prognosis for improvement is poor. Thus, for back pain, a longer duration of pain is a predictor of poor outcome.[5,7]

If a patient is not improving then he or she is more likely to be dissatisfied and seek alternative therapy. Pringle and Tyreman showed this is true: those who had previously attended their general practitioner were more dissatisfied, had significantly longer duration of symptoms (over six months) and had a worse outcome. I would suggest the same is also true for those who seek osteopathic help first, do not get better, and then seek help from their general practitioner. It can be concluded that patients fare better by being seen promptly but the type of practitioner does not matter.

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Colour blindness in doctors

Sir,

The paper by Spalding (January *Journal*, p.32) has prompted me to write regarding the practicalities of my colour vision defect, red blindness and green weakness. It must be remembered that loss in some areas may produce gain in others. People with red–green defects often see yellow and blue better than people with normal colour vision.

I am aware that I can detect jaundice more easily than contemporaries with normal colour vision. Urine dipstick reading does not present problems as the changes in hue and depth of colour compensate (besides, there is no harm in asking the patient to help). Despite having good blue vision, cyanosis presents a problem, presumably because people with normal red vision detect the lack of redness, rather than the presence of blue in blood. My greatest problem has been the 'pink' ear of otitis media. Other clues are used instead, for example, the eardrum looks darker, more shiny or opaque and there may be traction or bulging of the eardrum. Also there may be a clear history of earache following an upper respiratory tract infection. I call this a 'pink' eardrum and teach students such, not knowing what pink actually is.

Colour blind doctors cope by using other clues and experience, but teaching may present problems about which they should be aware. Perhaps the only task for which partially defective colour vision should be prohibitive is in the reading of computer assisted colour coding, such as in reading isotope scans or mammograms.

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General practice in deprived areas

Sir,

I was interested to read the editorial by Adrian Hastings and Ali Rashid (February *Journal*, p.47). As the authors emphasize, deprivation is a significant factor in the excess morbidity and mortality noted in many areas of the United Kingdom and as a result represents a very real challenge to those primary health care teams working in those areas.

Unfortunately the editorial fails to dismiss the myth that deprivation is solely a manifestation of urban areas or post-war housing estates. Deprivation also affects populations in non-urban and rural areas. These deprived populations seem largely ignored because the total population in any one area will be small when compared with the compact deprived populations in large cities or towns. Nonetheless, the total affected population nationwide is large. These populations not only face the difficulties of those living in inner city areas but also a lack of services, for example geographically convenient health care (both hospitals and general practice surgeries), social service provision (offices, child care facilities and so on), post offices, shops, unemployment offices, and perhaps most importantly public transport.

In Leicestershire most of the public monies, for example for child care facilities, are directed toward the inner city areas all too familiar to Hastings and Rashid. However, when parameters of deprivation such as unemployment, single parent families, child abuse, social work intervention and so on are considered one comes up against the uncomfortable fact that deprivation is at least as bad, if not worse, in some of the rural areas of Leicestershire (personal communication). Talking to colleagues in similar rural areas nationwide it would appear that this is far from being an unusual experience.

I do not wish to devalue or belittle the problems of deprivation in inner city areas but rather to ensure that the issue of growing rural and non-urban deprivation is given the coverage it deserves.

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Sir,

I read the editorial by Hastings and Rashid (February *Journal*, p.47) with great interest as I work in a deprived area of central Preston and know only too well the sense of frustration experienced by health care professionals. I was somewhat surprised, however, to learn of their ideas for involving the doctor in community issues such as visiting day nurseries and talking to school children. They talk of salaried general practitioners, able to 'concentrate on using their medical skills without having to devote time to financial concerns' — a perfect description of a clinical medical officer.

There exists within the school health service a highly motivated team of medical officers and nurses. For these health professionals the community issues described above are but a fraction of their daily work. Their work in community child care clinics is already being eroded by general practitioners taking on developmental checks and immunizations but they still have a great deal of expertise and time to offer patients, without any financial axe to grind.

Since working in this field I have discovered how little many general practitioners know of the school health service. It would seem prudent to avoid duplication by encouraging general practitioners to use an existing service and skills, thereby freeing themselves for other work.

