ledge this.[1] I too reject the notion of seniority payments and believe that the system is, in its way, performance related.

My concern is with the selection of people for awards. It has not seemed sinister, oversecretive, very unfair, or slapdash. Both locally and regionally a great deal of honest effort has gone into the process, and the outcome has not seemed too wide of the mark. But the application of the stated criteria has been inconsistent, and opinions have been sought from too narrow a range of people. Examples are an overemphasis on academic achievement by people holding academic posts; a tendency to ignore the circumstances under which regional consultants work; a preoccupation with potential rather than actual achievement; and an underemphasis of the importance of the person's contribution to the NHS.

I suspect that the people who know most about the overall quality of a consultant's performance are nurses, junior doctors, general practitioners, patients, and managers. I see no reason why a discreet method of consultation with these people could not be devised. Conversely, great care needs to be taken when consulting a senior member of a specialty, who may turn out to be influencing opinions that seem to be coming from several different sources. Some people's prospects may have been blighted in this way and others' unjustifiably enhanced.

To me, the secrecy and inconsistencies occurred at the national rather than regional and local levels. I was often frustrated at meetings with the national chairman, and I have not been alone. Strong cases have been dismissed and weak ones accepted. The chairman may know things that I don't, but it would engender much more confidence in the local and regional representatives if explanations were offered for decisions taken. Fair play needs to be seen to be done.

The unequal distribution of awards among specialties continues. So does the inequitable number of awards to women, about which I was not reassured by the chairman. One improvement would be to increase the number of C awards and reduce the number of higher awards. Too many people who deserve C awards don't get them. Discrimination after this becomes easier.

A great deal of money is disbursed through this system. A C award, for example, is more than my secretary earns in a year. It behoves us all to treat this process seriously, with wider consultation and greater equity and openness at all levels.

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1 Tobias J. In defence of merit awards. *BMJ* 1994;308:974-5. (9 April.)

Performance related pay

Management could limit amount of work done

EDITOR,—I read that Mrs Bottomley has communicated with the BMA concerning performance related pay.[1] As a surgeon, I wish to express my disapproval. At present doctors are paid a salary that bears no relation to the amount of work performed. Furthermore, compared with the salaries of other professions of equal standing and responsibility this is a meagre amount, compensated only by volunteer private practice. I do not wish to divide the profession but should be interested to compare NHS surgical and medical workloads, which are rewarded by equal NHS salaries.

One argument states that you should be paid only for work that you do: this is one of the principles of private practice. In the NHS as it is now run, however, a different principle applies—that is, you will be paid for work that you are allowed to do. The management—under the financial control of commissioners (forget fundholders for a moment)—can limit the amount of work a surgeon does by closing a theatre, failing to secure the employment of a locum anaesthetist or junior surgeon, or simply reducing the number of beds. This is currently because of underpurchasing by the commissioners but could be used as a means of limiting salaries. The lack of funds closes so many facilities that fundholders are unable to get their patients admitted. Surgeons cannot then earn money from that source even if it was ethically desirable.

The government of Canada reduces doctors' pay by paying doctors for work done and then making sure that there are ceilings to the work done.

If the BMA caves in on this issue, as it seems to have caved in on so many issues in the market economy, I will resign, and I hope that all doctors both young and old would see their impecunious futures and resign too. Performance related pay may also include merit awards, but we have no idea how merit would be defined under such conditions as apply to the market economy.

Surgeons know what they can do if they are allowed to get on with the job. Unfortunately, they are easy targets when limitations are placed on the freedom to achieve.

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1 Beecham L. BMA protests about performance related pay in the NHS. *BMJ* 1994;308:1443. (28 May.)

