential in helping the student to learn about decision-making.

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¹ Murray, T S, *et al*, *Lancet*, 1976, 1, 474.

² Murray, T S, *et al*, *Update*, 1976, 13, 523.

³ Murray, T S, *et al*, *Medical Education*. In press.

⁴ Murray, T S, *et al*, *Journal of the Royal College of Physicians of London*. In press.

⁵ Taylor, T R, Aitchison, J, and McGirr, E M, *British Medical Journal*, 1971, 3, 35.

⁶ De Dombal, F T, *et al*, *British Medical Journal*, 1972, 2, 9.

SIR,—Your leading article on this subject (7 May, p 1178) rightly states that doctors may easily be overloaded with information. Computers or other automatic devices might help to alleviate this problem, but they can also make it worse.

In this hospital, as in many others, one cannot request an analysis of blood urea only. The automated testing equipment dictates that nine or more other estimations are performed on each sample for which the blood urea is

being measured. As a consequence more data are presented to the clinician than he may want. Where a computer is being used to print the reports from multiple analysers it would seem sensible to suppress all the results that were not specifically requested.

Perhaps results which were not requested should be reported if they lie outside the reference range, but even this can be misleading. As Flynn *et al*¹ have shown, most chemical pathology values are independent of each other and it only needs 14 such randomly varying tests reported against a 95% range for there to be a better than 50% chance that one or more will be out of range. Care is, however, needed in choosing an appropriate range for the specialities of paediatrics, geriatrics, and obstetrics.

One used to be able to leaf through a set of biochemistry reports and have a good idea which systems were being investigated. Good computer systems could bring these days back.

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¹ Flynn, F V, *et al*, *Clinica Chimica Acta*, 1976, 70, 179.

Planning treatment for rheumatoid arthritis

SIR,—Is it possible that a useful contribution to the treatment of rheumatoid arthritis was omitted from your excellent article on this subject (30 April, p 1120)?

In the early stages of this disorder the need for physical education is often overlooked, and yet the inclusion of postural and relaxation training, with carefully directed movements, is very beneficial; these help to lessen pain and to give the patient confidence to move. This aspect of treatment seems to be passed over in most medical papers; perhaps it is often the reason for delayed rehabilitation.

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Polymyalgia arteritica

SIR,—We write in support of your leading article (23 April, p 1046) which draws attention to the risk of development of sudden and permanent blindness in patients with giant-cell (cranial) arteritis. Visual complications occur in 25-30% of untreated cases¹ and although they may certainly be the result of obliteration of the central artery of the retina, as you describe, they are more commonly due to involvement of the ciliary arteries supplying the optic nerve and disc.²

We regard giant-cell arteritis as an emergency and support your plea for immediate treatment with prednisolone or a similar corticosteroid preparation, as a delay of even a few hours may result in irreversible visual failure. We would also endorse your advice that all patients with polymyalgia arteritica already on a low dose of steroids should be warned that any exacerbation of symptoms, particularly any changes in vision, demands that the dose of steroids be instantly increased. We feel that details of this procedure should be given to the patient as well as to the general practitioner to avoid possible delay.

We take issue with your assumption that an initial dose of 40-50 mg of prednisolone a day is sufficient to prevent the onset of these serious visual complications. In our experience patients with giant-cell arteritis may occasionally suddenly lose their vision on this dosage in one or both eyes. We would strongly recommend that a dose of at least 80 mg of prednisolone a day should be given immediately the diagnosis has been made on clinical grounds. A daily dose of this order should be continued until the systemic manifestations of this disease, such as headache and pain in the face and jaw, have completely resolved and until there has also been a significant fall in the erythrocyte sedimentation rate. Only then can gradual dose reduction be carried out.

On such a high initial dose of steroids toxic effects may occur, but this is a small price to pay compared with the greater danger of permanent loss of vision in one or both eyes.

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¹ Jennings, G H, *British Medical Journal*, 1948, 1, 443.

² Crompton, M R, *Brain*, 1959, 82, 377.

"Music has charms . . ."

SIR,—Dr R A Henson's paper (30 April, p 1121) covering many aspects of the neurology of music made interesting reading and for me, with little technical knowledge of the subject, the theme which was most evident was that when considering music the brain is involved in a wonderfully complex and absorbing fashion and therefore has to concentrate to the exclusion of most other distractions.

My particular interest in the subject relates to Dr Henson's conclusion, in which is mentioned the wishes of famous people to die with the sounds of their favourite music as an exit accompaniment. If asked, I think that this would be a common wish of many contemplating death in theory or practice and indicates the tranquillising effect most people experience in listening to music acceptable to them. I think this tranquillising effect of music may be a valuable aid to the sick long before they are dying.

Admission to hospital for investigation and treatment is a frightening experience for the majority of patients in all age groups. Judging from articles recently published by qualified medical men describing their own experience in hospital, our profession is not immune to these fears. The possibility of using music to allay such fears has been in my mind and this letter was prompted by Dr Henson's article and by hearing from a patient, during discussion at consultation, that the patient's dentist did use music as an anxiety-relieving agent. In this dentist's surgery the patients lay back in the dental chair listening to music of their choice through headphones, which gave the added advantage of isolating the patient from surgery noises. This particular individual had found the musical background very comforting. The practice of using music through headphones to distract the patients, to calm them, and to isolate them from frightening noises during the performance of investigations and treatment may be already