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James Mackenzie

Sir,

Godfrey Fowler's James Mackenzie lecture (February *Journal*, p.78) contained a

statement referring to James Mackenzie's work 'But, along with his contemporaries, he appears to have been unaware of the heart condition which is the commonest cause of death today, coronary thrombosis or myocardial infarction — almost certainly because it was virtually non-existent then.'

Mackenzie described many cases of myocardial infarction which he saw as a general practitioner in Burnley. Not only does Mackenzie provide beautiful case descriptions in his book *Diseases of the heart*[1] but he often sent the hearts of the deceased to Arthur Keith, a distinguished morbid histologist in London; Keith's reports leave no doubt about the diagnosis.[2]

In his book *Angina pectoris*, Mackenzie was able to record the ages at which 284 patients died where the death was 'due directly to the condition which caused the angina.'[3] He was also able to say that 'On going over my notes I find records of the 380 patients who had consulted me for attacks of angina pectoris. I have no doubt a great many have died whom I have not been able to trace.' This suggests a personal experience of at least 380 cases and probably many more.

I have recently become aware that Edward Jenner was also familiar with ischaemic heart disease in the latter half of the 18th century.[4] In a letter to Heberden he states '...in the course of my practice I have seen many fall victim to this dreadful disease [angina pectoris], yet I have only had two opportunities of an examination after death. In the first of these I found no material disease of the heart except that the coronary artery appeared thickened.'

We have ample evidence that Mackenzie was familiar with ischaemic heart disease and that the disease he saw so commonly in general practice is the same as that seen today. The only thing he did not do was use the terms coronary heart disease, myocardial infarction or coronary thrombosis. We owe it to Mackenzie that he should not be misrepresented.

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Stress and doctors

Sir,

I am writing to applaud the views put forward by Dr Styles in his editorial (February *Journal*, p.46) on stress in undergraduate medical education.

The points raised have some bearing on the research into the heartsink phenomenon[1] which I have been pursuing with Dr Tom O'Dowd. We have found that younger general practitioners are more likely to integrate their own stress and tiredness into a definition of the term heartsink than would older, more experienced general practitioners. They are also more willing to acknowledge that their failures and fears are of relevance to the problem of heartsink. They are also more amenable to discussing the problem openly and are less likely to regard the term as pejorative.

Past studies have identified the role of humiliation and shame in medical education,[2,3] and the reticence of doctors to accept and talk about personal stress.[4,5] This has led some commentators to dismiss the medical model as inappropriate for primary care.[6,7] The rejection of such a model is unfair to new practitioners because it is their shield and is essential for their clinical survival. I feel that Dr Styles is arguing that it is the system in which the model exists, and not the model itself, that restricts successful communication.

The infiltration of the term heartsink into general practice terminology should be taken as an indication that the issues being faced by young practitioners were not adequately addressed during their student days. It is still common for the heartsink feelings of a student or young doctor to be interpreted as a sign of timidity. All of us involved in the education of both medical undergraduates and postgraduates should examine our own attitudes and consider whether we perpetuate the issues Dr Styles discussed so admirably.

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Hypoglycaemia and human insulin

Sir,

Widespread concern among a group of diabetic patients who have been changed from using an animal insulin to human insulin has been reported in the national media. These patients have described an altered reaction to impending hypoglycaemia, characterized as diminished warning or loss of warning.

The British Diabetic Association has set up a task force to investigate this and to advise on ways of helping those patients who are worried. Two major studies have been financed to help gather evidence but to date no clear association between hypoglycaemic warnings and the type of insulin has been identified. However, the British Diabetic Association has collected a large number of reports from individuals with diabetes and their carers. These highlight the serious problems which many people face with regard to hypoglycaemia, regardless of the type of insulin they use.

It has long been the advice of the task force, the British Diabetic Association and many professionals that patients who wish to should be allowed to change back to animal insulin. It is regrettable that despite this advice the British Diabetic Association is still receiving letters from patients stating that their doctor will not help them to change back to animal insulin.

The scientific basis for advocating a change back to animal insulin has yet to be proved, but respecting the autonomy of patients and working with them to provide the best care demands that we listen to these requests. I would ask general practitioners to remember this recommendation and help patients who find themselves in this position.

One of the reasons which makes the use of animal insulins less acceptable is the unavailability of animal insulin in cartridges for use in pen devices. The British Diabetic Association is currently trying to achieve a change in policy by the manufacturers so that patients' choice of insulin will not be handicapped by such technicalities.

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