Is a trick to contain salaries

EDITOR,—I have received performance related pay[1] since retiring from the Royal Army Medical Corps in 1985. The American industrial model of performance related pay, unlike the structured salary scales of the army and the NHS, is intended to promote productivity, which a non-medically trained management simplistically translates into throughput of patients—that is, 20 tonsillectomies a week indicates higher productivity than three hysterectomies. I have never considered medicine to be comparable to a production line, yet if performance related pay is implemented in the NHS medical staff will be compelled to abandon the attitudes and work ethics of generations and to assume those of hourly paid car workers. Patients with complicated problems are shuffled from one department to the next lest they create a blip in the statistics. Better to exclude them from care—a variant of two tier general practice perhaps—or, best, refer them to a megacentre, which has a more flexible budget.

In a system based on performance related pay someone has to decide on each doctor's "annual performance evaluation." In this tertiary referral centre a category 1 rating permits a "merit award" (pay rise) of 7·5-10%. A category 5 rating results in summary dismissal. Most members of the medical staff are awarded a category 2·5 (a pay rise of 5·7-7·5%) as this numerical value is the mean, mode, and median of the gaussian normal distribution curve and is where most staff "fit the curve." Only x staff can be rated category 1 and y rated category 5; no matter how well a person may perform—unless he or she is outstanding or appalling—a performance category to fit the curve will be allocated. Thus performance related pay may be considered to be a straightforward and effective management tool to contain and drive down salary costs—in short, either a mathematical sham or a confidence trick.

The imposition of performance related pay amid secrecy and deception generates an intensely negative effect on performance; this added to the diktats of quality assurance and continuous quality improvement and the dark threat of continuous medical education causes anger, frustration, and occasionally despair and results in diminished clinical effectiveness. These transatlantic imports may all be seen as being based on the assumption that medical staff are either lazy or incompetent, or both. What does that imply about our peers whose lifetime's achievements have not been guided by such august management tools?

The present structured salary scale merit awards may not be perfect. But mix in the incentive of private practice and you have a doctor who is infinitely more productive than one whose performance is rated as being in category 4 by a junior pay clerk who has to join up the dots on the distribution curve flashing on the computer screen.

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Aspirin and suspected myocardial infarction

EDITOR,—Michael Moher and Neil Johnson, and also Hazel R Wyllie and Francis G Dunn, cite the second international study of infarct survival (ISIS-2) to recommend that general practitioners should carry aspirin and give aspirin to patients with suspected acute myocardial infarction before transfer to hospital.[1,2] They imply that giving aspirin three or four hours before the patient receives thrombolysis, rather than giving aspirin with thrombolysis, would save more lives. And the editorial accompanying the articles berates general practitioners for not heeding evidence.[3]

In ISIS-2, patients were given 160 mg aspirin or placebo tablets to chew along with intravenous streptokinase, or a placebo infusion followed by oral aspirin or placebo tablets.[4] One component of the study was whether aspirin with or without thrombolytic agents in acute myocardial infarction (not whether aspirin given before or with thrombolytics) has a role in acute myocardial infarction. Quoting the benefit of aspirin with thrombolytics in ISIS-2 is out of context with what the authors of the two articles are suggesting, that aspirin given before thrombolysis saves more lives than does aspirin with thrombolysis.

The benefit of intravenous thrombolysis is time dependent. Early use saves more lives. Used within four hours of onset of chest pain, thrombolysis saves more lives than it does used five to 12 hours after the onset of chest pain.[4] No such dependence was seen with aspirin use in ISIS-2 (table): giving aspirin within four hours of onset of chest pain does not save more lives than giving aspirin five to 12 hours afterwards. Thus the evidence from ISIS-2 is contrary to what the authors are suggesting, and no study has been done to see whether aspirin given before thrombolysis has any benefit over aspirin given with thrombolytic agents.

Aspirin is no substitute for early thrombolysis in the management of acute myocardial infarction.

Effect of aspirin given in suspected myocardial infarction

Hours onset of chest pain	No of patients	No (%) of deaths from myocardial infarction
0-4	3733	332 (8·9)
0-1	356	34 (9·5)
2	953	80 (8·4)
3	1243	109 (8·7)
4	1181	109 (9·2)
5-12	3633	366 (10·0)
12-24	1221	106 (8·7)

Should general practitioners carry aspirin in their bags? The answer is no.

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1 Moher M, Johnson N. Use of aspirin by general practitioners in suspected acute myocardial infarction. *BMJ* 1994;308:760. (19 March.)
2 Wylie HR, Dun FG. Pre-hospital opiate and aspirin administration patients with suspected myocardial infarction. *BMJ* 1994;308:760-1. (19 March.)
3 Herbert P. Suspected myocardial infarction and the GP. *BMJ* 1994;308:734-5. (19 march.)
4 ISIS-2 (Second International Study of Infarct Survival) Collaborative Group. Randomised trial of intravenous streptokinase, oral aspirin, both, or neither among 17187 cases of suspected acute myocardial infarction. *Lancet* 1988;ii:349-60.

Services for people with haemoglobinopathy

EDITOR,—Sally Davies has expressed her concern, which I share, on the quality and quantity of services available to patients with sickle cell anaemia, as compared with those available to patients with other inherited disorders.[1] I find it pertinent to note how much population genetics can affect public health.

With a heterozygote (AS) frequency of about 16% in the 885 000 black people in the United Kingdom, the predicted number of patients with homozygous sickle cell anaemia (SS) is 5834, based on the implicit assumption that intermarrige takes place only among black people.[2] On the other hand, the AS heterozygote frequency in the population of England and Wales (49·9 million) is about 0·3%, and under the hypothesis of random mating the corresponding predicted number of SS patients would be 98. Thus, the prevalence of a recessive genetic disorder depends dramatically on breeding patterns.

The single change that could most rapidly and drastically affect the frequency of sickle cell anaemia in Britain would be based on sociology rather than on medicine or molecular biology: if random mating applied, sickle cell anaemia would become much more rare than cystic fibrosis or phenylketonuria. Similar considerations apply to β thalassaemia.

Until such sociological changes take place, it seems likely that in the near future the number of SS patients will be much nearer 6000 than 100. Thus, provision of adequate services is imperative for a number of this magnitude. Indeed, we have a dual obligation to patients with these disorders: because they have a severe disease and because they carry the genetic load that has enabled human populations to survive in areas where malaria is endemic.

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1 Davies S. Services for people with haemoglobinopathy. *BMJ* 1994;308:1051-2. (23 April.)
2 Standing Medical Advisory Committee. *Sickle cell, thalassaemia and other haemoglobinopathies.* London: HMSO, 1994.

Outreach clinics in general practice

EDITOR,—The medical press has widely reported that outreach clinics do not seem to have improved communication between general practitioners and specialists. In the case of fundholding practices this conclusion cannot be drawn from the paper by Jacqueline Bailey and colleagues, who measured only how often general practitioners attended outreach clinics.[1] There are many more efficient ways of communicating and learning than attending clinics. In my practice, which has five in house clinics, specialists discuss their cases over a working lunch attended by all partners and the practice's clinic nurse. We think that communications have improved greatly.

Bailey and colleagues state that fundholders had initiated their clinics. Presumably they arranged to communicate with specialists at other times. In the table showing the advantages to fundholders of outreach clinics, communication with specialists was mentioned most commonly and educational value was second. The outreach clinics have probably led to improved communications, but the authors' assessment based solely on general practitioners' attendance failed to show this.

A further weakness of the paper is that it compares the incomparable. The result is meaningless. Outreach clinics set up in health centres during the 1970s largely by psychiatrists are simply collocations of services. They cannot be compared with in house clinics set up recently for other specialties in fundholding practices. In house clinics have resulted in better use of resources by improving the accuracy of referral and reducing unnecessary review. The clinics are popular with patients, who find them convenient and like the familiar setting. In our experience they lead to improved communications and better clinical management.

Studies such as Bailey and colleagues' are of limited value. What matters are the maximum achievable benefits of outreach clinics. Once the benefits and how to achieve them are understood, outreach and in house clinics will become widespread.

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1 Bailey J, Black ME, Wilkin D. Specialist outreach clinics in general practice. *BMJ* 1994;308:1083-6. (23 April.)

Authors' reply

EDITOR,—Though we have no doubts that some outreach clinics have resulted in improved communication between general practitioners and specialists, the findings of our national survey do not suggest that such benefits are widespread. We illustrated this by reference to the fact that general practitioners rarely attended clinics. Other evidence from our study, not included in the original paper, supports our general conclusion. Forty six (79%) fundholders and 25 (91%) nonfundholders did not have regular meetings with specialists. James A Dunbar and colleagues' observation that many fundholding practices had initiated outreach clinics has no necessary bearing on subsequent levels of communication. Though it is true that many general practitioners and specialists identified communication as a potential benefit of outreach clinics, a gap seems to exist between aims and reality.

Dunbar and colleagues' objection to our inclusion of clinics established before 1990, on the grounds that they consisted largely of psychiatric clinics established for reasons of collocation of services, is not supported by the evidence. Firstly, many clinics in psychiatry have been established with the explicit objective of improving liaison with general practitioners.[1] Secondly, we found that 21 of the 45 clinics established before 1990 were in medical and surgical specialties.

Unfortunately, there is no evidence to support Dunbar and colleagues' assertion that outreach clinics result in better use of resources through improved referral, the reduction of unnecessary review, and better clinical management. In our study 35 (61%) fundholders and 25 (90%) nonfundholders reported that there had been no effect on numbers or types of referrals and 17 (29%) fundholders reported an increase. Only eight (11%) specialists reported that they received more appropriate referrals. Twenty six (94%) nonfundholders and 38 (65%) fundholders reported that there had been no effect on follow up.

Dunbar and colleagues fail to acknowledge the potential problems associated with outreach clinics, including use of specialists' time, access to investigation and treatment facilities, and the provision of hospital cover.

In the light of our results it would be unwise to emphasise the maximum achievable benefits as Dunbar and colleagues suggest. Outreach clinics are becoming widespread, but there is limited evidence of what the potential benefits are and even less of how to achieve them. Despite its limitations our study of the current spread of outreach clinics and the views of the general practitioners and specialists concerned provides a powerful case for further research to establish the clinics' cost effectiveness. Without such evidence the continuing debate between the proponents of outreach clinics and their detractors is unlikely to be resolved.

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1 Creed F, Marks B. Liaison psychiatry in general practice: a comparison of the liaison-attachment and shifted outpatient clinic models. *J R Coll Gen Pract* 1989;39:514-7.

Need proper evaluation

EDITOR,—Though highly thought provoking, the survey of specialist outreach clinics in general practice reported by Jacqueline J Bailey and colleagues was potentially misleading.[1] In particular, it seems entirely wrong to conclude that "there was little direct contact between general practitioners and specialists" simply on the grounds that only 6% of general practitioners attended the specialist clinics. It was also unfortunate that different specialties were lumped together, as satisfaction with services may have varied greatly.

The description of such services as "outreach clinics" implies a rigid and hierarchical relation between primary and secondary services and emphasises geographical rather than conceptual change. In psychiatry, where even attending an outpatient department may be stigmatising, it is recognised that the essence of any primary care attachment is liaison between professionals. While it is unlikely that a busy general practitioner would have time to attend a specialist clinic, the survey may well have overlooked the frequent but informal sort of patient centred liaison which allows general practitioners to provide continuing care for their patients, rather than handing over this responsibility to a speciaist. That 40% of clinics were unknown to hospital managers suggests that many attachments may have arisen through informal negotiation between general practitioners and specialists.

Andrew Harris is absolutely right to call for proper evaluation of specialist attachments in primary care,[2] particularly in view of the resource implications of unrestrained growth.[3] The introduction of fundholding means that general practitioners no longer depend on local specialists to provide services they feel their patients need.